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SPECIALIZATION, DIVERSIFICATION,
AND THE STRUCTURE OF THE
FINANCIAL SYSTEM: THE IMPACT
OF TECHNOLOGICAL CHANGE
AND REGULATORY REFORM

Proceedings of a Conference Sponsored
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Opening Remarks

I am pleased to welcome you to our conference, “Specialization, Diversification, and the Structure of the Financial System: The Impact of Technological Change and Regulatory Reform.” The topic is extremely timely and interesting for all of us, and I am very impressed with the size and diversity of this audience. We have been fortunate to bring together speakers from a wide range of disciplines to share their wisdom and experience. I think it is going to be a very good program.

Our focus today is on the broad range of strategic issues facing financial institutions in light of the significant forces reshaping the financial services industry. I would like to begin by offering my view of why these strategic issues are important and by raising what I think are some vital questions about the incentives facing financial institutions in today’s environment. I hope that by the end of our conference, we will have a better understanding of all of these questions.

The forces acting on the financial system today are truly profound. Technological change affecting the production and distribution of financial services, globalization resulting in markets that increasingly cross national borders, and regulatory reform removing long-standing restrictions on geographic expansion and business combinations have all come together to create new opportunities—and new risks—for financial institutions.

At the same time, we note the emergence of divergent corporate strategies among these institutions. Some financial

firms, adopting the goal of greater *specialization*, are focusing their energies on providing a core set of services to a core customer base. Other firms—particularly very large institutions—are actively pursuing a strategy of *diversification* by offering a wide range of products and services to a wide range of customers.

The reasons for these conflicting responses will be the subject of much discussion today. For my part, I would like to set the stage for the discussion by raising some important questions about specialization and diversification. The most fundamental of these is, *how do the risks and rewards of specialization compare with those of diversification?*

We have all seen that financial analysts have pushed very hard for greater specialization among firms in the financial industry. I would contend that, for one thing, analysts find it easier to understand organizations with a narrow business focus. Firms, however, also see advantages to specialization: an organization that focuses on a restricted set of activities may be better able to attract top managers, gain a lead position in its chosen market, and enjoy the enhanced efficiency that comes from really knowing a business from top to bottom.

Yet those of us who have been line managers also know the benefits of having a diversified set of businesses. There is some comfort in knowing that if one business is not doing well—or if one market is reaching a stage in the business cycle when the risks are getting to be a bit too high—you have the advantage of being able to back away from that market or that business

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and to direct your attention instead to another market or another business where things seem to be working better.

My prediction is that at the end of the day we will come to the conclusion that there is no one correct response to the choice between specialization and diversification. Rather, success for any firm is going to involve settling upon one of these strategies and then properly executing it.

These strategic decisions will no doubt be shaped by the forces affecting the financial services industry—and especially, perhaps, by technological change. Thus, a second key question is, *how does technological innovation affect the incentives for firms to become more specialized or more diversified?*

Technology is an issue that we are all learning to deal with in the financial industry. One area of concern focuses on the extent to which technological innovation has increased the benefits of being “big.” On the one hand, large firms have the advantage of being able to afford the newest and most advanced hardware. They can also build whatever software they want. On the other hand, some small institutions are finding that they can achieve some of the benefits of being big by purchasing very good software and outsourcing much of their operating hardware.

Overall, my sense is that the desire to be big plays a vital—but not completely understood—role in shaping firms’ strategic decisions. This topic will surely be the focus of much discussion today.

The uncertainty attending investments in technology is another area of concern. Firms that invest heavily in huge computer systems may find that the systems do not meet their needs over time. The technology is advancing very rapidly, and the software and hardware purchased today may quickly become outmoded. In this regard, small firms that outsource some part of their computer operations may fare better than their larger counterparts.

Rapid technological innovation may also prompt some organizations to limit the number of businesses in which they must make risky technology investments. Becoming expert enough to make informed decisions about competing technologies in any one business is an expensive proposition, and some firms may choose to specialize so as to limit these costs. Exactly how big a role technological uncertainty plays in shaping financial firms’ strategic choices is an issue worth exploring, and today’s speakers will undoubtedly bring many insights to this topic.

A third question to be addressed by our conference participants is the role of regulatory reform. In particular, *what opportunities does regulatory reform present for financial institutions?* The headline event in this area, of course, is the recent enactment of the Gramm-Leach-Bliley (GLB) Act, which, as you all know, legalizes previously restricted combinations of banking, insurance, and securities activities.

Clearly, the issues raised by GLB—what type of combinations we will actually see and at what speed they will occur—are of interest to everyone, and they have led to many strong opinions. I feel confident that our panelists today will not be shy about sharing their views.

Although regulatory reforms such as GLB may legalize institutions combining banking, insurance, and securities activities, it is the underlying economic fundamentals of these businesses that will determine the type of institutions that will actually be formed. This observation leads to my fourth key question, *what are the synergies among banking, insurance, and securities activities and how might they influence the structure of the financial system?*

This is probably the most interesting topic before us, and to my mind, one of the most controversial. Are there real synergies between banking, insurance, and securities activities? Will large firms that are trying to operate in three or four different industries in fact enjoy the efficiencies of being large or will they turn out to be very complex and somewhat unwieldy organizations? Will the risks of these different activities offset one another? Theoretically, diversification should lead to a less risky overall business portfolio, but in reality the outcome may be different. For example, a firm active in the insurance business and the commercial banking business may not realize the benefits of diversification if its investment portfolio and its loan portfolio in both businesses are tied to the same geographic area or to the same industry.

A related issue is whether consumers and businesses will necessarily want to buy more products from a company that has a broader range of services. Considerable time and money—and a lot of reputations—are being staked on the assumption that the answer to this question is yes. However, I am not altogether sure that consumers will want to buy all their financial services from one company, despite the obvious convenience of doing so. And I think it is very far from being proved that wholesale, or business, customers are willing to entrust to one organization all their needs for insurance, investment banking, and commercial banking services—once again, despite the obvious convenience of doing business with a company that knows them very well.

The final question I want to raise this morning concerns the implications of specialization and diversification for those attempting to assess or manage the risks facing financial institutions. In particular, *how do divergent corporate strategies toward specialization and diversification affect the work of supervisors and risk managers?* Not surprisingly, here at the New York Fed, we are particularly interested in considering how these industry trends will affect our supervisory role.

First, we will want to evaluate how the day-to-day risks facing financial institutions—such as credit, market, and operations risks—will change as a result of consolidation

among institutions. We are also becoming aware that, given our umbrella supervisory role, we need to be concerned about the strategic and implementation risks that various companies are undertaking. In my view, significant implementation risks will arise for companies that are launching themselves as financial conglomerates with broad geographic and product reach—and particularly for those companies that have historically had a much narrower focus and, consequently, a very different management challenge.

Second, we will be reexamining our current risk management and supervision tools and evaluating how they will change as a result of these industry shifts. It is very important to consider how the adequacy and appropriateness of risk management and measurement systems may be affected by a firm's strategic focus and mixture of business lines.

I would like to conclude my remarks this morning by summing up our reasons for organizing this conference. Clearly, with the passage of Gramm-Leach-Bliley and the

astounding technological innovations that we read about regularly, the questions I have just outlined are very much on the minds of all those concerned with the financial services industry. The unique perspective the participants in this conference can bring to these issues comes from the observation that the broad forces acting on the financial services industry do so in large part by shaping the actions of individual firms within the financial system. By focusing our discussion today on the incentives and choices facing individual firms, we can develop a better understanding of future trends in the structure of the financial system. Our hope is that this conference can help us to gain deeper insight into the risks and rewards that lie before financial institutions as they make the decisions that will influence the evolution of the financial system.

SESSION 1

**BANKING AND SECURITIES
AND INSURANCE: ECONOMISTS' VIEWS
OF THE SYNERGIES**

PAPERS BY

Anthony M. Santomero and David L. Eckles

Randall S.

Cara S. Lown, Carol L. Osler, Philip E. Strahan, and Amir Sufi

COMMENTARY BY

Christopher T. Mahoney

Summary prepared by Cara S. Lown

Summary of Session 1 Presentations

How do economists view the synergies between the banking, securities, and insurance industries? This timely topic was examined by three papers; comments by an industry analyst followed.

Overall, the presenters predicted further consolidation in the financial industry, each emphasizing different aspects of the benefits. Anthony Santomero and David Eckles argued in their paper that consolidation will benefit firms through revenue enhancement, rather than through cost reduction. The study by Cara Lown, Carol Osler, Philip Strahan, and Amir Sufi emphasized that banks merging with life insurance firms are likely to provide the biggest gains in terms of reduced bank risk. Lown et al. offered additional perspective by discussing the evolving “bancassurance” industry in Europe, while the paper by Randall Kroszner predicted that subsequent regulatory changes are likely to occur. Furthermore, Santomero and Eckles noted that arguments can be made both for and against the increased stability of the resulting financial system, and although systemic risk is an appropriate concern, enforcement of regulation, competition, and open markets can keep these issues at bay.

However, in his comments on the papers, Christopher Mahoney observed that with the likely emergence of large financial conglomerates, a policy of “too big to fail” may be an appropriate reaction to financial distress, despite growing political pressure to do otherwise.

Santomero and Eckles

Anthony Santomero and David Eckles discussed what is likely to happen in the financial sector in light of the recent regulatory and environmental changes that have occurred. The presenters began by discussing the impact that these changes would have on the operating scale of financial firms. They then reviewed five issues relating to firm size, beginning with operating costs. The existing literature, they observed, indicates that larger institutions may be more efficient in terms of average operating costs. Expenses may also be reduced if an institution can offer several products at a lower cost than separate competing institutions. Yet in reality there seems to be little cost improvement resulting from these economies of scale and scope. Santomero and Eckles argued that aggregating over many businesses adds a layer of complexity, with the result being that the overall cost structure does not seem to improve very much.

The second issue they addressed was revenue enhancement. Rather than cost savings, the driver behind mergers is the potential for additional revenue. To the extent that firms can cross-sell multiple products and that customers are willing to take additional products through the same channel, benefits associated with revenue can result. Santomero and Eckles’ third issue with respect to firm size is that, for some businesses, size is necessary to be competitive. Because the nonfinancial

Cara S. Lown, a research officer at the Federal Reserve Bank of New York, prepared this summary.

The views summarized are those of the presenters and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

industrial sector is consolidating, the scale of the business of finance is growing. Hence, by increasing its size, a financial organization can conduct an entire transaction on its own—something it otherwise could not have done. In other words, size itself has some positive attributes in the financial industry.

The last two issues concerned whether or not larger firms are inherently more stable. On the one hand, a greater number of businesses should, according to the law of large numbers, imply greater stability. On the other hand, the businesses typically are highly correlated, which can mitigate this law. Moreover, when there are a lot of businesses, something is likely to go wrong all the time. To the extent that this phenomenon occurs, a firm's value could be more unstable, rather than more stable.

Weighing all of these issues, Santomero and Eckles concluded that, on balance, the universal bank is favored. They followed with a discussion of how firms are likely to expand. If a firm is going to expand a product line, it is more likely to do so de novo. If a firm is making a leap, it is more likely to do so through an acquisition. A relevant issue, however, is how much it costs to enter a business. The presenters observed that as long as barriers to entry exist, firms will expand through acquisition because it is easier to buy infrastructure than to build it. Furthermore, firms will tend to acquire small firms, or to extend their own businesses, if they are expanding into a market close to their own. But as long as a firm needs a brand name to achieve market penetration, it will try to purchase the name through acquisition.

Santomero and Eckles also noted that alliances constitute a middle ground. However, they emphasized that what we have seen in the industrial sector, and to a large extent in the banking sector, is that alliances are a lot of trouble and usually dissolve because of governance problems. They also said that the resulting structure is not likely to be a single firm type, but rather a mix of specialized firms and universal firms.

A discussion of public policy implications concluded the presentation. Regulators are concerned about systemic risk, which Santomero and Eckles viewed as an appropriate concern: large organizations must be overseen. They also contended that there is some truth to the idea that large organizations might gain an advantage by having the government safety net extended to them. Enforcement of regulation, though, should keep these issues in check. In addition, the impact of consolidation on the concentration of power in their opinion is an issue but, as long as we have competition and open markets, it is not a big one. Finally, they noted that some people are apprehensive about predatory pricing and practices. However, they added that many of these practices are illegal, should be the subject of enforcement, and are not unique to the new environment.

The remainder relates to the synergies that could take place in these larger firms. According to Santomero and Eckles, however, as long as there is sufficient competition to impose market discipline, such synergies can create many opportunities for consumers.

Kroszner

Randall Kroszner introduced his paper by noting that his focus is on positive analysis—describing what he sees concerning how politics and banking work—and makes no judgments. He then discussed five theories of regulatory change in order to explain why so much of this change has occurred in the financial services industries in recent years.

The first approach to regulatory change—the traditional, or public interest, view—represents the idea that government's role is to correct market failures. For example, deposit insurance protects small depositors as well as the stability of the banking system. A challenge to this view, however, is that many regulations are difficult to rationalize on public interest grounds. The second approach is the private interest theory of regulation. What characterizes this regulatory process is interest group competition, wherein well-organized groups capture rents at the expense of less organized groups. The success of the well-organized lobby of small banks is an example that has been effective in the discussions of both geographic and product expansion.

The “ideology” of voters and politicians is an alternative approach that some researchers have offered to explain the widespread economic deregulation that has taken place during the past two decades. However, what constitutes ideology—the third approach to regulatory change—and whether it can be measured independent of economic interests is the subject of ongoing controversy. The fourth approach, referred to as the institutional approach, concerns how alternative policymaking structures influence the incentives of both special interest groups and politicians in shaping policy. Kroszner cited the structure of the regulatory institutions in the savings and loan industry as an example. The structure was seen as being vulnerable to industry “capture” and ultimately was eliminated. Kroszner also pointed to the interaction between congressional committees and interest groups. Finally, the idea behind the fifth approach, which he identified as the leviathan approach, is that the objective of government is to increase its size. An example of this approach is the competition among regulators over which agency would be the main supervisor of banks with expanded powers.

Kroszner observed that, taken together, these five explanations for regulatory change suggest that one look to technological, legal, and/or economic shocks to understand why there has been so much recent regulatory reform in the banking industry. He argued that such shocks have in fact occurred over the past two decades, and they have served to alter the relative strengths and effectiveness of competing interest groups.

Kroszner offered examples of these shocks. Technological developments such as automated teller machines and cash management accounts, for instance, introduced more competition, and more options for depositors, while Regulation Q and Glass-Steagall left banks unable to respond. On the lending side, credit-scoring techniques and better information processing began to change the relationship character of bank lending. As a result, he noted, alternatives to traditional lending have developed and large banks have entered the territory of small ones. Moreover, legal shocks such as court decisions have eroded the insurance industry's long-standing opposition to the expansion of bank powers, while the high costs of the savings and loan crises and the bank failures of the late 1980s have heightened support for eliminating antiquated regulations and strengthening the financial system.

Kroszner ended by predicting that we will see pressure for additional regulatory changes, such as in the supervision of insurance at the state level. He added that academic analysis can play a role in the debates over these changes by offering well-grounded and well-supported arguments.

Lown et al.

The likely evolution of the financial services industry following the passage of the Gramm-Leach-Bliley (GLB) Act was considered by Cara Lown, Carol Osler, Philip Strahan, and Amir Sufi. They began by reviewing the recent consolidation trend in the banking industry, noting that from 1989 to 1999 the share of total assets held by the eight largest banking organizations rose significantly while the share of assets held by small organizations fell. Excess capacity in the industry, the existence of economies of scale resulting from technological developments, and deregulation all contributed to this trend. With the passage of GLB, these same factors could fuel consolidation across the financial services industries.

Turning to the likely consequences of GLB, the presenters described how financial firms' stock prices reacted when the compromise legislation was announced. Large excess returns

recorded by firms with strong merger and acquisition records in the financial sector suggested expectations of future consolidation within the sector. Shareholders also appeared to favor life insurance companies and bank holding companies (BHCs) that had expanded into securities underwriting prior to the law's passage. Lown et al. then discussed whether any diversification benefits from combining BHCs with insurance and securities firms were significant enough to lower the risk of the merged firms. This issue is important because diversification would allow these firms to operate with less capital or to expand into somewhat riskier and more profitable activities. Furthermore, previous studies have not found such benefits, and hence they have recommended against allowing banks to expand into these other industries.

Using data from large financial firms during the 1990s, Lown and her coauthors constructed pro-forma mergers for BHCs with life insurance, securities, and property and casualty firms, and then calculated risk measures for the resulting firms. The presenters, acknowledging the limitations of such a study, found that there were clear diversification benefits achieved from combining BHCs with life insurance firms. Combining BHCs with either securities firms or property and casualty firms raised the riskiness of the resulting firm only modestly relative to that of the BHC.

Lown et al. also looked at how the financial services industry has evolved in Europe, where banking, securities, and insurance activities have coexisted in various forms for some time. More cross-industry mergers have occurred in Europe than in the United States, they observed. Banks and life insurance firms merged most frequently, while unions between banks and securities firms also were common. In contrast, mergers between banks and property and casualty firms almost never took place. In an examination of why European banks have expanded into life insurance, the presenters indicated that banks appeared to have several cost advantages over traditional life insurance firms. The main ones are economies of scope, for example, using the bank branch system and leveraging existing resources in such areas as administration. The European banks also have been successful in penetrating the life insurance market. Their share of sales averaged more than 20 percent, and the banks have actually transformed part of the life insurance business by developing products and procedures tailored to client needs.

In conclusion, Lown et al. suggested that the three parts of their study—the stock price reaction, the diversification analysis, and the European model—all point to further consolidation in the financial services industry. Moreover, the expansion of banks into life insurance seems particularly likely.

Commentary by Mahoney

Offering his comments on the three papers, Christopher Mahoney said that he generally agreed with Santomero and Eckles' conclusions, but he was skeptical about synergies and cross-sales. He viewed cross-industry mergers as more difficult to effect than intraindustry ones, in part because of cultural conflicts, but also because there are fewer opportunities for cost savings in cross-industry mergers. Furthermore, although the acquisition route has its risks, Mahoney saw de novo expansion as equally challenging. It is difficult to obtain market share through such expansion, he argued, yet franchise value is limited without it. Mahoney also agreed with Santomero and Eckles' point that there are risk-reduction benefits to greater diversification and that, ceteris paribus, larger and more diversified firms are more creditworthy.

Turning to Kroszner's paper, Mahoney agreed with the conclusion that the enactment of Gramm-Leach-Bliley was the result of a rare alignment of interests. GLB was successfully enacted only after years of technological change, innovation, and economic shocks had fully undermined the Depression-era structure of the financial services industry and shifted the balance of competing interests. The question we now face is, what will the financial services structure look like in the future?—a question also addressed by Lown et al. Mahoney noted that this last paper provided an interesting analysis of diversification and the risk-return trade-off in financial services. The study predicted that bancassurance combinations were the most likely ones following GLB, although other cross-industry mergers would increase bank risk only modestly. However, Mahoney was less optimistic than the authors were when it came to mergers between banks and life insurance firms. He observed that the cultural challenges of such mergers could lead to combined companies that were less profitable than the separate entities. He also noted that life insurance is less profitable today than banking, a factor that might explain the lack of announcements of bank-insurance mergers since GLB was enacted.

Mahoney devoted the balance of his remarks to the implications of GLB for the safety net and for systemic stability, an issue that Santomero and Eckles also examined. He indicated that our segmented financial system structure, put in place in the 1930s, has worked remarkably well in maintaining financial stability over the past sixty-five years. Nevertheless, it was inevitable that market forces would attempt to erode the barriers, as technological and financial innovations have made the separations seem anachronistic. And although Mahoney believed that benefits will be derived from entering a new financial world, he also thought that we risk greater financial instability. In his view, the political costs of rescuing a financial firm have risen. This rise has occurred because of an increasing discomfort with the moral hazard created by the existence of the regulatory safety net, coupled with the erosion of barriers between the banking sector and the rest of the financial services industry. But he also urged us to remember a key lesson of the Great Depression: financial instability is a lot worse than inefficiency and moral hazard.

Mahoney noted that official policy today states that no bank is too big to fail, a policy predicated on what he sees as the fiction that financial conglomerates can be allowed to fail. Yet in times of financial distress, when such a failure is likely to occur, he believes that a failure would be intolerable—an intolerance he supports. According to Mahoney, it is appropriate for some banks to be considered too big to fail. Banks are illiquid, confidence-sensitive institutions that have large exposures to each other and whose solvency is unknowable to market participants, especially during times of financial distress.

In sum, Mahoney remarked that as a result of GLB, many institutions ultimately will emerge as being too big to fail. He stressed that it was appropriate to maintain ambiguity around this fact, but that we should not deny it too vehemently—or prohibit it by law—as we might find ourselves tripping over our own words someday.

The Determinants of Success in the New Financial Services Environment: Now That Firms Can Do Everything, What Should They Do and Why Should Regulators Care?

1. Introduction

The U.S. government enacted the Banking Act of 1933, commonly known as the Glass-Steagall Act, at least partially to calm fears stemming from bank failures during the Great Depression. While there has been recent debate concerning the historic realism of characterizing the banking industry structure as the cause of the financial crisis (Benston 1990), the perception of bank activities in the financial market as risky (Puri 1994), and the motivation of the legislators (Benston 1996), the historical outcome of this legislation is clear. Glass-Steagall placed a heavy regulatory burden on commercial banks by limiting their product array, the prices they could charge, and the types of firms with whom they could affiliate. In short, it restricted the activities in which banks may participate.

During the ensuing sixty-five years, this landmark piece of regulation has slowly become both outdated and untenable. Technological innovation, regulatory circumvention, and new delivery mechanisms all have conspired to make the restrictions of the act increasingly irrelevant. The first force of change—technology—permitted firms to create and recreate products and services in different ways than had been envisioned decades ago. The most obvious example is the

transformation of the local mortgage loan market into the global securities giant it is today. Yet, one could equally cite the explosive growth of both derivatives and trading activity as areas where technology has transformed the very core of financial services (Allen and Santomero 1997).

Because of regulation, however, individual financial firms were still limited as to the scope of activities that were permissible. Commercial banks could not offer the full range of security investment services, investment firms could not offer demand deposits, and insurance firms were limited in terms of offering services beyond their own “appropriate” products. Many firms responded by circumventing regulation, either explicitly or implicitly (Kane 1999 and Kaufman 1996). Some more aggressive members of the fraternity simply acted in a manner not allowed by regulation in the hopes of either an innovative interpretation of the law (for example, NOW accounts or money funds) or formal regulatory relief (for instance, Citigroup). The results were almost always regulatory accommodation or capitulation. These decisions at times made economic sense (for example, the decisions on private placement activity or advisory services), but at other times they stretched the credibility of the rules, if not the English language (for instance, nonbank banks, the facilitation of commercial

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paper placement, and mutual funds distribution). Yet, through this mechanism of regulatory evolution, the industry progressed. Banks were granted greater latitude in product mix, as well as permitted to form holding companies that expanded their operations further. At the same time, competition increased as the rules permitted new entrants that flourished in focused areas, such as GE Capital. Today, myriad financial services firms operating under different regulatory charters are competing in the broad financial marketplace.

The final force of change is the continual evolution of the delivery channels through which financial services are offered. This has occurred in many ways and in several stages. First, the use of postal services substituted for physical market presence; this was followed by increased use of telephones for both customer service and outbound marketing; and now personal computers and the Internet have altered the very balance of the financial industry. Throughout this period, the application of technology has disrupted the industry's delivery paradigms and the traditional channels of service distribution. The combined use of new technology, conduits of distribution, and financial innovation has broadened the product offerings of all firms beyond their historic core businesses.

Nonetheless, by law, financial services firms of specific types continued to be expressly limited in their activities. Finally, the Financial Modernization Act of 1999 (FMA)—introduced on January 6, 1999, in the House of Representatives as H.R.10—became law as the Gramm-Leach-Bliley Act. The bill's stated purpose was "to enhance competition in the financial services industry by providing a prudential framework for the affiliation of banks, securities firms, and other financial service providers, and for other purposes."

The potential ramifications of the FMA have been, and surely will be, continuously analyzed as the details of the enabling regulation emerge and the industry responds to its new perspective on firm structure and allowable activity (American Bankers Association 1999 and Stein and Perrino 2000). Yet, the proponents of the FMA have already heralded its passage and argued that the legislation will result in more competitive, stable, and efficient financial firms, as well as a better overall capital market (Greenspan 1997). Detractors, and there have been some, claim that the new law will result in unfair business practices and less stable capital markets (Berger and Udell 1996).

In this contribution to the debate, we attempt to consolidate many of the arguments for and against the financial conglomeration that will inevitably follow the passage of the new law. We offer our view on the effects of this new competitive landscape on affected financial firms, as well as on the behavior of the capital market itself. Our focus is on the

impact of the changing nature of both the market infrastructure and the regulatory regime on the behavior and likely span of activity conducted by large financial firms. In the words of our title, *now that firms can do everything, what should they do and why should regulators care?*

2. Public Policy versus Firm-Level Effects

We have decided to look at the implications of the changing financial environment from two perspectives: a firm level and a public policy level. This dichotomy seems appropriate for a number of reasons. First, different market participants generally are interested only in one of these perspectives, and discussions among interested parties are generally more clear if the distinct points of view are clarified. On the one hand, economists will tend to focus almost exclusively on the market effects of the new regulatory and technological environment, and the impact that the shift in both of these important features will have on society at large and the interests of important subgroups. They may care very little about the impact of both the environmental effects outlined above and the new regulatory structure on individual firms. On the other hand, representatives of such firms may view these market effects as amorphous and of little interest to them and their organizations in the everyday working world. Their interests quite naturally will focus on the impact of the changing structure on their own competitive positioning.

However, we argue here that both perspectives are essential. The effect of the confluence of technology and regulatory change will have profound micro and macro effects on the financial sector. Participants in this debate must understand both aspects of the alteration of the financial environment to appreciate the change that is occurring in the financial sector. At times, the effects will be complementary; at other times, there will be distinctly different effects for different levels of analysis. For example, if the new environment results in a more competitive financial services industry, the public certainly will be better off, with less expensive and more abundant financial services. While this may be good for society, it may at the same time make individual firms worse off. Both industry members and policymakers need to appreciate these two distinct effects on the financial sector.

To the policymaker who claims indifference to the impact of these changes on the institutions that deliver financial services, a word of caution is in order. The social value brought to the

real economy by the financial sector is delivered by the firms and institutions that make up the industry. The impact of change on these entities can be ignored only at the policy-maker's peril. If firms cannot function—indeed flourish—the industry will not deliver on its essential role in the real economy. We have learned this the hard way (Bernanke 1983).

Conversely, some changes may be less than salutary to the aggregate economy, even though they are beneficial to firms in the industry. In such cases, if the social cost of the changes taking place is of a sufficient magnitude, it may elicit—indeed require—a public policy response that could have severe consequences on the firms within the industry. We read the recent debate over the computer software industrial structure as just such a circumstance. While we take no sides in that dispute, its mere existence points to the need to analyze the effect of change on these two distinct levels.

3. Firm-Level Effects of Financial Modernization

Perhaps the best place to begin any discussion of the new financial landscape is with the impact of these changes on the operating scale of firms within the industry. In an industry that once thought that firms with \$5 billion or \$10 billion in assets were substantial, we are seeing the emergence of firms with trillion-dollar balance sheets. The obvious first question, then, appears to be the impact of size on various aspects of the business. Here, we consider five elements, or effects, of size, namely:

- What is the likely effect of size on bank operating costs, that is, the alleged benefit of economies of scale and scope?
- Can size of product offering affect revenues by permitting cross-selling, relationship pricing, and increased use of financial products in general?
- Will megafirms have a more competitive global position merely because some businesses require large balance sheets and large-scale commitments?
- Will firms be inherently more stable due to diversification and the sheer inertia of the core franchises?
- Will universal banks be susceptible to contagion effects, precisely because of their many operating businesses?

Turning to the first consideration, we note that several types of efficiency gains are thought to flow from the expansion of

bank size and scope. Of these, increased operating cost efficiency is most commonly mentioned. The emergence of broad financial firms enables costs to be lowered, if scale or scope economies are relevant *and* if the range of the expansion is within the band whereby they can be achieved. This is not said to confuse the matter, but to enlighten it. The cost efficiencies of bank expansion are not likely to be monotonic. Size is not always a virtue! Scale may help for some levels of operation, while it might disadvantage other size ranges. At the same time, some lines of business benefit from scale while others may be hampered by it. The crucial issue in efficiency is the “right sizing” of the total firm *and* the “right sizing” of individual businesses within the firm.

Nonetheless, if average cost is decreasing in scale over the relevant range, as some suggest (Berger, Hancock, and Humphrey 1993 and Hughes and Mester 1998), larger institutions may be more efficient. In such a case, productivity of facilities and personnel can be improved by adding them to a larger organization. Examples of areas of potential gains include the physical branch distribution network, infrastructure software, electronic distribution systems in which marginal costs are negligible, and some niche processing businesses in which scale is a dominant success factor.

Beyond this, expenses may be lowered if the bank can offer several products at a lower cost than separate competing institutions offering a subset of the full product array (Berger, Hunter, and Timme 1993). According to this view, the evolving financial structure may enable larger banks to offer more products and services, and scope economies may allow providers of multiple products and services to produce them at a lower cost than their specialized predecessors. This will lead the former to garner an increase in market share of targeted customer activity at the expense of the latter (Thakor 1998).

For this to be relevant, there must be some scaleable asset that leads to the efficiency gain. Prime candidates include data on customer behavior and needs or a broad, underutilized distribution channel. Both benefit disproportionately from the added volume (Pulley and Humphrey 1993). The first rationale explains why there has been such intense interest in customer information, information systems, and data mining software. The economies of scale and scope of information are particularly relevant here. Greater customer knowledge is likely to mean lower monitoring costs and better cross-selling, as many studies have illustrated (Mester, Nakamura, and Renault 1999).

However, the real gain may not be in production efficiencies but in customer service. In this case, the gain accrues not from technical efficiency of production, but from a kind of consumption economy. The result will be higher revenue and a better return from any customer segment, as consumers of financial services find it more advantageous to purchase

multiple products from the same provider (Herring and Santomero 1990 and Berger, Humphrey, and Pulley 1996).

Combining both of these aspects of scale broadly defined, economists often refer to the total effect as improved profit efficiency (Berger, Hancock, and Humphrey 1993). The latter term refers to the ability of profits to improve from any of the sources noted above: cost, scope, or consumption economies. In a sense, it captures the total efficiency gains from scale without specific reference to the separately titled efficiency improvement areas.

The key issue here, however, is whether or not any of these gains are both real and substantial. Any of these reasons for gains is sufficient to herald the benefits of scale, and different ones presumably are relevant in different circumstances. Whether any of these gains are obtained or at least observable from past experience is another matter. To address this issue, the banking literature has examined both the cost structures across bank asset size and the cost effects of bank mergers in a number of different, hopefully complementary, ways (Akhavain, Berger, and Humphrey 1997, Berger 1998, and Pilloff and Santomero 1998). Almost universally, the gains from strict cost efficiency are seen as illusory. Many reasons are offered for this lack of empirical evidence. The most compelling seems to be that product-specific cost efficiencies are offset by managerial or span-of-control issues. Many have argued that operating economies are likely to be lost as the organization grows too large and too complex. The classic reference here is Williamson (1985). In the context of the financial services industry, it is sometimes stated that when economies are found, they often arise in large *specialized* firms exploiting a single line of business, not in huge universal banks (Steinherr 1996).

The new environment will certainly allow U.S. banks to go into new lines of business. However, the commonly argued benefit of multiproduct distribution may not be enough to outweigh the costs, if most of these benefits accrue to more specialized firms. Gains in one line of business are often heralded, but the economic loss elsewhere in the firm causes cost savings to go unrealized in aggregate (Pulley, Berger, and Humphrey 1996 and Steinherr 1996).

By contrast, revenue gains appear real. The expanded product array and potential for cross-selling suggest that real revenue benefits result from larger size and depth of product offering. In fact, recent work suggests that this increased revenue potential accounts for a substantial portion of performance increases for U.S. banks (Berger and Mester 1999).

Beyond direct operating efficiency, it is often argued by bankers that larger universal banks will benefit from financial modernization because the new financial services firms will be more innovative and offer new solutions to broad customer needs. Steinherr (1996) discusses this *process*, as opposed to

product, innovation advantage that universal banks may enjoy. This comes from a desire and ability to reduce costs and to distribute products as efficiently as possible. However, Boot and Thakor (1996) argue against this alleged benefit of size. They note that financial systems that have always allowed universal banking have not traditionally had an advantage in product innovation. Rather, market-dominated systems, like the U.S. and British financial sectors, tend to be the leaders in product innovation. What is yet to be shown is whether systems that move from a market-dominated to a universal system can maintain their financial innovation.

Turning to the third advantage listed above, it seems reasonable to expect that the larger universal banks will become more competitive in some product markets where size matters. This increased competitive position could result from a number of the unique features of the wholesale banking market, where scale can be seen to enhance performance in two distinct ways. First, most large-scale financings require substantial book positions, which would be impossible in the absence of a large balance sheet. This is of increasing relevance today as the nonfinancial industrial structure consolidates globally. The latter trend has forced financial firms to increase the scale of their ownership positions in underwritings, syndications, and new issues. With the decline in the size of selling groups and increased pressure on comanagers (Smith 2000), balance-sheet size becomes a comparative advantage, as does distribution capability, which is related to operating scale. Competitively, these are increasingly relevant issues.

Historically, European institutions have operated with the benefit of a universal banking charter. With further consolidation in Europe, resulting in, alternatively, country champions and pan-European competitors, U.S. bankers are understandably concerned about their ability to compete. Thus, it seems that allowing universal banking in the United States would place U.S. banks on a level playing field with the European institutions, and this is often listed as a second reason for enhanced financial performance.

However, using anecdotal evidence from Germany, some have pointed out that few universal banks are universal outside of their home country (Steinherr 1996). That is, a universal bank in Germany is likely to have a specialized, or more narrowly focused, banking operation outside of Germany, and almost never operates as a universal bank outside of its home market. So, the net benefit of universal banking, with respect to global competitiveness, is still not clearly understood. Does the fact that the home country allows for universal banks give its national banks a global advantage, even though they may not operate a universal bank in a foreign country? This question has no obvious answer and lacks empirical evidence in either direction.

Next on our list of the benefits of scale, we have the issue of stability. It has long been a tenet of those who favor larger universal banks that such entities are, by definition, more diversified than their specialized counterparts. The argument is that the larger universal banks will benefit from higher earnings-source diversification (Denenis and Nurullah 2000), increased operating earnings stability (Santomero and Chung 1992), and higher valuations (Boyd and Graham 1988). Assuming that each business line or geographic area is independent, the argument is so direct as to follow from the simple law of large numbers.

In addition, proponents of the stability argument assert that such broad product capability may permit better performance for more technical reasons as well. They extend the scope-economies scenario above to reduced volatility by alleging that various synergies are involved in different but related businesses. Black (1975), for one, argues that the universal banks have better monitoring capacity, which will reduce the risk to the firm, an argument made by Fama as well (1980). Steinherr (1996) presents empirical evidence that universal banks “achieve a better risk-return tradeoff” and that universal banks have “reduc[ed] variability of income from lending activity.” Thus, the universal banks should be safer and less susceptible to insolvency.

Together, such benefits from earnings diversification, due to either broadening the geographic reach of an institution or increasing the breadth of products and services offered, may increase firm value in several ways. First, reduced risk directly translates into reduced probability of incurring distress costs. This is because the probability of insolvency or even a credit rating downgrade is reduced due to the diversification of business units under one corporate umbrella (Stulz 1984 and Santomero 1995). This, in turn, reduces expected funding costs and directly affects reported earnings. Second, if firms face a tax schedule that is less than strictly proportional, then reduced volatility will lead to a decline in the expected tax burden, raising expected net after-tax income (Gennotte and Pyle 1991 and Santomero 1995). Third, earnings from lines of business in which customers value a bank’s reputation for stability may be increased. Some areas of activity, such as standby letters of credit, require a premier rating and a conservative reputation to be a credible competitor. Finally, the firm may be able to increase the level of some risky, yet profitable, activities such as commercial lending without additional capital being necessary (Saunders and Walter 1994).

However, these arguments in favor of scale can be taken too far. In fact, there are at least three reasons to suggest that the broader franchise results in a *less* stable firm. The first argues that the consolidated entity has a franchise value and brand name that are intimately intertwined with all of its businesses.

Therefore, a bad outcome in any one may have a magnified effect on all the lines of business and the core franchise itself. If this is the case, then the association of the bank with any high variance line of business has a potentially detrimental effect on the entire franchise. In fact, conglomeration may increase instability, as the firm’s name suffers when “even the least of your brethren” is subject to a shock.

Second, the usual discussion of activity expansion is presented under the assumption of relatively uncorrelated business units. In all likelihood, however, the correlations are apt to be highly positive. Activities are added to the firm because of a perception of management that the firm has a comparative advantage in producing the underlying product or assessing the underlying risk. Real estate lenders have gone into real estate development, at times with disastrous effects. Third-world lenders have become emerging market trading houses with little better luck. This should not be a surprise. Firms attempt to find their comparative advantage or value-added capabilities. So, as a direct result, affiliates are related businesses at some level, which may well result in high positive correlations in times of stress.

Finally, it is important to consider the regulatory environment that is likely to pervade new business ventures. Bankers and their regulators usually assume the supremacy of lead bank regulators over foreign country regulators or those in charge of other parts of the financial sector. However, in the event of a crisis, the local regulator—be it the state insurance commissioner or the Securities and Exchange Commission (SEC)—will not sit idly by and allow a retrenchment of bank funds and commitments of support. Furthermore, they are likely to be strident at exactly the time when the holding company and/or its lead bank is experiencing trouble. This line of reasoning does not support the diversification arguments made above. To the contrary, the new organizational form permitted by regulation may well be subjecting the financial firm to greater distress costs when any one of its operating subsidiaries has difficulty. It is quite possible that a financially distressed subsidiary will cripple the entire entity.

4. Does One Size Fit All?

Taken at face value, the balance of costs and benefits associated with a broader product array seems to favor the more universal financial franchise. The benefits of scale and/or scope, the revenue enhancements, the bigger playing field, the potential for greater innovation, and the added stability all favor the observed movement toward universal firms. The results,

however, are not unequivocal. There are real concerns over complexity, complacency, and fragility of franchise. Nonetheless, the observed trend toward broader firms seems to be supported by our analysis of the factors influencing change.

The Limits on Consolidation

This has led some to voice the concern that all financial firms will become huge universal banks. Will the financial services industry eventually become dominated by a small number of these behemoths? We think not. Countervailing the positive pressures toward universality are forces that have permitted more narrowly focused firms to survive and flourish even where universal banking has long been a reality.

Four key features of the universal firm place limits on the megabank and its ability to add market share indefinitely. These argue in favor of the ability of small firms to remain competitive. The issues of managing diverse firms in different markets and different geographies are not trivial. The innovation that has traditionally come from small firms is not lost here, notwithstanding the arguments in favor of the potential for innovation in larger organizations. In addition, incentive compatibility issues all speak in favor of the survival of small firms. Especially today, small firms seem quite capable of finding a niche as more focused competitors.

Finally, regulation may also support this argument. The advent of the Financial Services Holding Company contains considerable baggage. The oversight by the Federal Reserve, so-called “Fed Lite,” is unlikely to be lite. Existing regulators in other areas—including insurance regulators in the National Association of Insurance Commissioners, the SEC, and the foreign regulators—could create a situation in which many participants find it unprofitable to pursue universal product offerings. Some firms will find it too burdensome to become too big. The gains in efficiency, scope economies, and other areas may be swamped by the excessive regulatory cost.

If the burdens of oversight spring from legitimate public policy concerns (discussed below), this is the right outcome and it is socially optimal. However, if the burdens are the result of a lack of efficient oversight and regulatory turf wars, society as a whole loses as a result of the excessive burden of regulation.

Choosing a Method of Expansion: Acquisition or Entry?

Some firms will become large universal banking firms in spite of the regulatory burden. These firms will be able to exploit the

synergies between the operating units in such a way that the regulatory cost will be swamped by the aforementioned advantages. The next decision that such firms will face is the choice of methods to achieve product line expansion. There are two possible approaches we will focus on here: expansion through acquisition or new entry.

Every organization contemplating product line expansion must weigh the relative desirability of entry methods. It may enter by purchasing an existing firm or by establishing an entirely new firm or subsidiary. This decision will depend on several factors:

- the nature of the new business and its relationship to existing capabilities,
- the start-up costs involved, in terms of initial capital, technology platform, and unique infrastructure or distribution requirements,
- the nature of the brand name or franchise value required for market penetration.

The method used to extend product offerings into a new channel or to offer a greater product array will depend most importantly on the relationship of the new product area to the existing businesses of the firm. As a general matter, a closely related new activity favors new entry over entry through acquisition. For this reason, commercial banks traditionally have found it easier to enter directly into investment banking, where the synergies between a commercial and investment bank in terms of investment and credit analysis favored expansion over acquisition. However, the new emphasis on distribution and special product knowledge may be changing this perception as recent acquisitions suggest—for example, Fleming by Chase, and Bankers Trust by Deutsche Bank. The perceived need to acquire specific product knowledge is also the case for entering into the insurance industry. Actuarial science is a relatively new field for banking institutions. Thus, mergers between commercial banks and insurance companies appear more likely.

Purchasing an existing firm has several advantages. First, the start-up costs are lower. A target company has already made the necessary infrastructure investment, and technology is increasingly seen as a major barrier to entry. In addition, the purchased firm is a going concern, with a customer base that can be leveraged and cross-sold into other products—for example, the recent Citigroup and Schwab acquisitions. To the extent that this is specific capital, the purchase of an existing firm is preferred to assembling the capability piecemeal. Furthermore, to the extent that these benefits are somewhat unique to a single partner, the market price of the acquired firm will be less than its value to its new owner, with its

substantial synergy capabilities. However, taking over an existing firm requires adaptation and a particular set of management challenges. If the two cultures clash, the whole venture will suffer, and the specific know-how of the acquired firm will be dissipated by the acquisition process itself.

The third advantage of pursuing an acquisition strategy, as opposed to de novo entry, is the fact that the existing firm may have a valuable asset, such as brand recognition, beyond the acquirer's existing customers. The target company as a going concern is potentially already established in the industry, with known capability and an existing customer base. This is especially important when purchasing a firm far from the acquirer's existing product offering and reputation area. Purchasing a firm gives instant credibility and access.

By contrast, in closely allied product areas, the acquiring firm is already well established and the opportunities that come with another brand name are not as desirable. Thus, building a new subsidiary is not as difficult and the franchise value of the existing firms is not as valuable to the acquirer. It therefore appears more likely that a firm whose core business is similar to the target area will create its own operations through internal expansion.

Choosing a Method of Expansion: Alliances?

However, there is the middle ground of alliances, whereby firms can expand capability in a manner short of direct ownership. On the surface, this presents a viable alternative to either buying or building. In addition, this should substantially reduce the regulatory costs associated with extending the firm's range and reach.

Using alliances is seen as a fertile middle ground for industry product expansion (Dyer and Singh 1998). In fact, alliances have been an effective means of expansion in both the nonfinancial and financial sectors. However, as noted in the management literature, such arrangements achieve their desired outcome only when alliance partners truly commit to the partnership. Interested firms must combine or invest in idiosyncratic assets, knowledge, and/or capabilities to leverage complementary resource endowments. This creates a real governance challenge. To quote Parkhe (1993, p. 301), "strategic alliances are frequently subject to high instability, poor performance, and premature dissolution" as a result.

This has been the case in financial services, where, in most instances, alliances have proved rather temporary. The examples include the cash management account, private label proprietary mutual funds, and annuity distribution agreements. These experiences, among others, point to the

transitory nature of intraindustry alliances and joint distribution agreements. This may not be the case for alliances with vendor organizations, such as technology firms, where partnerships have proved more durable. Nonetheless, most see alliances as transitory agreements that lack permanence and forestall a long-run decision on entry.

The Resultant Industrial Structure?

The next logical question is whether or not any one of these models of firm structure is stable. Will the industrial structure be one of only huge universal banks? In time, will the niche players ultimately acquiesce and join larger organizations? Or, will the universal financial firm devolve, as the conglomerate industrial firm did in the 1960s (Bhagat, Schleifer, and Vishney 1990)? Will our children see the resurgence of the partnerships and small securities firms that populated Wall Street forty years ago? Will Main Street see the return of local banks and regional brokers?

It seems most likely that there will be a mix of specialized firms and universal firms. There appears to be no economic force majeure that will lead to a single firm type, and, by extension, it seems likely that there will always be room for specialized firms. However, history suggests that alliances have not been a stable industrial form. There is no reason to expect that this will change in the future.

At the same time, we do not expect to see the massive spin-off of divisions in the financial sector, which occurred as raiders spun off and broke up the industrial conglomerates of years past. To us, there is a clear distinction between the random collection of unrelated businesses that represented the industrial conglomerate and the emergence of the universal financial firm (Bhagat, Schleifer, and Vishney 1990). The latter is rooted in the belief that the firm has generic capabilities, including either financial asset management and/or unique customer knowledge. The target customer group may be defined by type (for example, wealthy individual or large corporate) or by distribution channel (for example, branches or the Internet). In any case, the strategy is not a simple diversification play, but an interest in capitalizing on specific capabilities across the financial industry.

It certainly is possible that the financial supermarkets can garner a majority of the market share from the specialized firms. This trend is already present in the data on ten- and twenty-firm concentration ratios in the banking, underwriting, asset management, and insurance industries (Santomero and Babbal 2000). However, if the universal firms gain a majority of the market share, there will always be specialized firms in the

industry. For the reasons outlined above, the niche player remains a credible competitor in all but the narrowest of product lines.

Conversely, the universal bank model can succeed only if it can adequately address the contagion concerns expressed above. Recall that the last restructuring of the financial sector was a direct result of systemic concerns. The perception that the franchise of the broad financial firm is intertwined with its operating units suggests that a failure or crisis in any one unit will drag the entire company down with it.

Regulators worry about this issue and have attempted to put in place sufficient firewalls to keep the operating units separate. However, this often results in a loss in efficiency, as such legal structures and regulations increase operating costs and raise the minimum price of services provided. In the limit, such restrictions reduce the market share of regulated firms and shift the activity to unregulated competitors or institutions from less regulated regions of the world who are vying for the same customer's business. And, such regulations and organizational restrictions may not even address the real problem. The issue of contagion is more than a matter of legal separation. It involves reputation and brand name, which suggests that adverse publicity associated with a major firm transcends the legal structure of the firm and goes directly to future revenue potential. For this reason, the market will not be assuaged by neat legal separation.

5. Implications for Public Policy

This is perhaps an appropriate place to introduce the public policy concerns. In fact, some have suggested that regulators and policymakers have a clear stake in large financial firms because universal banks are susceptible to contagion effects. Beyond this, however, other reasons are offered for regulatory oversight and intervention. The four major public policy concerns usually expressed include:

- the above-mentioned argument of systemic stability concerns,
- an opposite concern over an extension of the government safety net to these broad financial firms,
- the impact of consolidation and convergence on the concentration of power, in several manifestations, and
- the age-old concerns over conflicts of interest and predatory business practices.

Little can be added to the discussion of the first point. If one believes that systemic risk is increased rather than decreased by the extended financial firms, this implies a stronger role for regulation in the sector. This has led to a call for the full array of regulatory oversight, prudential regulation, and careful separation of financial activities contained in the holding company. This is the very essence of the arguments in favor of standard regulation (Herring and Santomero forthcoming) and the Federal Reserve position in the debates on H.R.10. Conceding a role for regulation in the financial sector, the issue here is whether the emergence of the universal financial firm exacerbates the stability concerns of regulators.

It appears that it does. By virtue of the fact that the financial firm is engaged in many financial activities, there is an increase in the probability of some form of financial distress within the combined entity that would extend to the holding company and its subsidiaries. In short, something is likely to go wrong somewhere in the franchise, and this could be destabilizing to the firm, the entire sector, and the economy at large.

The counterargument is that the additional diversification present in these firms will dampen volatility, rather than exacerbate it. This is clearly true for small changes in economic performance from quarter to quarter. However, as the Asian crisis illustrated (Diebold and Santomero 1999), correlations tend to increase in crisis episodes. This renders standard diversification measures less useful in times of financial distress. For this reason, regulators have been legitimately concerned about the growth of large universal firms and their effect on macroeconomic stability. The solution, of course, is central bank intervention.

However, the expectation of central bank intervention has its own problems, as Karaken and Wallace (1978) pointed out some twenty years ago. Regulation leads to the expectation of government intervention, which permits the market to relegate risk control to the central bank. This, of course, leads to a problem of government-induced moral hazard. One need look no further than the savings and loan scandal in the 1980s to highlight the existence of government-induced moral hazard and to note that it is not an artifact of universal banking.

The advent of universal firms, however, exacerbates this problem in two ways. First, the increased size of the financial firm makes government intervention a virtual certainty, notwithstanding the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA). No reasonable market participant could question the importance of one of these financial conglomerates. So in time of crisis, there is little question of support by the Federal Reserve. In addition, universal banking does present a new way in which

government-induced moral hazard can manifest itself. Boyd explains how government-induced moral hazard manifests itself in the universal banking system and how it can be passed down to nonbank subsidiaries owned by universal banks.

This will create both the appearance and the reality of a double standard between big and small firms in the financial sector. Some would argue that such a standard already exists, with some firms viewed as “too big to fail” and others “too small to save” (Cole and Gunther 1994). The evolving financial institution structure will exacerbate this distinction. Some authors speculate that this will result in an extension of the government safety net to other types of financial firms. We hope and trust that this will not be the outcome. Nonetheless, the present situation represents an unlevel playing field, wherein some bank-owned subsidiaries may appear guaranteed by the federal government. Greenspan (1997) has recently argued that bank holding companies may be able to pass cheaper borrowed funds along to subsidiaries, to create an additional unfair competitive advantage.

In the end, this may all lead to a large taxpayer bill, as these huge firms become too big to fail. These firms may become financially troubled and require an expensive government bailout that could eventually cost taxpayers money. At the very least, the Treasury Department has entered into the derivatives business by writing a large number of “puts” on the financial conglomerates operating within its jurisdiction.

A somewhat different concern relates to the sheer size of these megafirms and the implication that this might have for the economy as a whole. As these new financial firms emerge, some policy experts worry that economic power in the financial markets may become so concentrated that such firms could manipulate or at least affect the whole financial sector, to the detriment of the economy as a whole. Even unwittingly, they may unilaterally affect the flow of capital in particular directions that could have a substantial impact on specific segments of the economy.

These concerns have several concrete manifestations. As large firms begin to be the major providers of all financial products, consumer advocates have expressed concern about credit availability and equal access to all members of the economy. Consolidated products, limited access to credit for low-income groups, and predatory lending are all seen as part of the process of consolidation (Benston 1994 and Berger and Udell 1996).

There has been particular concern over credit availability for small firms. Small businesses are crucial to the economy—especially local economies—and if their access to capital is diminished by the emergence of these large financial firms, the public will suffer. The amount of credit available to small

businesses is viewed as so important to the political process that FDICIA mandated regular reporting to Congress of the amount of credit available to small businesses.

Recently, some criticism has been directed against large commercial banks for their reduced lending to small businesses and for being equally strict when dispersing capital to local governments (Berger and Udell 1992). This issue has also received attention because the recent empirical studies suggest that the concern is real and verifiable. Berger and Udell investigate this issue and find that “as banks become larger and more complex, they may become less inclined to supply credit services to small businesses.”

The only real answer to these concerns is competition, brought about by free entry in open markets. Inasmuch as various members of the financial community are expanding their product array and increasingly using the Internet as a financial product distribution channel, one should expect that industry participants will seek profit opportunities no matter where they are. As long as access to the consumer and small business markets is open, there appears to be little reason for concern. Beyond this, one must remember the unique financial structure of the U.S. market. Banking institutions play a relatively small role in the sector, unlike their dominant role in Germany and Japan (Allen and Santomero forthcoming). Therefore, as long as competitors from any part of the financial sector have access to the market, there is little reason to expect that resources will not find their way to fertile profit opportunities.

Finally, there is the concern that conglomerates may use unfair business practices to the detriment of the consumer. By this theory, mergers may be motivated, in part, by attempts to increase market power (Amel and Rhoades 1989). Proponents of this view point out that deals among financial firms with substantial geographic overlap reduce the number of firms in markets in which both organizations compete. A related effect of in-market mergers is that the market share of the surviving organization increases. These changes in market structure make the affected markets more vulnerable to reduced competition. The increased market power of the surviving organization may enable it to earn higher profits by raising loan rates and lowering deposit rates. The bank regulation literature offers ample evidence of the relationship between structure and performance (Wolken and Rose 1991). To the extent that a local market can be exploited by a merger, that literature suggests that the potential gain could be substantial.

It should be noted that antitrust policies of the Federal Reserve and the Department of Justice are designed to prohibit mergers with substantially anticompetitive effects (Berger and Humphrey 1992). Nonetheless, free entry remains the

preferred solution to such competitive concerns in local markets. This has become increasingly true as the relevant market definition for most financial products has become increasingly national, if not global, due to the new technology of delivery. In fact, it is best to think of all financial product markets as global, rather than local.

Additionally, concerned parties offer a list of predatory practices and nefarious acts that *may* arise from consolidation. Walter (1997) points out six such conflicts that have been suggested as potential conflicts of interest in universal banking:

- 1) salesman's stake,
- 2) stuffing fiduciary accounts,
- 3) bankruptcy-risk transfer,
- 4) third-party loans,
- 5) tie-ins,
- 6) information transfer.

The first of these occurs when a broker gives inappropriate advice when selling products offered by affiliates. The second occurs when an underwriting institution places investments into an affiliate that it is unable to sell in the open market. The third occurs when a bank has private information on the bankruptcy risk of a debtor and encourages the distressed firm to issue other securities to pay off affiliate debt. The fourth and fifth conflicts occur when the firm inappropriately packages products with cross-subsidies. Such tie-ins are said to be a result of a firm using its power in one market to "encourage" the client to purchase a second product from an affiliate. The final source of these conflicts is said to occur when one division or line of a business can relay private information on the financial situation of a client to another division in an effort to gain competitive advantage and unique price-setting power.

Many of these alleged abuses are the direct outgrowth of the synergies available from a universal bank, which can use the information gathered to serve its clients better. It is a manifestation of the economies of scope discussed above available to such firms. It is not at all clear that forbidding such information sharing and cross-subsidies is detrimental to the consumer and to overall credit availability.

Yet many opponents of financial modernization are convinced that financial conglomerates will use their size and power to take advantage of the consumer, using one or more of these mechanisms. To alleviate these potential problems, universal banks will almost certainly have to be exposed to further oversight in these matters.

However, as noted above, the real solution to these concerns is the assurance of full disclosure and sufficient competition from other service providers to impose market discipline. If the

customer has options, then the potential of informed suppliers looking at all of the customer's financial needs need not be very worrisome.

6. Conclusion

In this paper, we have consolidated many of the arguments for and against the financial conglomeration that is occurring in the U.S. financial market. We offered our view of the effect of this new competitive landscape on affected financial firms, as well as on the behavior of the capital market itself. Our focus was on the impact of the changing nature of both the market infrastructure and the regulatory regime on the behavior and likely span of activity conducted by large financial firms.

We looked at the implications of the changing financial environment from two perspectives: a firm level and a public policy level. After a review of the firm-level issues, we concluded that the balance of costs and benefits associated with a broader product array seems to favor the more universal financial firm franchise. The benefits of scale and/or scope, the revenue enhancements, the bigger playing field, the potential for greater innovation, and the added stability all favor the observed movement toward universal firms. The results, however, are not unequivocal. There are real concerns over complexity, complacency, and fragility of franchise.

This does not, however, imply that all firms will be universal or that all niche firms are in trouble. It seems most likely that there will be a mix of specialized firms and universal firms. Nevertheless, we know that alliances have not been of a stable form, and there is no reason to expect that this will change going forward.

The advent of universal firms, however, exacerbates the regulatory challenges. First, their increased size makes government intervention virtually certain. This may well create both the appearance and the reality of a double standard between big and small firms in the financial sector.

The only real answer to these concerns is competition, and the increased competition that free entry and open markets bring. Inasmuch as various members of the financial community are expanding their product array, one should expect that these new entrants will seek profit opportunities no matter where they are. Therefore, as long as competitors from any part of the financial sector have access to the market, there is little reason to expect that resources will not find their way to fertile profit opportunities. As long as the consumer and small business markets are open, there appears to be little reason for concern.

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The Economics and Politics of Financial Modernization

The structure and regulation of a country's financial markets and institutions are the focus of considerable policy attention for a number of economic and political reasons. Banks and other financial institutions encourage and collect the savings that finance a country's economic growth. By allocating the savings to enterprises and monitoring the use of the funds, the institutions and the markets play an integral role in the corporate governance system that ultimately affects the productivity of resources throughout the economy. Banks and other financial institutions also play an integral role in transmitting the government's monetary and credit policies to the rest of the economy. Parts of the financial sector are effectively regulated as a means to provide subsidized credit or services to targeted groups (including the government itself) and to protect particular groups from such activities as competition, hostile takeovers, and expropriation.

Although the economics of financial regulation have been studied extensively (Herring and Santomero 1999 and Kroszner 1998a), the politics have received less—albeit increasing—attention. Rather than taking regulations as given, the political-economy approach attempts to provide a positive analysis of how and why regulations evolve as they do and what forces can lead to their durability as well as to their potential for change. This perspective offers an alternate lens through which one can analyze regulation, and it complements the traditional normative analysis undertaken by economists studying “optimal” regulation.

When the infamous American bank robber Willie Sutton was asked why he robbed banks, he replied, “That’s where the money is.” The same might be said for why there is such government involvement in the banking and financial system—that’s where the money is. In the next section, I briefly outline a number of political-economy approaches to understanding government involvement in the economy and, in doing so, I examine why the banking and financial system appears to be particularly vulnerable to politicization.

Afterward, I apply these approaches to an investigation of why there has been such extensive deregulatory reform in banking and financial services during the past quarter-century. I focus on the breakdown of legal barriers that, until the Gramm-Leach-Bliley Financial Modernization Act of 1999, had separated banking, securities, and insurance activities. However, I also touch on other major reforms, such as the elimination of legal barriers to the geographic expansion of banks within states and across state lines. The political-economy approach helps to identify technological, legal, and economic shocks that disturbed the long-standing regulatory equilibrium in banking and financial markets. I conclude with a brief note on the role that traditional academic evaluations of regulation can still play in the policy-reform process of interest group competition filtered through government decision-making institutions.

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Approaches to the Political Economy of Regulatory Change

Economists, political scientists, and policy reformers have developed a variety of positive theories to explain how government intervention and regulation occur and how and when they change (Rodrik 1996). Five related approaches that have been used to analyze these phenomena fall under the classifications “public interest,” “private interest,” “ideology,” “institutions,” and “leviathan.” Although these approaches are not mutually exclusive, they emphasize different aspects of the interaction between economics and politics, and each captures an important element in the process. I now discuss each approach briefly and apply them to an understanding of various aspects of banking and financial regulation and deregulation.¹

Public Interest

This is the traditional “civics class” term that economists once used to explain regulation: banking and financial regulations exist to correct market failures and protect poorly informed consumers from harm.² From this perspective, regulatory intervention occurs primarily to maximize social welfare, so this approach is often called the public interest theory of regulation. Public interest rationales, for instance, are used to explain how government deposit insurance and capital regulation provide for a sound banking system, because the stability of the financial system can have spillover effects for general macroeconomic performance (Diamond and Dybvig 1983, King and Levine 1993, Jayaratne and Strahan 1996, and Kaufman and Kroszner 1997).

A key challenge facing the public interest view is that many forms of regulation have little or no redeeming social value. Entry restrictions that protect banks or other financial institutions from competition, portfolio restrictions that hinder diversification, and geographic restrictions that prevent expansion within a country or across national borders generally are difficult to rationalize on public interest grounds. Regulation that does not appear to serve a public interest is also common in other sectors (Stigler 1988).

Regardless of whether it may have a public interest rationale, regulation has significant distributional consequences. The parties affected by the regulation thus have an incentive to try to ensure that the government structures the regulation so as to benefit them. A public interest argument is often used to mask the private interests that the intervention serves. Indeed, private interests may try to confuse the public debate by providing false or misleading information that makes it

difficult to discern which policy would improve social welfare (Kane 1996 and Dewatripont and Tirole 1999).

Private Interest

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

The incentives for such regulatory behavior may be direct or indirect. Pressure may be exerted directly on politicians, through campaign contributions or votes. The politicians may then pass a new statute or pressure the regulators to act sympathetically toward the interest group. Indirect incentives may come through regulators understanding that cooperative behavior may be rewarded with lucrative employment opportunities in the industry after leaving the government, a practice so common in the past with Japanese Ministry of Finance officials that it is euphemistically called *amakudari*, the “descent from heaven.”

The effectiveness of the interest groups depends on a number of factors. First, cohesive groups will find it easier to organize and overcome free-rider problems in lobbying for regulations that may benefit them. Producers of goods and services tend to be more compact and better organized than consumers, so there is a tendency for regulation, on net, to benefit producers more than consumers (Stigler 1971).³ The ability of a group to organize is often inversely related to its size, but many labor unions and trade organizations have been able to develop effective lobbying bodies through carefully crafted incentives that provide a variety of information and support services in return for membership (Olson 1965). The Independent Community Bankers of America (formerly the Independent Bankers Association of America), for example, has been very effective at organizing and representing the interests of small banks.

Second, groups tend to be more effective not only when the benefits are concentrated among group members but also when the costs of the regulation are relatively diffuse.

A compact group of potential “losers,” each of whom would experience high losses associated with the regulation, are likely to form a lobby that will try to counteract the original interest group’s pressure. Interest groups most directly affected by the regulation may also attempt to build a broader coalition to lobby for or against the regulation.⁴

In the long legislative debate over the expansion of bank powers, banks, securities firms, and insurance companies organized powerful lobbying organizations that focused much of their energy on battling each other (Kroszner and Stratmann 1998). Until 1999, the numerous major legislative initiatives during the previous fifteen years were thwarted by strenuous lobbying efforts by the rival groups. In 1995, for example, even though the chairmen of both the House and Senate Banking Committees, the President, the chairmen of the Federal Reserve Board, and the Comptroller of the Currency supported expanded bank powers, a broad banking reform bill was again killed by interest group wrangling: “It was Wall Street securities firms and insurance companies that helped kill a bill to repeal the Glass-Steagall Act and allow banks to enter their markets” (*New York Times*, December 23, 1995, p. 19).

Third, in addition to the diffusion of costs across different groups, the level of the costs relative to the benefits obtained by the interest group plays an important role (Becker 1983). Deadweight loss is defined as precisely the difference between the “winner’s” benefit minus the loser’s cost from the change in output generated by the regulation. Factors affecting the “efficiency” of the regulatory or transfer mechanism thus may have an important impact on political outcomes. As the deadweight loss grows, for example, the losers are losing more for each dollar of the winner’s gain. When this gap widens, losers have a greater incentive to fight each dollar of the winner’s gain and the winners have less incentive to fight for each dollar of the loser’s loss. In other words, when deadweight losses are high, an interest group faces greater opposition to its protective regulation on the margin and hence it is less likely to be successful.⁵

Similarly, politicians in electoral democracies are concerned about finding an optimal support coalition to promote their reelection chances, so they take into account the marginal costs and benefits to different groups. The rents generated by regulation in an electoral democracy thus are likely to be spread among different groups, even though one group may be the primary beneficiary (Peltzman 1976).⁶ Regulation that protects financial institutions from competition and subsidized government deposit insurance to banks generate rents for this sector that are then partially shared through directed credit allocation.⁷

The private interest theory thus helps to explain why the banking and financial system is particularly susceptible to

political influence. The banking system provides an effective but off-balance-sheet way for the government to redistribute resources (Kroszner 1999a). Few, if any, other sectors provide the same degree of flexibility to redistribute resources, whether implicitly through Bank of Japan “window guidance” or explicitly through statutes such as the Community Reinvestment Act. Credit allocation through financial institutions can be an important implicit or explicit part of a government’s industrial policy.⁸ Banks and financial institutions may be induced to act, at least in part, as implicit fiscal arms of the state, but they must be compensated through protective regulation.

Since the government is so heavily involved in banking, it may be very difficult to have effective government regulation of the domestic banking and financial sectors. In these circumstances, simply hiring more and better trained supervisors and adopting good regulatory principles are not sufficient strategies because the government may have little incentive to enforce rules of sound banking, either on state-owned banks or privately owned ones. The codependence of the banks on the government and of the politicians on the banking industry allows problems to grow unchecked, as shown by the depth of banking troubles in the Asian countries experiencing currency crises.

This linkage may also help to explain why governments cannot seem to avoid bailouts of the financial sector, even as officials acknowledge and decry the moral hazard problems of the bailouts themselves. These perverse incentives are not unique to developing countries, as illustrated by the long delays in responding to the savings and loan crisis in the United States and the banking problems in Japan.

Ideology

Although the private interest theory has had much success in explaining a wide variety of regulatory interventions that are difficult to rationalize on public interest grounds, it has been less effective in explaining the widespread economic deregulation that has taken place in many countries during the past two decades (see Peltzman [1989] and Noll [1989], but also see Kroszner and Strahan [1999]). Many political scientists and some economists emphasize the importance of the beliefs and “ideology” of voters and politicians to explain regulation and deregulation (Kalt and Zupan 1984 and Poole and Rosenthal 1997). Differences over time across countries or among citizens in their general beliefs about government’s appropriate role in economic affairs might affect the extent of intervention. Roe (1994), for example, argues that populist

fears of excessive concentration of power in the hands of the financial elite were a driving force behind many banking and financial regulations in the early part of this century, using the 1933 Glass-Steagall Act's restriction of commercial bank powers as an example (Hellwig [1999], however, offers an alternative interpretation).

Poole and Rosenthal (1997) have developed a useful measure of ideology based on roll-call voting that rates legislators on a simple left-right scale. This ideology measure has had much success in accounting for a wide variety of economic regulation and deregulation not well explained by private interest group variables or party politics. Berglof and Rosenthal (1999), for example, analyze bankruptcy law in the United States and find that this measure of ideology is a key element in understanding the voting patterns on bankruptcy legislation during the past two centuries. Poole and Rosenthal (1993) also find an important role for ideology in the battles over the origins of the economic legislator in the United States during the nineteenth century.

Identifying the driving forces behind changes in ideology over time, however, has been difficult. Margaret Thatcher and Ronald Reagan are said to have embodied a shift toward a pro-market ideology, but an exogenous change in ideology is an unsatisfying explanation for a sustained move toward deregulation and privatization. This is particularly true when one recalls that the first major deregulatory action of the 1970s concerning airlines was initiated by a liberal Democrat from the northeast, Edward M. Kennedy. Also, airline and trucking deregulation and the first phase of federal banking deregulation—the 1980 Depository Institutions Deregulation and Monetary Control Act—were passed by Democrat-controlled Congresses and signed by a President who was a Democrat. What constitutes ideology and whether it can be measured independent of economic interests is the subject of an extensive and ongoing controversy (see Peltzman [1984] and overviews by Bender and Lott [1996] and Poole and Rosenthal [1996]).

Institutions

The new institutional economics approach emphasizes transaction costs and institutional arrangements for decision making as key factors influencing the outcome of the policy process (McCubbins, Noll, and Weingast 1988, North 1990, Williamson 1996, Alston, Eggertsson, and North 1996, Dixit 1996, and Irwin and Kroszner 1999). This approach examines how alternative policymaking structures (such as delegation to an independent agency versus a parliamentary vote versus an

executive order) influence the incentives of both special interests and governmental actions to shape policy. Opportunities for vote trading and issue linkages, for example, may differ under alternative structures and can confer advantages (like agenda control) to particular players. These institutional and transaction cost features in turn can affect the incentives for interest groups to organize as well as the efficiency of their lobbying efforts. Interest group size and strength, therefore, is not given, but may be endogenous (Irwin and Kroszner 1999).

The regulation of bank powers illustrates the endogeneity of interests with respect to the regulatory framework (Kroszner 1996). In 1933, the United States adopted the Glass-Steagall Act, which fragmented the U.S. financial system by strictly limiting the powers of commercial banks. In particular, commercial banks could not engage in securities underwriting, much in contrast with the classic German universal banks and banks in many parts of Europe. While there does not appear to be an economic justification for such a separation (Kroszner and Rajan 1994, 1997, and Kroszner 2000b), there may be a redeeming feature in terms of the political economy of financial regulation.

The silver lining to the cloud of Glass-Steagall is that a rich variety of alternate financial services providers has developed in the United States and they compete in both the financial market and the market for financial regulation. In Germany, for example, the early implicit state fostering of strong, universal banks allowed the banks to capture the regulatory system and thwart the development of alternate institutions and markets. In the United States, well-organized groups have helped to establish competing regulatory bodies that are likely to keep the market for financial regulation far from being a monopoly, even after the Financial Modernization Act of 1999. As I describe in the section on the leviathan approach, competition among regulators plays an important role, parallel to that of competition among the interest groups.

Before turning to the leviathan approach, however, I want to emphasize another aspect of the institutional structure of policy decision making—namely, the committee structure of Congress—to clarify another aspect of interest group activities—namely, the strategies that the groups use in competing with each other for influence over policy outcomes. The committee structure of Congress, in which standing committees have specialized jurisdiction over particular policy issues, creates opportunities for vote trading and issue linkages that may affect coalition formation and policy outcomes (Shepsle and Weingast 1987 and Weingast and Marshall 1988). Committee members, by virtue of their gatekeeping control over legislation in their ambit, may have a disproportionate impact on outcomes (Shepsle 1978 and Shepsle and Weingast

1995). Committees may consist of either preference “outliers,” who have intense views not representative of the rest of the legislature, or policy experts, who gather and process information in order to make well-informed decisions, perhaps as part of the execution of the major party’s agenda (Hall and Grofman 1990, Krehbiel 1991, Kiewiet and McCubbins 1991, and Cox and McCubbins 1993).

Each standing committee operates as a forum in which the legislators and the interest groups repeatedly interact, and repeated dealing allows legislators to develop credible policy positions among the rival interests (Kroszner and Stratmann 1998). The special interests lobby and provide campaign contributions through their political action committees (PACs) to the committee members and determine who their supporters are by observing the actions that the legislators take. They then continue to reward their supporters with contributions, and this process then helps the legislators to maximize special interest contributions (Kroszner and Stratmann 1998, 2000).

The financial services sector is the largest source of PAC campaign contributions in the United States, accounting for roughly 20 percent of total contributions, but most of these funds have been spent on battles among rival banking, insurance, and securities interests rather than on battling the consumer (Kroszner and Stratmann 1998). During the long struggle over financial services modernization legislation, these competing groups focused their contributions on members of the Banking Committees, relative to the rest of Congress, but not on the same Banking Committee members. In our analysis of financial services PAC contribution patterns (Kroszner and Stratmann 1998), we show that House Banking Committee members who received more contributions from commercial banks tended to receive fewer contributions from insurance companies and securities houses, and vice versa. The committee members appeared to be building consistent reputations for supporting one of the rival groups, rather than playing on both sides of the fence.

We also find that the longer a legislator stays on the House Banking Committee, the more his sources of PAC contributions become concentrated in one of the three rival financial services groups. This pattern of how PAC contributions from the rival groups evolve over a legislator’s career again suggests that through repeated actions on the Banking Committee (such as introducing legislation, offering amendments, holding hearings, talking to the media, and voting), the legislator builds a clear and consistent reputation on these policy issues. The competing banking, insurance, and securities PACs learn the reliability of each Banking Committee member with respect to their own interests and reward their own supporters. Those legislators who have a high proportion of PACs that repeatedly

contribute to them, which could be considered a rough measure of the reputational consistency of a legislator on a set of policy issues, tend to receive higher levels of PAC contributions than those who have few PACs that repeatedly give to them (Kroszner and Stratmann 2000). Long-term relationships develop between the rival interest groups and the House Banking Committee members, and thus it is an important feature of the strategies that the rival interests pursue in trying to influence financial services modernization legislation.

Leviathan

Politicians and bureaucrats may be considered a distinct interest group concerned about expanding its size and influence over the economy. Niskanen (1971) and Brennan and Buchanan (1977) suggest that an objective of the government may be to maximize or, on the margin, increase its size and expenditures. This view has been characterized as the leviathan approach.

The fiscal demands of the government help to explain part of the close relationship between politics and the banking and financial sectors and the origins of numerous regulations. Geographic restrictions on banks in the United States, for example, arose in the early nineteenth century as a way for state governments to maximize revenues from the sale of bank charters by providing a series of local monopolies (Kroszner 1997a). These initial restrictions created a constituency of small banks that then organized to protect their vested interest to maintain branching restrictions.⁹ The federal government began to grant national bank charters during the U.S. Civil War to create a new class of banks that would hold federal debt and thereby facilitate the financing of the war effort. The Bank of England was founded as a way to aid in the financing of the Crown in England. More recently, as governments have come to rely more heavily on deficit financing through the issuance of sovereign debt, reforms of the government securities markets around the world can be understood from this perspective (Kroszner 1997b).¹⁰ Debt moratoria, debt abrogation, and changes to bankruptcy law can also be seen in this light (Berglof and Rosenthal 1999, Bolton and Rosenthal 1999, and Kroszner 1999b).

In the financial services modernization debate, as noted in the previous section, competition among regulators has played an important role. Both the Federal Reserve and the Treasury wished to be the main supervisor of banks with expanded powers. The Federal Reserve had been the main regulator of bank holding companies, and the Treasury, through the Office

of the Comptroller of the Currency (OCC), had been the main regulator of nationally chartered banks. If new financial powers were permitted to take place within the bank or a subsidiary of the bank itself, then the responsibility to regulate the new activities could fall to the OCC. In contrast, if the new powers were permitted only within separate subsidiaries of a bank holding company—not the bank—then the Federal Reserve would be the main regulator.

While there are a number of interesting and important issues concerning the role of the legal corporate structure of full-service financial services firms (Kroszner and Rajan 1997), the debate between the regulators was primarily over which one would be the dominant regulator in the future. The outcome would affect the size and influence of the regulatory staffs of the agencies. The controversy between the two over the appropriate structure for what eventually became financial holding companies was parallel to the rivalry among the banking, insurance, and securities interests described above. After much lobbying by both sides, the resolution of the difference largely has been in the Federal Reserve's favor, for it has "umbrella" supervisory and regulatory control over the financial holding companies.

Political-Economy Factors Driving the Recent Trend toward Financial Regulatory Reform

To understand why there has been so much recent regulatory reform in banking after little change for more than three decades following World War II (see table), we must try to identify the factors that would have disturbed the long-standing political-economy equilibrium. The approaches to the political economy of regulatory change discussed above suggest that one look for technological, legal, and/or economic shocks that altered the relative strengths and effectiveness of competing interest groups.

Technological change is often cited as a key force behind the innovations in financial markets and institutions during the past two decades. In the political-economy framework, technological improvement does more than simply shift the production possibility frontier for an industry. Technological change can have significant distributional consequences, completely independent of its effects on the costs and efficiency of production—that is, such change is rarely "distributionally neutral." New products and markets bring forth new constituencies. Innovations affect the preexisting markets and institutions and cause shifts in interests and alliances.

Changing the relative strength of competing interests can then lead to regulatory reform.

A number of shocks, for example, have increased the supply elasticity of investors' and depositors' funds. As such, they have increased the competition that banks face from nonbanks and have eroded the value of regulation protecting geographic monopolies through branching regulation (Kroszner 1997a and Kroszner and Strahan 1999, forthcoming). As elasticities increase, there are fewer rents to share among competing groups, so regulation becomes less likely (Peltzman 1989). First, the introduction of the automated teller machine (ATM) in the early 1970s reduced the value of geographic protections to local banks. The small banks argued that ATMs should be considered bank branches, and they sued to prevent the spread of interstate ATM networks. The courts did not agree, and ATM networks grew rapidly both nationally and internationally.

Second, consumer-oriented money market mutual funds and "cash management accounts" offered by investment banks arose in the early 1970s. In the high-inflation environment of the 1970s, Regulation Q interest rate ceilings prevented banks from responding to these innovations by offering market rates on deposits. The Glass-Steagall and Bank Holding Company Acts prevented banks from offering the convenience of integrated investment and checking accounts.

Third, on the lending side, the increasing sophistication of credit-scoring techniques—following innovations in information-processing technology, financial theory, and the development of large credit databases—began to change the relationship characteristics of bank lending toward less personal and more standardized evaluation. As a result of these innovations, for example, securitization of mortgages, loans, and consumer credit has become commonplace. Commercial paper and junk bonds also provided competitive alternatives to traditional bank lending. Since technological change has diminished the value of specialized local knowledge that long-established local bankers might have about the risks of borrowers in the community, foreign banks could enter and succeed in domestic markets more easily than in the past, and foreign bank lending increased sharply in the United States during the 1980s.

These factors combined to reduce the strength of the small banks, which had long fought to maintain both branching and activity restrictions that would strengthen the large banks relative to them as well as increase the large banks' desire to have these restrictions lifted. This combination was important for making financial modernization legislation a reality. Also, the Gramm-Leach-Bliley Act contains a major provision that will provide below-market-rate financing to "small" banks (with less than \$500 million in assets) through the Federal

<p>Home Loan Bank System. Although the small banks are weaker than they once were, they are still able to obtain a valuable source of low-cost liquidity to soften their traditional opposition to the expansion of bank powers.</p> <p>In addition to the technological shocks that altered the balance within the banking industry, a number of court decisions eroded the long-standing opposition by the insurance industry to the expansion of bank powers and the</p>	<p>elimination of branching restrictions (Kroszner 1997a and Kroszner and Strahan forthcoming). The National Banking Act of 1864 and subsequent related legislation appeared to strictly limit bank involvement in insurance to selling insurance only in towns with less than 5,000 people. The extent of the restrictions and the precise definition of insurance products are ambiguous, and they are the subject of ongoing legal dispute between the banks and insurance companies.</p>
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Major Legislative Changes in Bank Regulation during the 1980s and 1990s

Legislation	Year	Major Provisions
Depository Institutions Deregulation and Monetary Control Act (DIDMCA)	1980	<ul style="list-style-type: none"> Raised deposit insurance from \$40,000 to \$100,000. Phased out interest rate ceilings. Allowed depositories to offer NOW accounts nationwide. Eliminated usury ceilings. Imposed uniform reserve requirements on all depository institutions and gave them access to Federal Reserve services.
Garn-St Germain Act	1982	<ul style="list-style-type: none"> Permitted money market deposit accounts. Permitted banks to purchase failing banks and thrifts across state lines. Expanded thrift lending powers.
Competitive Equality in Banking Act (CEBA)	1987	<ul style="list-style-type: none"> Allocated \$10.8 billion in additional funding to the FSLIC. Authorized forbearance program for farm banks. Reaffirmed that the “full faith and credit” of the Treasury stood behind deposit insurance.
Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA)	1989	<ul style="list-style-type: none"> Provided \$50 billion of taxpayer funds to resolve failed thrifts. Replaced Federal Home Loan Bank Board with the Office of Thrift Supervision to regulate and supervise thrifts. Restructured thrift deposit insurance and raised premiums. Reimposed restrictions on thrift lending activities. Directed the Treasury to study deposit insurance reform.
Federal Deposit Insurance Corporation Improvement Act (FDICIA)	1991	<ul style="list-style-type: none"> Imposed risk-based deposit insurance pricing. Required “prompt corrective action” of poorly capitalized banks and thrifts and restricted “too big to fail.” Directed the FDIC to resolve failed banks and thrifts in the least costly way to the deposit insurance fund.
Riegle-Neal Interstate Banking and Branching Efficiency Act	1994	<ul style="list-style-type: none"> Permitted banks and bank holding companies to purchase banks or establish subsidiary banks in any state nationwide. Permitted national banks to open branches or convert subsidiary banks into branches across state lines.
Gramm-Leach-Bliley Financial Modernization Act	1999	<ul style="list-style-type: none"> Authorized financial holding companies (FHCs) to engage in a full range of financial services such as commercial banking, insurance, securities, and merchant banking. Gave the Federal Reserve and the Treasury discretion to authorize new financial activities or complementary activities for FHCs. Established the Federal Reserve as the “umbrella” regulator for FHCs. Provided low-cost credit to community banks. Reformed the Community Reinvestment Act. Eliminated unitary thrift holding companies.

In 1986, the Comptroller of the Currency decided to allow national banks to sell any type of insurance product from small towns. This authority was later upheld in 1993 by the U.S. Fifth Circuit Court of Appeals in *Independent Insurance Agents of America v. Ludwig*. In 1995, the U.S. Supreme Court allowed banks to sell annuities nationwide (*Valic v. Clarke*), and in 1996 the Court again expanded banks' insurance powers by ruling in the *Barnett Banks v. Nelson* case that states could not bar national banks from selling insurance products from small towns (Seiberg 1996). The Court also implied that it would likely grant banks the right to sell additional types of insurance products if such cases were to come before it in the future.

Given its losses in the courts, the insurance industry realized that it would be unlikely to prevent bank involvement in insurance through continued litigation. In addition, the phase-out of bank branching restrictions following the 1994 Riegle-Neal Interstate Banking and Branching Efficiency Act helped to improve the ability of banks to distribute insurance products. Given the increasing competition from sellers of low-cost insurance on-line and over the telephone, the Independent Insurance Agents of America was in a weakened position to maintain its traditional opposition to the combination of banking and insurance. Technological and legal shocks again tipped the balance in favor of major deregulatory reform.

Kane (1996) argues that a major economic shock that generated support for bank regulatory reform was the high costs of the savings and loan crisis and the sharp rise in bank failures in the late 1980s. Prior to these events, the public and, perhaps, some policymakers had not been aware of the high costs of having government-insured institutions that were not well diversified. The large taxpayer-financed bailout of the savings and loans increased general public support for eliminating antiquated regulations and strengthening the financial system.¹¹

In sum, technological, economic, and legal changes disturbed the old political-economy equilibrium. Moreover, these changes had important distributional consequences that typically are ignored in economists' emphasis on efficiency issues but are central to a positive explanation of regulatory change.

Conclusions

The thrust of the aforementioned arguments is that interest group competition, filtered through the institutions of government decision making, plays a key role in determining when and how regulatory change occurs. For the expansion of bank powers and "financial modernization" legislation to take place, various shocks were necessary to alter the balance among the interests during the past quarter-century. These changes undermined the long-standing political economy supporting the Depression-era regulations that balkanized the U.S. financial system. The technological and financial innovations responsible for the changes are continuing to create conditions that are likely to lead to further reductions in regulatory barriers both domestically and internationally (Kroszner 1997a and Kroszner and Strahan 1999).

In conclusion, I offer a final note on academics' role in the process of regulatory change. If interest group rivalry is a primary determinant of regulatory outcomes, is there any role for careful scholarly analyses of regulations and proposals for reform? In other words, does the political-economy approach imply that academics should just stay in their "ivory towers," since their work is of little relevance to policymaking in the real world? Although having an organized interest group and money may be necessary for a view to prevail in the political marketplace, they are not sufficient, due to the rivalry among interest groups. Theory and facts, not only money and power, are relevant to the debates. Without an interest group to champion a position, however, an argument may have little effect. As Michael Mussa quipped, "In Washington, truth is just another special interest, and one that is not particularly well financed."

A logical and empirically supported argument, however, affects the productivity of an interest group's lobbying efforts, much like a technological shock can increase the productivity of an investment. Although rival interests will always have an incentive to generate "studies" that support their positions, a well-executed systematic analysis can be of great help to a particular group by making its lobbying more effective. Careful analyses can also inform rival groups about the size of the costs associated with specific policy alternatives. The education of the public and policymakers in terms of the actual and potential costs of regulation thus can play a useful and important role in the political economy of the policy reform process.

Endnotes

1. This section builds on Kroszner (2000a, 2000b) and Kroszner and Strahan (forthcoming).
2. Joskow and Noll (1981) call this explanation “normative analysis as positive theory.”
3. Hellwig (1999) has developed political-economy arguments to explain various practices and regulations in corporate finance based on the contrasting interests and organization costs facing insiders versus outsiders. For example, he interprets corporate financial structure choices, such as the “pecking order” preference for internal over external sources of funds, in terms of protection of incumbent management against outsiders. Also see Fischel (1997).
4. In addition, groups with completely unconnected interests may form “support trading” or “log-rolling” coalitions. Here, two groups may agree to support each other even if the members of one group are not affected by the regulations that the other group wants. Tariffs are a classic case of log rolling, in which, say, lumber and glass producers support each other’s call for higher protection, thereby providing greater support for higher tariffs than would otherwise be the case (Irwin and Kroszner 1996).
5. Becker (1983) argues that competition among lobbying groups thus will lead to the most efficient (lowest deadweight cost) regulations being chosen, so there is a tendency for regulation to be “efficient” in this sense. Wittman (1995) takes this argument further to conclude that both democratic institutions and outcomes are efficient. For studies on obstacles to optimal reforms, see Kroszner (1999a), Kroszner and Strahan (forthcoming), Rajan and Zingales (forthcoming), and Rodrik (1996).
6. When the constraint of future elections is less binding on politicians, they may engage in less rent sharing and provide windfalls to targeted groups. McGuire and Olson (1996), however, argue that less democratic regimes may be better able to insulate themselves from rent seeking and may find it in their own interest to pursue economic policies in the public interest.
7. An example is the Community Reinvestment Act. Also, flat rate deposit insurance tends to subsidize the smaller and riskier banks at the expense of the larger, better diversified, and safer banks. Lobbying for flat rate deposit insurance historically has been consistent with this pattern of relative benefits (Calomiris and White 1994 and Economides, Hubbard, and Palia 1996).
8. Gershenkron (1962), for example, argues that the German government fostered the development of strong universal banks in Germany, at the expense of financial market development, to promote rapid economic development in the nineteenth century.
9. This provides another example of the endogeneity of the interests with respect to the regulatory structure.
10. The government also raises revenues thorough seigniorage, and the ability to tax through inflation is another reason for the government’s long involvement with monetary and banking affairs.
11. Kane (1996) argues that bank regulators and beneficiaries of restrictions on the geographic expansion of banks purposefully misinformed the public and legislators about the costs of the regulations. Only a combination of large failures and costly bailouts (with academic studies explaining why the bailouts were so costly) was able to change the perception of the social welfare effects of the regulations. Jensen (1991) argues that much popular support for corporate governance regulation protecting incumbent management arises primarily from ignorance, rather than from intentional misinformation; thus, more policy-relevant research is important to effect reform.

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The Changing Landscape of the Financial Services Industry: What Lies Ahead?

The financial services industry has experienced significant changes over the past two decades. Hundreds of banks have been consolidated, restructured, or newly formed. In addition, deregulation of where banks can operate and what they can do has encouraged both geographic and product diversification. The most recent aspect of this transformation trend is the passage of the Gramm-Leach-Bliley (GLB) Act, which loosens restrictions on banks' abilities to engage in the previously restricted activity of underwriting securities and permits banks to underwrite insurance policies.

This paper examines some of the potential consequences of GLB for the structure of the U.S. financial services industry. In it, we ask how the industry may evolve as this new legislation interacts with the consolidation trend already under way, what types of mergers are most likely to occur, and how profitable and risky the resulting firms might be.

We begin by reviewing the consolidation trend that has occurred within the U.S. banking industry over the past ten years. We explore reasons for the trend, focusing on the factors responsible for the recent pick-up in its pace. Consolidation accelerated following the 1980s deregulation of restrictions that prohibited bank expansion across geographic markets and into other financial services. If history is any guide, we ought to see further consolidation following the passage of GLB. Stock price reaction to its passage suggests that market participants also anticipate more financial consolidation, especially in the life insurance business.

We then test whether better diversification post-GLB can improve the risk-return trade-off faced by financial companies. We do so by constructing hypothetical, pro-forma mergers between bank holding companies (BHCs) and firms in each of the other three major financial services industries: life insurance, property and casualty insurance, and securities. The results suggest that, *ceteris paribus*, mergers between BHCs and life insurance firms will produce firms that are less risky (and no less profitable) than those in either of the two individual industries. Mergers between BHCs and either securities firms or property and casualty firms raise BHCs' risk measures only slightly. Similar to the analysis of stock returns, these results point most strongly to combinations of banks and life insurance companies.

As a final step, we review how the financial services industry has evolved in Europe. A European bank's ability to expand into other financial activities, unlike that of a U.S. bank, is relatively unrestricted. In recent years, these banks have made significant inroads in the life insurance industry. By examining these advances, we can better understand the role of scope economies in the banking industry's evolution, something we cannot infer from the pro-forma data analysis.

Overall, our findings point to continued consolidation among financial firms. The consolidation trend within the banking industry will likely continue as banks respond further to the elimination of prior restrictions. Moreover, the recent elimination of barriers preventing banks from engaging fully in

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securities underwriting and insurance will allow them to take advantage of both diversification and economy-of-scope benefits as they expand into these industries.

Recent Consolidation Trends in a Decade of Change

Several hundred bank mergers and acquisitions (M&As) have occurred each year over the past two decades. However, during the past decade, megamergers—M&As between institutions with assets of more than \$1 billion each—have occurred much more frequently. Most recently, M&As in the United States and elsewhere have increased dramatically in size; such activity between institutions with assets in excess of \$100 billion has become almost commonplace. Based on market value, nine of the ten largest M&As in U.S. history were announced during 1998, and four of these—Citicorp-Travelers, BankAmerica-NationsBank, Banc One-First Chicago, and Norwest-Wells Fargo—occurred in banking (Moore and Siems 1998). In 1999, the pace of these megamergers slowed considerably (not one was announced in the United States), perhaps because market

participants were waiting for resolution of the debate on financial services modernization.

As a result of the rapid M&A activity, the number of banks and banking organizations (stand-alone banks and top-tier bank holding companies) each fell by about 40 percent between 1989 and 1999 (Table 1). The share of total nationwide assets held by the eight largest banking organizations nearly doubled over this period, rising from 21.3 percent to 41.5 percent.¹ At the same time that large banks' market share was increasing, the market shares and profitability of very small and small banking organizations—defined as having total assets of less than \$50 million and between \$50 million and \$300 million, respectively—fell sharply. As Table 1 indicates, over the 1989-99 period, the share of domestic assets held by small banking organizations fell from 12.3 percent to 9.0 percent, while the share of assets held by very small banking organizations dropped from 3.3 percent to 1.6 percent. The decline in market share may have occurred because small banks' profits relative to those of their larger competitors declined. Before 1992, for example, the largest 100 banks (ranked by assets) consistently earned lower returns per dollar of equity than banks outside the top 100. After 1992, the largest 100 banks consistently outperformed smaller banks (Bomfim and Nelson 1999).² Similarly, after 1992, banks ranked between the 100th and

Table 1
Concentration, Ownership, and Number of Firms in the Commercial Banking Industry

Year	Number of U.S. Bank Charters	Number of Banking Organizations	Number of Offices in Banks Plus Thrifts	Asset Share (Percent)		
				Eight Largest Banking Organizations	Very Small Banking Organizations	Small Banking Organizations
1989	12,728	9,620	84,388	21.3	3.3	12.3
1990	12,370	9,391	84,375	21.3	3.3	12.5
1991	11,950	9,167	83,484	23.7	3.2	12.8
1992	11,495	8,871	81,204	23.6	3.1	12.9
1993	11,001	8,445	80,758	24.8	2.8	12.4
1994	10,488	8,017	81,677	26.3	2.6	11.6
1995	9,983	7,680	81,900	30.0	2.3	11.1
1996	9,576	7,415	83,052	31.3	2.1	10.7
1997	9,216	7,225	84,291	35.2	1.8	10.0
1998	8,846	6,943	85,190	35.0	1.6	9.1
1999	8,698	6,852	86,527	41.5	1.6	9.0

Sources: Reports of Condition and Income; National Information Center (1989-99); *FDIC Historical Statistics on Banking*.

Notes: A banking organization is a top-tier bank holding company or a stand-alone bank. The figures for 1999 are as of the second quarter; all other figures are as of year-end. A very small banking organization is one with total banking assets of less than \$50 million in 1997 dollars; a small banking organization is one with assets between \$50 million and \$300 million in 1997 dollars.

1,000th largest consistently outperformed banks outside the largest 1,000.

One can point to four key factors that contributed to the fast pace of M&A activity. First, profitability and high stock prices in banking during the mid-to-late 1990s may have relaxed financing constraints on this activity. Second, banks have been losing market share to competing financial institutions on both sides of the balance sheet since the end of the 1970s. Consolidation provides an efficient way to eliminate the excess capacity that has arisen in response to the emergence of nonbank financial institutions. Third, sophisticated financial technologies such as derivatives contracts, off-balance-sheet guarantees, and risk management may be more efficiently produced by larger institutions. Finally, the deregulation of restrictions on banks' ability to expand geographically was relaxed in the 1980s and early 1990s. With a series of removals of restrictions on intrastate and interstate banking, concluding with the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, interstate branching was permitted in almost all states.³ The removal of these constraints allowed some previously prohibited M&As to occur.⁴

Expansion of Bank Powers Prior to Gramm-Leach-Bliley

Regulatory restrictions in the United States had prohibited bank involvement in underwriting, insurance, and other “nonbank” activities since the Banking Act of 1933, sections of which became known collectively as the Glass-Steagall Act.⁵ Subsequent measures in 1956 and 1970 strengthened the demarcation between banks, insurance companies, and securities firms. BHCs were allowed to underwrite certain eligible securities, including general obligation bonds, U.S. government bonds, and real estate bonds, which were exempted from the original Act. But it was not until the mid-1980s that the Federal Reserve and the Office of the Comptroller of the Currency (OCC) began loosening restrictions on greater bank participation in investment banking and in insurance. (See Table 2 for an historical summary of recent deregulatory efforts.)

The Federal Reserve began the deregulatory push for BHC activity in securities with a decision in 1987 to allow subsidiaries of a small group of holding companies to underwrite certain previously prohibited securities—such as municipal revenue bonds, commercial paper, and mortgage-related securities—on a limited basis. The Federal Reserve derived legal authority for the decision from a clause in Section 20 of the 1933 Banking

Act that prohibits banks from affiliating with a company “engaged principally” in underwriting or dealing securities. The Federal Reserve contended that the “engaged principally” clause allowed BHC subsidiaries to underwrite these “ineligible securities” as long as the revenue from such underwritings did not exceed 5 percent of the subsidiary’s gross revenue.

In January 1989, the Federal Reserve also allowed the “Section 20 subsidiaries” to underwrite corporate debt and equity securities contingent on the 5 percent revenue limitation. The Federal Reserve continued its incremental lifting of restrictions by increasing the revenue limit on

Table 2
Summary of Important Dates Prior to the Passage of Gramm-Leach-Bliley

Date	Description
April 30, 1987	Federal Reserve authorizes limited underwriting activity for Bankers Trust, J. P. Morgan, and Citicorp, with a 5 percent revenue limit on Section 20 ineligible securities activities.
January 18, 1989	Federal Reserve expands Section 20 underwriting permissibility to corporate debt and equity securities, subject to revenue limit.
September 13, 1989	Federal Reserve raises limit on revenue from Section 20 ineligible securities activities from 5 percent to 10 percent.
July 16, 1993	Court ruling in <i>Independent Insurance Agents of America v. Ludwig</i> allows national banks to sell insurance from small towns.
January 18, 1995	Court ruling in <i>Nationsbank v. Valic</i> allows banks to sell annuities.
March 26, 1996	Court ruling in <i>Barnett Bank v. Nelson</i> overturns states' restrictions on banks' insurance sales.
October 30, 1996	Federal Reserve announces the elimination of many firewalls between bank and nonbank subsidiaries within bank holding companies (BHCs).
December 20, 1996	Federal Reserve raises limit on revenue from Section 20 ineligible securities activities from 10 percent to 25 percent.
August 22, 1997	Federal Reserve eliminates many of the remaining firewalls between bank and nonbank subsidiaries within BHCs.
April 6, 1998	Citicorp and Travelers Group announce merger initiating a new round of debate on financial reform.

Sources: Mester (1996); Bhargava and Fraser (1998); Boyd and Graham (1986, 1988); Ely and Robinson (1998, 1999).

Section 20 subsidiaries to 10 percent in September 1989 and to 25 percent in December 1996. Also in 1996, the Federal Reserve began contemplating the elimination of previously instituted “firewalls” between bank and nonbank activity within the subsidiary structure of a BHC. The firewalls had been instituted originally to insulate bank subsidiaries from more risky nonbank subsidiaries.⁶ In 1997, the majority of the barriers were removed.

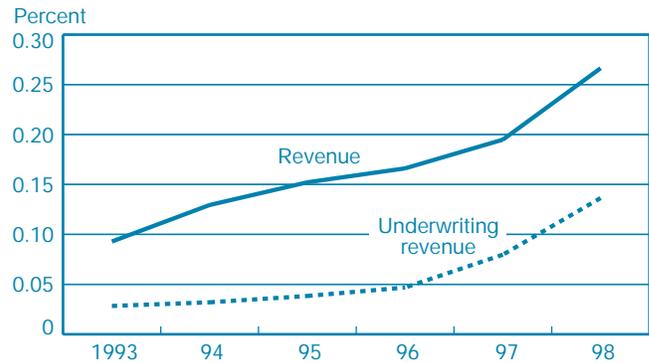
While the Federal Reserve oversaw BHC expansion into securities, OCC rulings backed by the federal courts loosened restrictions on national banks’ insurance activity. Prior to 1986, state insurance regulators imposed limitations on national banks’ insurance sales and underwriting. That year, the OCC argued that a previously overlooked section of the 1917 National Bank Act (Section 92) allowed a national bank to sell insurance anywhere under the condition that one of its branches be located in a town with less than 5,000 people. In 1993, a U.S. Court of Appeals ruling upheld the OCC decision. State regulators continued fighting the Court decision until a 1996 U.S. Supreme Court ruling upheld it. The decision forced state legislatures to level the playing field by passing new laws allowing both national and state-chartered banks to sell insurance through subsidiaries or directly through bank branches. National banks won another victory in an unrelated 1995 U.S. Supreme Court decision, when the Court ruled that state law could not prohibit the sale of annuities by national banks. The Court maintained that both fixed and variable annuities were analogous to activities of savings banks and therefore were not subject to the state’s jurisdiction over insurance.

As the regulations were modified, banks began a notable expansion into nonbank financial products. BHCs, through their Section 20 subsidiaries, began to capture a significant portion of the securities market. In fact, BHCs increased their share of the securities industry’s total revenue from 9 percent to more than 25 percent in just six years (Chart 1). Section 20 subsidiaries also made significant inroads in underwriting, especially after the 1996 loosening of the “ineligible” underwriting revenue restriction. Bank annuity sales also increased rapidly (Chart 2), and evidence from a study by the Association of Banks-In-Insurance (ABI) suggests that banks accounted for approximately 15 percent of the total annuities sales nationwide (Table 3). This same study indicates that banks still represent a small portion of insurance sales, however, it also suggests that an increasing number of banks will begin marketing insurance products over the next two years.

Despite increasing revenue for BHCs in nonbank financial products, the regulatory environment prior to GLB continued to impose limitations on expansion across financial sectors.

The passage of the Gramm-Leach-Bliley Act therefore was a major event in the deregulatory process, removing almost entirely the remaining barriers separating banks, securities firms, and insurance companies.

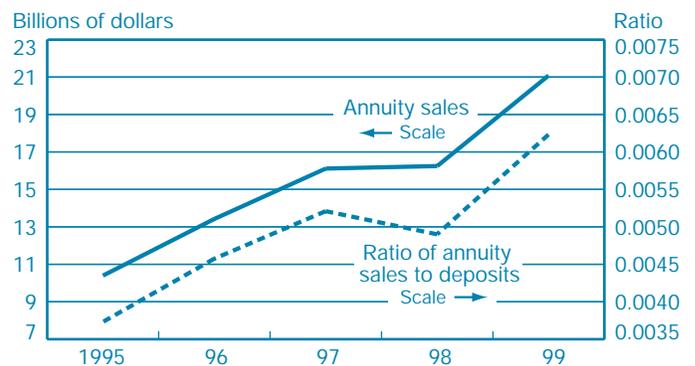
Chart 1
Section 20 Subsidiaries of Bank Holding Companies: Share of the Securities Industry



Sources: *Securities Industry Factbook* (1999); Federal Reserve Y-20 reports.

Notes: The numerator represents the total revenue and underwriting revenue reported by Section 20 subsidiaries. The denominator represents the total revenue and underwriting revenue of the securities industry. The denominator is calculated from annual revenue data of New York Stock Exchange (NYSE) member securities firms, and then expanded by dividing by the percentage of total industry revenue held by NYSE members. These firms represent on average 68 percent of the total industry over the sample period. We assume that the NYSE member firms’ percentage of underwriting revenue approximates the percentage of total revenue.

Chart 2
Annuity Sales by Banks



Source: Authors’ calculations, based on Reports of Condition and Income.

Note: Annuity sales were not reported prior to 1995.

Table 3
Insurance and Annuity Sales by Banks
Percent

Category	Banks Currently Marketing	Banks Planning on Marketing		Total	Current Market Share
		Within Two Years	Within One Year		
Annuities					
Variable	28.3	15.2	8.6	52.1	~15
Fixed	28.3	14.5	8.8	51.6	
Life insurance					<1
Term	27.8	20.7	11.8	60.3	
Whole	23.1	21.4	11.3	55.8	
Universal	21.1	21.1	11.5	53.7	
Variable	17.4	21.1	11.1	49.6	
Personal property and casualty					<2
Homeowners	18.7	21.9	12.0	52.6	
Auto	17.7	21.9	12.0	51.6	
Commercial property and casualty	16.7	19.4	9.6	45.7	<2

Source: Association of Banks-In-Insurance, *Annual Study of Leading Banks-In-Insurance* (1999).

Market Reaction to the Gramm-Leach-Bliley Act

On October 22, 1999, President Clinton announced that his administration had reached a compromise with Congress on GLB that guaranteed its eventual passage. The legislation allows the formation of financial holding companies under which subsidiaries can engage in insurance, securities, and banking activities.⁷ Although the long-term implications of GLB still are unclear, the response of financial sector stock prices on October 22 suggests that shareholders took a positive view toward a continuation of BHC expansion into nonbank financial products and financial consolidation in general. As Table 4 shows, among the most notable performers were “top financial advisors,” defined as companies—either securities firms or BHC subsidiaries—with strong M&A advisory records in the financial sector. Their performance suggests a widespread expectation that future financial consolidation will generate fee-based revenue for top financial advisors. BHCs with Section 20 subsidiaries also experienced significant excess

returns; shareholders appeared to favor BHCs that had begun exploring the broadened opportunities in securities underwriting prior to the passage of GLB.

Insurance company shareholders also reacted favorably to the compromise. In particular, the response of the share prices

Table 4
Summary Returns by Structural Characteristics:
October 22, 1999

Industry Category	Number of Observations	Single-Day Return	Excess Return ^a
Sample	558	0.021	0.007
Top financial advisors ^b	12	0.079	0.065
Bank holding companies	290	0.011	-0.003
With Section 20 subsidiaries ^c	25	0.033	0.019
Top financial advisors	5	0.049	0.035
Top twenty by assets	20	0.037	0.023
Securities companies	76	0.048	0.034
Top financial advisors	7	0.100	0.086
Top twenty by assets	20	0.090	0.076
Insurance companies ^d	156	0.029	0.015
Health	27	0.008	-0.006
Life	26	0.063	0.049
Property and casualty	74	0.027	0.013
Top twenty by assets	20	0.068	0.054
Insurance brokers/agents	36	0.019	0.005
Memo:			
Market return measurements			
Dow Industrials		0.017	
S&P 500 Index		0.014	
S&P Bank Index		0.041	

Sources: Sample and structural data are from Standard and Poor's Compustat database for the end of 1998; stock return information for October 22, 1999, is from Bloomberg Financial Services.

Notes: Asset rankings are based on total assets as reported by Compustat at the end of 1998. All companies included in the rankings are publicly traded with significant equity in the U.S. markets.

^aExcess return is the single-day return less the S&P 500 Index return.

^bA top financial advisor is a bank holding company (BHC) or securities firm that is one of the top fifty companies based on the total deal value of advised mergers in the financial sector in 1998 (see *American Banker*, February 2, 1999, p. 18A).

^cBHCs with Section 20 subsidiaries are those with subsidiaries that underwrite ineligible securities.

^dHealth insurance companies are defined as those companies with a Standard Industrial Classification (SIC) code of 6321 (Accident and Health Insurance) or 6324 (Hospital and Medical Service Plans). Life insurance companies include those companies with a SIC code of 6311. Property and casualty insurance companies have a SIC code of 6331 and brokers/agents have a two-digit SIC code of 64.

of life insurance firms—a single-day average excess return of 4.9 percent—suggests that investors believe that life insurance firms are among those companies that have the most to gain from the legislation. Shareholders may believe that life insurance companies can be more profitable if they offer both bank and insurance products. In addition, they may perceive certain life insurance companies to be attractive candidates for mergers with BHCs that want to expand their available insurance operations. The shareholder response to the announced compromise on GLB might reflect a confirmation of the past expansion by BHCs into nonbank financial products; it might also reflect optimism for the new opportunities owing to consolidation across the banking and life insurance sectors.

Consequences of Financial Consolidation

It is interesting to know that stock market participants reacted favorably to the passage of GLB, but without further research we can only hypothesize as to why they reacted this way. For example, did the positive reaction occur because mergers between BHCs and other types of financial firms will create more profitable firms? Are there synergies between firms that can be taken advantage of? Will these firms have a smaller risk of bankruptcy?

To varying degrees, prior research has examined these questions. Only limited research has been conducted on the efficiency gains of combining commercial banks and other types of financial service firms, because little data have been available to examine this issue. However, one study of the cost-scope efficiency of German universal banks found mostly diseconomies associated with producing loans and investment-oriented services within the same institution (Lang and Welzel 1998). More research has evaluated the risk-reduction potential of combining banking and nontraditional financial activities.⁸ Kwast (1989) analyzed the correlation between banks' eligible trading and nontrading assets and found that banks' engagement in eligible securities activities offers limited potential for diversification gains. More recently, Kwan (1998) found that combining a Section 20 subsidiary with a bank subsidiary can improve a BHC's risk-return trade-off.⁹

Taking a somewhat different approach, Boyd and Graham (1988) explored the risk-reduction potential of merging BHCs with other financial firms by simulating cross-industry mergers. Using U.S. data from the 1970s and 1980s, the authors considered whether diversification benefits from these mergers

were significant enough to lower the riskiness of the resulting firm. They concluded that mergers between BHCs and life insurance firms would likely decrease BHC bankruptcy risk, while mergers with all other types of financial firms would likely increase this risk.¹⁰ We are not aware of any work that has considered whether the results reported by Boyd and Graham are robust across time periods, and in particular robust to the last decade. Hence, the goal of our study is to fill this void.¹¹

Using data from the 1984-98 period, we present the risk-return characteristics for all of the major financial services industries: bank holding company, securities, property and casualty insurance, life insurance, insurance agent/broker, investment advice, real estate development, and other real estate firms. We then compute these same statistics for simulated mergers over the 1990s between BHCs and firms from a *subset* of the remaining financial services industries: securities, property and casualty, and life insurance. The idea behind examining this subset of industries is to focus on the most likely cross-industry mergers with firms large enough to affect a BHC's risk-return profile. We use data from the 1990s because the number of bank mergers throughout the period makes it difficult to have consistent data over the entire period. In addition, the recent data are more likely to be insightful about future mergers.

As with the earlier simulation studies, there are, of course, caveats to this analysis. Economies of scale or scope cannot be taken into account, for example. Nor can we account for the fact that we do not have a crystal ball: we cannot focus on mergers that are actually going to occur. Nevertheless, we think our results provide an upper bound on what is likely to happen, since taking into account particular synergies between firms should serve to improve on the risk calculations that we do report.

Data and Methodology

We begin by examining annual year-end balance-sheet data on all publicly traded financial firms in Standard and Poor's Compustat database over the 1984-98 period. The industries we examine and the number of firms within each industry are reported in Table 5, along with statistics on firm size in each industry. As we can see from the table, with the exception of the "other real estate" category, we have a meaningful number of firms in each industry to use for our calculations.

We calculate one measure of profitability and two measures of risk for each firm and report the median value for each industry. We also compute these same statistics for

Table 5
Number and Size of Sample Financial Firms,
1984-98

Industry Category	Number of Firms	Assets (Millions of Dollars)			
		Median	Smallest	Largest	Mean
Bank holding company	462	2,169	1.00	617,679	10,175
Securities	57	261	0.45	317,590	14,421
Life insurance	48	2,463	6.42	105,107	7,320
Property and casualty insurance	101	1,243	0.15	194,398	7,159
Insurance agent/ broker	45	54	0.31	19,736	821
Real estate development	23	26	0.18	1,151	80
Other real estate	9	37	2.34	800	85
Investment advice	26	98	0.33	3,480	324

Source: Standard and Poor's Compustat Services, Inc.

hypothetically merged firms. In order to compute meaningful statistics, we require that firms in the sample report at least five years of data. Thus, we include firms that may have failed during the period as long as they meet this criterion. The measure of profitability we calculate is the rate of return on average accounting equity, R :

$$R_t = 2\pi_t / (E_t + E_{t-1}),$$

where π_t is net income after taxes, E_t is total equity, and t denotes the year. Hence, average equity is the average of year-end equity in years $t-1$ and t . Profits are a flow, earned over year t .

The first measure of risk we report is the standard deviation on the rate of return on equity, S :

$$S = \left(\sum_{t=1}^T (R_t - \bar{R})^2 / (T-1) \right)^{1/2},$$

where \bar{R} is the mean of the R_t and T is the number of periods in which the firm is in the sample. The standard deviation allows us to consider whether there are diversification benefits from mergers, which reduce the volatility of the rates of return.

The second measure of risk we report is the Z-score, an indicator of the probability of bankruptcy. The Z-score begins with the idea that bankruptcy arises when profits are sufficiently negative to eliminate equity. The Z-score (or Z), then, is the number of standard deviations below the mean by which profits must fall to bankrupt the firm. Z is defined as:

$$Z = \left[\left(\sum_{t=1}^T [2\pi_t / (A_t + A_{t-1})] \right) / T + \left(\sum_{t=1}^T [(E_t + E_{t-1}) / (A_t + A_{t-1})] \right) / T \right] / S_r,$$

where A_t is total assets in period t and $2\pi_t / (A_t + A_{t-1})$ is the return on assets in year t . S_r is the estimated standard deviation of the return on assets. As the formula indicates, the higher the mean rate of return on assets and the higher the ratio of equity to assets, the higher Z is. Hence, higher values of Z are associated with lower probabilities of failure. The more volatile the asset returns, the lower the Z-score. Thus, calculating this measure allows us to consider whether any increase in the volatility of returns resulting from a BHC merging with another firm is offset by increases in the level of returns, producing a lower risk of bankruptcy. Moreover, if returns are normally distributed, then Z can be mapped simply into the probability that a firm experiences insolvency over a one-year horizon.¹²

To consider how BHC risk and return would be affected by BHCs merging with other financial firms, we construct pro-forma mergers between the ten largest BHCs and the ten largest firms in each of the other three financial services industries. Using all of the combinations, we create 100 mergers for each of the three cross-industry combinations, and we report the results for the median firm.

Results

We first present the profitability and risk statistics for each of the industries in Table 6 in order to obtain a sense of the industries' relative standings. As the first column of the top panel indicates, investment advice firms were the most profitable over the 1984-98 period, followed by bank holding companies and securities firms. Insurance companies follow, while the least profitable firms were those engaged in real estate. Both measures of risk rank the industries in roughly the same order. BHCs are the least risky, followed by life insurance and property and casualty insurance firms. Securities and investment advice are in the middle of the group, and real estate firms are the most risky. Given the highly regulated nature of the banking industry, it perhaps makes sense that this industry proves to have the lowest risk among the group. Regulators often encourage mergers when a banking firm is weak and hence there is likely less recorded evidence of firms close to failure than would otherwise appear in the data. Life

insurance and property and casualty insurance are also fairly highly regulated, and this factor could account for their relatively low risk ranking as well.

As a check on the robustness of our results, we also compute these same statistics over the 1992-98 period. This subsample exploration allows us to consider whether the results vary when the 1980s and the early 1990s are excluded, a period in which

Table 6
Profitability and Risk Measures by Industry

Industry Category	Profitability					
	Median \bar{R} (Percent)					
	1984-98		1992-98		1971-84 ^a	
Bank holding company	12.98		13.28		13.12	
Securities	12.98		16.45		16.52	
Life insurance	10.58		11.23		12.82	
Property and casualty insurance	11.17		11.73		13.44	
Insurance agent/broker	7.80		14.75		19.98	
Real estate development	2.29		8.94		10.03	
Other real estate	2.82		5.12		0.65	
Investment advice ^b	20.13		18.59			
Industry Category	Risk					
	Median					
	1984-98		1992-98		1971-84 ^a	
	<i>S</i>	<i>Z</i>	<i>S</i>	<i>Z</i>	<i>S</i>	<i>Z</i>
Bank holding company	0.0271	33.87	0.0173	53.93	0.0245	43.36
Securities	0.1049	10.44	0.0781	14.50	0.0909	13.33
Life insurance	0.0453	19.09	0.0245	31.58	0.0261	36.79
Property and casualty insurance	0.0691	14.82	0.0449	20.04	0.0467	24.56
Insurance agent/broker	0.1468	8.49	0.0699	13.56	0.0554	15.97
Real estate development	0.2892	3.47	0.1408	7.36	0.1382	8.66
Other real estate	0.3642	2.31	0.3899	2.14	0.0925	12.98
Investment advice ^b	0.1655	9.48	0.1106	11.37		

Sources: Standard and Poor's Compustat Services, Inc.; authors' calculations.

^aThe 1971-84 period reflects the results from Boyd and Graham (1988).

^bIn Boyd and Graham (1988), the "investment advice" category is included in the "securities" category.

many firms were in poor financial health. As the second column of Table 6 shows, there are a few differences in relative industry profitability, with securities firms and insurance agent/broker firms somewhat more profitable in the 1990s. However, there are virtually no differences in the relative risk rankings in the 1990s compared with the entire period. The overall level of risk is lower when the 1980s are excluded, a result consistent with the idea that these firms were in weaker financial health over the early part of the sample.

Our findings also accord well with those originally reported by Boyd and Graham (1988). The last column of Table 6 reproduces their statistics, indicating that the relative profitability and risk rankings over the 1970-84 period are very similar to our findings. Two points are worth noting in comparison. First, as they were in the 1990s, insurance agent/broker firms were quite profitable in the 1970s. Thus, this industry's performance in the 1980s appears to be the outlier to an otherwise profitable performance record. Second, the level of risk recorded over the 1970-84 period is closer to the levels experienced in the 1990s, suggesting that the late 1980s were clearly a difficult period for many financial services firms.

Mergers

The risk measures from combining a BHC with another financial firm cannot be gleaned merely from the two firms' standard deviations; the calculation also depends on the covariance of returns. Hence, to obtain the statistics for combined firms, we merge the balance-sheet data and calculate the risk-return statistics for the pro-forma merged firm. As we noted, we conduct mergers between BHCs and firms in the life insurance, property and casualty insurance, and securities industries. To prevent the outcome from being determined by the larger firm's size, we examine mergers between the ten largest BHCs and the ten largest firms in each of the other industries. The size characteristics of the firms used in the mergers are reported in Table 7.¹³

The risk-return measures for the pro-forma mergers with the ten largest BHCs are presented in Table 8. As we can see, mergers between BHCs and life insurance firms lower the risk of both firms. The top ten BHCs have a median standard deviation of 0.0212, while that of the life insurance firms is 0.0220. The median of the merged firms is 0.0176. Thus, there are clearly diversification benefits to BHC-life insurance mergers. The Z-score also rises with these mergers, indicating that the barely lower profitability (16.26 profitability for the merged firms, compared with 16.77 for the BHCs) is offset by the benefits of the lower risk.

Table 7
Number and Size of Sample Financial Firms,
1992-98

Industry Category	Assets (Millions of Dollars)			
	Median	Smallest	Largest	Mean
Top ten bank holding companies	147,522	40,776	617,679	171,706
Top ten securities firms	92,085	2,111	317,590	103,269
Top ten life insurance companies	21,805	5,067	105,107	29,744
Top ten property and casualty companies	41,912	13,252	194,398	54,915

Source: Standard and Poor's Compustat Services, Inc.

Mergers with securities firms and property and casualty firms barely change BHC risk, from 0.0212 to 0.0222 and to 0.0221, respectively, although the probability of bankruptcy as indicated by the Z-score is higher (a lower Z) for mergers with property and casualty firms. The lower relative rate of return recorded by property and casualty firms serves to lower Z when these firms merge with BHCs.¹⁴ These findings clearly suggest that mergers between BHCs and life insurance companies are likely to produce firms with less risk than either of the two separate entities, while mergers with securities and property

and casualty firms will raise BHC probability of bankruptcy modestly. The latter findings stand in contrast to those reported by Boyd and Graham (1988). Their simulated mergers created firms with lower Zs, and higher standard deviations, leading the authors to recommend against mergers between BHCs and either securities firms or property and casualty firms.

Our contrasting findings likely result from the fact that we examined mergers between the largest firms in each industry while the earlier study examined random mergers. Random mergers almost surely generated some combinations of a large securities or property and casualty firm and a small bank holding company, such that the former, typically riskier, firm received the bulk of the weight in the calculations. The different time period could also play a role because, generally speaking, financial firms were in better shape in the 1990s than they were in the 1980s.¹⁵

Lessons from Europe

Recent data on M&A activity in Europe provide further insight into how the Gramm-Leach-Bliley Act might influence consolidation. Europe provides a good model for comparison because most European countries permit banking, securities, and insurance activities to occur in the same company or

Table 8
Profitability and Risk Measures if a BHC Had Merged with a Nonbank Financial Firm

Industry Category	Profitability (Percent)		Risk			
	Median	B&G Median ^a	Median		B&G Median ^a	
	\bar{R}	\bar{R}	S	Z	S	Z
Top ten BHCs	16.77	13.12	0.0212	52.08	0.0245	43.36
BHCs-securities firms	16.90	14.06	0.0222	48.41	0.0480	24.93
BHCs-life insurance companies	16.26	12.95	0.0176	56.83	0.0201	49.30
BHCs-property and casualty companies	15.17	12.97	0.0221	41.18	0.0432	25.28
Top ten securities firms	18.48	16.52	0.0471	17.57	0.0909	13.33
Top ten life insurance companies	13.29	12.82	0.0220	36.66	0.0261	36.79
Top ten property and casualty companies	11.84	13.44	0.0304	24.34	0.0467	24.56

Sources: Standard and Poor's Compustat Services, Inc.; authors' calculations.

Notes: Each hypothetical industry includes 100 firms created by merging each top ten bank holding company (BHC) with each top ten nonbank financial firm from our 1992-98 sample of publicly traded firms. A top ten firm is defined as a firm ranking in the top ten of total assets within an industry, defined by the Standard Industrial Classification code, as of year-end 1996.

^aThe column refers to Boyd and Graham's (1988) profitability and risk measure results over the 1971-84 period.

holding company. Table 9 reports the flows of M&A activity within the European Community (EC) and within the United States. The values shown are the sum of the market values of all target institutions over 1985-99, and the percentages of the European or U.S. activity these represent.

As the table shows, over the past fifteen years, there was a little more than \$775 billion in consolidation activity in Europe, of which 49 percent came from banks consolidating with other banks. Consolidation across sectors (the off-diagonal elements) has also been fairly common in Europe, accounting for about 24 percent of M&A activity. By comparison, there was \$873 billion in consolidation activity in the United States, of which 56 percent involved only banks. Consolidation across segments has been relatively uncommon in the United States, however, as a result of the restrictions on bank activities during most of the period. Only 3.7 percent of total M&A activity occurred between banks and securities firms and about 17 percent of all financial M&As occurred across segments.¹⁶ If the U.S. financial sector begins to evolve similarly to the European sector, we will likely see a substantial increase in M&A activity across the three main segments.

Since few legal barriers prevent European banks from entering the insurance business, many of these banks reacted to the intensified competitive environment of the 1980s and 1990s by entering aggressively into insurance. In the process, they created a model of combined banking and insurance now called "bancassurance." We review the bancassurance model here, since the European experience may suggest how the

banking and insurance industries are likely to evolve in the United States post-GLB.¹⁷

Origins of Banks' Interest in Insurance

In recent decades, banks abroad faced many of the same competitive pressures as banks in the United States. Traditional banking in most EC countries had not grown robustly, and profitability had fallen, prompting banks to explore new business opportunities.¹⁸ At the same time, the life insurance business was doing quite well. Between 1986 and 1991, life insurance premiums grew more than 10 percent per year in eight of the twelve EC countries, and growth exceeded 12 percent per year on average across all countries (Hoschka 1994). Moreover, growth in life insurance seemed likely to be sustained, since it could be traced to long-run phenomena such as rising income and wealth and a rising share of older people. Life insurance also looked attractive to banks because most EC countries promote it through advantageous tax provisions, in order to encourage individuals to provide for their retirement. As of 1994, tax deductibility for life insurance premiums was offered in nine of the twelve EC countries, while tax-free status for some or all of the proceeds of life insurance policies was offered in a different group of nine countries (Hoschka 1994).

Table 9
Values of the Targets of Financial Institutions' M&A Activity, 1985-99

Target Institution	Europe: Acquiring Institution				United States: Acquiring Institution			
	Commercial Bank	Securities Firm	Insurance Company	Total	Commercial Bank	Securities Firm	Insurance Company	Total
Commercial bank	377.4 (48.6)	33.2 (4.3)	49.4 (6.4)	460.0 (59.2)	489.2 (56.1)	6.7 (0.8)	73.5 (8.4)	569.4 (65.3)
Securities firm	22.8 (2.9)	50.8 (6.5)	11.5 (1.5)	85.1 (11.0)	23.5 (2.7)	114.3 (13.1)	16.1 (1.8)	153.9 (17.6)
Insurance company	40.2 (5.2)	33.0 (4.2)	159.0 (20.5)	232.2 (29.9)	0.6 (0.1)	31.2 (3.6)	117.4 (13.5)	149.2 (17.1)
Total	440.4 (56.7)	116.9 (15.0)	219.9 (28.3)	777.3 (100.0)	513.3 (58.8)	152.2 (17.4)	207.0 (23.7)	872.5 (100.0)

Source: Securities Data Company.

Note: Top figures are the sum of all target institutions' market value of equity just before being acquired, in billions of dollars; figures in parentheses are the percentage of the total.

Table 10 shows that combinations of banks and life insurance companies constituted more than 10 percent of the total M&A activity in financial services. By contrast, European banks and property and casualty insurance companies almost never combined. This may be explained by the fact that the average growth in property and casualty premiums over the same period, although an attractive 8 percent per year, was nevertheless slower than the growth in life insurance premiums.

In short, at the same time that banks in Europe were pushed to consider additional sources of revenue by competition in their traditional product lines, they were pulled toward life insurance by the industry's sustained rapid growth and tax-advantaged status. In addition, banks were, and still are, drawn to life insurance because of substantial cost advantages. We briefly discuss each advantage, drawing heavily on a joint study published in 1999 by the Bank Administration Institute and the Boston Consulting Group (BAI/BCG).

The first cost advantage that banks have over traditional independent life insurance sales agents is that their sales personnel, with fixed salaries, are less expensive than traditional brokers, who receive commissions (p. 22). This cost advantage is bolstered by economies of scope based on bank branch systems, customer information, administration, and trust. The first two economies of scope provide banks with advantages in the cost of selling insurance, the third provides advantages in the cost of underwriting, and customer trust serves to increase demand. For example, bank branches can provide space for life insurance activities as well as frequent

opportunities for pursuing sales contacts. As a result, the productivity of bank personnel in selling life insurance can be relatively high. According to the BAI/BCG study, the sales productivity of a successful bancassurance agent can be three to five times higher than that of a traditional insurance agent (p. 23). Furthermore, banks can use their customer information to tailor their sales approach or to target products to individuals, which minimizes the chance of a wasted sales effort. Banks can also enjoy cost advantages in insurance underwriting by tapping their existing resources in areas such as administration, investment management, and human resources. Again, according to the study, it is not necessary for banks to add employees, systems, or other resources in order to generate and mail out premium notices. Instead, they can automatically debit payments from customers' checking or savings accounts, which avoids bill generation and mailing as well as check processing (p. 9). Finally, banks can capitalize on the trust individuals typically have in their banks by extending their customer relationships to include insurance.

Successful Strategies

European banks have put substantial effort into entering the life insurance business during the past few decades and they have had substantial success. The BAI/BCG study estimates that leading European bancassurers typically generate a return

Table 10
European Financial Institutions' M&A Activity by Industry Segment, 1990-99
Percent

Target Institution	Acquiring Institution					Total Financial
	Commercial Bank	Securities Firm	Life Insurance Company	Property and Casualty Insurance Company	Insurance Brokerage	
Commercial bank	51.1	6.8	5.0	0.0	0.2	63.2
Securities firm	2.4	6.7	0.8	0.2	0.0	10.2
Life insurance company	5.4	3.9	12.9	0.3	0.2	22.6
Property and casualty insurance company	0.1	0.2	0.5	0.5	0.0	1.3
Insurance brokerage	0.3	0.1	2.3	0.0	0.1	2.7
Total financial	59.2	17.7	21.5	1.0	0.5	100.0

Source: Securities Data Company.

Note: Figures are based on the sum of all target institutions' market value of equity just before being acquired.

on sales and on capital of 20 percent to 30 percent and derive one-quarter to one-third of their retail profits from insurance and investment sales (p. 22). Moreover, European banks have penetrated the life insurance markets to a substantial degree: their share of the markets averages more than 20 percent, and exceeds 50 percent in France. Finally, European banks' sales of life and pension insurance continue to grow at more than 20 percent per year, substantially more rapidly than overall sales in their local markets.

Banks have actually transformed parts of the life insurance business in Europe. Historically, individuals with relatively high incomes or high net worth have purchased life insurance. Individuals with low or moderate incomes—who are traditional bank customers—have been “underinsured.” Thus, banks have access to a customer base, distinct from that of conventional independent insurance agents, that has substantial potential for fueling growth.

Banks have found that the ideal life insurance product for mass-market clients is much simpler than the products typically available through independent agents. Consequently, banks have tended to sell a limited range of life insurance products that are relatively simple to understand. Banks have also found that their customers prefer streamlined application and claims processes, and have developed such procedures. For example, the BAI/BCG study indicates that “in Europe, banks pursuing bancassurance strategies sell young customers simple life insurance policies valued up to \$60,000 after only a fifteen-minute interview at a branch, and no medical exam. By comparison, most big insurance companies require a medical exam and often take weeks to process a policy” (p. 2).

The European experience suggests that banks perform best in the life insurance business when they tightly integrate their banking operations with both insurance sales and insurance underwriting. Initially, when many banks entered marketing alliances with multiple insurance underwriters, these efforts met with mixed success. Even when successful, these ventures were generally not as profitable as more recent efforts with fully integrated production, perhaps because banks were not able to control the products they offered to ensure that they were appropriate for their client base.¹⁹

A final pattern to note from the European experience concerns the entry of insurance firms into banking. Bancassurance, in which banks enter insurance, has generally had a larger presence in Europe than “assurebanking,” in which insurance firms enter banking.²⁰ This asymmetry can be traced in part to the legal barriers that prevent nonbanks from

entering banking in most EC countries (Hoschka 1994). It could also stem from the fact, noted earlier, that insurance has grown more robustly than banking in recent decades. Nonetheless, as our tables indicate, insurers now appear to be expanding into banking.

In sum, if the European experience is any guide, we could observe banks in the United States entering more aggressively into the life insurance business. This is consistent with both the event study evidence and the diversification benefits discussed earlier. Over time, it is possible that banks entering the life insurance business will integrate both sales and underwriting operations into their banking business, and that they may very well develop simpler life insurance policies and procedures appropriate for a mass market.

Conclusion

By allowing financial holding companies to own banks, securities underwriters, and insurance companies, Gramm-Leach-Bliley sets the stage for another round of financial consolidation. Our evidence points most strongly to combinations of banks and life insurance companies. When the compromise on GLB was reached, the stock prices of banks, securities firms, and insurance companies all increased. Particularly sharp increases occurred at bank holding companies and securities firms that act as advisors in financial M&As as well as at life insurance companies. Moreover, our simulated mergers across the financial services industries indicate that the largest diversification benefits would result if bank holding companies combined with life insurance firms.

One explanation for the positive reaction of financial firms' stock prices could be the recognition by shareholders that diversification benefits may allow these firms to expand into somewhat riskier activities or to operate with less capital. Our study also suggests, in contrast to earlier findings, that mergers between bank holding companies and either securities firms or property and casualty firms would likely raise BHC risk only modestly. Furthermore, the recent expansion of banks into the life insurance business in Europe, where few legal barriers to cross-industry activity have been in place, also supports the argument that banks are likely to acquire life insurance firms.

Endnotes

1. Concentration in local markets changed very little, however, suggesting that market power in banking has not increased (see Berger, Demsetz, and Strahan [1999]).
2. This calculation omits the ten largest banks from the comparison because these institutions are engaged in a very different set of activities than medium-size and small banks.
3. See Berger, Kashyap, and Scalise (1995) for year-by-year details on the changes in state laws.
4. Of course, deregulation is not strictly exogenous. The emergence of new technologies in both deposit taking and lending also may have encouraged deregulation (Kroszner and Strahan 1999). Another impetus may have been the rash of bank and thrift failures in the 1980s, which increased awareness of the advantages of geographically diversified institutions (Kane 1996).
5. The history of reform efforts on nonbank bank activity is compiled from work by Boyd and Graham (1986, 1988), Boyd, Graham, and Hewitt (1993), Ely and Robinson (1998, 1999), McGuire (1996), Mester (1996), and Thomas (1997).
6. For a discussion of the history and issues surrounding these firewalls, see Boyd and Graham (1986).
7. For a further explanation of the legislation and its meaning, see Barth, Brumbaugh, and Wilcox (2000).
8. Morgan (2000) argues that diversification across geographic and product lines within banking can help explain the large number of mergers over the past decade.
9. For a more comprehensive review of the research on these topics, see Berger, Demsetz, and Strahan (1999), Kwan and Laderman (1999), and Santos (1998).
10. In a subsequent study, Boyd, Graham, and Hewitt (1993) explore these same issues by allowing the portfolio weights for each bank-nonbank pair to vary. Because their main conclusions were virtually identical to those of the earlier study, we focus on the earlier findings, which can be compared directly with our results.
11. A recent exception is the work of Laderman (2000). She found that over the 1987-97 period, risk is likely to be reduced when BHCs invest in life insurance, property and casualty insurance, and securities firms. Saunders and Walter (1994) simulated cross-industry mergers using daily stock return data over the 1984-88 period. They concluded that risk reduction is most likely to occur from banks' expansion into insurance, rather than into securities activities.
12. Normality is a strong assumption for the distribution of rates of return. Nevertheless, Z is useful in providing a relative risk ranking across firms and industries.
13. Although it might also be interesting to analyze mergers across medium-size and small firms, mergers across the largest firms would have the biggest effect on the financial services industries as a whole. For this reason, we focus our analysis on the largest firms.
14. Note that with the exception of the 1996 Chase Manhattan-Chemical merger, we did not construct pro-forma balance-sheet data for mergers prior to the time that they occurred. The pro-forma Chase-Chemical data are reported in the database, hence we use them in our study. When we recalculated our statistics—treating banks that merged during the period as a single bank throughout the entire period—we saw that the results were similar and our conclusions remained the same.
15. We also examined mergers between the second largest BHCs and the top ten firms in the other industries. The results were similar to those reported in Table 8, although mergers with securities firms produced a Z -score of 34.17, somewhat lower than the 48.41 reported in the table. Securities firms in our sample typically are larger than this second group of BHCs, a factor that gives the risk of these firms greater weight in the calculation.
16. In the Citigroup merger, the acquirer (Travelers) is categorized as an insurance company, even though about half of its business is in securities through its holdings of Salomon-Smith Barney.
17. We do not mean to imply that the regulation and supervision of these industries are identical across Europe; rather, with some variation in structure and practice, these activities typically are allowed to coexist. See Barth, Nolle, and Rice (1997) for a discussion of differences in bank structure and regulation across the European countries.
18. European banks' return on equity declined from an average of roughly 13 percent in 1982 to less than 10 percent in 1991 (authors' calculations, based on Organization for Economic Cooperation and Development [1993]).

Endnotes (Continued)

19. For example, Credit Agricole of France began with a loose alliance with two insurance companies that lasted from the 1950s to the early 1970s. Subsequently, it aligned more closely with a single firm, Soravie, but the firms could not agree on how to share profits. Finally, Credit Agricole established its own life insurance company in 1986; since then, business has grown at double-digit rates (Bank Administration Institute and Boston Consulting Group 1999, pp. 32-3).

20. This asymmetry is not apparent in Tables 9 and 10 because the M&A statistics do not reflect de novo entry of banks into insurance.

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Commentary

Santomero and Eckles

Anthony Santomero and David Eckles predict more consolidation in the financial services industry, but they remind us that there are still a number of obstacles that suggest that not every merger will necessarily be successful. The authors see these obstacles as providing room for smaller niche players to survive and prosper.

In general, I agree with these conclusions. I would just like to provide my view on a couple of the points raised. I am quite skeptical about synergy and cross-sales, which remain the holy grail of financial services. I also see cross-industry mergers as being far more difficult than intraindustry mergers. This is not only because of the risk of cultural conflicts, but also because there generally are fewer opportunities for cost savings in a cross-industry merger. Finally, while the acquisition route is clearly fraught with peril, the alternative, de novo expansion, is equally challenging. In most financial services, I have observed that it is very difficult to obtain substantial market share solely through de novo expansion. And without such market share, franchise value is likely to be limited and earnings are likely to be less reliable.

The paper goes on to examine the public policy implications of further consolidation, about which I will have more comments later.

Kroszner

Randall Kroszner provides an excellent description of how difficult it can be to achieve financial regulatory reform. I would certainly agree with his conclusion that the recent enactment of the Gramm-Leach-Bliley (GLB) Act was the result of a very rare alignment of interests both within the financial services industry and among its regulators. I am not sure I can even count how many times Congress has attempted, and failed, to repeal Glass-Steagall over the past fifteen years.

As the paper describes quite well, GLB was successfully enacted only after years of technological change, innovation, and economic shocks had fully undermined the Depression-era structure of the financial services industry and shifted the balance of competing interests.

Lown et al.

The question we now face is, what will the financial services industry's structure look like in the future? The paper by Cara Lown, Carol Osler, Philip Strahan, and Amir Sufi attempts to predict what the financial services industry will resemble post-GLB. The study provides a very interesting analysis of diversification and the risk-return trade-off in financial

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services. It concludes that mergers between banks and life insurance companies will produce firms that are less risky but no less profitable. The authors predict that such “bancassurance” combinations are most likely following GLB. Using similar analysis, they show that even other cross-industry mergers—between banks and securities firms and between banks and property and casualty insurers—would increase bank risks only modestly.

I agree with the authors that consolidation will continue within the financial services industry. While GLB may help to accelerate this trend, in large part I see consolidation as being driven by underlying factors that existed long before this legislation.

On the specific topic of mergers between banks and life insurers, my view is less sanguine than that of the authors. I certainly agree that diversification can reduce risk. But I am not as confident of the returns on such mergers. The cultural challenges of cross-industry mergers are substantial, and can lead to a merged company that is less than the sum of its parts. Also, our own research would indicate that the life insurance business today is far less profitable than banking. This is a significant hurdle for any bank or insurer thinking about combining, and it helps explain why, even eight months after GLB was enacted, we still have not seen the announcement of any U.S. bank-insurance combinations.

Kroszner explains how the sixty-five-year-old Glass-Steagall regime was finally dismantled. Both Santomero and Eckles and Lown et al. raise questions about the implications of this change for firms and public policy. As a credit analyst, there is not much that I can say about the process by which Glass-Steagall was dismantled, but I am required to assess its implications for rated institutions and for financial stability in general. On the firm level, I agree with Santomero and Eckles that there are risk-reduction benefits to greater diversification and that, *ceteris paribus*, larger and more diversified firms are more creditworthy. I also agree that there are nonetheless legitimate worries about the manageability of such complex enterprises.

I could elaborate on the firm-level implications of deregulation, but I do not have anything particularly provocative or new to say in this regard. I think the papers cover this issue quite thoroughly.

The Public Policy Implications of Gramm-Leach-Bliley

Santomero and Eckles also address the implications of GLB for public policy in general and systemic stability in particular.

This topic is of great interest to me, and one that I would like to devote the balance of my remarks to addressing.

Santomero and Eckles conclude that “the emergence of the universal financial firm exacerbates the stability concerns of regulators.” They discuss the costs and benefits of the regulatory safety net: stability versus moral hazard risks. But they say that “the increased size of the [post-GLB] financial firm makes government intervention a virtual certainty, notwithstanding FDICIA.”

I would like to review this issue in greater depth by talking about the implications of GLB for the safety net and for financial stability.

The superstructure of financial regulation that we have today reflects the segmented structure of the financial system created by the New Deal in the 1930s. These structures have worked remarkably well in maintaining financial stability over the past sixty-five years. It is true that things did not go perfectly in the 1980s, but system stability was never threatened. This is because of the prudent management by the authorities of the financial safety net. At critical junctures, financial institutions—and not just big banks, but also smaller banks, securities firms, government securities dealers, and hedge funds—were not allowed to fail at times of creditor uncertainty and market disturbance. This was perhaps unfair—and it may have contributed to moral hazard—but we have not had a 1931-33 financial convulsion since this superstructure was put in place in the mid-1930s.

It was inevitable that market forces would in time begin to batter against the barriers created in the 1930s and would attempt to erode them and, ultimately, tear them down. Financial firms wanted to get into each other’s segments, distinctions between segments were blurred by technology and financial innovation, and the separations appeared increasingly anachronistic. And so, after much debate, the walls have finally been torn down by GLB.

After having lived in one kind of financial world for sixty-five years, we are now entering one that will be different. Many benefits will be achieved from the tearing down of these walls. But as Santomero and Eckles ask, will deregulation risk greater financial instability?

My answer is yes. Two forces have been converging in the field of financial regulation over the past ten years: 1) an increasing discomfort with the moral hazard risks created by the existence of the regulatory safety net, and consequently an increasing emphasis on market discipline, culminating in the passage of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) in 1992, and 2) the erosion of the barriers between banking, which were sacrosanct until 1969, and the rest of the financial services industry.

These two trends are interrelated. The more that banks have been allowed to become parts of larger financial

conglomerates, the more uncomfortable market observers have become with deciding which parts of these conglomerates are protected by the safety net and which are not. Officially, of course, in the post-FDICIA era, no one is protected by the safety net except insured depositors of banking subsidiaries. But this is an official fiction. There is a very large list of financial institutions that the authorities cannot permit to fail, no matter what the law says. It is ironic to contemplate that, legally, the authorities cannot rescue Citibank or Bank of America without the magical three signatures, but in practice they could not contemplate the failure of an unregulated hedge fund.

My point here is not to criticize the rescue of Long-Term Capital Management (LTCM), but to praise it. My concern is that the political costs of such rescues are steadily rising. The conservative think tanks criticize such rescues as the socialization of credit risk and an unwarranted government intrusion into the free market. Liberal think tanks criticize such rescues as a misuse of taxpayer money to protect rich bankers or Nobel Prize-winning financial speculators. I am not sure whether both sides realize that they are echoing the statements of President Hoover as he witnessed the near-collapse of the U.S. financial system.

Paul Krugman has argued that as the world abandons Keynesianism and embraces monetarism, we should not forget the lesson of the Depression: deflation is worse than inflation. Similarly, I am arguing that, as we abandon the rigid, safe, and predictable world of functional segmentation protected by a broad safety net, we should be careful not to forget the other lesson of the Depression: financial instability is worse than inefficiency and moral hazard.

I have great confidence in today's top regulators (who *did* rescue LTCM, and took the heat for doing so). But will we always have people of such wisdom and courage? Might not we have a regulator who chooses to follow the letter of the law, and stands by as something big collapses? I think the risk of this is low, but it has been steadily rising, and GLB has added to this risk.

When banking institutions were segregated from the rest of financial activity, it was possible to delineate and manage a discrete policy for banking with respect to provision of the safety net. The implicit contract was that, in exchange for access to the discount window, deposit issuance, and implicit support for uninsured depositors and other creditors, banks accepted minimum capital requirements, periodic examinations, and prudential supervision. Unregulated financial services firms received none of these benefits, but they also avoided all of the burdensome regulatory impediments to which banks were subjected. The new consensus is that this arrangement is inefficient and unfair, resulting in an unlevel playing field. It is further felt that, if the barriers between banking activities and

financial services are to be taken down, the correct solution to the safety net problem is *not* to extend it beyond banking, but rather to limit it as much as possible. Consequently, official policy today is that no bank is too big to fail and that, should a big bank fail, it should be resolved using the least-cost method. Official policy states that since neither banks nor other financial services firms enjoy the government's implicit guarantee, the former regulatory distinction between them has been ended and the banking business can now be mixed into financial conglomerates that are not too big to fail.

But it is my view that this policy is predicated on the fiction that such financial conglomerates can be allowed to fail. At times of extreme financial stress, which is precisely when a financial conglomerate would be most likely to fail, the failure of such a firm would be intolerable. If you disagree with that, I invite you to read the congressional testimony of Chairman Greenspan and New York Fed President McDonough on the rescue of LTCM. If the authorities could not contemplate the failure of a hedge fund at a time of robust economic growth and unprecedented financial system profitability, how could they contemplate the collapse and liquidation of a major financial conglomerate at a time of financial panic or economic turmoil?

Why is a special safety net required for banks, such that some of them should be too big to fail? The reasons are: 1) banks are illiquid and thus confidence-sensitive institutions by their very nature due to the maturity mismatch between their short-dated liabilities and their longer dated assets, 2) their solvency is objectively unknowable to market participants, especially at times of panic and upheaval, 3) banks are subject to contagion runs during panic periods, and 4) they have large exposures to each other.

Consequently, while it may be theoretically feasible to allow the occasional bank to fail during times of confidence and prosperity, without threatening financial stability, such a scenario is inherently unrealistic. Banks do not fail during periods of confidence and prosperity; they fail during periods of panic and recession. And they tend to fail for reasons that are at least somewhat cyclical and generic, such that there is typically not one sick bank, but several, as we had in Texas and New England, or in Japan in the 1990s. If one sick bank is allowed to default on its uninsured deposits and interbank liabilities, how long will it be before the run begins against the next weakest name? It is easy to speak of market discipline in theoretical terms, but it is pretty scary to confront its implications in a crisis.

In my opinion, many of the institutions that ultimately will emerge as a result of GLB will be, by and large, too big to fail. This fact is like the elephant at the picnic—everyone is aware of it, but no one wants to mention it. It is appropriate to maintain

constructive ambiguity around this fact. It is not necessary to codify it into regulation or law. But we should be careful not to deny it too vehemently or to prohibit it by law, or else we may

find ourselves tripping over our own words someday. As Paul Krugman says, we should not need to repeat the mistakes of the 1930s to learn the lessons of the 1930s.

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TECHNOLOGY ADDRESS

Denis O'Leary

Denis O'Leary

All the Answers Are Different

I want to begin by sharing a quick story about Albert Einstein at Princeton. Einstein was renowned throughout the campus for his teaching of postgrad physics, and particularly for the nature of his questions on the year-end exam, which were so cerebral that they would be passed around the campus when the test was over. One year when he handed out the exams, one of the students in the class raised his hand and said, "Professor Einstein, I think there's a mistake. You've handed out last year's exam questions."

Einstein turned and said, "That's okay. All the answers are different."

And that's what this New Economy is about. All the questions are the same: how to develop a compelling value proposition for customers, how to deliver it in a convenient and efficient way, how to provide consistent service quality, and how to do all that and make a return for your shareholders. But now, all the answers are different.

What I want to talk about today is what I call five points of light. The first is a quick thought about business architectures moving forward. The second concerns information-based businesses and what they do. The third is some thoughts on magic at the "point of touch" between a customer and a business, which is where the real excitement of technology is going to take hold. Fourth, I'll talk about some of the trends that are happening in "dot-coms" and in the New Economy. I'll then close with a few thoughts under the title of "Where's Waldo?" which are targeted at anyone in the audience who is working in a regulatory capacity.

Business Architectures

Business architectures are driven by technology, and the basics of the design are changing. We are moving to a system in which technology makes industry structure irrelevant. Doesn't matter if you're a bank. Doesn't matter if you're an investment bank. Doesn't matter if you're an insurer. Doesn't matter if you're a manufacturer.

What does matter is the competencies that you have mastered and your ability to bring them to the right places in the market. And that makes life very confusing going forward. So all the talk about regulatory change in financial services won't matter much because the markets have moved way past it already. The changes occurring now were facilitated by technology, not regulation.

Let me describe the business architecture of a large U.S.-based bank. While what I'll describe is for the consumer business, you could create one of these for any area. To begin, we have the distribution of services to customers through many different channels: the Internet, ATMs, a branch, a phone center, a physical person doing sales. These channels differ, but the essential competence is distribution, and the goal today is ubiquitous branded touch. At any time, at any point, convenience for the customer. Our goal is device-independent, branded, secure, private, reliable, self-service for our customers.

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The second aspect of the business architecture is competence in manufacturing: huge digital factories that can squeeze the last nickel out of a scale curve. We want flexibility, very high efficiency—ruthless efficiencies—and quality. A platform that is robust enough to support and manage transaction volumes on a seven-by-twenty-four, fault-tolerant basis.

But everyone is building manufacturing and distribution. They are critical, but both are becoming commodities. Competency in these areas is taken for granted. It's an assumed mastery and Darwin will kick out of the system the firms that are not masters.

So where is the competitive value-added in the future? It's in a third area of competence, which is information mastery. Knowledge management is the dance floor where mass customization on the manufacturing side is meshing with segments of one on the distribution side: the architecture is being built so that information and transaction capabilities can be welded together in a way that creates exceptional value.

And what's interesting about this model is that it's not proprietary. More often than not, it involves a confederation of joint ventures and alliances. And it's iterative. It learns and listens and moves on an automated basis. A service is offered to the marketplace on an automated basis, a value proposition that you hope is sent through the right channel to the right person at the right time with the right product design. If customers respond and the product results in profitability and value creation, it's reinforced. Otherwise, it's killed off.

Information-Based Business Systems

So that's the first thought: that the new business architecture is competency-based, not industry-based. And that information—knowledge management—plays a crucial role. This thought takes me to my second point: What is an information-based business system? Everyone talks about it, but what is it? By way of a basic definition, I'd say that five things have to be in place for information-based businesses to truly work in financial services.

First, we have to be able to recognize our customers individually, at whatever point of touch where they access our services. Second, we have to open up the house when we connect to them, so that they can access the full range of our services and information. Third, we have to be able to craft their experience based on who they are and the kind of things they do with us—or could be doing with us—and not just have

a rigid model. Fourth, we have to be able to import value propositions to white space at the point of touch. That means shooting something relevant to them on the fly based on who they are. And finally, we have to learn and iterate.

Let me give you an example. I'm going to take out of my pocket a debit card. Everyone in this room probably has one and uses it at an ATM. I'd like to use my debit card to make a point about what should be happening—or could be happening—versus what normally happens.

First, I put the card in the machine. Does it recognize me? Absolutely not. It certifies me, but it doesn't know who I am. How do I know that? What's the first thing it does to me? It asks me if I want to interact in Spanish! Twenty-two years I've carried this card and I have yet to do a transaction in Spanish. At a certain point, the machine should make a guess. Make a guess.

Second, does it open up the house? Do I have run of the house? Not yet. Certainly, I want to be able to move throughout my relationship without regard to product barriers. I also don't want to worry about legal entities that were set up for regulatory or tax purposes.

Third, does it craft the experience? Absolutely not. I always take out a certain amount, and the system should know that that's what I do at that machine. So the first screen that cues up for me ought to be "\$160, no-receipt." It shouldn't walk me through any other stuff. That should be the first point for me.

The fourth point: What have I got while that machine is cranking out the bills? Captive eyeballs. People in marketing dream about captive eyeballs. Right now, I have a big network pipe and I can stream video. Stream the video and show the picture of the new Corvette Stingray that I could sign up for and turn off my Camry lease. "If you're interested in this car, add another \$150 to your payment and we'll follow up via the channel of your choice." E-mail me tonight, call me at home, there's a branch around the corner. Right there. The five-second sell. Not the twenty-second, thirty-second. The five-second impression, visual bing. That's a targeted value proposition.

Finally, does it learn? If I start taking out \$200 instead of \$160 five times in a row, maybe that's a pattern. So start me with \$200. Now I recognize that something has been crafted to me.

So that's an idea of an information-based business system—albeit one not yet challenged by device and bandwidth variability—and it's the core of future value creation. Firms flaunt their capabilities on distribution and manufacturing in the front pages of their annual reports, but information and knowledge management are where firms can distinguish themselves in the marketplace. That's where the basic value proposition comes together.

Point of Touch

Turning to my third point of light, I want you to remember the ceiling of the Vatican—in particular, Michelangelo’s *Creation of Adam*, where the hand of God and the hand of Adam reach out to one another. It’s an incredible painting, but I mention it now because to me it’s the visualization of where all the magic is going to be, which is the “point of touch.” The most important moment of any business is when you touch your customer. That’s where all the work has to start flowing because there are so many challenges to improve on how we’re doing it now.

The call centers at Chase did about 160 million calls a year, and when I read the reports, I noticed something. We were measuring how fast we hung up. We were efficiency-based, harking back to Henry Ford and Adam Smith. Now, how many people here have dialed the call center and wanted from the person on the other end of the line a sense of urgency to hang up? Does that feel good? Clearly, the performance metrics around this point of touch were all wrong.

I want to suggest four new metrics: simple, trusted, fitted, and delightful.

At the call center, I want to know what we learned during the phone call and I want to know how the customer felt when we hung up. That’s all I want to know. What did we learn and how did the customer feel? If we do that right, then the money will follow. But if we are measuring how fast we can hang up, we are probably headed down the wrong road.

But the important point is that when it gets to that point of touch, it should be simple. Everyone in this room has bought a VCR at one point in their lives. And if many of you are like I am, when you got home, with pride, you took that owner’s manual and you heaved it over your shoulder.

What you did was to take advantage of a technology design that said critical mass functionality needs no owner’s manual. It was intuitive, and that’s the magic of the point of touch: to make it intuitive so that no one even notices it. We have a long way to go, but that’s how some companies are going to accelerate beyond others, when they make high-tech mass market.

A final question to ask about point of touch is the type of experience it creates for customers. That is, is it an inhale or an exhale experience? At the point of touch, you have one of two goals: either to excite or to relax the customer. Almost every time you have a point of touch, it falls into one of these categories.

There are times when customers come to a financial institution, and what they want is to relax. “Don’t worry. We’ll take care of it. We have fixed the problem. My name is

Denis O’Leary, my phone number is this, I have taken personal accountability, and your problem is fixed.” Exhale experience.

Alternatively, “We have an opportunity. You can save \$1,000 a month by refinancing that giant house you just bought.” That’s an exciting thing, an inhale experience. These experiences should be designed to strike a person immediately. So a lot of the magic of these massive and incredible technologies funnels into a point that has a very simple metric: the contact should be mass market in design, intuitive, simple, secure, reliable, and should either excite or relax the customer in a very short period of time.

And that’s a transformational event from where we are now because that’s not the way most experiences are designed today.

Market Developments in the New Economy

I want to shift my focus a little bit and talk about trends in the marketplace, particularly the dot-com and e-commerce economy. I want to begin by pointing to three models of e-commerce. The first is the model used by firms like Amazon and eBay. These firms build from the bottom up and do not start with a known brand or customers. They do, however, start with some very innovative thinking on technology.

If customers come, the company will create a lot of value. If they don’t, the company will be bankrupt. And people are taking risks—calculated bets—on whether to follow that model. The early players did well, because eBay and Amazon did build brands and start operations in uncluttered spaces. But eventually everyone tried to build brands at the same time and none of us can sort out the different dot-coms anymore.

And we also found that being virtual isn’t an elixir. It’s just part of a solution. Some e-companies started to stumble because they didn’t have a physical presence to support them, and then the next wave of e-commerce firms started showing up. This wave was the “brick and click” convergence. All of a sudden there were firms like Barnesandnoble.com, Toysrus.com, Kinkos.com, and others, bringing in the physical channel and some brand elements to help support the virtual commerce model.

And these firms have had a bit of a bumpy road. Some are working, some are not. And we’re now seeing a new model emerge, which I’ll just call “killer app” for now. Killer apps are firms with established brands, with customer flows, with tremendous content expertise, *and* a commitment to sign up for a New Economy design template and architecture.

These firms are using technology to say, “We’re not going to take it anymore. We’re not going to watch e-commerce firms come at us. We are waking up and going back down to the playing field.” These are the players who know their areas, have influence on the standards, and who have critical mass. An example would be a transaction like T2, the airline portal where numerous carriers seem to be getting together and saying, “We’ve had enough of Expedia.com and Travelocity.com. We’re not going to cede the space.” Another example is the auto companies and their suppliers coming together with the auto exchange.

These kinds of deals are now reminding people that large companies that have built exceptional franchises—of customers, of brand, of content capability, of trust—have not ceded the New Economy. In fact, they may be some of the most dominant forces in shaping the future.

So that’s a bullish note. The sleeping giants have awoken. The economy is moving in their direction, the capabilities are moving in their direction, and this movement is being reinforced by some of the recent shaking in the IPO market. And when very large institutions like Ford, like GE, like Chase mobilize their resources, it’s not to be taken lightly. And that’s what’s happening.

From a technology viewpoint, why is this process so exciting? First, because the rate of technological advance is superseding any law ever known, and we are just starting. About 50 percent of American households are connected to the Internet and that figure is still heading north. The United States is the leading industrialized nation on connectivity, but the rest of the world is growing at a much faster pace. Everyone is connecting and we are getting global connectivity. It is not a question of “if.” It is a question of “when.”

A second exciting factor is the rise of broadband. Many of you will have a high-speed connection within a year. Within two or three, most of you probably will. These connections will change the whole nature of what we can do. Most of what we call the Internet today is going to fizzle—other than some of the standards and the idea of connectivity—and a whole new wave of capabilities is going to replace it. And broadband will be central to that.

The third reason for excitement is digitized data and information. All content is being borne as ones and zeroes now. And what started out as analog is being reverse-engineered into digital. So now we have content, we have connectivity, and we have big pipes. If you think of nothing else, just these three things tell you a bull market will not stop in technology for a long time.

These are compelling global trends that point to the conclusion that technology is in its zygote stage. We’re in its infancy and, as Bruce Springsteen said, “Someday we’ll look back on this and it will all seem funny.” Even the platforms we are proud of today are primitive technology compared with what we know should be in place.

A second conclusion is not to count anyone out in this New Economy. It’s the firms that focus and commit that are going to do well, and it won’t make a difference whether they started as a dot-com or they started 200 years ago.

Where’s Waldo?

Finally, I’d like to make a quick comment on a regulatory challenge in the New Economy. I call my point “Where’s Waldo?” If any of you have children and you’ve gone through those books and tried to find Waldo in the myriad pictures, it’s a puzzle to find him. A question for regulators is how to find what you are regulating in a competency-based—rather than in an industry-based—business architecture.

The bitstream that used to be in the data center of the large bank is now sitting at a third-party data processing center and in the drive next to it is Barbie inventory. The payment initiation is starting on a portal web site. Who do you regulate and how do you find them? When you buy something on the web, what UCC are you relying on? Do you see a flag on that web page, giving you the legal domicile of the server? That server could be on a concrete platform off the British coast. It is somewhere in the cyberworld. So unless we homogenize regulation globally, in a cyberworld it’s very hard to regulate anything on a sustained basis.

Believe me, I’m not advocating that we eliminate regulation. I’m just pointing out the challenge that’s ahead. What brings about customer trust is a large corporate logo rather than the small print of a law. Customers will say, “I know that company, I trust it. I’m willing to download its stuff, to go to its site, to buy stuff from it, and to share information with it.” No matter how many layers of regulation surround that, trust in the brand name will rule. Brand recognition will have increasing power in the years ahead because, unless the global world moves to a single regulatory model, someone will always be able to circumvent local rules.

Concluding Thoughts

In summary, I've talked about five different points today. First, that we are moving to a competency-based model, not the industry-based model of the past. Second, that information and speed are the oxygen of this New Economy, and that most systems will be designed to learn and evolve through repeated interaction with customers. Third, that the magic of technology will show up most fervently at the point of touch. Fourth, that we ain't seen nothing yet because we are just starting on this technology wave. We are not halfway in and we have not yet missed the train. We are just starting. We are *just* starting. Finally, that regulators have a hard job ahead of them keeping track of these developments.

And by the way, if Silicon Valley went on a sabbatical for the next three years, the in-boxes of the people implementing the

new technologies would stay full. So not only is technology moving fast, but the execution and implementation are backlogged. This backlog is not made up of alpha- or beta-stage projects, but involves demonstrated, known technologies. The implications of this technological backlog for the regulatory and legislative communities are significant, and I don't think we've really come to grips with that issue yet. The strategies adopted by these bodies will play a critical role—an absolutely critical role—in the smooth and ongoing function of commerce throughout the world. For now more than ever, all the answers are different.

And with that, I'd like to say thank you very much for your attention. It is my pleasure to be here, and I hope you've found something of interest during my presentation.

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SESSION 2

TECHNOLOGY: DRIVING
SPECIALIZATION OR ENABLING
DIVERSIFICATION (OR BOTH)?

PRESENTERS

Till Guldemann
Jim Marks

MODERATOR

Lawrence J. Radecki

Summary prepared by John Wenninger

Summary of Session 2

Panel Discussion

The presenters were Till Guldemann, Senior Vice President at Sungard Data Systems, and Jim Marks, Director at Credit Suisse First Boston. The session was moderated by Lawrence J. Radecki, Assistant Vice President at the Federal Reserve Bank of New York.

The session featured two presentations on how technology might affect the structure of financial services firms. Guldemann and Marks agreed that advances in information technology will result in more specialization by these firms at the same time that consumers obtain better access to product information across firms. Both panelists also emphasized that in the future, the successful providers of financial services will model themselves as Internet portals or hubs, where consumers will return to frequently when seeking financial services. Finally, they observed that advances in information technology should intensify competition in all markets.

Till Guldemann

Till Guldemann organized his remarks into three parts. The first part covered the three major information technology drivers transforming financial services. The second reviewed how these drivers affect the mechanisms of distribution, markets, and competition. Finally, he spelled out the implications for integration in financial markets.

The first driver, Guldemann explained, is better (faster and less expensive) communications technology. The capacity for electronic transmission of information has been growing rapidly, and intense competition within this industry will drive the price toward zero. Consumers and businesses, Guldemann emphasized, will have virtually free access to information; the issue is what they will do with the information. He speculated that competitive advantage no longer comes from access to information, but from the ability to use it.

With this improvement in information technology comes the impetus for the second driver—that is, for financial services providers to move away from the vertical integration of products and focus more on dominating globally in narrow market niches. Guldemann noted that in financial services, for example, firms already are specializing as global custodians, underwriters, and derivatives houses.

Guldemann identified the third driver as the rapid growth in financial wealth. This wealth must be managed professionally. The professional managers will compete for business on the basis of new performance standards: total returns adjusted for risks. He saw three likely implications: 1) performance can only be improved by more frequent trading, 2) markets will be under pressure to become more efficient, and 3) consolidation into ever-larger asset managers will end because of liquidity constraints.

Turning to his second topic, structural change, Guldemann pointed out that global suppliers of specialized products need

John Wenninger, an assistant vice president at the Federal Reserve Bank of New York, prepared this summary.

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a mechanism for distribution, and consumers need better ways to procure and assemble specialized products from multiple producers. The Internet provides the necessary global reach to accomplish these tasks. Internet portals emerged to create stronger ties to customers by giving them convenient access to a firm's own products as well as related products of other firms. Some portals will dominate markets by aggregating ever-larger amounts of information, he observed. Depending on a firm's perspective, however, portals can also create tension. On the one hand, it is desirable to be the only bank on a major portal. The bank and its customers can do business together more easily. On the other hand, if a bank is just one of many located on the portal, then competition occurs on the basis of price alone, because comparison shopping becomes relatively easy.

Offering another example, Guldemann explained that industrial customers do not want to go to a supplier-operated portal and pay the posted prices; rather, they would prefer to establish their own portals, where suppliers come and bid on their orders in a reverse-auction environment. In short, everyone wants to gain the "portal advantage" in business relationships, and Guldemann expected intense competition among portals. The goal is to control access to the customer and compete on the basis of value to the consumer rather than cost to the producer.

Markets are changing as well, he argued, becoming more efficient as old, expensive intermediaries are being replaced by direct access to most of the information these intermediaries once controlled. The most expensive component of a transaction—helping buyers and sellers find one another and establishing market prices—has fallen sharply in recent years as a result of improvements in information technology. Moreover, as the cost of connecting to the network has also declined considerably in recent years, Guldemann speculated that the highest cost component of a transaction now appears to be in-house processing: the next part of a transaction likely to undergo automation.

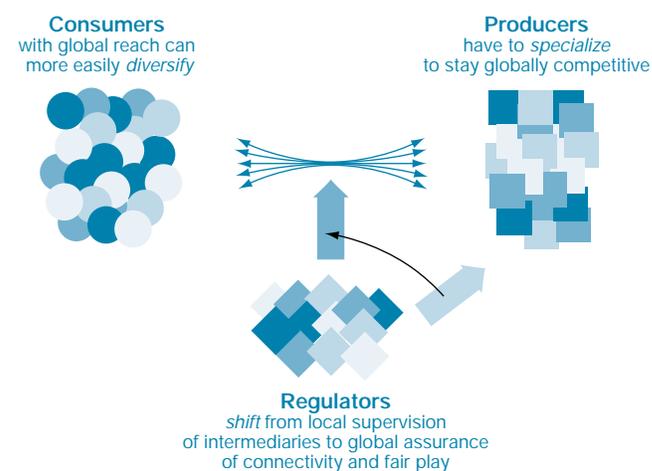
Finally, Guldemann expected that the nature of competition will also change because of technological advances. Products evolve into new ones more rapidly than consumers can adapt to the change, he noted. Hence, technology (software) firms will be able to retain their customers for fairly long periods of time, until a new competitor invents a "disruptive technology" that is considerably less expensive and basically transforms the marketplace.

Integration, Guldemann emphasized, is basically about total connectivity of wholesale product providers, retail customers, and intermediaries. Transaction networks are being developed in such a way as to enable any participant to initiate a fully

electronic transaction—that is, without human intervention—from retail to wholesale, through the necessary intermediaries, and back to the retail customer. These steps, Guldemann reminded the audience, are often referred to as "straight-through processing." Such total connectivity will produce substantial cost savings, and the resulting integration will create enormous value. At the same time, customers will demand service that is available twenty-four hours a day, seven days a week. In this environment, the supporting systems will evolve from batch to continuous processing. To accomplish this task, specialized global processing companies will create value by linking all of these systems—not just in-house, but across the industry—so that total connectivity can be attained.

Guldemann closed by speculating on one of the conference's fundamental questions: whether specialization or diversification will prevail in finance. His conclusion was that users of financial products will have substantial opportunities to diversify across providers because they will have low-cost or free access to information about all product offerings (Exhibit 1). At the same time, Guldemann emphasized, ever more specialized producers of services and products will develop globally because competition will occur in narrow niches. Regulators and policymakers will have to shift their focus over time from the producers of financial services to the risks inherent in the global networks.

Exhibit 1
Diversification or Specialization?



Source: Till Guldemann, Sungard Data Systems.

Jim Marks

Jim Marks organized his remarks on technology around five themes: an historical perspective, the current environment, the reaction of banks to technological innovation, the perils of specialization, and the future of financial services.

Marks began by addressing the basic question of whether firms will diversify or specialize in an Internet-enabled, post-regulatory world. The short answer, he said, was yes. Some firms will try to get into new product lines, but the lessons over the past twenty to thirty years have taught us that technological improvements lead to specialization, or perhaps a better term would be “disaggregation.” However, even as firms specialize, Marks cautioned, they should look for opportunities to diversify somewhat because overspecialized firms can become extinct quickly if a sudden change occurs in the business environment.

Thirty years ago, Marks reflected, it made sense to have all the business processes involved in delivering a financial product located in the same physical space because it was difficult and slow to move documents from one location to another. For example, a mortgage application would be filled out at a bank branch, where credit analysts and others involved in the approval process would also be located. As technology improved, electronic communications became faster and data storage became automated. A portion of the processing business was moved out of expensive branch locations to data centers at remote sites, where the cost of real estate was less expensive.

Over time, Marks explained, the managers of these data centers learned that they could provide these specialized services at low cost not only for the branches of their respective banks, but for other banks as well. Expanded volumes resulted in economies of scale, as fixed costs were distributed across more customers. In addition, as the client base expanded, a positive feedback loop was created, as clients asked whether other operations could be outsourced to these data centers. Now, even the largest banks realize that it is less expensive to outsource to third parties than to develop new processing technology internally.

The end result, Marks stressed, has been an increase in disaggregation (specialization) resulting from improvements in technology over the past thirty years. That is, the separate value-added business processes that were contained within banks are now being performed by third-party specialists.

According to Marks, in the current environment, specialists dominate the businesses of credit card processing, electronic bill presentment, inexpensive on-line stock trading, and mortgages. The last two businesses have important

implications for the growth of bank and thrift balance sheets, he added.

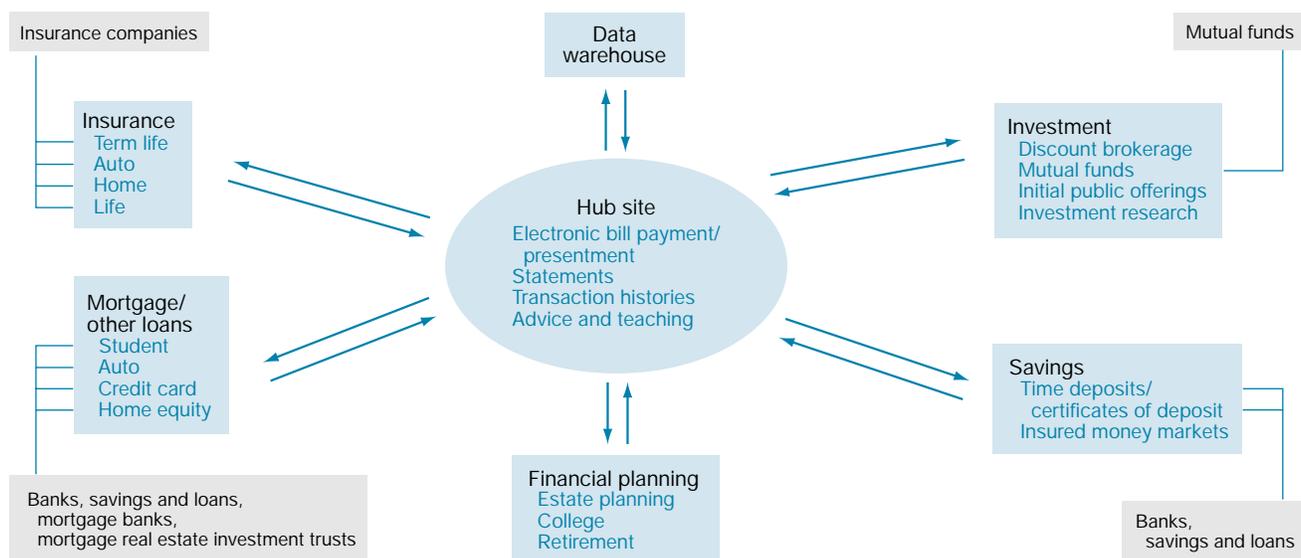
Marks pointed out that as a result of low-cost on-line trading, consumer holdings of stocks are growing several times faster than their deposits at banks and thrift institutions. Consumers increasingly do not need intermediaries to invest funds on their behalf. In the mortgage market, he explained, only the origination function tends to still remain in the traditional environment. The credit decision is outsourced to credit scoring specialists. The mortgage then undergoes an underwriting review by other specialists, who securitize it and sell it in the secondary market. This entire process, which had been contained within thrifts and banks in the past, is now being handled by these various specialists. And, Marks said, the mortgages themselves end up in the secondary market, rather than on the balance sheets of financial intermediaries. Hence, banks have lost both deposits and assets as a result of specialist activities—losses prompted and enabled by technology.

The reaction of banks—especially to the innovations among the technology specialists—is fear, Marks argued. And the response to this fear nearly always is to form banking technology consortia. These consortia, however, do not have a good success record. At high, conceptual levels, members of consortia can reach agreements, observed Marks, but when the time comes to identify specific aims and goals, disagreement occurs because of political and cultural differences.

Nevertheless, specialization is not without its dangers, according to Marks. Biological and evolutionary studies have clearly recognized the threat of overspecialization—that is, a sudden change in the environment can make the overspecialized suddenly extinct. This outcome suggests some need for diversification. Marks emphasized that banks should first identify their competencies and the products and services in which they should specialize. The next step is to focus their energy on leveraging those competencies. Leveraging is accomplished by identifying closely related products that banks can diversify into and that allow banks to adapt as the environment changes.

Going forward, Marks projected that financial services will evolve into a hub-and-spoke structure. The financial hub, at the center, will control the customer relationship (Exhibit 2). The critical element of a hub will be the transaction account, as it is today in the physical world. The digital version will likely be built around electronic bill presentment and payment or other core services that bring consumers to its location every four or five days. Beyond payments, the only other service that can accomplish this, Marks speculated, might be one that consolidates, into a single statement, balance information across all the financial institutions with whom a consumer might have relationships.

Exhibit 2
A Working Model for Tomorrow's Financial Services



Source: Jim Marks, Credit Suisse First Boston.

In either case, Marks pointed out, the operators of the hub will be able to gather a substantial amount of information about a consumer because of the large number of transactions passing through the hub. It will be very important to become established as a hub, he concluded, because the hub will have the best opportunity to make the sale of the next product that the consumer wants. That product could be one offered directly by the hub, or the hub might collect a fee for delivering the best of the breed from a third party.

Questions and Answers

In light of his apparent endorsement of specialization, Marks was asked about the rationale behind a recent merger between a large bank and an insurance company. He said that he did not fully understand the attraction of the merger. It appeared to be based on the false premise that large databases will enable a financial institution to predict the next product that a consumer will buy. The institution will then attempt to cross-sell that product. Marks believed that it would be much simpler to have enough ongoing contact with the customer, so that the

customer already knows that the product is available if and when it would like to make a purchase. This approach underscores the importance of being a hub on the Internet.

Both panelists were asked to comment on the practice of cross-selling as a mechanism for obtaining continuous customer feedback and information, so that the best products—proprietary or third-party—could be directed to the customer. Specifically, how does a bank accomplish this if a hub is standing between it and its potential customers? Moreover, are any banks successfully adopting these models? Marks emphasized that for a bank to be successful in the future, it will have to be established as a hub for financial services. The bank can then control the customer experience. With respect to which banks are successfully adopting these models, he noted that there is a large gulf between what banks say and what they actually do.

Guldimann added that all the major financial services providers now realize the importance of the customer connection and are making large investments in this connection, hoping that the investments will help to retain customers. Nonetheless, he still expressed some doubt about whether customer retention can prevail in an environment in which customers have easy access to information across financial institutions.

KEYNOTE ADDRESS

Tom de Swaan

Tom de Swaan

The Changing Role of Banking Supervision

Good afternoon. My remarks today on the occasion of this timely conference will focus on the major developments occurring in the European financial sector. Specifically, I will offer my thoughts on how these developments are affecting the banking structure in Europe. And, perhaps most importantly, I will reflect on the implications of these financial system changes for the supervision of financial institutions.

Trends in the European Financial Sector

The European financial sector has been experiencing several major developments: deregulation, the introduction of the euro, the internationalization of the financial markets, disintermediation, and rapid technological change. I would like to speak on a few of these issues.

I will begin with deregulation. Compared with the regulated European financial systems of the postwar period, most European countries have been liberalizing their financial services sectors. This trend began in the mid-1960s and accelerated in the 1980s and 1990s. At the same time, European countries have progressively opened their financial markets to foreign competition. These actions came about through independent national legislation as well as from the dynamics of the Treaty of Rome, which received a renewed impetus from

the single market program. Furthermore, the Second Banking Coordination Directive—implemented on January 1, 1993—introduced the single banking license, which allows credit institutions to establish branches or to supply cross-border services to all European Economic Area countries without prior approval from the authorities of a particular country. The European Union is aiming for a fully liberalized European market for financial services by the year 2005.

On the surface, this open legislative environment looks good, but in practice it has been frustrated by infrastructural impediments, which are still prevalent in some countries. Notably, government ownership has prevented liberalization for a long time, although over the past few years there has clearly been improvement, especially in southern European countries such as Spain and Italy. In Germany, however, the local government's ownership of savings banks and so-called *länderbanken* still stands in the way of a more market-oriented development.

Disintermediation, too, has had an impact on the European financial sector. The introduction of the euro has stimulated the internationalization of the capital markets, thereby making these markets deeper, more transparent, and more liquid than the previously existing national capital markets. It has forced banks to reassess their position in the market. In most institutions, including mine, net income from interest has declined, reflecting the shift from the role of traditional credit intermediary to that of fee-based income generator. It will be

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interesting to see whether the Capital Accord redesign affects this development.

Another development—technological change—has been present in the European financial sector since the 1960s and 1970s. At that time, banks began to reduce the costs of their information processing capabilities by replacing paper- and labor-intensive operations with computers. However, the impact of computerization is small compared with the impact of network technology. For example, the interlinking of real-time gross settlement systems through the European TARGET system has greatly stimulated the development of a single European money market. But the mark made by network technology will be even more profound because the Internet will alter the ground rules of our economy, as the classic trade-off between richness of information and reach of information will end, and communications costs will decrease and eventually disappear.

U.S. companies, supported by a more flexible labor market, have been able to adapt their organizations and strategies to these technological changes more effectively than European companies. As a result, the U.S. Internet penetration rate currently is 60 percent, compared with the European Union's rate of just 14 percent. In addition, the United States accounted for 67 percent of the total volume of electronic commerce in 1999, compared with 17 percent for the European Union. The characteristics of the new economy—such as high job growth combined with low inflation—are not yet as visible in Europe, where unemployment is still as high as 9 percent, although it is decreasing rapidly.

Nevertheless, the size of the European Union market—which, in terms of number of consumers, is larger than the U.S. market—is creating major opportunities. The European Union will soon close the gap with the United States by further integrating and liberalizing the internal market. The liberalization of the telecommunications sector, for example, should contribute to a greater reduction in telecommunications costs, thereby encouraging the broader public to use the Internet. Moreover, the development of a single legal framework for security, privacy, tax, and intellectual property issues will also help to integrate the internal market.

Changes in the European Banking Structure

How, then, have these developments affected the European banking structure? The introduction of the euro, for example, has stimulated the evolution of an integrated internal

European market for financial services, which is lowering entry barriers and forcing European banks to redefine their traditional, national home-market positions. Consequently, mergers, acquisitions, and alliances could and should be taking place, because banks are being compelled to defend their traditional home-market positions while they strengthen their positions in the much larger European market.

Thus far, however, the recent wave of consolidation has taken place mainly within national boundaries, and in some countries it is still in its initial phase. In Germany, this phenomenon is due primarily to state- and local-government-owned retail banks, while in Italy, the privatizations have yet to lead to consolidation. And no doubt you are all aware of the failed attempt to create a national champion in France. In fact, there are only a few small European countries, such as Benelux and the Scandinavian countries, and one large country, Spain, where in-country consolidation has occurred.

Similarly, cross-border consolidation, in my opinion, is still at an early stage. National interests have created a high barrier to this type of consolidation, as local governments have emphasized the development of national champions that can compete on a European and global scale. And let us not forget the major legislative and governance problems involved.

Furthermore, one cannot expect that the banking sectors in countries such as France, Germany, or Italy will be as concentrated as the banking sector in a small country like the Netherlands, where the top three banks account for 80 percent of the retail market share. The domestic markets in France, Germany, and Italy are much bigger, and therefore offer room for a greater number of viable banks.

In terms of technological developments, they have already started to have an effect on branch networks, albeit to a varying extent in different European Union countries. A good example is Internet banking, which reduces the need for an extensive brick-and-mortar branch network. In fact, as part of its multichannel distribution strategy, ABN AMRO has decided to reduce the number of branches in the Netherlands, and plans further reductions.

Apart from reducing the size of brick-and-mortar branch networks, it is still not completely clear how the Internet will affect the financial system in Europe. One possible scenario is that vertically integrated institutions will lose their *raison d'être*, as transaction costs between functional units of the same organization dwindle. As a result, it might be more efficient to outsource certain activities and focus on particular aspects of the previously integrated value chain. Some believe that, through the unbundling of the value chain, specialization will become the dominant business model in banking and financial services because it enables institutions to provide the most value to customers at this mature stage of the industry.

However, there currently is not much evidence that this development will take place. In my opinion, the chance that a virtual bank will ever be in a position to take over the role of a traditional retail bank fully is very small, if not nonexistent. I believe in the concept of retail clients being in a position to choose from several distribution channels to conduct different kinds of transactions with their bank. In this respect, Internet banking is just one of those channels, albeit an important one.

Another possible scenario is that in the Internet era, banks will run the risk of losing their unique position as financial intermediaries. The overabundance of available information certainly creates opportunities for new Internet intermediaries. By developing financial portals, the largest European banks are fighting for this unique position. In this respect, the alliance in Spain between BBVA and Telefónica creates added value for both organizations, because they can combine their client bases while BBVA delivers the content and Telefónica the technology for a financial portal. Similar alliances between telecommunications companies, banks, insurance companies, and supermarket chains will surely emerge in Europe in the near future.

The Internet's role in the European financial system will also have implications for banks that operate as trusted third parties for transactions, or TTPs. TTPs are particularly important for business-to-business e-commerce, in which the monetary value of the transactions, and thus the risk involved, is the largest. Specifically, eight banks—including Chase, Citigroup, and ABN AMRO—initiated Identrus last year, which is designed to become a network of TTPs through the issuance of digital certificates. The goal in three years is to make Identrus the largest TTP network worldwide—with more than 300 connected banks and more than 5,000 connected companies—to enable internationally accepted, standardized, and secure Internet transactions.

Banking Supervision

With these myriad changes taking place in the financial system, how will supervision of the financial services industry adapt? I would like to offer some observations on the organization and structure of supervision, particularly in the European Union.

First, with the start of European monetary unification, oversight of the European Union's monetary policy has been assigned to the European Central Bank. Article 105(5) of the Maastricht Treaty states that the Bank's responsibility with respect to banking supervision is to "contribute to the smooth conduct of policies pursued by the competent authorities

relating to the prudential supervision of credit institutions and the stability of the financial system." Operational supervision—both at the micro and macro levels—is thus left to the national bodies of the individual European Union member states.

Second, many countries still have separate regulatory bodies that supervise different types of financial institutions. The Netherlands, for example, distinguishes the central bank—which is responsible for banking supervision—from the insurance board and the securities board. Although the objectives of these national regulators are more or less the same, supervision by the central bank and the insurance board focuses primarily on the stability and soundness of individual institutions, while supervision by the securities board is directed toward consumer protection. Furthermore, these three financial sectors are governed by three different laws, but they are based on the same principles of European Union legislation, such as the "single license" and "home-country control."

My third observation along these lines is that the differences in supervision owing to national differences are worth noting. For instance, the universal banking model—the model of the largest banks in continental European countries such as the Netherlands, Germany, and Switzerland—has created differences in the structure of supervision in these countries vis-à-vis the structure in such Anglo-Saxon countries as the United Kingdom and the United States. In countries with universal banks, supervision also involves regulation of a bank's securities activities, a practice that is necessary to judge an institution's overall stability. For example, in the Netherlands, de Nederlandsche Bank has prudential supervision over all financial institutions that can potentially cause systemic risk, except for insurance companies. So, although the Netherlands has various supervisors for various institutions, regulation of the Dutch financial system is not entirely sector-specific.

I should note that I do not favor a division between banking supervision and monetary policy. In light of the changes under way in the financial services industry, one must consider whether a country-specific and sector-specific supervisory approach can properly safeguard the stability of the financial system. Many of the developments in the financial services industry, some of which I have just mentioned, have had an impact on the effectiveness of current supervisory practices.

Economic integration and the increased interwovenness of the financial markets, for example, have heightened the complexity of the financial system. Consequently, bank vulnerability to developments affecting other market participants in other countries and in other financial sectors has also been heightened. Because of the interrelationship

between market participants and markets, a break in the transaction chain at one market participant may have a domino effect worldwide. Unfortunately, the financial turmoil in Asia and its aftermath in Russia and Brazil provided evidence of such an occurrence, as did the subsequent reactions in the western capital markets, where the rush for cash led to a sharp deterioration of liquidity as well as to the downfall of the Long-Term Capital Management hedge fund. The Asian crisis in particular has shown that, in tandem with the globalization of the financial system, systemic risk is also globalizing.

Other developments affecting supervisory practices are the emergence of Internet banks and financial conglomeration. Internet banks are not, in practice, bound by national borders. Moreover, these institutions, which are also not subject to European Union banking legislation, will be able to provide services and sell products throughout the Union. The lack of national borders will complicate the supervision of Internet banks, raising the question of whether a national regulatory authority can conduct bank supervision to protect consumers.

Financial conglomerates are regulated by a multitude of home-country supervisors. However, these sector-specific authorities in many cases have an insufficient grip on the capital position and activities of the holding companies. For example, “double leverage” could lead to a distorted view of the financial position of the companies’ bank and insurance businesses, as the same capital is being counted twice. Conglomeration could also provoke moral hazard behavior in the form of supervisory arbitrage, as institutions move certain activities to parts of the organization that are subject to less rigorous supervision.

As the globalization and complexity of the financial system increase, cross-border and cross-sectoral cooperation among supervisory authorities, as well as greater harmonization and standardization of regulatory rules, will be essential. Accordingly, various sector-specific international groups of supervisory and regulatory agencies—such as the Basel Committee on Banking Supervision, the Joint Forum on Financial Conglomerates, the International Association of Insurance Supervisors, and the International Organization of Securities Commissions—will play a leading role going forward.

I should note that an attempt to enable pan-European supervision is provided for in Article 105(6) of the Maastricht Treaty, which could give the European Central Bank specific supervisory responsibilities. However, although the provision would end the functional and geographic separation between monetary policy and prudential supervision, it would not end the sectoral split in financial services supervision. This is because effective lobbying by the insurance industry on the eve

of the treaty’s signing has led to the exclusion of insurance supervisors from the provision. In addition, the provision is only a “last-resort” clause, based on the unanimity of the European Union member states.

Importantly, I have doubts as to whether the initiatives for cross-border and cross-sectoral cooperation, of which I mentioned only a few, can go far enough and fast enough in light of the globalization of the financial system. For example, cooperation between independent supervisory bodies could result in conflicts of interest as well as overlaps or gaps in supervisory practices. Moreover, differences between national supervisors in terms of resources, culture, and legal interpretations could place serious roadblocks on the path to international harmonization or centralization of supervision. And any overlap in supervisory activities will lead to increased costs.

Of course, it is reasonable to ask whether further integration and centralization of supervision across national borders and financial sectors is desirable. The activities and risks involved in each financial sector are very different and require different types of supervision. Also, the specialization trend associated with the evolution of the Internet—in contrast with the developments associated with globalization and conglomeration—will call for product-specific regulation. Clearly, given the market developments under way, the role of the European Central Bank, the European community, and the national authorities will require further consideration. In this respect, I very much welcome the initiative of the so-called “Eurogroup,” chaired by former economics minister of France Alphonse, to begin a wide-ranging reassessment of the supervisory infrastructure in Europe.

Nevertheless, in my view, pan-European centralization of supervision in line with the British model of the Financial Services Authority is not a solution. The imbalance between the structure of supervision and the structure of the financial sector would still exist if the current supervisory bodies were combined into one organization. The new organization would be a giant, conducting bureaucratic and unfocused practices that would prove to be slow and ineffective in reducing systemic risks. Moreover, the damaging effect of negative publicity would be much larger in the case of a single pan-European supervisor, as it would undermine the status of this authority and affect the entire European financial services industry.

It is also reasonable to ask whether supervision, be it nationally or supranationally organized, can reduce systemic risk effectively. More and more financial firms that are not subject to supervision can cause systemic risk. Examples range from hedge funds such as the aforementioned Long-Term

Capital Management to giants such as GE Capital. Supervisory authorities are trying to come to grips with these different types of entities by overseeing the institutions that supply them with credit, which is sometimes like killing the messenger.

Having said that, the question remains as to how to structure and organize the supervision of financial services. Given the political sensitivities, the chances for major cross-border changes in the near future are rather small. Improvements, for the time being, will have to come from increased cooperation among national supervisory bodies. In a number of cases, this will probably lead to more United Kingdom-like supervisory bodies—as I observed, a development that I do not necessarily favor. The sketchy information that I have received from London at the very least suggests a slow and sticky process of integrating the three supervisory bodies.

Nevertheless, let us assume that political objections can be overcome and that we are asked to redesign a supervisory system for Europe. As such, perhaps it would be interesting to look at a modified Australian model. This model divides supervisory responsibilities between supervisory authorities according to their various objectives. Such a division would result in three authorities: one for financial stability, one for consumer protection, and one for market integrity.

The supervisor responsible for financial stability would oversee all financial institutions that could potentially cause risk. It would conduct macro prudential supervision as well as be responsible for, or at least involved in, monetary policy. The authority could and probably should be organized on a European level. The supervisory agency responsible for consumer protection would regulate the remaining financial institutions and manage a minimal deposit insurance plan. It would also oversee the rules of conduct for personal integrity, organizational integrity, and relationship integrity—focusing on the relationship between financial institutions and consumers, particularly with regard to the delivery of information. This agency, at least for now, could be organized on a local level. Finally, the supervisor responsible for market

integrity would oversee market transparency and market discipline.

Could such a supervisory system function in Europe? I honestly do not know. Or, should I say, deep in my heart I know that it is a utopian way of thinking. But a fresh look at a situation that is becoming increasingly complicated is always useful. I could more realistically imagine a separation between regulatory and supervisory authorities in which a pan-European regulatory body is established, while day-to-day supervision becomes a local responsibility and therefore is performed by national bodies.

Finally, a pet issue of mine is to see the financial market functioning as a supervisory system, a scenario that should be promoted much more vigorously. Financial products and markets are growing so complex that it is becoming more and more difficult to include all of the possible risks in fixed rules, and hence it is becoming more and more difficult for supervisors to monitor these risks effectively. With the necessary information, the financial markets could have a disciplinary effect on the financial industry and could serve as the most efficient and effective supervisory system. Market transparency is the ultimate condition for market discipline because it requires disclosure by banks of the information relating to their capital structure, their risks, and the adequacy of their capital position as a means to control those risks. This issue is exactly what is addressed in the new capital adequacy framework proposed by the Basel Committee. Such transparency and disclosure, by the way, should also apply to supervisors.

I would like to conclude by reminding you of the redesign of the 1988 Capital Accord. I know that it does not pertain to an infrastructural redesign of the supervisory system, and it should not. But let us not forget that the original Accord led to a fundamental rethinking of banking supervision in the 1980s and 1990s. I am convinced that the new Accord will help set the stage for a rethinking of financial supervision in the early part of the new century.

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SESSION 3

WHY WE DO WHAT WE DO: THE VIEWS
OF BANKERS, INSURERS, AND SECURITIES
FIRMS ON SPECIALIZATION
AND DIVERSIFICATION

PRESENTERS

Tony Candito
Michael J. Castellano
Richard Heckinger

MODERATOR

Darryll Hendricks

Summary prepared by Kevin J. Stiroh

Summary of Session 3

Panel Discussion

The presenters were Tony Candito, President and Chief Information Officer of NEF Information Services, a subsidiary of MetLife; Michael J. Castellano, Chairman of Merrill Lynch International Bank and Senior Vice President and Chief Control Officer of Merrill Lynch & Co., Inc.; and Richard Heckinger, Senior Vice President at State Street Bank. The session was moderated by Darryll Hendricks, Senior Vice President at the Federal Reserve Bank of New York.

This session gathered representatives from the three major financial services industries—banking, insurance, and securities—to provide their views on the strategic question of specialization versus diversification in a world of technological and regulatory change.

Despite the speakers' different positions in the financial services industries, several common themes emerged from the presentations and discussion. Most important, Heckinger, Candito, and Castellano all emphasized that the strategic choice of whether to specialize or diversify ultimately depends on the demands and the needs of the customer. After establishing what their core products are and identifying the corresponding customer bases, all three panelists discussed the importance of diversifying into supporting products that would add value to their clients, as well as cement and deepen these primary customer relationships.

A second common theme was the emphasis on information technology as a driving force behind strategic choices and entry

into new businesses. An effective information technology infrastructure allows firms to provide new products, reduce costs, and better serve existing customers. Each of the panelists discussed the ways in which information technology is transforming their existing businesses and opening up new ones, as well as the information technology challenges they face.

The panel concluded that both specialization and diversification strategies are critical to continued success. Specialization allows a firm to focus on its core strengths, products, and markets, while diversification into complementary products opens up new markets and new opportunities. Both strategies are necessary for a financial services firm to compete successfully in today's environment of rapid technological and regulatory change.

Richard Heckinger

Richard Heckinger began with a brief overview of State Street Bank, describing its committed focus on servicing institutional investors. Its services are strictly business-to-business activities, including trade execution, analysis, custody and investment management, and foreign exchange services for large institutional clients, as well as new e-finance products. He emphasized that although chartered as a commercial bank,

Kevin J. Stiroh, an economist at the Federal Reserve Bank of New York, prepared this summary.

The views summarized are those of the presenters and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

State Street does not maintain a traditional banking presence and does not take deposits or make loans; it sold the last vestiges of its commercial banking operations in 1999.

Heckinger described State Street’s approach to specialization as trying to master specific competencies, particularly in the information management businesses. State Street remains specialized in its key investment management and custody businesses, but it also wants to be sensitive to changes in the operating environment. For example, while State Street is now known mostly for its post-trade processing services such as custody, recordkeeping, accounting, and settlement, it is also moving aggressively into various pretrade and trade execution areas, particularly where e-commerce is important. This strategy reflects several important business advantages. These include economies of scale in custody businesses; access to unique data (for example, State Street maintains a proprietary database with nearly 2 million identified securities); and customer lock-in through strong relationships, which builds inertia and helps maintain key relationships. All of these advantages serve as barriers to entry for other firms and make direct competition in State Street’s core businesses difficult.

According to Heckinger, the question of specialization versus diversification strategies also falls into a long list of operational challenges that are directly changing the way State Street operates. For example, the introduction of the euro, Y2K, decimalization, “T+1” settlement, and the extension of trading hours are all current or recent events that have affected the way in which State Street conducts its business, and they have opened up several new businesses for the organization.

State Street’s move toward diversification of its activities and services has been driven, in large part, by the needs of its primary customers. Investment manager clients, for example, want to avoid the costs of maintaining and retooling their internal systems to be better able to specialize in their own core competencies like making investment decisions and selling mutual funds. These needs create new opportunities for State Street, as its clients outsource ancillary tasks like recordkeeping and other mechanical aspects of their businesses. By providing “soup to nuts” services, State Street is developing new businesses for itself as it enables its clients to specialize more effectively.

This broadening of the scope of State Street’s services is facilitated by the company’s strong investment in information technology. State Street commits nearly 20 percent of its operating expenses to information technology, observed Heckinger, a proportion that has been relatively constant over time. This is part of a long-term commitment to information technology investment that is also driven by client needs. Some customers, for instance, have hard-wired access to their

account information, while others use the U.S. Postal Service or a fax machine among all types of data interfaces. In this sense, the Internet is just another information network that allows State Street to communicate more effectively with its clients.

Because specialization and diversification strategies ultimately are determined by the needs of State Street’s clients and since these clients perform a broad range of tasks and operate in various markets, State Street provides a correspondingly broad range of services. As a specific example, Heckinger discussed the various needs associated with the different types of e-commerce market structures in which State Street’s clients participate (Exhibit 1). Auction-style markets—for example, the trading of emerging market debt—are characterized by low liquidity and low pricing information; they are quite different from crossing markets—for example, foreign exchange or benchmark bonds—which are highly liquid and typically contain a great deal of pricing information. In the middle are exchange markets like a major stock exchange. State Street’s clients operate in all types of markets, so the firm must be able to provide a broad array of services required by each client in each situation. State Street has become a “multiple provider of multiple products,” according to Heckinger.

A second example of diversification offered by Heckinger is State Street’s ability to leverage its proprietary data to create new economic products and services. Because the organization currently performs various recordkeeping duties for a large number of equities and fixed-income transactions on behalf of numerous clients, it has a unique advantage in terms of data. That is, State Street’s long-standing experience and large-scale custody operations provide direct access to clean, well-defined

Exhibit 1
e-Commerce Market Structures



Source: Richard Heckinger, State Street Bank.

data on a daily basis that are ideally suited for data aggregation and data-mining exercises. Recently, explained Heckinger, State Street developed “portfolio holdings indicators” and “portfolio flow indicators” for forty-six countries, which track cross-border equity purchases from these proprietary data. The data are collected daily, and provide timely indicators of financial investment flows. Again, this activity provides State Street with an opportunity to leverage its core strengths in custody into new business areas to serve its clients better and to generate new business.

In conclusion, Heckinger reiterated State Street’s reliance on information technology as the critical element in providing its primary services to institutional clients. These clients, exclusively in the business-to-business areas, require a wide range of services that new technology enables State Street to offer.

Tony Candito

Tony Candito began with a brief overview of NEF Information Services and its parent company, MetLife. MetLife is the largest U.S. life insurance company and it operates the largest individual life and annuity franchise in the United States. The company is broadly diversified within the insurance industry, with major operations in MetLife Financial Services, New England Financial, and GenAmerica; it also offers other nonproprietary products that target a broad range of customer bases. In addition, MetLife runs a strong institutional insurance business, which is an industry leader and one of the organization’s primary growth engines.

Candito’s remarks focused on the technological and strategic challenges facing the individual insurance markets. He discussed several factors that were critical to the broad provision of insurance products to individuals. First, MetLife’s large and flexible distribution network allows a variety of products to be sold across several types of customer groups. This network includes more than 11,000 insurance agents in its primary markets, which span a wide range of customers and essentially make up the individual insurance business. Second, the company maintains a sophisticated information technology infrastructure to support these agents via a long-term commitment to technology. Currently, MetLife makes a \$300 million annual investment in technology for its individual businesses and has more than 1,100 full-time-equivalent employees on its technical staff. The network allows agents to market their products effectively.

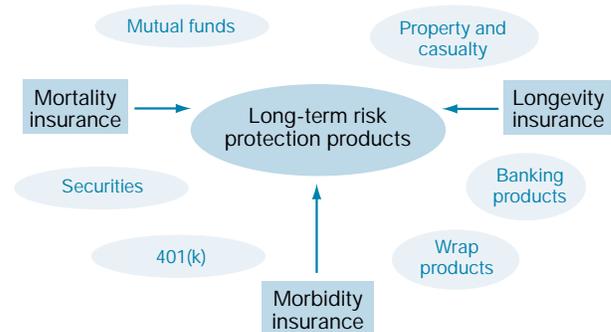
Regarding the issue of specialization versus diversification, Candito indicated that MetLife pursues both strategies. He

identified long-term risk protection products as the core of MetLife’s individual insurance business. These products relate to three primary business lines—longevity insurance (protection against outliving assets), morbidity insurance (protection against loss of income due to injury or health problems), and mortality insurance (protection against early death). MetLife specializes by developing various products, such as life insurance and annuities, to meet its customers’ needs in these key business areas.

At first glance, this description suggests a relatively specialized portfolio of insurance products. However, Candito emphasized that MetLife is actively diversifying into new products by filling in functional gaps between these three primary business lines (Exhibit 2). For example, the offering of mutual funds can be seen as an ancillary product that fits in between the primary mortality and longevity insurance products. Similarly, securities sales and 401(k) activities bridge the gap between mortality and morbidity insurance. MetLife is developing new products, and even offering nonproprietary products, to serve its clients better, add value, and deepen its customer relationships. Thus, there is a definite move to diversify in response to client needs. Moreover, Candito pointed to MetLife’s position as a trusted and objective advisor as a key factor that allows this type of cross-selling to be successful.

The move toward diversification brings with it a number of fundamental information technology questions, Candito explained. For example, by offering many complementary products on a large scale, MetLife has the potential for economies of scale and scope with very low unit costs. This operational goal, however, must be weighed against the need to maintain the flexibility and brand distinctiveness across products that are essential to penetrating a target market

Exhibit 2
Primary and Ancillary Products



Source: Tony Candito, NEF Information Services.

effectively. The benefits of providing a wide range of products also raise important strategic questions about how to operate successfully in many highly competitive markets. He noted that there are many alternatives—such as large internal investments, partnerships and alliances, and integration with competitors—all with various risks and costs that must be considered. Finally, this type of leading-edge information technology presence relies on highly skilled technical labor to be successful. However, this requires direct competition with technology start-ups and poses a serious obstacle for many established financial services firms.

With these challenges in mind, Candito outlined a broad business model designed to allow MetLife to offer a wide range of products as a well-diversified financial services firm. The backbone of this model is a common platform that integrates the primary financial and support functions across several business lines. That is, MetLife plans to use a common structure and system for its technology, financial, human resources, legal, and investment operations for all of its many product lines. Candito explained that this strategy should lower costs for the company through economies of scale and scope as a whole—for example, through a reduction in back-office expenses, as well as through an increase in customer information that can be used to improve cross-selling opportunities.

In conclusion, Candito reiterated that MetLife has specialized in risk protection products as its core business. However, the company is also actively diversifying into ancillary products to serve its primary customers better.

Michael Castellano

Michael Castellano began with an overview of the significant trends driving the fundamental changes in the structure and scale of all financial services industries. These trends include broad regulatory reform of financial services, globalization of markets, and widespread technological advances. As a direct consequence, the pace of change is accelerating, clients are becoming better equipped with more information and power, competition is increasing, margins are shrinking, and cross-industry entry and consolidation are accelerating. According to Castellano, these powerful forces are affecting all financial services providers at a basic level, and they require a new business model.

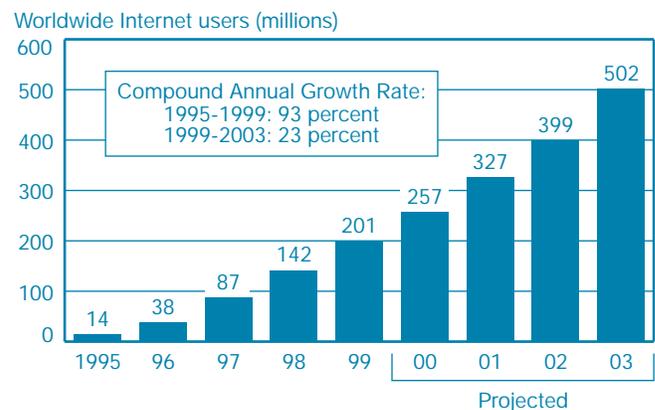
Castellano described a number of these changes. In terms of globalization, there has been a rapid rise in cross-country mergers, as international markets have become increasingly

linked—for example, the deal value of cross-border mergers and acquisitions increased from \$129 billion in 1993 to \$1,275 billion in 1999. This rise has directly affected Merrill Lynch's business, he observed, because as clients become more global, the firm must also become more global to serve them better.

Although these globalization trends are impressive, the most significant change is likely to occur from the continued evolution of technology, according to Castellano. For example, the number of worldwide Internet users increased from 14 million in 1995 to 201 million in 1999, and that figure is projected to rise to 502 million by 2003 (see chart). Affluent households use the Internet even more than the average household, and the value of assets in on-line accounts is projected to grow by 70 percent per year over the next three years. Finally, noted Castellano, in the next phase of the Internet revolution, growth and diffusion of e-commerce, broadbanding, and other wireless technologies are expected to be even more dramatic. These changes will profoundly affect the retail and wholesale financial businesses, as clients demand better services, electronic communications networks provide increased information, trading volumes rise steadily, and spreads continue to shrink.

The Internet revolution will have several direct implications for the future of retail financial firms, according to Castellano. For example, the availability of low-priced financial services will not be enough to sustain a competitive advantage; content will become increasingly important. In a time of potential information overload, customers will place a premium on advice. Transparency and the ability to provide a wide range of products will also become more important to customers. Moreover, Castellano expects that financial services firms that

The Internet Is Revolutionizing Business



Source: Michael J. Castellano, Merrill Lynch & Co., Inc.

can maintain a strong brand identity will enjoy a strong edge, as customers look for names with which they are comfortable and in which they have confidence. Finally, improved customer service will be essential in the more competitive world, as agents will need to be empowered to make decisions and better serve clients.

In terms of specialization versus diversification strategies, Castellano emphasized that the bundling of commodity products, such as cash management and e-commerce services, will enhance client relationships and increase the retention of existing customers. One potential outcome of this trend is the formation of new alliances, as traditional competitors like Merrill Lynch, Morgan Stanley, and Goldman Sachs begin to co-invest in alternative ventures to maintain competitiveness. He pointed to the recent joint venture between Merrill Lynch and HSBC as an example.

This trend suggests a growing role for a diversified financial firm that can provide many products to maintain its core customers. Indeed, Castellano noted that Merrill Lynch is undergoing a strategic transformation as it moves to a three-pillared, multifaceted global firm that serves private clients, institutional clients, and asset management clients. This change can be seen through the large revenue gains Merrill Lynch has made from its international businesses and from its growing role in international mergers and acquisitions.

Specifically, Castellano discussed Merrill Lynch's recent move into Internet brokerage activities, in which it introduced several different products tailored to different clients. After matching competitors in terms of price and technology, he said, Merrill Lynch tries to compete in terms of content, such as underlying research and service, where it feels it has a competitive advantage. Similarly, the firm's banking strategy is to expand activities in order to increase the convenience and value to existing customers. Castellano noted that the recent passage of the Financial Services Modernization Act opens a

new door to holding deposits, increasing lending, and taking advantage of lower cost funding, all of which provide new opportunities for Merrill Lynch and its clients.

Merrill Lynch's long-term strategy was summed up by Castellano as a desire to be "all things to some people." By developing broader, deeper relationships with its core clients in the most attractive market segments, he said, Merrill Lynch is making this diversification strategy an integral part of its view of a successful future.

Questions and Answers

The comments from the audience centered on information technology. In response to a question about the role that technology plays in the distribution process—particularly with regard to increased synergies with affluent customers—Castellano replied that Merrill Lynch now maintains an important presence. Nonetheless, he said that the firm's primary value-added still results from a strong financial relationship with its clients. Information is currently available from many sources, ranging from CNBC to general worldwide web portals, so customers—particularly affluent ones—rely on Merrill Lynch to supply useful information and advice. As the Internet provides commoditized information, Merrill Lynch hopes to focus on the high-end value services that high-net-worth customers desire from a full-service firm.

Candito emphasized that the Internet was primarily a means of "e-service," and not an "e-sale" tool in MetLife's individual insurance markets. He said that the Internet is not particularly conducive to the sale of insurance products; rather, the primary advantage it offers is in the form of distribution and the ability to view account information.

SESSION 4

THE CHANGING FINANCIAL STRUCTURE:
CHALLENGES FOR SUPERVISORS
AND RISK MANAGERS

PRESENTERS

Leslie Rahl
William Rutledge
Petros Sabatacakis

MODERATOR

Beverly Hirtle

Summary prepared by Philip E. Strahan

Summary of Session 4

Panel Discussion

The presenters were Leslie Rahl, President of Capital Market Risk Advisors; William Rutledge, Executive Vice President and Head of Bank Supervision at the Federal Reserve Bank of New York; and Petros Sabatacakis, Senior Risk Officer at Citigroup. The session was moderated by Beverly Hirtle, Vice President at the Federal Reserve Bank of New York.

How should financial conglomerates manage their risks now that the Gramm-Leach-Bliley Act permits financial holding companies (FHCs) to engage in commercial banking, securities, and insurance underwriting? Two industry representatives and a bank supervisor provided their perspectives on this policy question in the last session of the conference.

Although Sabatacakis, Rahl, and Rutledge each had a unique opinion of how FHCs should develop their risk management systems in the coming years, all agreed that effective risk management requires more than just accurate modeling. The “culture” of risk management, they noted, is also important. Executives from the highest levels on down must communicate the firm’s goals and provide incentives that create an environment in which staff seek to meet those goals. The discussants also observed that the combination of financial firms from different businesses—for example, a securities firm with a trading culture joined with a commercial bank with a lending culture—will pose the greatest risk management challenge over the next few years. Supervisors will face a parallel set of challenges as the functional regulators—the

Securities and Exchange Commission (SEC), the state insurance departments, and the banking agencies—along with the Federal Reserve as umbrella supervisor, must learn to work together effectively. The consensus of the session, however, was one of optimism, as each speaker agreed that the blending of cultures across business lines and regulators will improve everyone’s ability to understand and control risk.

Petros Sabatacakis

Petros Sabatacakis began the session by noting that FHCs face three key risk management challenges: governance of risk management, communication between senior managers of different business lines, and transition management.

Sabatacakis then asked a pointed question: How can five or six companies spanning insurance, asset management, investment banking, and commercial banking combine their risk management command and control systems? Effective governance in a complex financial conglomerate, according to Sabatacakis, can occur only with total clarity of responsibility in job definitions. From the board of directors down to the trader or loan officer, everyone must understand his or her role in risk management and know the limitations. Ideally, risk management should push down as far as possible. Having said

Philip E. Strahan, a vice president at the Federal Reserve Bank of New York, prepared this summary.

The views summarized are those of the presenters and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

that, Sabatacakis emphasized the importance of oversight by business heads and the corporate risk management staff. At Citigroup, for example, risk management governance begins at the risk committee of the board of directors. In addition, the management committee, comprising the top fifteen or so members of the company, meets once a month, spending two to three hours on risk issues. At this level, companywide issues such as capital allocation across business lines are a primary concern.

One can communicate risk exposures across businesses conveniently with a summary statistic such as economic capital at risk, observed Sabatacakis. Economic capital is useful as an instrument that summarizes relevant information with a single number. Moreover, risk managers can use capital at risk to translate the complexities of risk into a language that is clear to the board of directors and other senior managers.

Sabatacakis argued that the use of capital as a common yardstick is a good way to establish meaningful comparisons, but it does not go far enough. “Unexpected” events—first-time occurrences—tend to generate the biggest losses. Thus, Sabatacakis contended that stress testing and scenarios must be taken seriously. Although these scenarios are unlikely to resemble the “unexpected” events that actually occur, they can (and should) be used to generate productive debate among risk managers. For instance, Sabatacakis mentioned discussion of a scenario in which a large earthquake strikes Tokyo. Such discussions force risk managers to consider spillovers, such as how the event might affect interest rates or market liquidity. Scenarios can also uncover hidden correlations—that is, common movements in market prices that have not occurred historically, but might occur under certain conditions.

The transition from two or three risk management cultures to a single one in a newly formed financial conglomerate poses perhaps the greatest challenge. Sabatacakis noted that a firm like Citigroup—recently created from the merger of Citicorp and The Travelers Group—faces the difficulty of blending risk management cultures based on asset-side risks (trading and commercial lending) with a culture that must also consider liability-side risk (insurance, especially property and casualty). Although it is easy in principle to combine physical risk management systems such as computer software, computer hardware, and data, the task still requires effort, expense, and—most of all—commitment. More problematic, but potentially more valuable, is the act of merging the risk management cultures of the three kinds of businesses.

Sabatacakis concluded by pointing out that a trader and a commercial loan officer look at the world in very different ways. To a trader, assets are commodities that should be bought cheap and sold dear. To a banker, assets represent relationships that, when nurtured, generate benefits to both the

bank and the borrower over time. Ideally, each culture can benefit from the strengths of the other. For instance, it may be possible to generate trading revenue by leveraging off lending relationships to generate customer flow.

Leslie Rahl

Leslie Rahl emphasized the increasing complexity of risk management over the past ten to fifteen years, and remarked that the likely combination of business lines in the future suggests even greater challenges. Rahl began by presenting a long list of the risks facing financial companies, one that has been growing over time (see exhibit). She used the analogy of an iceberg to illustrate the key issue faced by risk managers contemplating such a list of risks: everyone understands the existence of the iceberg, but no one knows what it looks like under the water.

Rahl pointed out that the analytical components of risk management—value at risk, stress testing, backtesting, model review, and limits—are all important. Nevertheless, echoing a theme of Sabatacakis, she emphasized that risk management culture matters most. In some firms, for example, violations of exposure limits lead to termination of staff, while in others it is viewed as only a minor infraction.

Galaxy of Risks

- ▶ Accounting risk
- ▶ Bankruptcy risk
- ▶ Basis risk
- ▶ Call risk
- ▶ Capital risk
- ▶ Collateral risk
- ▶ Commodity risk
- ▶ Concentration risk
- ▶ Contract risk
- ▶ Credit risk
- ▶ Currency risk
- ▶ Curve construction risk
- ▶ Daylight risk
- ▶ Equity risk
- ▶ Extrapolation risk
- ▶ Fiduciary risk
- ▶ Hedging risk
- ▶ Horizon risk
- ▶ Iceberg risk
- ▶ Interest rate risk
- ▶ Interpolation risk
- ▶ Knowledge risk
- ▶ Legal risk
- ▶ Limit risk
- ▶ Liquidity risk
- ▶ Market risk
- ▶ Maverick risk
- ▶ Modeling risk
- ▶ Netting risk
- ▶ Optional risk
- ▶ Personnel risk
- ▶ Phantom risk
- ▶ Political risk
- ▶ Prepayment risk
- ▶ Publicity risk
- ▶ Raw data risk
- ▶ Regulatory risk
- ▶ Reinvestment risk
- ▶ Rollover risk
- ▶ Spread risk
- ▶ Suitability risk
- ▶ Systemic risk
- ▶ Systems risk
- ▶ Tax risk
- ▶ Technology risk
- ▶ Time lag risk
- ▶ Volatility risk
- ▶ Yield curve risk

Source: Leslie Rahl, Capital Market Risk Advisors.

Note: Partial listing.

More generally, Rahl argued that models will never capture the full “galaxy of risks.” Things tend to go wrong, she warned, when people begin to believe the numbers. Clever forms of fraud, new market moves, acts of God, and regulatory surprises—to name a few—always threaten to overwhelm a model’s assumptions. A simple value-at-risk model that assumes that financial time series are normally distributed would consider market moves beyond two standard deviations to be relatively unlikely and moves beyond three standard deviations to be almost unheard of. She noted that in each of the past ten years, for example, at least one market moved by more than ten standard deviations—a statistical impossibility under a normal distribution.

Rahl also cautioned against viewing value at risk as providing a worst-case scenario. Value at risk measures the worst loss with a specified degree of confidence, say 99 percent. The problem is that the loss experienced on that one day out of every hundred could be very large, and value at risk provides *no guidance* as to how large those losses might be. She also cautioned that value-at-risk models work very poorly for arbitrage-related businesses, for real estate, and for private equity. Moreover, value at risk does not capture cumulative losses; large losses may pile up, especially if price movements are not independent across time.

Given the inherent limitations of value-at-risk models, Rahl agreed with Sabatacakis that stress testing and scenario analysis are key to rounding out the picture of a portfolio’s risk. Some of the more progressive financial institutions have begun to realize the importance of supplementing value at risk, but Rahl worried that too many other institutions still have not.

With these limitations in mind, Rahl highlighted three key issues for risk managers. First, the managers need to identify the markets that can potentially create big losses for the firm, even if those markets exhibit relatively small moves. These are the risk factors most likely to affect the firm. Second, they should understand which risks are offsetting and understand *why* the model treats them as such by examining its assumptions. The need for risk managers to understand the drivers of models such as value at risk cannot be over-emphasized, according to Rahl. Third, risk managers should understand the variance of a model’s output and know whether competitors look at risk in similar ways.

Rahl also echoed themes discussed by Sabatacakis when she emphasized the difficulty of blending disparate risk management cultures. When combining two (or more) organizations, for example, the greatest challenge is to get the board of directors, senior managers, and other members of both organizations to agree on basic questions, such as, is exceeding limits a fireable offense, or is it acceptable? Rahl then outlined a continuum of risk management philosophies. The

rule-based approach lies at one end of the continuum. This approach, while conservative, tends to slow innovation and, at times, to take away from good business opportunities. At the other end of the continuum lies the view that responsibility for risk management ought to be delegated to people. This approach allows more flexibility and trusts that individuals will do the right thing. Problems emerge, Rahl argued, when senior managers have different views about which of these approaches ought to be the dominant one within the firm.

In contemplating the problems of risk management integration, Rahl focused on several real-world problems that can severely curtail a firm’s ability to function efficiently. For example, a newly merged firm will find that transactions that were once external have become internal, leading to necessary accounting changes. She also cited cases in which people were unable to find documents from the old institution or were unable to back up computer tapes. Such issues, while seemingly mundane, can end up costing a firm dearly.

William Rutledge

William Rutledge concluded the session by offering the bank supervisor’s perspective on risk management at financial conglomerates. He emphasized that as risks become more complex and easier to change over time, supervisors must focus more heavily on banks’ internal risk management processes and systems. Specifically, supervisors now review business strategies and risk management and then conduct targeted transaction testing to assess the integrity of managerial systems. Rutledge argued that this management-based approach is both more flexible and a better predictor of success than the old point-in-time assessment of bank balance sheets and income statements.

Rutledge predicted that over the coming years, supervisors will have to grapple with how to look at business lines that cut across the entire financial organization. The umbrella supervisor, responsible for oversight of financial conglomerates, will have a responsibility for dealing with these issues. Like risk managers at financial conglomerates, however, supervisors from different cultures must learn to combine their different approaches. In fact, when asked about this problem, Rutledge stressed the need for continued dialogue, and he was optimistic that these conversations would generate benefits to all of the agencies.

Rutledge noted that several challenges for the umbrella supervisor are obvious. For example, the previously mentioned expectation that businesses will increasingly cut across

corporate entities—including ones for which functional regulators may have primary responsibility. Furthermore, he asked, how can a unified approach to examining a complex organization be achieved when the supervisory approach and methodologies of the Federal Reserve, the SEC, and the state insurance departments differ—as they clearly do?

Some creative thinking and close cooperation among supervisory authorities will be necessary to meet these challenges, according to Rutledge. In that vein, he mentioned seven elements that are very likely to be part of the overall process:

- Regular interaction between supervisors and a firm's senior management will be necessary. For one to understand the risks faced by the firm and how they are managed, a structure for regular, ongoing communication with senior business line people will have to exist. These meetings should involve the heads of risk management areas, the senior information technology officer, and key control people such as the general auditor. The latter will be particularly important, given the extent to which the supervisor will be leveraging off the work of the internal audit function to stay on top of control issues.
- The review of regular reports, including internal risk management reports, will provide supervisors with insight not only into the risks faced by the firm but also into the sophistication of the risk management process. The reports will be of greatest value if they effectively pull together information from across the firm in a way that allows meaningful assessments across business lines and across corporate entities.
- On-site review of a firm's consolidated risk management and control processes—including reviews of the technological infrastructure that supports them—will help supervisors assess how robust, consistent, and integrated risk management systems are for aggregating information across the firm.
- The Federal Reserve and other regulators will continue to strengthen their ties and endeavor to improve the flow of information across the agencies. For many large FHCs, such interactions may be primarily with the Federal Reserve and the Comptroller of the Currency or

state banking departments. For diversified institutions, such interactions may also include various nonbank regulators as well as foreign authorities. These interactions should not only involve the formal sharing of examination results, but also coordination when planning and executing a supervisory strategy.

- The planning of the supervisory strategy should build on the assessment of both the firmwide risks and the risk management processes to determine what follow-up reviews are appropriate and what approach should be followed when carrying out those reviews, including the extent and nature of necessary transaction testing.
- For high-risk areas, the Federal Reserve may well determine that it is necessary to conduct a full review of a business line that cuts across corporate entities. Depending on the institution and the circumstances at hand, the Federal Reserve and the functional regulators may conduct joint reviews to carry out parts of the examination plan.
- Peer comparisons are likely to be very useful, but will in some ways be more difficult to provide in a meaningful manner. For example, assessments of more specialized firms may require the selection of a carefully defined, relatively narrow peer group (say, a handful of securities processing banks). Moreover, since the comparisons that will be made are much more complex than the traditional comparison of financial ratios across peer groups, the supervisors will be looking to compare business processes, rather than simple ratios.

Rutledge also spoke briefly about how the Federal Reserve will assess the capital adequacy of FHCs. He emphasized that the approach will build on the reform of the Basel Capital Accord and should assure capital adequacy on a consolidated level. The Basel Accord addresses risks arising from the asset side of an institution's balance sheet—appropriate for banking and even, to a significant degree, securities activities—while insurance companies face risk primarily on the liability side. Rutledge suggested that a unified approach to overall capitalization, which incorporates the range of subsidiaries, could be one that deconsolidates and deducts the regulated insurance underwriting operations of an FHC.

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