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How Have the Banking System and the Process of Financial Intermediation Changed?

MYRON L. KWAST

Kwast is a senior associate director in the division of research and statistics at the Board of Governors of the Federal Reserve System. This commentary was presented at the conference "Safe and Sound Banking: Past, Present, and Future," held August 17–18, 2006, and cosponsored by the Federal Reserve Banks of San Francisco and Atlanta and the founding editors of the Journal of Financial Services Research.

I would like to begin by thanking Bob Eisenbeis, Fred Furlong, and the other organizers of this conference for inviting me to discuss Bob DeYoung's paper.

My strategy for commenting on Bob's remarks is the following. I assumed (quite correctly, I would say) that Bob would do an excellent job presenting his views, and thus there would be little value added in my trying to summarize what he had said. So, if I were looking at the U.S. banking and financial system in 1986 and in 2006, what aspects would I notice were really different? Thus, my remarks this afternoon are based on my list, and along the way I will use them to comment on Bob's remarks. Also, please note that everything I am about to say is my own opinion and no one else's.

In my judgment, the most notable contrast between the U.S. banking system of today and that of 1986 is today's banking system's remarkable resiliency and health despite some significant shocks. Remember, in 1986, 205 banks and savings and loans failed. And that wasn't even the peak—that was reached in 1989 when a total of 533 banks and savings and loans failed. Not until 1993 did the annual number of bank failures drop well below 100. In recent years you might say we have become quite spoiled, with rates of bank failure of fewer than five institutions per year.

But this low rate of bank failures is not the result of calm in the financial world since 1993. Indeed, since the mid-1990s we have had several shocks, such as the Russian debt default in the fall of 1998 and the Asian debt crisis shortly thereafter; the recession of 2001–02, which, while relatively mild, was followed by an unusually slow recovery; the stock market correction that I am sure we all remember; and, of course, September 11 and the geopolitical uncertainty of recent years. Despite these and other events, the vast majority of U.S. banks have remained unusually healthy, with strong rates of return on both equity and assets, solid capital ratios, and strong reserves.

To what do we owe this outstanding performance? No doubt there are many reasons for our current good fortune, including good monetary policy, good lessons learned by bankers and other market participants, and good luck. But I also believe that a number of bank supervisory reforms have been implemented that have made a difference. Thus, the second item on my list is a changed supervisory environment.

What items would I highlight here? First on my list is the emphasis on strong capital positions that began about 1986 and that resulted in the Basel I international capital accord of 1988. The accord helped to focus supervisors and the industry on the importance of adequate capital for bank safety and soundness. Indeed, it was a de facto increase in capital standards for a number of depository institutions, particularly large banks. Second, the accord also emphasized the importance of making supervisory standards sensitive to an individual institution's risk and thus ushered in what we now call risk-focused supervision. Last, the international nature of the accord meant that it explicitly recognized the increasing globalization of banking and financial markets.

December 1991 saw enactment of the Federal Deposit Insurance Corporation Improvement Act (FDICIA). This massive act contained critical reforms, many of which had been recommended in *Perspectives on Safe and Sound Banking.* FDICIA required that bank supervisors take prompt corrective action, or PCA, against troubled depositories. PCA's incentives for deterring moral hazard and limiting taxpayer losses were reinforced by the least-cost-resolution requirements of FDICIA. Although the act provided for certain exceptions to this charge to the FDIC, the general thrust of least-cost resolution was to encourage market discipline by putting uninsured depositors and other uninsured creditors at greater risk. Indeed, according to the FDIC, uninsured depositors have suffered losses in more than 70 percent of bank failures since 1993, and all resolutions were consistent with least cost.

Not surprisingly, research suggests that market discipline has increased in the post-FDICIA period. Bob mentions this result, but I think it deserves more highlighting. Market discipline is a powerful tool for deterring excessive risk taking. Indeed, one of FDICIA's most important reforms, PCA, was designed to make supervisors mimic what the market would do as a bank's financial condition deteriorated. The fact that market discipline appears to have increased in the post-FDICIA period is, I would say, a very positive development.

The so-called systemic risk exception in FDICIA has been one of the act's most controversial provisions. However, in my view the strict conditions under which this provision can be exercised have exerted a restraining influence on supervisors, although I confess the exception has yet to be put to a true test. Still, I would argue that, to date, this provision has also supported improved market discipline.

FDICIA required the FDIC to implement a system of risk-based deposit insurance premiums, something that many economists had long advocated. This requirement also reinforced the notion that bank supervision should be risk focused. Unfortunately, the Deposit Insurance Funds Act of 1996 essentially removed this authority, and the vast majority of insured depositories have paid zero premiums since that time. However, the Federal Deposit Insurance Reform Act of 2005 breathed new life into risk-based premiums, and the FDIC currently has a proposal out for public comment. While I am personally quite disappointed with what the FDIC is proposing, it certainly is superior to a system of zero pricing.

Another significant change in the banking and financial landscape, and another reason I would highlight for the banking system being so resilient and healthy, is the impressive improvements in risk measurement and management and the growing adoption of these technologies by mostly large banks and other large financial intermediaries over the last ten years. Truly, risk measurement and management today are a far cry from that practiced in 1986. Careful judgment by human beings is still, and I believe will always be, required. But I think there is no doubt that a much deeper analytical and quantitative understanding of risk is possible today than ever before. Indeed, the attempt to devise a new Basel Capital Accord is, despite all its

controversy, an attempt to recognize and encourage these developments in both the private and public sectors.

Improved risk measurement and management have been supported and encouraged by the growth of syndicated loans and securitized assets and the invention of entirely new financial instruments, such as credit derivatives, that greatly aid the dispersion of risk to those most willing and able to bear it. Such developments no doubt bring their own problems and concerns, but it seems clear to me that net benefits have been provided.

The importance of syndicated loans, securitized assets, and over-the-counter derivatives brings me to my next major difference between 1986 and today: the expanded importance of financial markets, financial market prices, and nonbank financial intermediaries. One significant implication of this development is the increased importance of the liquidity of the markets for a wider range of financial assets for thinking about such subjects as the nature of systemic risk.

Along with the increased importance of financial markets has come an impressive array of nonbank providers of financial services. Some of these, such as investment banks and insurance companies, have long been with us. But others, such as hedge funds and huge government-sponsored enterprises, are relatively new. The evolution of such institutions has had far-reaching effects for banks, people who study banks, and for those of us who worry about such matters as financial stability and competition.

Now let me turn my attention to deregulation. As Bob has indicated, the twenty years since the publication of *Perspectives* have seen some pretty impressive deregulation in the U.S. financial sector.

In the post-1986 period, I would highlight the same two acts that Bob emphasized: the relaxation of most restrictions on interstate banking in the Riegle-Neal Act of 1994 and the repeal of the Glass-Steagall Act's restrictions on most combinations of commercial and investment banking in the Gramm-Leach-Bliley Act of 1999. Both of these acts were the culmination of a long process, and both have profoundly changed the banking and financial landscape. The Riegle-Neal Act ended the balkanization of the U.S. banking system dating back to the founding of our republic, sparked the consolidation and restructuring of the U.S. banking system, facilitated risk-reducing geographic diversification and other efficiencies, and sharply raised the level of competition in many banking markets. Gramm-Leach-Bliley officially recognized the increasing blurring of distinctions between commercial and investment banking, sparked its own wave of financial consolidation, facilitated risk-reducing product diversification and other efficiencies, and sharply raised the level of competition in a variety of financial markets.

Bob has appropriately emphasized the next item on my list: the major consolidation of the banking industry that has occurred since 1986. I'll quickly review some well-known facts. First, the number of banking organizations has declined quite significantly. Since 1986 the number of banking organizations has declined by 40 percent. Second, as Bob points out, the national share of banking assets (or deposits) held by the largest organizations has risen steeply. It really doesn't make much difference how you look at it.

Next on my list is globalization, a hot topic these days. I will resist the temptation to say anything more about globalization, since I know that one of our newest Federal Reserve governors, Randy Kroszner, will be speaking to us about cross-border banking before dinner tonight.

However, I would like to spend a couple of minutes talking about the next item on my list, which is also on Bob's: the greatly intensified level of competition that we

observe in banking today relative to 1986. Virtually all of the factors that I have discussed thus far, including much of the consolidation that has occurred, have led to this intensification of competition from, maybe, category 1 in 1986 to category 4 in 2006. Bob covers a lot of this topic, but I would like to point out some more facts that I think are interesting and that provide a little different perspective on some of the factors behind competition in today's banking markets.

Table 1
Small Businesses' Use of Financial Service Providers

Small businesses that use at least one . . .	1993	1998	2003
1. Depository	97	96	96
2. Within 10 miles of business	89	87	87
3. Nondepository	41	41	54
4. Within 10 miles of business	24	16	20

Note: Usage is shown as a percentage of small businesses.
Source: Survey of Small Business Finances

One of the most interesting facts, I think, is one that Bob pointed out: average local market concentration has stayed largely unchanged despite all the other changes over the past twenty years. Bob showed you one figure that combined urban and rural markets, but you get the same picture if you separate the two types of markets. Moreover, you get the same picture if you look at more intuitive measures of concentration, such as the average three-firm concentration ratio or the average number of banking organizations in a market.

But now I want to drill down a little deeper and ask, Are local markets really all that important still? And I want to argue that the answer is yes—and no. Indeed, I think the situation is more complex than at least some of us may have thought, and thus I believe that this area deserves further research.

I want to look briefly at two sets of bank customers that I think sometimes get short-changed by finance researchers, but who are clearly very important to the economy: small businesses and households.

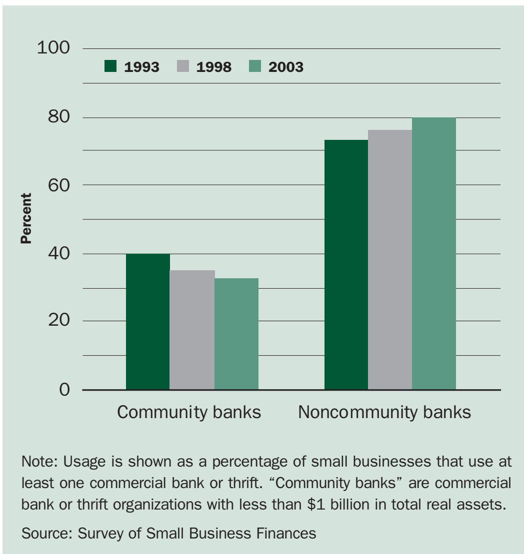
Starting with small businesses, consider some data from the Federal Reserve's 1993, 1998 and 2003 Surveys of Small Business Finances (SSBF). Table 1 shows the percentage of small businesses that use depository and nondepository providers of financial services as well as the percentage that use a depository institution within ten miles of their business and a nondepository institution within ten miles of their business.

What are my takeaways? First, depository institutions (line 1) and local depositories (line 2) have been and remain really important. Second, nondepository institutions (line 3) are growing in importance (a fairly recent phenomenon), but they still are not as important as depositories. Third, local nondepositories (line 4), have never been all that important, and their importance seems to be declining.

Another interesting question is, What does all this mean for the future of local community banks and the importance of relationship finance? Bob highlighted this as well and suggested that our traditional notions of "relationship finance" should be changing as the conventional division of labor between large and small banks begins to blur. I very much agree with that view, but I think we need to be careful about just how fast we think things are changing.

So, consider this set of facts. The figure (on the next page) again uses the Fed's 1993, 1998, and 2003 SSBFs. It shows the percentage of small businesses that use community banks (less than $1 billion in real total assets) and that use noncommunity banks. (Please note that the observations in the figure represent small business–bank pairs; thus, because small businesses sometimes have relationships with more than one bank, the percentages can total more than 100 percent.)

Figure
Bank Usage by Small Businesses



Note: Usage is shown as a percentage of small businesses that use at least one commercial bank or thrift. "Community banks" are commercial bank or thrift organizations with less than $1 billion in total real assets.

Source: Survey of Small Business Finances

My takeaways are that, first, small businesses' use of community banks is declining but at a gradual rate. Still, community banks should probably be worried. Second, small businesses' use of larger banks is increasing but also at a gradual rate. Third, change is certainly occurring, but perhaps we need to better understand why it is occurring relatively slowly.

What about households? Table 2, formatted similarly to Table 1, uses the Federal Reserve's Surveys of Consumer Finances from 1989 (only three years after *Perspectives* was published) through 2004. Table 2 shows that, first, as with small businesses, depository institutions (line 1) have been and remain important (that 98–99 percent is a rock solid number). Second, as with small businesses, local depositories (line 2) have been and remain important. Third, nondepository institutions (line 3) are growing in importance and now appear to be more important for households than for small businesses. Fourth, as with small businesses, local nondepositories (line 4) have never been especially important, and their importance seems to be declining.

The next item on my list in some ways underlies all of the others and has been highlighted by Bob and many others: technological change. By technological change I mean both hardware and software and the invention of new financial instruments and the intellectual tools needed to price them.

I want to comment very briefly on one small aspect of technological change that Bob did not emphasize that I think is important for understanding banking in 2006. I believe it illustrates that we still have a lot to learn. The process by which technological change becomes embedded in production and consumption decisions has long fascinated and been considered important by economists. Despite this attention, the process remains a considerable mystery, and households' use of financial services technologies is no exception. For example, many academics, regulators, and bankers have long forecast that technological change would kill the paper check and make brick-and-mortar branches obsolete. However, here we are in August 2006 and the paper check is still with us, the smart card has been a flop, and the number of brick-and-mortar branches is ever increasing.

In 1995 the Fed began using its Survey of Consumer Finances to ask households about their use of various technologies, including computers, to conduct business with their financial institutions. Table 3 summarizes some of these findings. It lists the percentage of households holding an account with at least one financial institution that report using various technologies to conduct business with any financial institution.

I have time to highlight only two rows here—the "in person" visit and the "computer." In each year since 1995, the most common technology used is the in-person visit. Is it any wonder that banks are building branches? But change is certainly under way. For example, in 1995 barely 4 percent of households said they used the computer to consume financial services. Although there was little change in 1998, by 2001 the percentage using the computer had jumped to 19 percent, and in 2004 it

Table 2
Households' Use of Financial Service Providers

Households that use at least one . . .	1989	1992	1995	1998	2001	2004
1. Depository	99.1	98.4	98.7	97.8	98.8	98.4
2. Within 10 miles of household	78.3	75.3	74.0	74.0	74.2	74.7
3. Nondepository	27.4	43.7	47.5	63.9	61.1	66.7
4. Within 10 miles of household	38.8	33.6	29.1	26.6	26.0	25.5

Note: Usage is shown as a percentage of households.
Source: Survey of Consumer Finances

Table 3
Technologies Used by Households Conducting Business with a Financial Institution

Technology	1995	1998	2001	2004
In person	86.9	80.4	77.8	77.9
Mail	57.5	54.7	50.7	50.9
Telephone	26.2	50.2	49.3	49.4
ATM	34.3	53.1	57.2	64.9
Direct deposit	50.8	65.4	72.2	75.4
Preauthorized debit	23.7	42.0	43.8	50.5
Computer	3.8	6.3	19.2	33.6

Note: Usage is shown as a percentage of households that hold an account with at least one institution.
Source: Survey of Consumer Finances

had reached an impressive 34 percent. Moreover, other types of electronic technologies, such as direct deposit, the ATM, and preauthorized debits, are increasingly used by households. Still, the older technologies are hanging in there. Indeed, one of my takeaways from these data is that the pace of adoption of technological change by households tends to be gradual. In addition, even when new technologies start to gain more widespread acceptance, old technologies are abandoned rather slowly, and many users perhaps view the old and the new technologies more as complements than as substitutes.

The final item on my list returns to the first item and begins to poach on Mark Flannery's territory tomorrow morning. For that reason, and because my time is up, I will only raise the issue.

I began my remarks by observing that since the mid-1990s, the U.S. banking and financial system has remained remarkably resilient and stable, and I asserted that a number of the safety and soundness policies put in place since the late 1980s were partially responsible. My final observation is in the form of two questions: Along with all of the other changes we have observed over the past twenty years, has the nature of systemic risk changed? And are we ready for any changes that have occurred?

The answers to these questions, while fundamental to our business and to this conference, are, I think, not easy. Earlier in my remarks I suggested that the determinants of market liquidity is perhaps a topic that needs and deserves more research. No doubt there are others. Indeed, unease about the answers to my questions lies, I suspect, at the heart of contemporary concerns about "financial stability."

But these are topics for another day. Until then, I once again thank the organizers of this conference for asking me to discuss Bob DeYoung's paper, and I thank you for your attention.