ELECTRIC MONEY

TEACHING GUIDE: LESSON THREE

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BANKS IN THE 20TH AND 21ST CENTURIES

Lesson Plan #1: What Do Banks Do?

Grade Level: 9–12

Time Required: 15–30 minutes, or more if desired

Overview:
Banks are one of the most important institutions in modern economies, yet many citizens do not understand exactly what banks do. This lesson examines the assets and liabilities on a bank's balance sheet and considers how banks make money.

Objectives:
After watching the video and engaging in this guided discussion, students should know:

- How banks serve as financial intermediaries.
- That banks hold very little cash to back deposits, keeping most of their assets in the form of securities or loans.
- How banks process checks.
- How electronic processing has made the financial system more efficient.

Related National Standards:
NCEE Standard 10: Institutions evolve in market economies to help individuals and groups accomplish their goals. Banks, labor unions, corporations, legal systems, and not-for-profit organizations are examples of important institutions.

NCEE Standard 11: Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services.

Materials:
VCR to view the video segment before the discussion

Background Information for Teachers:
Everyone knows what banks are … sort of. We all know that we can establish checking and savings accounts at banks and that banks lend money. While these are the two essential functions of banks, there is a lot more going on behind the scenes.

Moreover, modern information technology has affected almost every aspect of banking. In some ways technology has made banks better at the things that they do and enhanced their market. In other cases, technology has allowed other kinds of companies to compete with banks more effectively, taking some of their market away. This lesson focuses on what banks do and on how advances in information technology have changed what they do and how they do them.

• Traditional Banks
In order to operate as a bank, a company must obtain a bank charter from the federal or state government. Only chartered banks may both accept checking deposits and make loans. The traditional bank is most easily described by listing the items on its balance sheet (see Table 1, which can be updated at www.federalreserve.gov/releases/H8/Current/). On the liability side are the bank's deposits, which it owes to its deposit customers, and any other borrowing that the bank does. On the asset side are the banks reserves (the amount of money it keeps in vault cash and in its account at the Federal Reserve Bank, the loans that it expects to collect from its borrowers, and the financial securities (often government securities such as Treasury bonds) that it owns (plus, of course, physical assets such as buildings and computers). The difference between the value of the bank's assets and its liabilities is its net worth, which is usually called the bank's capital.

Item	May 2001 Amount (Billions of Dollars)
Assets	**6,227.4**
Bank Credit	5,318.0
Securities	1,369.2
Loans and Leases	3,948.8
Interbank Loans	287.1
Cash Assets	263.7
Other Assets	423.8
Liabilities	**5,794.7**
Deposits	4,000.9
Transaction (Checking)	613.0
Other	3,388.0
Borrowings	1,247.6
Owed to Foreign Branches	207.1
Other Liabilities	339.0
Capital: Assets Minus Liabilities	**432.7**

In May 2001, commercial banks in the United States held $4 trillion in deposits. However, their total reserves were less than one percent of that figure ($38.9 billion; see www.federalreserve.gov/releases/H3/Current/ for current data). Banks can get away with holding only small amounts in reserve because customers rarely surprise them by withdrawing (collectively) massive amounts of money in excess of what they deposit. Since reserves don't earn interest, banks would like to get by with as small reserves as possible. They are required to hold reserves against their transaction accounts (checking accounts) by the Federal Reserve, and they typically hold very little beyond that. (In May 2001, $37.9 billion of the $38.9 billion of total reserves was required; only just over $1 billion was excess reserves above the requirement.)

• Why Do We Need Banks?

Banks serve as financial intermediaries. They channel money from people who have it (depositors) to people who need it (borrowers). But why do we need such intermediaries? Why can't the people who deposit money in banks simply find the people who want to borrow and lend to them directly without the (costly) services of a bank? There are several answers to this question.

First, it would be difficult for each individual depositor to gather enough information about the creditworthiness of prospective borrowers to allow them to lend with confidence of repayment. Banks specialize in gathering and processing financial information, which makes them a natural candidate for finding good borrowers.

Second, most borrowers want to borrow a substantial sum of money, thousands or even millions of dollars. Many depositors have a much smaller amount to lend. One of the roles that banks play is to pool small depositors' money together and lend to large borrowers. This not only makes it possible for small depositors to participate in the credit market, but it also allows them to diversify their risk by pooling money with many other depositors (large and small) and lending to many different borrowers. Each depositor (in theory, though not in practice when the government insures deposits) shares the risk of all of the bank's loans, so when one borrower goes bankrupt, each depositor loses a little rather than one losing everything.

Another role that banks serve is providing liquidity. An asset is liquid if it can be turned into cash quickly, cheaply, and easily. Bank deposits are highly liquid because the bank is normally able and willing to give you cash at any time. Loans are much less liquid because most borrowers want to use the money for a fixed (and often quite

long) period of time. As intermediaries, banks lend for long and fixed terms, counting on the fact that all depositors won't want to withdraw on the same day. This allows each depositor to have liquidity (as long as all don't need it at once) while borrowers can have their money for a longer period of time.

• How Banks Make Money

Traditional banks make money by charging a higher interest rate on the loans that they make than the rate they pay on their deposits. This spread between interest rates is the commission that the bank receives for its role as an intermediary between borrowers and depositors. As long as these people value the bank's information, deposit pooling, and liquidity services more than the interest-rate spread, banks can continue to charge that spread. If the value of their services drops below the spread, then lenders and borrowers will find other ways of getting together and banks will lose business.

Banks also earn money from off-balance-sheet activities, which are services that they provide to customers other than traditional deposits and loans. Examples include arranging transactions on behalf of customers (especially in foreign currencies and short-term securities) and providing guarantees to back their customers' promises (the simplest example is a personal check guarantee card, but similar services provided to corporations are much larger business).

• Banks in the Payment System

Because only banks issue checking accounts, they naturally sit at the center of the payment system that moves money from a person writing a check to the person receiving it. Banks accomplish this by holding deposits at their regional Federal Reserve Banks (there are 12). When a bank receives a check drawn on another bank, it (tentatively, subject to successful clearing) credits the customer's account, then sends the check to the Federal Reserve Bank (Fed). The Fed credits the bank's account and debits the account of the bank on which the check was written, then forwards the check to the check-writer's bank. When this bank receives the check, it debits the check-writer's account and (assuming there were sufficient funds in the account to cover the check) the transaction is complete.

Much of banks' costs relate to processing checks. Although computers can read the magnetic-ink code numbers on the bottom of the check to identify the account on which the check was written, humans must still read and type in (or at least verify) the dollar amount of the check and make the association between the check and where the money is to go. Since most banks do not charge customers for each check they process, these costs must be met out of general monthly account fees and from the interest-rate spread on lending.

• Effects of New Technologies on Banking

We are in the midst of a revolution in information technology. Modern computers and the communications network connecting them can move massive amounts of information around practically instantly. Banking consists of the collection and use of information in many forms. The balances and activities associated with people's bank accounts are information. So are data about the creditworthiness of customers and others. As purchasers of securities and foreign currencies, banks must collect information on current prices in these markets and also try to find transaction partners when the need arises.

Because banking is an information-based industry, modern technology has revolutionized its operation. Activities that used to take days or even weeks are now accomplished instantly or in a few minutes. Even fairly complex transactions such as processing a loan application can often be done very quickly because the bank's loan officer can get credit information about an applicant delivered to her desktop computer in seconds.

As recently as the 1970s, banks were open only from about 9 or 10 in the morning until 2 or 3 in the afternoon. The remainder of the day was spent processing (on paper) the transactions that had occurred during the short service day. The computerization of bank records turned hours of accountants' calculations into a continuous real-time processing capability that requires no time-consuming processing after the bank closes. Customers' accounts are updated continuously as transactions occur and closed for the day (to determine the day's official account balance) at a designated time in the afternoon.

The restricted banking hours were very inconvenient for customers, who often had to leave their own jobs to accomplish their banking transactions during the banks' limited hours. The most visible change in banks' inter-

action with customers has been the automated teller machine (ATM). These devices spread like wildfire in the 1980s after being introduced by Citibank. (The video segment has a fairly detailed description of Citibank's innovation of the ATM.) With ATMs, customers can withdraw cash, make deposits, make loan payments, and often perform other transactions 24 hours a day, 365 days a year. Now that ATMs of many banks have been linked into a common network, it is even possible to perform banking transactions at your bank from an ATM located at another bank, even in another part of the world.

Electronic funds transfer (EFT)—the movement by electronic messages of money between banks—started somewhat earlier than the ATM and has had a similarly profound effect on interbank transactions. Most transactions between banks (other than checks written by depositors) are accomplished electronically, which allows money to move much faster than when paper checks were used.

Banks have tried to encourage their customers to use EFT for depositing their paychecks and paying their bills. Reduction in the volume of paper checks would allow the banking system to process payments faster and more cheaply. The federal government gave this process a boost by mandating that most government payments should be electronic by 1999. Despite this encouragement, bank customers have been slow to adopt EFT. Although many customers have their paychecks automatically deposited, few pay bills that way. As banks develop more advanced Web-based interfaces with their customers, they hope that electronic bill paying will become more common.

Most of these technological changes have allowed banks to do their job better and at lower cost, which has strengthened banks' position in their markets. However, other aspects of the information revolution have threatened parts of banks' traditional markets. Computers not only make it easier for banks to transfer and store information, but they make it easier for everyone else, too. Since information is one of the main services that banks sell, modern technology has sometimes allowed customers to obtain information cheaply enough on their own that they can bypass the bank entirely. This has been particularly true of mid-sized and large business borrowers. Traditionally, even large businesses relied on banks for short-term credit to balance the timing of their inflow of revenue with that of their outflow of expenses. In recent years, more and more large businesses have gone directly to the commercial paper market, selling short-term IOUs directly to individuals and institutions. This decline in a traditionally profitable (and relatively low-risk) part of their market has forced banks to seek revenues from other kinds of activities, such as the off-balance-sheet activities discussed above.

Activity:

This lesson is a guided discussion. A good strategy for leading the discussion is to begin with what students know about banks and to try to lead them through some of the important characteristics of banks discussed above.

Many of your students probably have bank accounts, or at least their families do. A good starting point for a discussion of banking is to ask, "What does the bank do with a dollar that you deposit?" Students may be surprised to find out that such a very small share of each deposit dollar is held by the bank as reserves. This can lead into a general discussion of what the bank does with their money and why this is beneficial.

If your classroom is equipped with Internet access, you and/or your students could go to the Federal Reserve Board of Governors' Web site (http://www.federalreserve.gov/) to look for current data from statistical releases on banks' assets, liabilities, and reserves. If you can project from your computer onto a screen, all of the students can examine the relevant tables together.

To motivate students to think about why having banks as intermediaries is useful, ask them what they would do with their money if banks (and other intermediaries such as savings-and-loan associations and credit unions) did not exist. Could they find anyone to whom to lend at interest? How would they know if he or she would repay on time? What would happen if the borrower did not repay? What would happen if they wanted to get their money out before the borrower was ready to repay? These questions should help convince them that what banks do is useful.

To help students understand the payment system, you could ask them what happens when they get a check as a birthday gift from a distant relative. Do they have to go to the relative's bank across the country to cash it? Why not? What must happen when they get cash or deposit the check to their own bank account?

To give them an appreciation for how electronic processing has improved financial services, you may want

to emphasize with class discussion the section of the video that talks about banking in the 1950s. It may be interesting for them to think about how they would cope with not having access to their bank accounts on evenings and weekends. They might find it interesting to know that it was much more common for nonbank businesses such as grocery stores to provide after-hours check-cashing services in those days.

Assessment Recommendations:
Participation in discussion is one basis for assessment of this activity. You could also use exam or quiz questions. Among the kinds of questions you might ask are:

- What does your bank do with a dollar that you deposit?
- What are bank reserves and how large are they compared with deposits?
- Why is it more efficient for banks to make loans than for their depositors to lend to their borrowers directly?
- How has the development of modern electronic communications affected how banks interact with their customers?

For More Information:

Most textbooks written for college courses in money and banking contain detailed discussions of the banking industry.

Among the better-known of these are:

- Mishkin, Frederic. *The Economics of Money, Banking, and Financial Markets*, 6th ed. Reading, Mass: Addison Wesley Longman, 2001.
- Miller, Roger L. and David VanHoose. *Money, Banking, and Financial Markets.* Cincinnati, Ohio: South-Western College Publishing, 2001.
- Ritter, Lawrence, William Silber, and Gregory Udell. *Principles of Money, Banking, and Financial Markets*, 10th ed. Reading, Mass: Addison Wesley Longman, 2000.

Lesson Plan #2: Why Are Banks Merging and What Effects Will Mergers Have?

Grade Level: 9–12

Time Required: 15–30 minutes, or more if desired

Overview:

This lesson consists of viewing the video "Banks in the 20th and 21st Centuries," followed by a guided discussion of some of the issues relating to bank consolidation.

If you have banked at the same place for more than ten years, it is quite likely that your bank has either been bought by another bank, bought other banks, or merged with another bank. Banks all over the United States have been merging into nationwide banking organizations. Small rural banks have often been bought by larger regional banks to form banks that cover entire states and regions. This lesson examines the reasons for these mergers and the likely effects they will have on banks' customers.

Objectives:

After viewing the video and participating in the discussion, students should know:

- That most bank mergers are between banks in different markets and have little or no effect on the degree of competition in local banking markets.
- That large banks are often more efficient in many aspects of banking than small banks because of economies of scale, diversification of risks, etc.
- That small banks and large banks can coexist if each serves a different market segment more efficiently.
- How efficient credit markets allocate funds to the people and companies (in whatever region) that have the most productive projects.

Related National Standards:

NCEE Standard 9: Competition among sellers lowers costs and prices, and encourages producers to produce more of what consumers are willing and able to buy.

NCEE Standard 10: Institutions evolve in market economies to help individuals and groups accomplish their goals. Banks, labor unions, corporations, legal systems, and not-for-profit organizations are examples of important institutions.

NCEE Standard 11: Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services.

Materials:

VCR to view the video segment before the discussion

Background Information for Teachers:

One of the dominant trends in banking since 1980 has been an increase in mergers in which large banks keep getting larger. Antitrust laws try to protect American consumers from concentrations of market power in the hands of one or a few large firms. Yet the antitrust authorities have barely responded at all to these mega-mergers among banks.

• Why Banks Are Merging Now

To understand why banks are merging and why the authorities are not yet very concerned, you need to understand the history of federal bank regulation. Banks have always been regulated by states and/or the federal government to

make sure that they do not just pocket their depositors' money and close their doors. But regulation of banks in the United States has gone far beyond just auditing their accounting statements and making sure that they lend to respectable borrowers.

Early Americans were very skeptical about the power of banks. Rural interests feared that large, national banking organizations would be dominated by urban industry and would not serve them well. Populists viewed large banks as an undesirable concentration of financial power. Even industrialists often feared the potential power of large and dominant banking organizations. Thus, there was a strong political consensus in the 19th century opposing the development of large banks.

These political forces led to tight regulations restricting banks' growth in two directions. First, banks were prohibited from operating offices in more than one state. Many states further restricted the ability of banks to operate multiple branches within a state. Second, banks were not allowed to undertake nonbank activities such as underwriting insurance or real-estate brokerage.

Banks began to slip around the interstate restrictions through bank holding companies (BHCs). These BHCs were empty companies that simply owned multiple banks. Thus, separate but commonly-owned banks developed both within states and sometimes across states before banks were actually allowed to operate multiple branches. (The distinction between separate banks owned by a common BHC and separate branches of a single bank is subtle. It is analogous to the difference between branch campuses of a state university, which share some administrative kinship, and two distinct universities both run, separately, by the state.) The prohibition on interstate branching was finally eliminated in 1997. Much of the merger activity since then has been large banks in one state merging with large banks in other states to form multi-state networks of branches.

The prohibition on banks entering nonbank industries ended in 1999. Since then, banks have begun merging with other kinds of financial institutions to provide diversified financial service firms. Many analysts think that financial services can be provided at lower costs from such diversified firms operating as financial supermarkets than from separate firms specializing in banking, insurance, stock brokerage, real estate, etc.

• Potential Gains From Mergers

The merger wave has gradually moved the banking industry toward one of large, national banks operating from coast to coast. What do banks hope to gain from these mergers? One rationale for the mergers is economies of scale, which is the idea that large banks can serve customers at lower average cost than smaller banks. The computerization of the processing of account information has lowered the costs of large banks (which can use the most efficient computer systems) relative to smaller banks (which do not have enough volume to justify buying the largest and fastest computers).

The development of cheap, instantaneous communication over long distances has also eliminated one of the biggest barriers to coordinating operations in a bank with branches all over the country. The central office can use integrated computer systems to keep track of what is happening in hundreds or thousands of branches almost instantly, regardless of where they are located.

One fear of nationally-integrated banking is also one of the advantages: the enhanced potential for interregional flows of capital. Early (and recent) populists feared that big banks would take the money deposited by small rural customers and lend it only to big-city industrialists. One of the purposes of financial markets, and banks, is to move money from those who have it to those who need it. If there is a greater need (more productive investment opportunities) in one part of the country than there are local funds to invest, then it is desirable for this region to be able to borrow from other regions in order to make its investments. Of course, the flow of funds could be in the other direction, with the deposits of the industrialists in the cities flowing to productive investment opportunities in the countryside. It just depends on the balance of available funds and promising opportunities.

An efficient capital market allows these flows to occur. There are market forces that tend to move funds to the highest-productivity use. Specifically, someone with a project that is expected to be extremely profitable is likely to be willing to pay a relatively high interest rate in order to fund it, since the project will pay off so richly. Thus, banks and other investors seeking to maximize their returns will be attracted to such projects. It is possible that these flows of capital to its most productive uses would occur more easily within a large, regionally-diversified bank than between institutions. If the bank is able to identify and fund the capital projects with the highest productivity,

then the integration of the banking industry is likely to improve the allocation of funds.

Another reason why interstate branching makes sense in the banking industry is diversification of risk. To the extent that banks are likely to lend money to borrowers located near their branches, small banks end up with loans concentrated in a small geographic region. If economic conditions in that region worsen, many borrowers may default at the same time, threatening the bank's solvency. This was a severe problem for Texas banks in the 1980s when falling oil prices led to a regional downturn. A bank that operates in many regions is much better able to cope with economic hardship occurring in only one of them since only a small part of its overall market is likely to be depressed at any given time.

Finally, given the increasing integration of the nation's economy, it may be easier for large, coast-to-coast banks to serve the needs of business customers that have operations in many states. Large banks can easily move money from one location to another, aiding businesses that earn revenues by selling products in one place, but that must pay employees somewhere else.

• Potential Hazards of Mergers

One of the major concerns about bank mergers is the standard concern about concentration of market power. Firms that control a large share of their markets or that have few competitors often have the opportunity to charge high, monopoly prices for their goods and services.

There are over 8,000 banks in the United States, so on the basis of this evidence it does not appear that mergers are likely to reduce the number of competing banks to dangerous levels any time soon. However, one must be very careful about defining the market in which any bank competes. Although many large firms choose their banks from among large banks based in many locations, most small customers restrict their choice to banks operating in a small local area. Thus, for these customers the relevant market is the local banking market, not the national one. To the extent that one defines the banking market to be local, there are some areas in which one or two banks dominate. However, mergers between banks in these areas and banks in other states or regions are unlikely to affect the degree of concentration in the local market. Even if the banking market in Anytown has only two banks, there is probably as much competition if these banks are part of a national banking organization as if they are local and independent. And for the reasons discussed above, local customers may get better service at lower cost from the nationally-integrated bank.

The mergers that regulators have looked at most skeptically are those between banks whose current markets overlap. For example, if there are three equal-sized banks in a market and the national organization that owns the first merges with the second, that would increase concentration in the market significantly. In such cases, federal antitrust regulators usually require that the branches in the affected markets be sold to a third bank to preserve competition among three banks.

• Can Large and Small Banks Coexist?

The small, local bank is often depicted with the same reverence as the family farm—it is an American institution. Will the integration of banking into large, national superbanks drive the small, local banks out of the market?

That depends on whether the large banks really can do their job better than the small banks. Just as small airlines have survived (and in some cases been created) to serve local niche markets alongside the giant, nationwide carriers, small banks may well coexist with large ones if there is a part of the market that they can serve more efficiently. Some have argued that small consumer deposits and small business lending may be better served by small banks. If so, then we would expect to see a mix of small and large banks in the industry after all the mergers have been completed, with each category of banks serving the customers that it serves best.

Economists who have looked at the behavior of banks have usually found that the takeover of small banks by large, nationwide banks does not diminish the availability of credit to small, local businesses. However, the process of integration in the financial-services industry is still at an early stage, so it is premature to assess the final outcome.

Activity:
This discussion would fit well with a class segment on antitrust policy. Students studying antitrust will be used to thinking in terms of assessing firms' market power and thinking about the effects of mergers on competition. For these students, the local vs. national aspect of the banking market should provide an interesting example.

Bank mergers have been so pervasive that it is likely that there has been a recent one involving a bank in your area. If so, that is a good place to start. Find out who merged with (or bought or was bought by) the local bank and whether or not they were previously active in the local market. If so, did the antitrust authorities force them to sell off local branches of one or the other bank before merging?

Ask the students about any advantages they might see in having a bank that operates in other states. Would they see advantages if they were traveling? What if they were operating a chain of stores with branches in several states?

This is also a good opportunity to discuss the role of banks in allocating investment funds to their most productive uses. The following example might motivate them to think about the role of large banks in allocating capital efficiently across regions: Suppose that the Bank of Suburbia and the City Bank have been operating totally separately in their respective parts of the metropolitan area. The Bank of Suburbia has lots of money deposited from the area's wealthy residents, but there are few investment projects going on in the suburbs. Consequently, the Bank of Suburbia puts a lot of its assets in relatively low-interest Treasury bills rather than in loans. City Bank has many commercial and industrial customers with investment projects they would like to undertake for new stores and factories, but they are starved for money because City Bank has a small deposit base. The capital market would function more efficiently if, because of a merger between the two banks, some of the suburban deposits could be used for the highly-productive projects in the city. (It is true that the banks need not merge in order for funds to flow from suburbia to the city, but the flow might be enhanced by the merger.)

If the students feel comfortable with funds flowing from the suburbs to the city, do they also feel comfortable with their own state's money being lent in other states? This is sometimes more controversial, but the same argument about efficient allocation of capital applies. If students have trouble understanding the benefits of efficient capital allocation, ask them whether they would rather (as depositors) get a higher interest rate on their deposits from a bank that invests their money as productively as possible (and, therefore, can afford to pay higher interest) or a lower rate from a bank that lends locally but earns less. Most would probably opt for the higher interest rate. (Of course, only if there is sufficient competition among banks would the bank making the high-interest loans be forced to pass the high interest along to depositors. In a monopoly, they might keep some or most of the increased interest in extra profits. This amplifies the importance of competition in local banking markets.)

Assessment Recommendations:
Assessment can be based on participation in the discussion. The following essay questions could also be used on a follow-up exam, quiz, or essay assignment:

- Why have so many mergers occurred among banks since 1990?
- Evaluate the following statement: If banks can make more money lending local depositors' money in another state, then they should do so.
- Which is more likely to have adverse effects on consumers: a merger between banks in different states or a merger between banks in the same city? Why?

For More Information:
There is a lot of academic literature on the effects of bank mergers, but much of this is technical literature aimed at an audience of professional economists.

One of the best non-specialist surveys is:

- Broaddus, Jr, J. Alfred (president of the Federal Reserve Bank of Richmond). "The Bank Merger Wave: Causes and Consequences," *Richmond Fed's Economic Quarterly,* Summer 1998. Copies are available online at www.rich.frb.org/pubs/eq/pdfs/summer1998/broaddus.pdf.

An excellent general source of information on the current state of the financial services industry is:

- Litan, Robert E., *American Finance for the 21st Century*. Washington, D.C.: Brookings Institution Press, 1998. This book was originally prepared as a report by a group of economists commissioned by the Department of the Treasury.

Lesson Plan #3: Towns without Banks

Grade Level: 9–12

Time Required: 15 – 30 minutes for discussion, or more if desired, plus 15 minutes to watch video

Overview:
A common worry when small companies merge into large, nationwide enterprises is that small, isolated markets will be ignored by the larger firms. The video segment "Banking in the 20th and 21st Centuries" includes a short feature on the town of Landbourne, England which has no bank or access to an automated teller machine. This lesson uses the Landbourne example to motivate a discussion of the effects of bank mergers on small markets.

Objectives:
After viewing the video and engaging in the discussion, students should understand:

- That it may be more costly for banking organizations to serve customers in isolated rural towns than to serve urban customers.
- That a competitive banking market will not allow banks to serve high-cost customers with the same terms as low-cost customers.
- That many people think of access to banks and other similar services as a right whether the market encourages banks to provide service or not.

Related National Standards:
NCEE Standard 9: Competition among sellers lowers costs and prices, and encourages producers to produce more of what consumers are willing and able to buy.

NCEE Standard 11: Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services.

Materials:
VCR to view the video segment before the discussion

Background Information for Teachers:
Any time that an industry undergoes regulatory reform that encourages restructuring and consolidation, there are worries about whether smaller parts of the market will be neglected by large, consolidated firms. This was true in the airline deregulation of the 1970s and has been a worry in the changes in the banking industry more recently.

The banking industry in Britain is much more nationally integrated than is currently the case in the United States because Britain never had the same kind of restrictive regional banking laws. Thus, some might argue that the U.S. banking industry will become more like Britain's.

As the U.S. industry becomes more concentrated in large, nationwide banks, there may be more of a tendency to reduce or eliminate services to small, isolated towns. Because the volume of transactions in these towns is so small, it costs banks a lot (per transaction) to keep offices and staff, or even ATMs, open there.

This raises questions that arise in many service industries: Is it reasonable to deny access to customers whom it is considerably more expensive than the average customer to serve? Is it reasonable for a company serving these customers to charge a price that is enough higher than that charged to the average customer to cover the additional costs?

If society judges it reasonable to charge high-cost customers more (and if they are willing to pay more), then there should be no problem attracting banks to serve these areas. However, if it is not possible to charge more to high-cost areas because of public attitudes, government policies, or unwillingness of these customers to pay more, then it is likely to be difficult to serve them.

Suppose that NiceBank decides to try to keep a loss-making branch open in a small, isolated village. In

order to cover the higher costs of serving these customers without charging them any more than other customers, NiceBank would have to offer less attractive terms (higher fees, lower interest rates on deposits, or higher interest rates on loans) to *all* its customers. This would put it at a disadvantage in the markets where it faces competition. Other banks that do not incur the costs of loss-making branches would be able to offer more attractive terms and drive the bank out of profitable markets. Thus, NiceBank would end up serving only the loss-making markets and would have to raise its fees even higher to avoid losing money. Thus, a competitive banking industry will serve these high-cost markets only if banks can charge enough to make them profitable.

But is this good, or is this a flaw of the competitive market system? The issue of charging more to serve high-cost customers is common in many industries. For example, no one is surprised by the fact that low-volume gasoline stations in isolated, rural locations charge more per gallon than high-volume stations located nearer to suppliers. However, for some goods and services differential charging is quite controversial. For example, the U.S. Postal Service charges the same amount for sending a letter within the United States regardless of where it is going to and from. (Of course, the Postal Service has a monopoly on first-class letter delivery, so competitive issues do not apply.)

Similarly, electric companies must decide whether to charge all customers the same rates, even though they may have to build miles of power lines to serve isolated farms. Charging more to high-cost customers might seem unfair, but the alternative is to charge everyone higher prices to spread the extra cost over all customers. Is it fair that people who choose to live in the city, where service cost is low, should have to pay the extra service cost of people who choose to live in isolated places that are hard to serve? Students may find this question interesting to discuss.

And what about technological innovation? We usually associate modern technology with ever-larger enterprises that concentrate their services in large cities. However, ATMs are a new technology that may make it easier to serve small, isolated markets. Bank branches are very expensive, requiring staffing by several people as well as a building and computers to allow the staff to process transactions. ATMs cost much less. Apart from the cost of the machine, they may only require a few visits per week by a bank employee to replenish cash and remove deposits. So rather than reducing services to isolated, rural markets, ATMs may ultimately increase (or at least preserve) such services.

Activity:

This lesson consists of a guided discussion to be undertaken after viewing the video segment "Banking in the 20th and 21st Centuries." Your students' perspective on this issue may depend to a large extent on whether they live in a large city or a small town. The suggestions below attempt to provide useful discussion points for both groups.

You may wish to begin by asking students to think about consumers' rights. We know that the Bill of Rights assures everyone in the United States of the right to free speech, etc. However, there is no legal right to having a bank (or a grocery store, gas station, post office, or any other commercial enterprise) nearby. Should there be? Or should this decision be left to the market to decide, with banks opening in places where they can be run profitably and not in others?

Students' perspectives on this subject are likely to depend on whether they live in a big city or a small town. Small town students may be more sensitive to the issues of being left out whereas city students may not understand this as well. However, there are some things that usually cost more in cities that might help bring this issue closer to home. For example, is it fair that police services should cost more in the high-crime cities than in bucolic, rural settings or should this cost be spread evenly throughout the state?

As a supplementary activity, students might use the Internet Yellow Pages (several versions are available) to try to locate banks in selected rural areas around your state. Do there seem to be large areas without any banks? (It will be impossible to tell whether there are ATMs nearby.) Based on your research, do small towns in your region seem to be served by branches of large banks or by small local or regional banks?

Assessment Recommendations:

Students may be assessed based on participation in class discussion. The following exam questions may be useful

for additional evaluation:

- Why is it more costly for banks to serve customers in small towns?
- What happens if a bank raises its fees to big-city customers in order to spread the cost of covering small-town customers over its entire customer base?