

ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

The Functions and Future of Retail Banking

by Jerry L. Jordan

At the turn of the century, one of the largest employers in America was the U.S. Ice Trust, which cut, stored, and delivered ice for people's "iceboxes." Today, that industry employs only a fraction of the workforce it once did. This happened not because people stopped consuming cool fresh food, but because the refrigerator—a product born of new technology—all but eliminated the need for ice blocks. In contrast, the Fisher Company, which produced carriages and buggies in the early years of the century, is still in the business of making automotive bodies.

What does the future hold for the retail banking industry? That depends on whether it continues to provide value to its customers. The challenge for bank managers and supervisors is to understand what customers want—to distinguish between cutting ice and keeping food cold. In my view, understanding the services that people demand and exploring banks' comparative advantage in supplying them will be crucial in determining the future of the retail banking industry.

By considering the value-adding activities of banks, I hope to provide a framework for evaluating profitable opportunities and assessing competition from other banks, money market funds, or even phone and computer software companies. I also examine how new methods of delivering financial services may affect the role of the Federal Reserve in regard to money, the payments system, and banking supervision.

■ Origins of Banks

Economies have always developed methods for providing financial services. Over time, the providers of these services have adapted to changes in technology and customer preferences. Functions that today are identified with "banking" were performed by the organizers of the Champagne Fairs in the twelfth and thirteenth centuries. They issued tokens to participating merchants, with each token representing deposits of coin, plate, and bullion that had been tested. The merchants used these tokens to net out their accounts before settling in the deposited gold. At the same time, scribes—clerks who wrote letters and contracts in an illiterate age—reduced transaction costs.

Most professors of money and banking fondly describe how medieval goldsmiths accepted gold for safekeeping, and how the receipts they issued eventually became money. The goldsmiths assayed bullion samples, certified their quality, and issued receipts that were easier to carry than metal. Thus, they added value by producing verifiable information and reducing transaction costs. From here, it was but a short step to making loans.¹

Institutions more recognizable as banks, such as the Casa de San Giorgio in 1407 and the Bank of Amsterdam in 1609, arose on the continent.² These firms provided safekeeping and security, assessed and certified quality, and enabled transfer

Societies have always developed ways to provide financial services. Although medieval goldsmiths may seem worlds removed from today's commercial banks, they have one important trait in common: Both succeeded as financial intermediaries because they were able to provide the services their customers wanted using the best technology available at the time. In this look at the future of the retail banking industry, Federal Reserve Bank of Cleveland President Jerry Jordan explains that as technology and deregulation transform the financial marketplace, it will be critical to understand the services that people desire and explore banks' comparative advantages in supplying them.

payments. Although fund transfers had to be conducted at the bank, transaction costs were relatively low compared to carting gold through the streets.³

This brief history holds several lessons. First, many of these functions still survive, though modern banks' methods of providing loans and a convenient means of payment are considerably different. Second, the institutional form has changed dramatically—from guild to corporation. For example, banking and goldsmithing are no longer combined.⁴

■ The Functional Approach to Financial Services

There have been several government attempts, particularly in the United States since the 1930s, to separate "financial service" activities into distinct industries. These industries can, and do, exist separately in market economies, as long as they perform functions that people value. Adopting a *functional* perspective, therefore, permits a deeper look into the well of issues surrounding the future of banking. When firms adapt to competitive forces, we should expect them to alter their product mixes, delivery vehicles, and corporate structures to fulfill their functional role.⁵

As financial intermediaries, banks perform six broad functions: 1) conducting exchange (clearing and settling claims), 2) funding large-scale enterprises (pooling resources), 3) transferring purchasing power across time and distance, 4) providing risk management (hedging, diversification, and insurance), 5) monitoring borrower performance (mitigating adverse incentives), and 6) providing information about the relative supply and demand for credit.

Commercial banks perform all of these functions, but so do other organizations. Although people will continue to make payments, save for the future, and insure themselves, one cannot assume that the existing corporate forms will survive (remember the goldsmiths). For economic reasons, combinations of products may exist at a certain time within one

industry, such as "commercial banking" or "insurance underwriting." However, there is no guarantee that one type of heavily taxed, heavily regulated industry that has been granted a particular "charter" will survive—quite the opposite.

Consider savings accounts, which transfer purchasing power from the present to the future. This saving function can also be accomplished by investing in common stock. Although these methods involve different risks, buying a put option can remove an important element of risk from holding stock.⁶ The functions provided by savings accounts need not be provided by a depository institution.

Something similar has happened with mortgages. In years past, people purchased houses by using personal savings. Later, the funds came from mortgage loans using the savings of other families within the community. Now, home purchases are financed by non-bank loans funded by investors in the mortgage-backed securities market.

Characteristically, commercial banks have funded themselves with liquid liabilities and have made illiquid loans. They do, however, provide various other services to their customers. *Functionally*, then, a "bank" is a combination of financial service activities. *Legally*, however, it is a corporation that receives a banking charter and is subject to the rules and regulations thereof. Typically, these strictures prevent banks or their holding companies from offering some services that are readily available in the marketplace because of concerns about safety and soundness.

This prompts two important observations: First, the functional definition of "banking" is not synonymous with the legal definition. Thus, a financial holding company owning a finance company, a venture capital firm, and a money market mutual fund has a fair claim to be called a bank under the functional approach. Conversely, a chartered bank that specializes in global custody arrangements or serves only as a clearinghouse for credit cards is, functionally speaking, not a bank.

Second, commercial banks as legally defined today may disappear in the future, but some organization will perform the functions they now provide: payments, pooling, and risk management on the liabilities side, and resource transfers and risk management on the assets side. Again, these particular combinations may not be undertaken by a single entity, just as the functions of making jewelry and accepting deposits no longer exist jointly.

In the future, firms may serve customers by bundling certain financial services that are currently provided separately, or may even merge banking-like services with non-banking services such as concert and sporting event tickets, vacation planning, and so on. They may utilize electronic delivery vehicles accessible via the Internet. Some activities that we regard today as inappropriate, difficult, or even illegal for banks will most likely change, and may do so sooner than we expect. In the end, firms that find ways to deliver the services that the public wants will prosper.

Already, the New Zealand government appears open to the idea of eliminating the distinction between corporations chartered as commercial banks and those incorporated for other business purposes. Customers of public utilities, such as phone companies, may carry interest-bearing balances and instruct these organizations to credit the accounts of other merchants. Indeed, the government may even permit some non-bank businesses to maintain settlement accounts at the Reserve Bank of New Zealand. What, then, would be called a "bank"?

■ Money

Evolution of the financial services industry carries implications for money and monetary policy. Just as we are challenged to rethink what a bank is, we will be challenged to rethink what money is.

Money will, of course, remain the same from an economist's perspective—a medium commonly accepted in trade for goods and services. But in practical terms, if the set of firms engaged in banking broadens, then might not the liabilities of the new entrants also circulate

among the public as exchange media? If people wish to conduct transactions with electronic vehicles that today's banks are slow to develop and offer, is it unreasonable to conjecture that other commercial firms will step into the marketing void?

New payment technologies should be regarded as innovations that enhance productivity and welfare just as surely as any other new product. The challenge faced by the Federal Reserve is to ensure that we can adapt our own operating practices and monetary policies to maintain financial stability and control the price level. Today, banks hold our liabilities because they must meet reserve requirements, because they find having Reserve Bank balances instrumental in settling transactions with other banks, and because the public uses Federal Reserve notes in transactions.

Required reserves are already declining. In the future, the demand for central bank money will depend on the Fed's usefulness in net settlement and on the public's interest in using Fed liabilities for transactions instead of those of another issuer. Does the public want to use an electronic traveler's check issued by American Express, or an electronic Federal Reserve note?

■ Implications of the Functional Approach

The functional approach, by focusing on banks' comparative advantages, helps bankers determine the most efficient way to provide the financial services their customers desire. A complementary approach is to think about what functions can be profitably outsourced. Money market mutual funds, for example, outsource some risk management. Unlike banks, they do not handle loan portfolios. By engaging in loan sales and securitization, a banking firm can outsource the transfer and pooling functions, but retain the credit evaluation and monitoring (for example, risk management and incentive) functions.

In thinking functionally, the initial tendency is to assume that everything can be outsourced, broken up, and reduced to a commodity. Experience, however, suggests otherwise. For example, until recently, people diversified the risk in their stock portfolio by purchasing a lot of different stocks themselves. Now a mutual fund does this for many investors, but they still incur the search and transaction costs of finding a good fund. Very sophisticated investors bypass mutual funds and invest directly in stock index futures. Others have moved to a new class of intermediary, the fund family (such as Schwab or Fidelity), which makes it easy to choose, evaluate, and transfer between different mutual funds. (An Internet search engine that does this is probably not far behind.) Still others have returned to commercial banks, trusting them to assist in seeking out and evaluating funds.

The collection of functions currently known as banking has survived—so far—for several reasons. It provides services more efficiently, effectively, and cheaply than if they were handled separately. Banks can use the information from deposits to better price and monitor loans. This gives bankers a decisive information advantage because the unique information content of illiquid loans, such as small business loans, prevents them from being easily pooled and securitized. Banks have also survived because their organization solves incentive problems. Funding themselves with a liquid liability having a specific payout guarantee gives banks a strong incentive to monitor the illiquid loans on their asset side. Indeed, we trust banks as “delegated monitors” precisely because their structure has evolved to solve this incentive problem.

The question for the future is, “What is the cheapest way to integrate and deliver banking functions?” Generally, people and technology will matter more than physical location. People will phone or e-mail an expert rather than talk face-to-face with a local teller, especially when expertise is vital—in life insurance, financial planning, and mutual funds, for example. Sears, whose strategy had been to rely on the

physical location of its stores as a means of delivering financial services, provides proof by counterexample.

What underlies this trend away from physical location? As Adam Smith pointed out long ago, specialization makes knowledge “lumpy.” According to Milton Friedman's more modern example, no single person knows how to make a pencil; its production requires the coordinated activity of many experts. Banks can use technology to deliver experts from afar, and this allows further specialization. Hiring an expert in options, although uneconomical for a local branch, would prove useful for the 0.1 percent of clients nationwide who trade options.

Despite the risk of bedazzlement (or cynicism) with the glories of information technology, it is worth asking what functions this technology can perform. Because people care about changes in their overall portfolio, new technology can be used to integrate different types of financial accounts—across multiple vendors, checking and mortgage accounts, car loans, mutual funds, stocks, bonds, and so on. It can also be used to reduce search costs—the program or search engine on a home computer can act as an intelligent agent on the user's behalf.⁷ All of this is far removed from the fourteenth century scrivener dispensing advice, but it serves the same function—that of reducing transaction and information costs.

Information technology also aids in automating the delivery of payment services, thereby reducing the need for paper checks, paper records, and brick-and-mortar bank branches. Some problems will persist, although in a different form: Complaints about long lines or surly tellers will be replaced by complaints about computer programs that crash.

Technology also aids in making payments, a fascinating area that raises important issues for both monetary policy and banking. Will future deposits assume a different form, and if so, will the combination of assets and liabilities that defines banking remain profitable?

Technology can be readily used to provide substitutes for banks. As people increasingly make payments electronically, and as software searches the Web for the best loan rates, banks may be reduced to mere commodity providers. Examples abound of businesses that were once strictly wholesalers, but that now deal directly with the public. Technology is an integral part of this retailing transformation. In time, network interface programs—such as Java, Netscape, or their successors—may become identified with banks in people's minds, and in reality. Goldsmiths' receipts did not start out as money—they were *receipts* for money—but in time, the interface became the reality.

New technology might also enable banks to become the interface, however. Already, banks are becoming mutual funds for some people. Apollo Bank in Pennsylvania has become an Internet service provider. One scenario is that on-line, banks will become like a store in the mall. Another scenario is that banks *may become the mall*, with financial planning software that lists their customers' bank accounts, credit card limits, and home equity balances on-screen, and that provides the ease of navigation and delivery that lets people transact with confidence.

■ Regulation

As the financial marketplace evolves, so too must financial regulation and regulating institutions. Just as "banking" functions need not be provided by banks, those functions known as "regulation" need not be provided by regulators. Regulators should be clear about what function they are providing and about how they provide it. An insightful set of reform proposals comes from the Bank Administration Institute (BAI).⁸ Although from a functional viewpoint the report concentrates excessively on the health of the banking industry, it nevertheless provides a wealth of ideas on how regulation can stop hindering banks from providing these functions. From my broader perspective, regulatory reform must rest on three principles:

A Level Playing Field. Like the Champagne Fairs of old, in which merchants could participate if they agreed to obey certain rules (such as having their gold assayed), regulation must not discriminate between different financial service providers. Banks generally applaud this rule when they talk about finance companies, mutual funds, and insurance companies not facing Community Reinvestment Act exams, but are less enthusiastic about allowing Goldman Sachs or Microsoft Corporation access to FedWire. The BAI report hoped to advance the goal of a level playing field when it called for eliminating outmoded compliance burdens, such as dual antitrust reviews.⁹

Functional Regulation. Regulation should focus less on institutions and more on functions. The Securities and Exchange Commission is well equipped to handle securities-related problems. Let them do so *and* make the regulations, whether the securities are underwritten by Merrill Lynch or the local bank. Conversely, the extension—which again banks may not like to contemplate—is that Merrill Lynch must submit to Federal Reserve examinations when making loans or using FedWire.¹⁰

Value-added Supervision. Supervision and regulation must consider the dynamic combination and recombination of functions occurring today. It should be less concerned with playing "financial cop" and more concerned with helping firms work safely and efficiently. Ideally, banks will one day treat Federal Reserve exams more like a report from Arthur Anderson or Moody's than an ordeal to be survived. The removal of unfair taxes and subsidies posited under the level-playing-field principle should make regulations less burdensome, and banks less eager to find ways around them.¹¹

In the end, functional regulation may not be adequate, because some functional combinations pose incentive and informational problems. After all, it was the combination of long-term assets and short-term liabilities that got the savings and loans in trouble. Still, with these principles, the new financial landscape may benefit from a regulatory environment that promotes economic efficiency.

■ Conclusion

Laws and regulations that attempt to "wall off" certain business lines from others in the same corporate entity create strong reactions in the marketplace. Unregulated competitors rush to fill the void, and the regulated firms attempt to avoid the regulatory barriers by creating new products that offer their clients the desired functionality.¹² Even if regulatory barriers initially can be justified due to some threat to financial stability, the justification may become outmoded over time.

Ultimately, the greatest disaster would not be a world without banks or bank regulators, uncomfortable as that transition might be. Rather, it would be a drastic failure of innovation. People today are far better off for having refrigerators—even if the ice-cutters' union disagrees.

Footnotes

1. It is interesting to note the heavy role of government even at the dawn of banking history. Although other merchants also offered credit in medieval times, goldsmiths became important because of government intervention. Both Henry VIII's suppression of monasteries and religious charities (1545) and Charles I's seizure of the specie and bullion from the Tower of London mint (1640) considerably increased goldsmiths' deposits of gold and silver.
2. The Bank of Amsterdam was made famous by Adam Smith's description in *The Wealth of Nations*.
3. Deposit and lending functions at these institutions were often separated to prevent loans from being funded by deposits. The Bank of England formally separated the two functions in 1844 with Peel's Act, but the Riksbank of Sweden was separated into a "narrow" bank and a lending bank from the start (1656).
4. Note that goldsmiths, as part of a guild system, were not corporations either. For an in-depth look at the history of scriveners, goldsmiths, and early banking, see Charles P. Kindleberger, *A Financial History of Western Europe*, Boston: Allen & Unwin, 1984.
5. The functional approach to economic analysis has a long history. Economist Frank Knight described the basic economic functions as answers to a set of questions that any society must answer—what to produce, how to produce it, and how to distribute the output. See Frank H. Knight, "Social Economic Organization," in William Breit and Harold M. Hochman, eds., *Readings in Microeconomics*, Hinsdale, Ill.: Dryden Press, 1971, pp. 3–19. For a more detailed look at the functional approach to financial markets, see Robert C. Merton and Zvi Bodie, "A Conceptual Framework for Analyzing the Financial Environment," in Dwight B. Crane et al., eds., *The Global Financial System: A Functional Perspective*, Boston: Harvard Business School Press, 1995, pp. 3–31.
6. An option is a contract that gives the holder the right, but not the obligation, to make an exchange. For example, a call option on a stock gives the owner the right to buy a fixed number of shares of a specified common stock at a fixed price (the strike price). A put option gives the owner the right to sell at a specified price.
7. For example, products such as Bargain-Finder, which is currently used to search for the lowest-priced compact disks, could be adapted to search for the best price on certificates of deposit. Banks could also adopt SearchSpace, a computer program used in Italy to predict loan defaults.
8. See McKinsey & Company, *Building Better Banks: The Case for Performance-Based Regulation*, Chicago: Bank Administration Institute, 1996.
9. The report provides specific proposals to achieve a level playing field. One set of recommendations aims to "liberate full customer service capabilities" by eliminating applications for new, unregulated products. Another set aims to free up the organization of banks in order to "empower full corporate governance." These proposals seek to permit well-managed banks to hold equity investments and undertake merchant banking activity. Notification would replace application for both bank and non-bank acquisitions (including branches and ATMs), and would likewise replace the requirements for approval of headquarters expansion and dividend outputs.
10. The BAI report called for "risk-based supervision" and insightfully looked for ways that regulation could be accomplished more efficiently without regulators. Thus, a greater use of external and internal audits, coupled with increased disclosure and reliance on market indicators, would go far in this direction. New Zealand, for example, has mandated that banks publicly display their credit ratings.
11. The BAI report explicitly recognized the Federal Reserve Bank of Cleveland's "value-added supervision" approach of structuring more efficient exams, improving communications between banks and their supervisors, and rapidly identifying hazardous risk. The report stressed that supervision should concentrate on a bank's risk management capabilities, assessing internal controls and audit procedures. The Nick Leasons of the world remind us that these procedures and controls truly matter to the bottom line.
12. See João Cabral dos Santos, "Glass-Steagall and the Regulatory Dialectic," Federal Reserve Bank of Cleveland, *Economic Commentary*, February 15, 1996.

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