

President's Message



"Those who have misgivings about today's free trade are right in one regard. Our safety net for those who lose their jobs needs to be widened."

William Poole

PRESIDENT AND CEO,
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"Offshoring" of Jobs Opens Doors to Other Opportunities

Judging from the talk shows, you would think we're all destined to wear Nehru jackets or saris and to bathe in the Ganges River if we want to continue to collect a paycheck. Yes, some U.S. jobs are moving to India. No, the sun isn't setting on the American economy.

We've been through the pain of job loss many times before as employers seek to cut payroll. What makes this instance of "offshoring" different is that the jobs are in service industries and not just in manufacturing.

But, as in the past, the United States as a whole will not only survive this loss of jobs but thrive. If Indians are willing to write software programs, analyze financial reports and transcribe doctors' taped notes for as little as one-tenth of U.S. wages, there will be plenty of savings to enjoy. American employers will have more money not just to pass on to their shareholders but to invest in their businesses—and that includes their remaining American employees. Meanwhile in India, such jobs are bolstering the ranks of the middle class, meaning more Indians will have more money to buy more goods and services, many of which will come from the United States. In the end, we're enlarging our markets. As a bonus, we're tapping into a new knowledge base, one that may give us ideas we wouldn't have thought of on our own.

Even if you disagree with this scenario, there's little hope of stopping it.

It's another inevitable result of technological change. The catalyst this time was the laying of fiber optic cables to other countries in the 1990s. The current glut has drastically lowered the cost of phone calls and data transmission to India and other low-wage countries. Any job that focuses on usage of the phone or computer could conceivably be done for less in English-speaking India—even the jobs of our economists!

Change created by new technology can be a scary prospect, but only if you don't look at the whole picture. Pessimists should remember that these fiber optic cables—and trade, in general—are two-way streets, enabling foreign automakers, drug makers, bankers and the like to start operations in this country. When critics cry out for protection for American jobs, the public also needs to know that such measures almost always end up costing us as a society more than we save. For example, it's estimated that we spent more than \$100,000 for every job saved in the apparel manufacturing industry—jobs that seldom paid more than \$15,000 a year.

Those who have misgivings about today's free trade are right in one regard. Our safety net for those who lose their jobs needs to be widened. One study shows that only one-third of Americans who've been displaced over the past two decades found new jobs at the same or higher pay. One-

fourth saw their incomes fall by almost one-third. We should consider suggestions such as strengthening programs that supplement these people's income for a transitional period, providing relocation assistance and adding training.

While these measures are being weighed, we can all help ourselves by embracing lifelong learning. The need to be prepared for different kinds of work isn't on the horizon; it's here. Our communities need to invest more in education—academic or vocational as long as the student learns how to think logically and communicate clearly. Everyone needs to understand the importance of lifelong learning for his or her economic future. There's no denying that the incomes of college grads keep rising, while the wages of those with low skills are stagnating.

The end result of this process will be vigorous growth of employment at home, and the jobs will be better than ever. We will lose jobs abroad, but they will tend to be lower skill and lower paying jobs. The jobs here will require higher skills, and they will be rewarded with higher pay. Does anyone really want to hold on to low-skill jobs rather than trade them for high-skill jobs? That would be the result of protectionist policies and is surely not the route we want to take.

William Poole



Observers comparing the U.S. economy with the economies of other countries often note that Americans seem to be much more willing to become entrepreneurs. Indeed, a recent survey found that more than 70 percent of adult Americans would prefer being an entrepreneur to working for someone else.¹ In contrast, the same survey showed that only 46 and 41 percent of adults in Western Europe and Japan, respectively, preferred being an entrepreneur. One possible explanation for this difference is that, because the United States is an immigrant nation, its residents have inherited their dynamism from past generations. After all, many of those who came here had the gumption to migrate halfway around the world in search of a better life. Not only were the distances long, but the travel was often dangerous. This cannot be the whole story, however, because even in Canada—another nation of immigrants—only 58 percent of adults would prefer entrepreneurship over working for someone else.

Entrepreneurs in the U.S. Face Less RED TAPE

BY WILLIAM POOLE AND HOWARD J. WALL

Nearly one-half of Europeans who were surveyed said that one should not start a business if there is **any risk at all** that it might fail.

What sets the United States apart? When economists try to explain differences in entrepreneurship across countries or regions, they typically examine the roles of a long list of economic and institutional factors. What they tend to find is that, while these factors are important, they don't tell the whole story.² Even if all countries had the same economic conditions and policies, some would still be more entrepreneurial than others, and the United States would be among the leaders. The best explanation for this finding is that there are social factors at work that are difficult or impossible to quantify. These social factors can be referred to collectively as entrepreneurial spirit.

In addition, the United States has been relatively successful in creating a policy environment that takes advantage of this intangible, yet vital, asset. Entrepreneurial spirit and the policy environment are interwoven, and policy-makers should keep in mind that the real key to entrepreneurial success—entrepreneurial spirit—is already in abundance and that we should be careful not to waste it.

The Gap in Entrepreneurial Spirit

Policy-makers in the European Union have been grappling with their perceived gap in entrepreneurial spirit. What they have come to recognize from comparing their countries with the United States is that it is not enough to have appropriate laws and regulations. After all, in many respects, compared with the United States, some European countries have equivalent or superior institutional arrangements for allowing entrepreneurship.

Take, for example, the Scandinavian countries, which, as judged by the World Bank, have among the best institutional arrangements to allow entrepreneurship to thrive. Despite the favorable institutional environment, about 30 percent of Scandinavians say that they would prefer to be an entrepreneur over being an employee of someone else. Recall that in the United States, more than 70 percent of adults say that they would prefer to be entrepreneurs.

A recent survey commissioned by the European Union reveals how Americans and Europeans differ considerably in attitudes toward entrepreneurship.³ For example, a much higher proportion of Europeans than Americans say that the idea of starting a business has *never entered their minds*. Americans also have a greater tolerance for the risk associated with

entrepreneurship, whereas many Europeans appear to be extremely averse to risk: Nearly one-half of Europeans who were surveyed said that one should not start a business if there is *any risk at all* that it might fail.

Policy Environment

Discussion of the role of government in the entrepreneurial process should begin by recognizing the relative abundance of entrepreneurial spirit in the United States. To this end, it is useful to draw a distinction between passive and active policies toward entrepreneurs. Passive policies are those meant to facilitate entrepreneurship by establishing institutions, laws and regulations to reduce the cost of running a business. Active policies, on the other hand, are things such as targeted tax breaks, subsidies and so forth that are meant to direct resources into particular business activities by creating specific incentives.

Given the entrepreneurial energy in the United States, active policies are of relatively limited importance. The focus has been, and should continue to be, on ensuring that the proper passive policies are in place to allow entrepreneurial spirit to thrive. Basic institutions should be in place to facilitate business transactions, and interference into how businesses actually operate should be minimal. In writing regulations, policy-makers should carefully weigh the costs and benefits while keeping in mind that excessive interference can quash or misdirect our greatest advantage.

A particular benefit of the passive approach is that entrepreneurs themselves pick the most promising areas to pursue. In contrast, active policies ordinarily involve efforts of government to pick the winners to subsidize. Experience indicates that governments have a poor track record in identifying promising new technologies. Consequently, subsidies often prove wasteful as they direct resources in directions that turn out to be unpromising. At the same time, taxes that are imposed to support the subsidies create disincentives to entrepreneurs in general.

It is not possible to outline the entire array of policies that affect entrepreneurship, but a few examples can illustrate the ways in which the United States stands out in balancing public policy requirements with the needs and incentives of entrepreneurs and other businesses. First, the structures of our fundamental legal institutions tend to differ from those of other countries. Second, our com-

petitive financial system provides entrepreneurs with a ready source of funds. Third, we do not overregulate our labor markets, and fourth, we have generally lower tax rates. However, improvements in all these areas are certainly possible, especially with regard to labor market and tax policies.

Opening a Business

Generally speaking, policy-makers in the United States have done a good job of creating fundamental institutions. A good illustration of U.S. success is a very basic institutional arrangement: the act of establishing a business as a legal entity. Perhaps surprisingly, countries differ a great deal in terms of what an entrepreneur must do to establish a business as a legal entity. This rather basic step may seem trivial, but there are significant advantages to making it simple. Once a business is established as a legal entity, it gains access to the legal and financial system, thereby affording it the ability to borrow and to enforce contracts through legal means. If establishing a business is too cumbersome or expensive, potential entrepreneurs might decide to forgo their ventures altogether or they will have only limited access to the legal system and to credit markets.

The typical view in the United States is that owning a business is an inherent right and that the operation of the business should be left to the entrepreneur. The simplicity of the process to establish a business reflects this view: In the United States, it typically takes four days and \$210 to establish a business as a legal entity. The process amounts to registering the name of the business, applying for tax IDs, and setting up unemployment and workers compensation insurance.

Many other countries seem to view the ownership of a firm as a privilege to be bestowed by bureaucrats. Additionally, some countries impose regulations that take basic business and entrepreneurial decisions out of the hands of entrepreneurs. This approach often leads to government micromanagement of the actual workings of the business, even before the business exists. It is common, for example, that before a company is even allowed to exist as a legal entity, its owner must:

- meet requirements for the level of capital available to the company,
- submit detailed descriptions of corporate rules and organization,
- obtain government pre-approval of

- financial and business plans, and
- belong to a trade association.

In the course of satisfying these requirements, the entrepreneur often pays exorbitant fees while waiting weeks or months for various forms and applications to make their way through the system.

The World Bank has catalogued the cross-country differences in the process that an entrepreneur must satisfy to establish a business. Table 1 provides these differences for 19 rich countries—including the United States—across four categories: the number of procedures, the amount of time to satisfy the procedures, the costs associated with the procedures and the minimum amount of capital that an entrepreneur must have on hand at the time the business is established.

To establish a business in Japan, for example, a typical entrepreneur spends more than \$3,500 and 31 days to follow 11 different procedures. In Belgium, it takes 56 days and more than \$2,600.

Table 1 Establishing a Business around the World				
	Number of procedures	Time (days)	Cost (US \$)	Minimum capital (% per capita income)
Australia	2	2	402	0
Belgium	7	56	2,633	75.1
Canada	2	3	127	0
Denmark	4	4	0	52.3
France	10	53	663	32.1
Germany	9	45	1,341	103.8
Greece	16	45	8,115	145.3
Ireland	3	12	2,473	0
Italy	9	23	4,565	49.6
Japan	11	31	3,518	71.3
Netherlands	7	11	3,276	70.7
New Zealand	3	3	28	0
Norway	4	24	1,460	33.1
Portugal	11	95	1,360	43.4
Spain	11	115	2,366	19.6
Sweden	3	16	190	41.4
Switzerland	6	20	3,228	33.8
United Kingdom	6	18	264	0
United States	5	4	210	0

SOURCE: World Bank (2004)

Greece requires that an entrepreneur satisfy 16 different procedures and pay more than \$8,000, including \$1,200 for something called “Certification by lawyers’ welfare fund” and \$3,700 to simply notify tax authorities that business activities are about to commence. Two of the countries listed in the table—Germany and Greece—require that entrepreneurs have an amount of capital on hand that exceeds their country’s per capita income.

In many ways, the differences between the United States and other countries with regard to establishing a business reflect more than simple differences in institutional arrangements. They also reveal a great deal about governments’ underlying attitudes towards entrepreneurship. Also, given that this procedure is handled primarily at the state level in the United States, the ease of creating a new business provides a good illustration of how our federal system works to our advantage. States must compete

ventures. One that has been in place many years is the venture capital industry, which hunts for promising new firms to finance and help manage. A more recent innovation, dating to the late 1970s and early 1980s, is the junk bond. This is a high-risk/high-yield bond that allows firms with credit ratings below investment grade to have access to investors willing to carry higher levels of risk in exchange for higher rates of return. New firms have been able to raise substantial amounts of capital by issuing junk bonds. Following a handful of scandals in the 1980s, junk bonds have often been disparaged, although, in reality, they fueled a great deal of investment then and continue to do so today.

Labor-Market Regulations

Another area that sets the United States apart is the extent to which the government regulates the relationship between businesses and their employees. There is wide agreement about

According to the World Bank, among developed countries, employers in the United States have the most flexibility in terms of both hiring and firing workers.

with one another to provide suitable business environments or risk losing out to other states.

Competitive Financial System

Establishing a business as a legal entity allows entrepreneurs greater access to credit markets, access that is denied to informal firms in many other countries. But if credit markets are overregulated, even legally established entrepreneurs may have difficulty financing their ventures. Recent research by Sandra Black and Philip Strahan has argued that the wave of banking deregulation that began in the late 1970s has led to increased rates of entrepreneurship in the United States. In the 1970s, commercial banks faced a variety of restrictions that varied from state to state. The banks often faced restrictions on the interest rates that they could charge to borrowers and pay to depositors. In addition, the banks could not operate across state lines and could deal only in classic financial intermediation activities—deposit-taking and lending. Today, most of these restrictions have been removed.

Other financial innovations have also led to a variety of new entrepreneurial

the necessity of some regulation to protect workers from illegal discrimination or employer fraud. There is less agreement, however, on the extent to which workplace regulations—including minimum wage laws, mandatory severance pay, right-to-work laws and legislated fringe benefits—are necessary. Overregulation of hiring, firing and working conditions can make the labor market too rigid and make businesses reluctant to start up and to hire workers.

One of the reasons that the United States has been able to generate jobs so successfully is that we do not regulate labor markets nearly to the extent that other countries do. Without question, this looser regulation provides entrepreneurs in the United States with much greater flexibility. According to the World Bank, among developed countries, employers in the United States have the most flexibility in terms of both hiring and firing workers. In addition, U.S. firms face by far the least regulation of the conditions of employment. Although hiring a worker in the United States is still a costly proposition, particularly for a small business, for the most part these costs do not derive directly from regulation of the relationship between businesses and their employees.

Table 2	
World Tax Burdens	
Total tax revenue as a percentage of GDP (2000)	
Australia	31.5
Belgium	45.6
Canada	35.8
Denmark	48.8
France	45.3
Germany	37.9
Greece	37.8
Ireland	31.1
Italy	42.0
Japan	27.1
Netherlands	41.4
New Zealand	35.1
Norway	40.3
Portugal	34.5
Spain	35.2
Sweden	54.2
Switzerland	35.7
United Kingdom	37.4
United States	29.6

SOURCE: Organization for Economic Cooperation and Development (2002).

Examples of labor-market rigidity in Europe are abundant, and one can imagine the effect that they must have on the decisions of existing and potential entrepreneurs. In Belgium, for instance, fixed-term employment contracts are prohibited. In France, the maximum working week is 35 hours, and the minimum paid vacation time is five weeks. In Germany, the mandatory Saturday closing time for retailers has only recently been extended from 4 p.m. to 8 p.m., and stores are still prohibited from operating on Sundays. Many other types of labor-market rigidities are common: Several European governments produce a list of allowable grounds for dismissal, others require third-party approval prior to layoffs and most mandate severance pay equal to several months' salary.

Tax System

Another advantage for entrepreneurs in the United States is that businesses and individuals bear relatively low tax burdens. As Table 2 shows, among the rich countries listed, only Japan imposes a lower tax burden. Taxes, although necessary to finance public services, place a burden on economic activity. High tax rates tend to

suppress economic activity of all types, not just entrepreneurship. But for entrepreneurs, high tax rates create an additional incentive that distorts effort. A high tax burden creates an incentive for avoiding taxes, thereby leading some businesses into the informal sector, where their access to credit markets and the legal system is limited.

Again, one of the reasons that the United States has been able to maintain its relatively business-friendly tax policies is its federal system. Many governmental services are provided at the state and local level. For this reason, state and local governments are forced to compete with one another to provide effective services while minimizing the tax burden.

Causes for Concern

Although there are many ways that the policy environment in the United States is in good shape relative to other countries' policy environments, there is still a great deal of room for improvement. Many environmental and other regulations in the United States place too much of a burden on the activities of entrepreneurs, without generating correspondingly large benefits to society as a whole; the tax codes for individuals and businesses are, in many ways, needlessly complicated and introduce countless distortions to day-to-day decision-making; and there are rumblings that we should impose new labor-market restrictions to make it more costly for firms to move some of their operations overseas.

In addition, many business people say that they are reluctant to hire new workers because the rising cost of health care makes it increasingly expensive to do so. Other businesses, including many doctors, refuse to engage in certain activities because, without major tort reform, they find it too risky or too expensive to pay for the necessary insurance.

When addressing these and other important policy issues, it is important to keep in mind that the source of much of U.S. economic dynamism is the entrepreneurial spirit that has been instilled in Americans over generations. We should be careful that we do not needlessly restrict or suppress this spirit. It is a precious resource, not to be wasted or squandered.

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ENDNOTES

- 1 Blanchflower, Oswald and Stutzer (2001).
- 2 Georgellis and Wall (2000 and 2004) and Blanchflower (2000).
- 3 European Omnibus Survey Gallup Europe (2004).

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Where is the banking industry in this country heading?

The U.S. banking industry is in a long-term state of decline. The supply of traditional deposits is shrinking as households turn from checking accounts to cash-management accounts and from savings accounts to mutual funds. Demand for loans is falling as would-be borrowers turn from banks to commercial paper, bonds and stocks. Banks are destined to become a smaller and less important part of the financial system.

The Two Faces of Banking

Traditional Loans and Deposits vs. Complex Brokerage and Derivative Services

By Klimentina Poposka, Mark D. Vaughan and Timothy J. Yeager

Which of the above statements is true? Well, both. In two recent articles, Franklin Allen, who is a finance professor at the University of Pennsylvania, and Anthony Santomero, who is the president of the Federal Reserve Bank of Philadelphia, argue that traditional deposit-taking and loan-making have declined in the United States, yet the industry is holding its own because of an increasing focus on trading risk for households and firms.¹ For example, banks are increasingly packaging and securitizing consumer loans, which shifts the credit risk to investors. In addition, more banks are helping business customers reduce their exposure to rising interest rates by brokering swap agreements with other companies that are exposed to falling interest rates.

Allen and Santomero's insights are important because they look to changes in the source of value rather than changes in the structure of the industry for clues about the banking landscape of the future. An understanding of these changes will help bank supervisors preserve the safety and soundness of the banking system while minimizing the regulatory tax on individual banks. An awareness of the changes will also help customers understand better the new services that banks are offering.

Identifying the Complex Banks

To get a sense for how far along the U.S. banking system is in the shift from traditional activities to complex risk intermediation, we categorize each U.S. bank both in 1993 and 2003 as one that primarily engages in traditional

activities or as one that primarily engages in complex risk management. We then examine trends over the past 10 years. Nearly all banks exhibit some degree of both characteristics. We classify banks based on their primary focus both at year-end 1993 and year-end 2003 by extracting key information from their financial reports. We focus on four elements: asset size, geographic diversity, fee income and derivative activity.

It is well-known that just a few organizations hold the majority of assets in the U.S. banking industry. At year-end 2003, Citigroup, JPMorgan Chase and Bank of America each had approximately \$1 trillion in assets, collectively accounting for 35.7 percent of the industry total.² Because larger banking organizations are more likely to engage in more complex activities, we begin our classification exercise by assuming that banks with more than \$10 billion (inflation-adjusted, 2003 dollars) in assets are eligible to be "complex" organizations. As the table illustrates, 62 banking organizations met the asset criterion in 1993. Ten years later, 67 banks met the criterion, and these banks held 79.4 percent of industry assets.

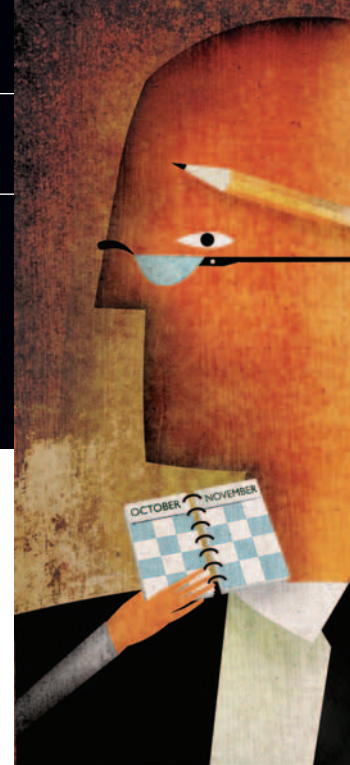
Traditional banks commonly conduct business in a single geographic area. Indeed, most U.S. banks operate within a single county.³ In contrast, a complex organization, especially one that specializes as a service intermediary, typically comprises numerous subsidiaries, perhaps including multiple banks and trust, mortgage and finance companies. We expect a complex organization to have operations in several parts of the country. For our classification purposes, we assume that

a complex bank operates in at least three of the 12 Federal Reserve districts.

Banks that engage in significant service and risk intermediation earn relatively more fee income than banks that engage primarily in loan-making. Traditional banks earn most of their income from interest rate spreads; they earn relatively modest amounts of fee income from ATM or insufficient funds charges. Complex banks, in contrast, generate significant amounts of fee income from trust services, mortgage originations and servicing, fund management, brokerage fees, insurance commissions and so on. We categorize complex banks as those that generate fee income exceeding 2 percent of assets.⁴

Derivatives activity is a strong signal that a bank is selling complex risk transfer services. Many banks engage in this activity primarily as market makers or matched traders for their customers.⁵ The goal is to accommodate their customers by entering into trades with the intention of quickly entering into offsetting contracts with other counterparties. The bank earns fee income for this service, yet transfers the risk to another party. Use of derivatives at U.S. banks exploded in the 1990s. Interest rate derivatives—especially swaps—are the most common. In 1993, the notional amount of swaps registered \$2.8 trillion; by 2003, that volume had grown to \$42.4 trillion.

Despite the explosion in derivatives, surprisingly few banks engage in this activity. As of year-end 2003, only 523 of 6,699 (7.8 percent) banking organizations had any derivatives outstanding. And the activity is highly concentrated within those 523 banks. The top five interest rate derivative





There seem to be two prevailing—and very different—views:

2 The U.S. banking industry is on the cusp of unprecedented growth and innovation. Demand for traditional services such as loans and deposits may be waning, but demand for services that are more complex, such as brokerage services and derivatives intermediation, is waxing. The future has never looked brighter for the industry.

users account for 93.7 percent of the market. We assume that the ratio of derivatives to assets at a complex bank should exceed 10 percent.

Putting It All Together

Under our definition, a complex bank holds more than \$10 billion in assets, operates within at least three Federal Reserve districts, generates fee income of at least 2 percent *and* holds derivatives equal to at least 10 percent of assets. The row labeled “Composite” in the table shows the number of banks and percent of assets that meet these criteria. In 1993, a total of 21 banking organizations, controlling 34.2 percent of industry assets, would have been considered complex under our definition. As of 2003, a total of 25 banks, controlling 61 percent of assets, qualify as complex. In turn, the number of traditional banks has declined by 1,831 and their share of industry assets dropped nearly 27 percentage points between 1993 and 2003.

Conclusion

Clearly, the industry is evolving from one that is engaged primarily in traditional activities to one that is engaged in complex risk intermediation. That is not to say that traditional banking will disappear. Indeed, traditional banking remains extremely viable, as illustrated by the high earnings posted by banks of all shapes and sizes over the past decade. The U.S. banking industry seems likely to include both traditional and complex activities for some time to come.

Bank supervisors must continue to adjust to the growing dominance of complex banks. Focusing simply on

changes in the asset concentration of the industry understates the changes necessary in supervision because that approach implies a simple need to relocate the existing examiner resources as the banks relocate. In contrast, the approach by Allen and Santomero focuses on the expertise that bank examiners must possess to supervise adequately the complex banks of the future. Put another way, the Allen-Santomero framework implies less emphasis on supervising asset quality and more emphasis on supervising market risk exposure and risk management systems.

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ENDNOTES

- ¹ See Allen and Santomero (1997 and 2001).
- ² This figure includes assets from Bank One and Fleet Boston, which merged with JPMorgan Chase and Bank of America, respectively.
- ³ See Hall and Yeager (2002).
- ⁴ In 2003, 5.7 percent of all banks had fee income of 2 percent or higher.
- ⁵ See Puwalski (2003).

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The Future of Banking Seems Nontraditional

	Date	Complex Banks		Traditional Banks	
		No. Banks	% Assets	No. Banks	% Assets
Asset Size	1993	62	65.2	8,464	34.8
	2003	67	79.4	6,632	20.6
Geographic Diversity	1993	83	62.5	8,443	37.5
	2003	136	77.9	6,563	22.1
Fee Income	1993	494	39.3	8,032	60.7
	2003	383	66.6	6,316	33.4
Derivatives	1993	134	65.6	8,392	34.4
	2003	110	76.6	6,589	23.4
Composite	1993	21	34.2	8,505	65.8
	2003	25	61.0	6,674	39.0
Change in Composite (1993 to 2003)		+4	+26.8	-1,831	-26.8

Each U.S. bank is classified along four categories as complex or traditional in 1993 and again in 2003. A complex bank has to hold more than \$10 billion in assets, operate within at least three Federal Reserve districts, generate fee income of at least 2 percent of assets and hold derivatives equal to at least 10 percent of assets. The row labeled “Composite” shows the number of banks and percent of assets that meet these criteria. In 1993, a total of 21 banks, controlling 34.2 percent of industry assets, would have been considered complex. As of 2003, a total of 25 banks, controlling 61 percent of assets, qualify as complex. Clearly, complex banks are growing while traditional banks are declining.

Point and Click, or Mortar and Brick?

A Look at Internet Banking in the Eighth District

By Rubén Hernández-Murillo and Deborah Roisman



Internet banking has been on the rise since its inception in 1995. Services today include delivery of account statements, online credit card and loan applications, transfer of funds between accounts and online bill payment. These services have the potential to alter many aspects of the banking industry—in particular, the degree of market competitiveness and financial performance—as banks use the Internet as a tool to attract and retain customers.

But there is very little information so far on Internet banking to analyze these issues. In 1999, banks and other depository institutions in the United States were first asked to report their web site address, and not until 2003 were they also asked to report whether their web site provided online services. The adoption of Internet technologies, as indicated by the reports of a web site address, has shown a steady increase in this period. Economist Rick Sullivan of the Federal Reserve Bank of Kansas City indicates that 35 percent of depository institutions reported a web site address in 1999, compared with 70 percent in 2003.¹

This article looks at a sample of commercial banks in the Eighth Federal Reserve District and asks the following questions:

- Is there a relationship between the adoption of Internet technologies and a bank's size, location and demographic characteristics of its customer base?
- Is there a relationship between the adoption of Internet technologies and a bank's competitive position, as measured by its deposit market share?
- Finally, is there a relationship between the adoption of Internet banking and measures of credit risk and profitability?

A Look at Eighth District Banks

The data used for this analysis are from the Consolidated Reports of Condition and Income (Call Reports) for the first quarter of 2004. The data consist of a sample of 808 commercial banks located in the Eighth District. Internet banks are defined here as banks that offer banking services through a transactional web site—a site that allows online transactions, such as fund transfers between accounts.

Overall, 48.5 percent of Eighth District banks have a transactional web site. This rate is slightly lower than the 54 percent rate for the entire U.S. banking industry.

We categorize banks into four size groups based on their total assets because previous studies on Internet banking have shown that bank performance varies significantly across bank sizes.² Group 1 includes banks with assets of \$100 million or less. Group 2 includes banks with assets between \$100 million and \$350 million. Group 3 includes banks with assets between \$350 million and \$500 million. Group 4 includes banks with assets greater than \$500 million. Nearly 90 percent of District banks in the sample have assets of \$350 million or less—48.6 percent of all banks are in Group 1 and 40.6 percent are in Group 2.

Demographics and Competition

A bank's decision to adopt Internet technologies depends, at least in part, on the characteristics of the market it serves. Past research has shown that demographic characteristics of a bank's potential customers, such as income and education, as well as whether the bank is located in a metropolitan area, are important factors that a bank should consider when deciding whether to offer Internet banking.³ Competitive factors, such as the bank's deposit market share, presumably influence the adoption decision as well. We will show through a tabular analysis whether this is the case for Eighth District banks.

The adoption rates of Internet banking indicate that larger banks as a group have been more likely to adopt Internet technologies, as seen in Table 1. In the three largest groups, 68 percent of the District banks in Group 2, 95 percent in Group 3 and 93.6 percent in Group 4 have adopted Internet banking. In contrast, only 22.1 percent of banks in Group 1 have adopted Internet banking.

Census data reveal that markets of Internet banks have slightly higher median income, on average, than markets of non-Internet banks. A market is defined here by the corresponding county or metropolitan area in which a bank is located. On average, median household income (in constant 1999 dollars) in Internet bank markets is larger than in non-Internet bank markets. Markets of Internet banks also appear to have a larger share of persons with higher education (a bachelor's degree or higher) compared with markets of

non-Internet banks. Markets of banks in Group 3 are an exception in both cases.

The percent of Internet banks in an urban area increases with bank size. The share of Internet banks located in urban areas is 34.1 percent for Group 2, 42.1 percent for Group 3 and 61.4 percent for Group 4, compared with only 18.4 percent for Group 1. In addition, within each group Internet banks are more likely to be in urban areas, except for Group 3 banks.

What is the relationship between the adoption of Internet banking and market conditions such as average market share and the degree of market competitiveness? We compute a bank's market share as the ratio of deposits held by the bank to the market's total deposits. We compute the market's concentration index as the sum of the squares of the market shares multiplied by 10,000. A higher concentration index indicates the market is less competitive.⁴ We find that the average market share increases with bank size, but there appears to be no consistent pattern of differences in average market shares between Internet and non-Internet banks across size groups. Compared with non-Internet banks, however, markets in which Internet banks operate appear to be more competitive, as suggested by the lower concentration indexes for markets of Internet banks across size groups, except for markets of banks in Group 3.

Risk and Profitability

Are measures of profitability and financial performance for Internet banks and non-Internet banks different?

Standard measures of profitability, such as the return on average assets (net income divided by the quarterly average of total assets) and the return on equity (net income divided by equity), indicate that profitability in all four size groups appears to be lower for Internet banks compared with non-Internet banks in the Eighth District, as seen in Table 2.⁵ Although not shown in the table, this pattern is more common in rural markets for banks in Groups 1 and 2. Profitability of Internet banks in urban markets of banks in these two size groups seems to be higher than for non-Internet banks.

Standard measures of credit risk include the loan-to-asset ratio (total loans divided by total assets) and the nonperforming loan ratio (loans that are 90 days past due plus nonaccrual loans divided by total loans). The loan-to-asset ratio is higher for Internet banks in Groups 1 and 2, but it is smaller for banks in Groups 3 and 4. In contrast, the nonperforming loan ratio is higher for non-Internet banks in Groups 1, 2 and 3, and it is smaller for non-Internet banks in Group 4.

Thus, although Internet banks with assets less than \$350 million exhibit higher loan-to-asset ratios, indicating that they may be more exposed to bad loans, the actual fraction of nonperforming loans is lower for all Internet banks except those with assets greater than \$500 million.

Rubén Hernández-Murillo is an economist and Deborah Roisman is a research associate, both at the Federal Reserve Bank of St. Louis.

ENDNOTES

- ¹ See Sullivan (2004).
- ² See Sullivan (2000, 2001) and Furst, Lang and Nolle (2002), among others.
- ³ See Sullivan (2000).
- ⁴ This concentration measure is known as the Herfindahl Index. A higher index indicates that the market is less competitive because it is concentrated among fewer firms. A market with only one firm will exhibit a Herfindahl Index of 10,000, the maximum possible. In general, a market with N firms and equal market shares will exhibit a Herfindahl Index of 10,000/N.
- ⁵ The profitability ratios are annualized by multiplying by 4.

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TABLE 1 Market Demographic Characteristics and Competition										TABLE 2 Credit Risk and Profitability					
Size group by banks' assets		Internet bank?	Number of banks	Internet adoption (percent)	Banks in urban markets (percent)	Average market median income (1999 dollars)	Average market percentage of people with higher education	Average deposits market share (percent)	Average market concentration index	Internet bank?	Number of banks	Loan-to-asset ratio (percent)	Nonperforming loan ratio (percent)	Return on average assets (percent annualized)	Return on equity (percent annualized)
Group 1	Less than \$100 million	No	306		13.4	31,016	12.2	25.9	5,606	No	306	57.53	1.18	1.08	9.57
		Yes	87	22.1	18.4	31,847	12.4	28.6	5,031	Yes	87	64.31	1.17	0.96	9.09
Group 2	\$100-\$350 million	No	105		21.9	30,534	12.3	44.0	5,601	No	105	60.30	1.22	1.27	10.97
		Yes	223	68.0	34.1	31,462	13.5	36.1	5,597	Yes	223	64.45	0.91	1.08	10.81
Group 3	\$350-\$500 million	No	2		50.0	36,677	18.1	37.7	3,513	No	2	75.52	1.69	1.73	17.73
		Yes	38	95.0	42.1	34,202	16.9	46.2	5,605	Yes	38	68.20	0.63	1.05	11.23
Group 4	\$500 million or more	No	3		33.3	33,626	16.2	60.3	7,333	No	3	71.63	0.71	1.54	17.62
		Yes	44	93.6	61.4	33,936	19.4	43.3	5,338	Yes	44	67.84	1.07	1.17	11.82

NOTE: Data are from the Call Reports for the first quarter of 2004.

SAM'S★TOWN

HOME TO THE CORPORATE HEADQUARTERS OF THE WORLD'S LARGEST RETAILER, **BENTONVILLE, ARK.**, IS FINDING THAT WAL-MART IS A MAGNET FOR ATTRACTING SUPPLIERS AND OTHER COMPANIES—AS WELL AS A FORCE FOR PROPELLING GROWTH FOR THE REGION.



The dime store that Sam Walton opened in 1950 in downtown Bentonville now serves as a sort of Wal-Mart museum.



Bentonville	
BY THE NUMBERS	
Population.....	Bentonville: 26,457 (2003) Benton County: 172,003 (2003)
Labor Force.....	Bentonville: 10,241 (2000) Benton County: 74,545 (2000)
Unemployment Rate.....	Bentonville: 2.5 percent (2003) Benton County: 2.6 percent (2003)
Per Capita Income.....	Bentonville: \$20,831 (2000) Benton County: \$19,377 (2000)
Top Five Employers	
Wal-Mart.....	12,000
Bentonville Public Schools.....	1,238
Northwest Arkansas Community College.....	538
Tyson Foods of Bentonville.....	400
CEI Engineering.....	190

BY LAURA J. HOPPER

Bentonville residents basking in the town's rapid growth may want to thank Sam Walton's wife, Helen. When Sam, the legendary founder of Wal-Mart, got out of the U.S. Army, he wanted to pursue his dreams of retail fame and fortune in a big city. But Mrs. Walton, a native Midwesterner like her husband, would have none of that.

"She insisted on staying in a small town to raise her family," says Jay Allen, Wal-Mart's senior vice president for corporate affairs. "They liked living here in the central part of the country and, as the company grew, it became a great place to do business."

In 1950, Sam Walton opened his Walton's 5 & 10 store in downtown Bentonville. (The store now serves as the Wal-Mart Visitors Center.) In 1962, Sam founded the first official Wal-Mart store in nearby Rogers, Ark. By 1970, Wal-Mart had grown to the point where it could have its own distribution center and home office. The Waltons, who by then were fixtures in the Bentonville community, chose to keep the main offices there.

Many of today's shoppers can fill in the rest of the Wal-Mart story. The discount retailer's growth soared in the 1980s and rose to even greater heights in the '90s. By 2002, Wal-Mart was at the top of the Fortune 500, and today it holds the undisputed title of world's largest retailer, with \$256 billion in global revenue in 2003. Wal-Mart employs more than 1.3 million people worldwide in nearly 5,000 discount stores, supercenters and Sam's Club wholesale stores.

With Wal-Mart at its epicenter, Bentonville is experiencing its own seismic population explosion—from just over 11,000 residents in 1990 to almost 26,500 as of the most recent tally, in 2003. The ripple effect is widespread. The surrounding Fayetteville-Springdale-Rogers Metropolitan Statistical Area (MSA) is now the sixth-fastest-growing MSA in the United States. Benton County, home to Bentonville, is one of the fastest-growing counties in the nation. The county accounted for more than half of the state's growth in the 2000 census, says Richard Davis, economic director of the Bentonville/Bella Vista Chamber of Commerce.

"The majority of that growth has to be attributed to Wal-Mart, especially in the time period since it secured itself as the nation's largest retailer," Davis says.

The engine fueling that growth isn't just the thousands of employees who work at Wal-Mart's Bentonville offices or the shoppers who visit Wal-Mart's Bentonville Supercenter. It's also the companies that make the products on Wal-Mart's shelves and clothing racks. As Wal-Mart's growth has exploded through the 1990s, an estimated 600-plus firms—ranging from Procter & Gamble to Levi's, from Wrangler to Gillette—have put out a shingle in northwestern Arkansas, even if it's just a 10-to-20-person sales office.

"Wal-Mart epitomizes the ideal business model, and companies can get more value selling their products to Wal-Mart than to any other retailer," Davis says. "They're coming here from far and wide to pitch their products and get shelf space at Wal-Mart."

Getting that product positioning and maintaining a strong relationship with Wal-Mart doesn't require having office space in Bentonville, the retail giant insists. "We have suppliers in northwest Arkansas with which we have a good relationship. But we also have great relationships with suppliers in New York and California," says Allen, the Wal-Mart spokesman.

Those words aren't enough to change the minds of the suppliers who contin-

ue to stream into Bentonville—many of whom are housed side-by-side in what locals have dubbed “Vendorville,” the maze of office parks that encircle Wal-Mart’s corporate hub like flowers growing toward the sun.

In one of those offices, supplier Gillette Co. has 20 employees devoted to cultivating business with Wal-Mart. “Clearly, this close proximity allows our team daily contact with executives at Wal-Mart and provides us the opportunity to develop innovative joint initiatives to support both our businesses,” says Paul Fox, Gillette’s director of global external relations.

The constant influx of vendors has spawned an additional layer of development—companies that have set up shop in Bentonville to supply the suppliers. “We’ve seen a secondary level of entrepreneurial and business development from these support companies, such as packaging and marketing firms,” Davis says.

Such continued growth in Bentonville has had a positive effect throughout northwestern Arkansas, Davis says, helping the region gain prominence not only in the state but nationally as well. For example, the Northwest Arkansas Regional Airport, opened in 1998, now offers non-stop flights to several major U.S. cities—some of which aren’t even offered at Little Rock’s airport, Davis says. These flights have been added in large part to serve Wal-Mart buyers who must travel from around the country, he adds.

Northwestern Arkansas’ hotels, in turn, are often at least 90 percent filled during the week. Construction should be complete on five more hotels by the fall of 2005, Davis says.

Many suppliers are housed in what locals have dubbed “Vendorville,” the maze of office parks that encircle Wal-Mart’s corporate hub like flowers growing toward the sun.

Trends such as these—along with the stability of northwestern Arkansas corporate fixtures such as poultry processor Tyson Foods and trucking firm J.B. Hunt—have helped the region accomplish an admirable feat, Davis says: The region skipped the recession. Bentonville’s 2003 unemployment rate of 2.5 percent was just a bit above its 1.9 percent rate of 2002. Both figures are little more than half of the nationwide average.

Davis adds: “I’ve been asked jokingly, ‘You’re from Benton County? Isn’t that where the streets are paved with gold?’”

Such growth and prosperity is no joke to Bentonville Mayor Terry Coberly. A Bentonville native, she attended high school with Sam Walton’s son, Jim, and has witnessed the golden eras of the city’s past and present.

“I’ve had the luxury of seeing the best of Bentonville—growing up in a small town and now seeing it flourish,” she says. “We’re trying really hard to keep our small-town atmosphere while dealing with our growth at the same time.”

Bentonville’s rapid rise in population presents challenges in two major areas for Coberly: housing and infrastructure. The value of homes in Bentonville has been rising about 6 percent a year, she says. And even as the city expands its boundaries, it’s running short of room.

“We just can’t build houses fast enough,” Coberly says, noting that the crunch of affordable housing in Bentonville has transformed neighboring Bella Vista from a quiet retirement community into a booming sister community.

Getting to and from those homes can also be a challenge. Most of Bentonville’s major arteries are state or federal highways; so, if improvements are needed, the city must often make its request and wait.

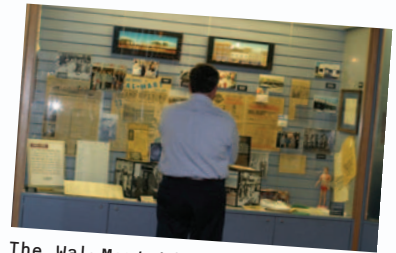
In 2003, Bentonville passed a 1 percent sales tax, of which at least 70 percent will go toward funding road construction, Coberly says. The city has also made a deal with the state of Arkansas: If the state will move up the schedule for construction improvements—such as widening roads and highways—Bentonville will pony up half the cost. The state has accepted the offer, Coberly says.

While juggling these major issues, Coberly and the Bentonville Chamber of Commerce are also working together on a seemingly less critical but still important matter: creating more amenities—such as restaurants and entertainment—for the region’s newfound residents and workers, who are currently being invited to fill out a survey about their leisure-time preferences.



WAL★MART®

BENTONVILLE BASKS IN COMPANY'S SUCCESS



The Wal-Mart Visitors Center in downtown Bentonville attracts tourists and local residents.



Roy's Office Solutions is one of a growing number of business support companies opening in Bentonville.



Bentonville still preserves a small-town atmosphere in areas such as its town square.



CUSTOMER COPY

One addition being discussed is a trolley system that would transport Wal-Mart workers to and from downtown Bentonville during lunch, allowing them to eat out without losing their prized parking spaces in the crowded corporate office lot. “But that won’t work until we get more restaurants,” says Coberly, who is hoping to lure more food establishments away from the city’s outskirts and into downtown.

Survey results or no, Coberly is well-aware of one other missing small-town staple that even Sam Walton couldn’t enjoy. “We still don’t have a single movie theater here in Bentonville,” she says. “It’s past time we got one of those.”

Laura J. Hopper is a senior editor at the Federal Reserve Bank of St. Louis.

National and District Data

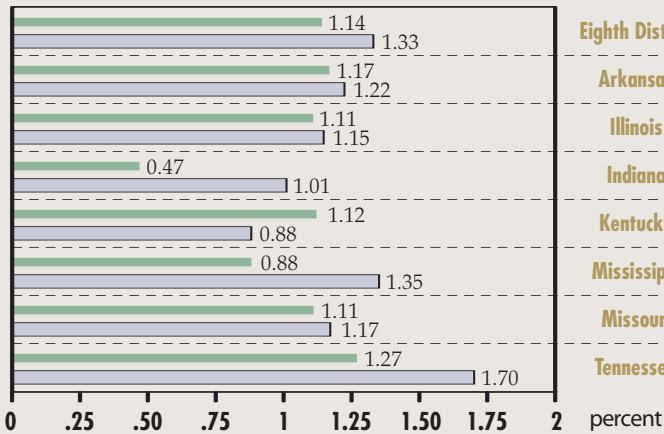
SELECTED INDICATORS OF THE NATIONAL ECONOMY
AND BANKING, AGRICULTURAL AND BUSINESS CONDI-
TIONS IN THE EIGHTH FEDERAL RESERVE DISTRICT

Commercial Bank Performance Ratios

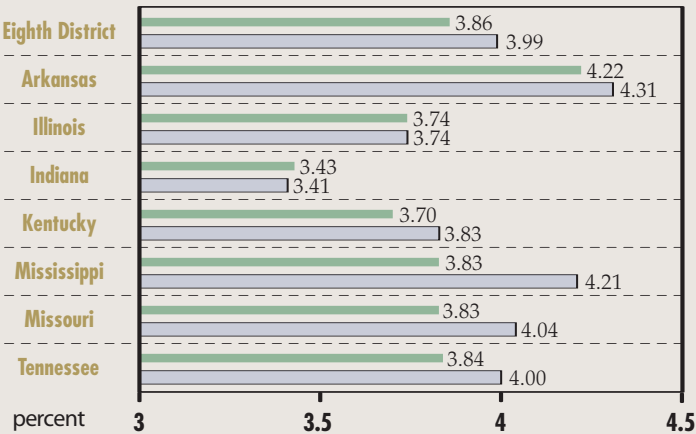
SECOND QUARTER 2004

U.S. Banks by Asset Size	PERFORMANCE RATIOS							
	ALL	\$100 MILLION- \$300 MILLION	LESS THAN \$300 MILLION	\$300 MILLION- \$1 BILLION	LESS THAN \$1 BILLION	\$1BILLION- \$15 BILLION	LESS THAN \$15 BILLION	MORE THAN \$15 BILLION
Return on Average Assets*	1.35	1.21	1.15	1.28	1.21	1.43	1.32	1.36
Net Interest Margin*	3.60	4.25	4.24	4.17	4.21	3.84	4.03	3.43
Nonperforming Loan Ratio	0.97	0.82	0.90	0.75	0.83	0.82	0.83	1.03
Loan Loss Reserve Ratio	1.63	1.35	1.39	1.42	1.40	1.60	1.50	1.69

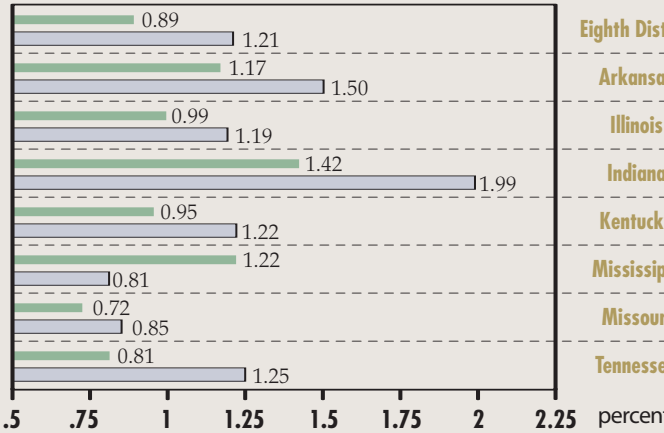
Return on Average Assets*



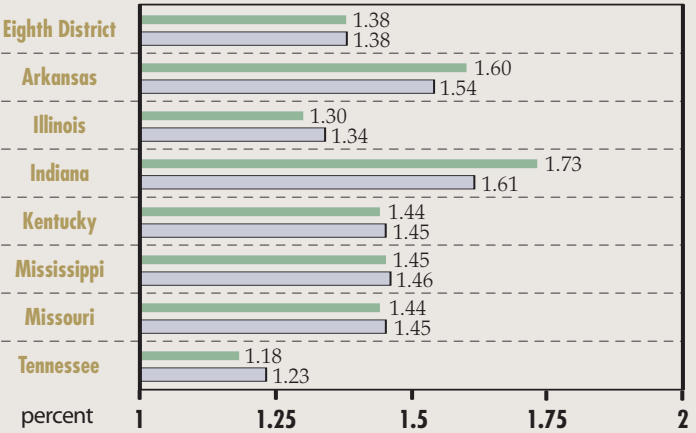
Net Interest Margin*



Nonperforming Loan Ratio



Loan Loss Reserve Ratio



● Second Quarter 2004 ○ Second Quarter 2003

NOTE: Data include only that portion of the state within Eighth District boundaries.
SOURCE: FFIEC Reports of Condition and Income for all Insured U.S. Commercial Banks
*Annualized data

For additional banking and regional data, visit our web site at:
www.research.stlouisfed.org/fred/data/regional.html.

Regional Economic Indicators

Nonfarm Employment Growth*

YEAR-OVER-YEAR PERCENT CHANGE

SECOND QUARTER 2004									
	UNITED STATES	EIGHTH DISTRICT	ARKANSAS	ILLINOIS	INDIANA	KENTUCKY	MISSISSIPPI	MISSOURI	TENNESSEE
Total Nonagricultural	1.0%	0.4%	0.7%	-0.2%	0.5%	0.4%	0.8%	1.1%	0.8%
Natural Resources/Mining	3.2	0.9	0.0	2.1	1.9	2.5	-3.0	-0.7	1.6
Construction	3.0	1.7	-0.8	-0.5	5.3	4.2	0.1	2.7	1.2
Manufacturing	-1.2	-0.4	-0.9	-1.2	-0.6	-0.5	0.8	1.4	-0.2
Trade/Transportation/Utilities	0.8	0.1	0.8	-0.5	-0.5	0.5	0.1	0.1	1.3
Information	-0.7	-2.0	-0.5	-3.3	-0.5	-1.1	-2.4	-1.5	-1.6
Financial Activities	0.7	0.6	1.6	0.6	-0.8	1.3	1.3	1.0	0.4
Professional & Business Services	3.1	0.7	0.5	-0.2	2.3	-0.2	3.7	1.6	0.8
Educational & Health Services	2.0	1.7	2.7	1.0	1.4	0.9	2.2	2.8	2.1
Leisure & Hospitality	2.1	1.7	1.7	1.9	0.1	3.2	0.0	2.0	2.4
Other Services	0.3	0.5	0.2	-0.2	0.2	2.2	-2.5	2.4	0.6
Government	-0.2	-0.6	0.7	-1.2	0.3	-2.4	1.1	-0.7	-0.2

*NOTE: Nonfarm payroll employment series have been converted from the 1987 Standard Classification (SIC) system basis to a 2002 North American Industry Classification (NAICS) basis.

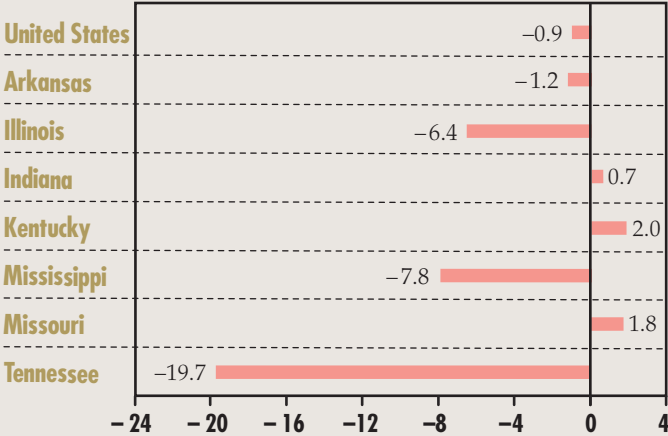
Unemployment Rates

PERCENT

	II/2004	I/2004	II/2003
United States	5.6%	5.6%	6.1%
Arkansas	5.7	5.4	6.2
Illinois	6.1	6.2	6.6
Indiana	5.0	5.2	5.1
Kentucky	5.4	5.4	6.3
Mississippi	5.3	5.1	6.8
Missouri	5.0	4.9	5.8
Tennessee	4.7	5.0	5.8

Total Bankruptcies

YEAR-OVER-YEAR PERCENT CHANGE¹

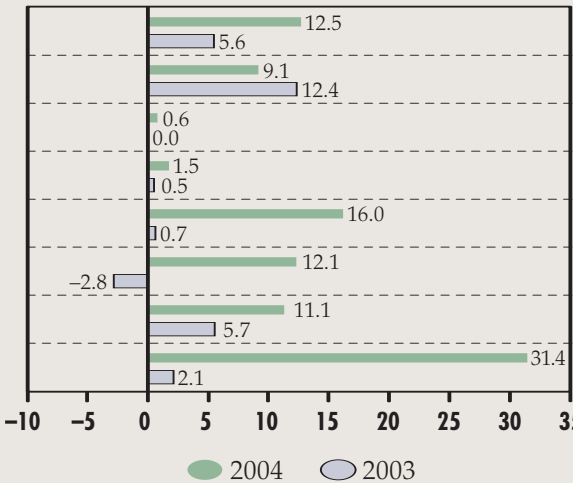


¹Comparing year ending June 30, 2004, with year ending June 30, 2003.

SECOND QUARTER

Housing Permits

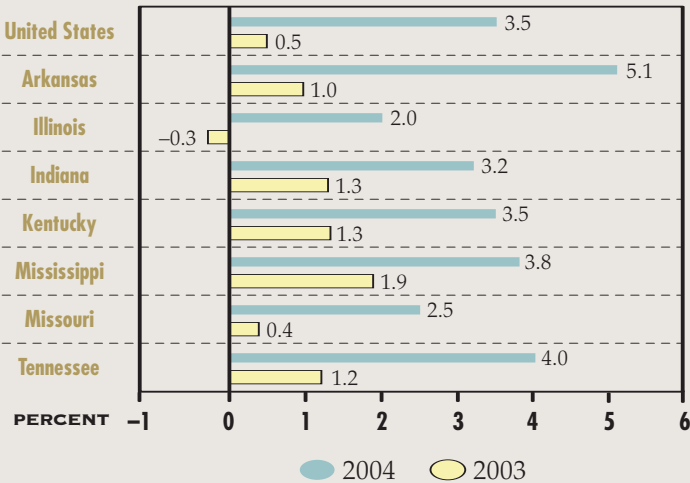
YEAR-OVER-YEAR PERCENT CHANGE
IN YEAR-TO-DATE LEVELS



FIRST QUARTER

Real Personal Income[‡]

YEAR-OVER-YEAR PERCENT CHANGE

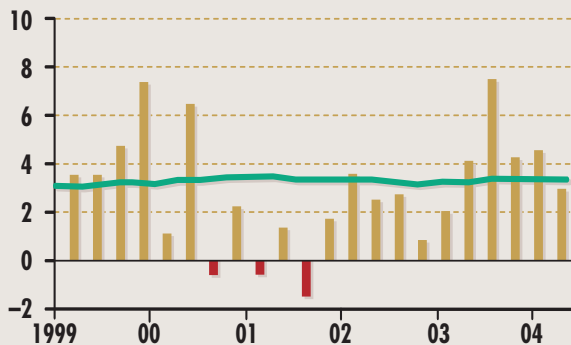


[‡]NOTE: Real personal income is personal income divided by the PCE chained price index.

Major Macroeconomic Indicators

Real GDP Growth

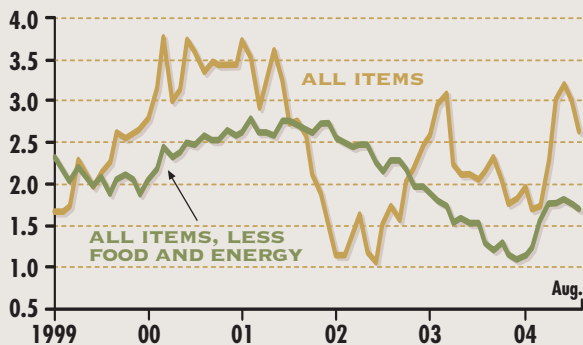
PERCENT



NOTE: Each bar is a one-quarter growth rate (annualized); the green line is the 10-year growth rate.

Consumer Price Inflation

PERCENT



NOTE: Percent change from a year earlier

Civilian Unemployment Rate

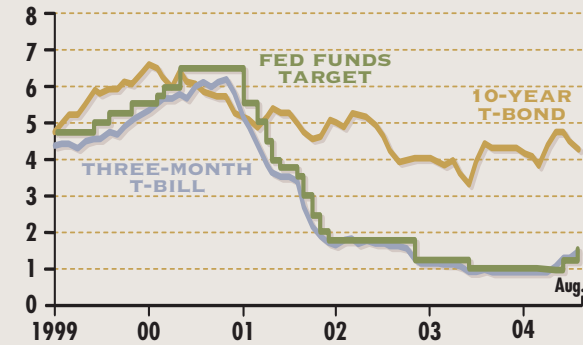
PERCENT



NOTE: Beginning in January 2003, household data reflect revised population controls used in the Current Population Survey.

Interest Rates

PERCENT

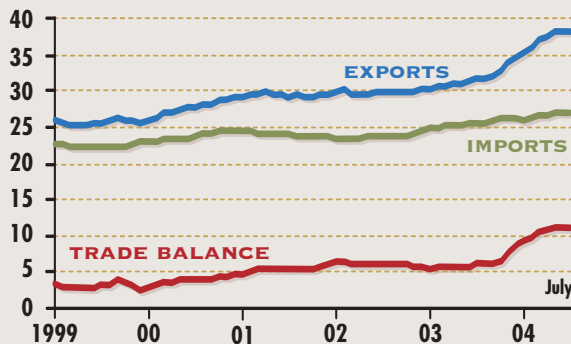


NOTE: Except for the fed funds target, which is end-of-period, data are monthly averages of daily data.

Farm Sector Indicators

U.S. Agricultural Trade

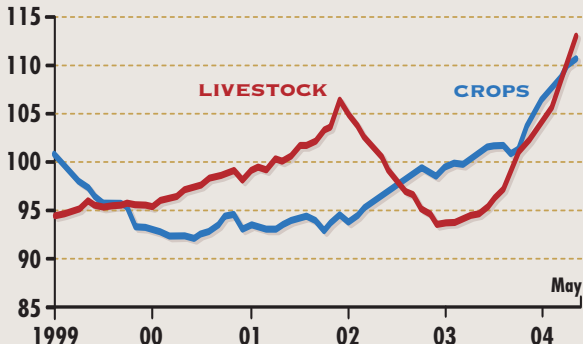
BILLIONS OF DOLLARS



NOTE: Data are aggregated over the past 12 months. Beginning with December 1999 data, series are based on the new NAICS product codes.

Farming Cash Receipts

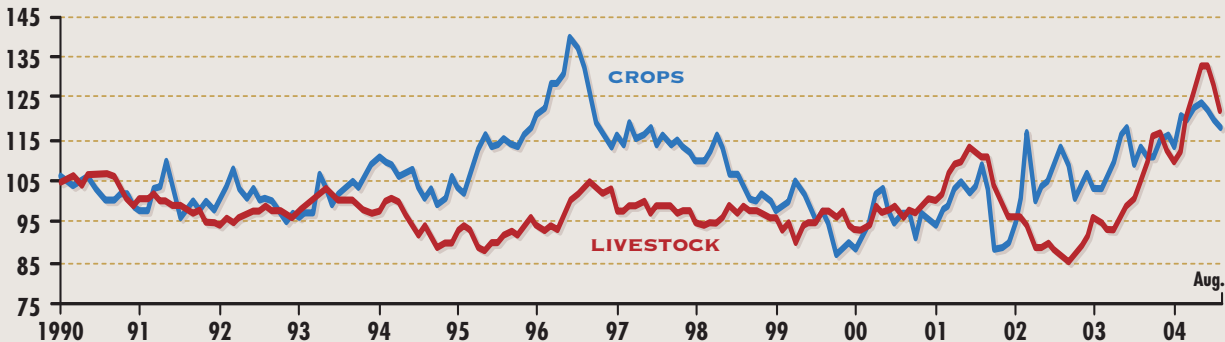
BILLIONS OF DOLLARS



NOTE: Data are aggregated over the past 12 months.

U.S. Crop and Livestock Prices

INDEX 1990-92=100



National and District Overview

Focusing on St. Louis Employment

By Howard J. Wall

The St. Louis labor market tends to experience the same short-run ups and downs as the United States as a whole, except more so. The experience of the past few years, which included a short, manufacturing-based recession followed by a long bumpy recovery, provides a good illustration of the tendency for the national situation to be magnified in St. Louis.

Total nonfarm payroll employment in the St. Louis metropolitan area fell steadily after March 2001—the official start of the recession as determined by the National Bureau of Economic Research. Employment in St. Louis bottomed out in August 2003 at 3.2 percent below its level at the start of the recession. U.S. employment also hit bottom in August 2003, but at only 2.1 percent below its March 2001 peak. Employment in St. Louis and the country as a whole has since risen steadily, though job growth in St. Louis has been more rapid. By July of this year, 82 percent of the jobs lost in St. Louis had been recovered. In contrast, the national economy had replaced 57 percent of the jobs lost between March 2001 and August 2003.

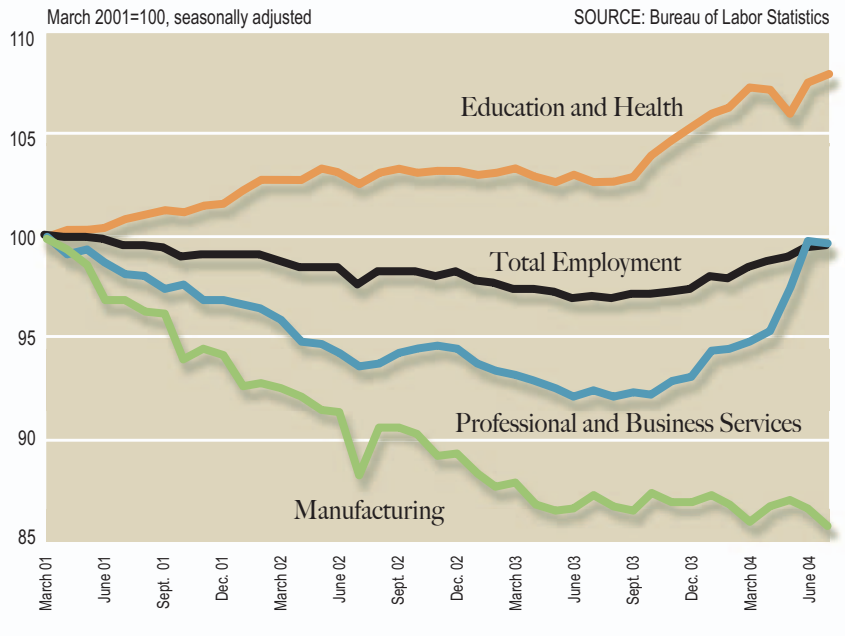
Recession-Sensitive Sectors

The two sectors hit hardest by the recession were “manufacturing” and “professional and business services,” which is linked closely to manufacturing. Between March 2001 and August 2003, manufacturing employment in St. Louis fell by more than 14 percent. This drop was less severe than the 16 percent drop in manufacturing employment at the national level.

The St. Louis experience was buoyed by the fact that, compared with the country as a whole, it has a larger share of jobs in motor vehicles and motor vehicle parts, both of which saw relatively modest job losses. In addition, the large aerospace products and parts subsector in St. Louis did not see the heavy job losses that were reported elsewhere following the sharp drop in demand for commercial aircraft. This is because aerospace firms in St. Louis are more focused on noncommercial products.

Manufacturing has been recovering nationally and locally for nearly a year, in the sense that employment has stabilized at or near its long-run situation of zero growth. In St. Louis, the manufacturing

Employment in the St. Louis Metropolitan Area



recovery has been reflected in the turnaround of the professional and business services sector, which has been expanding rapidly. This sector has been the main source of job growth over the past year in St. Louis, accounting for about 43 percent of the increase in employment between August 2003 and July 2004. By July 2004, the level of employment in this sector had nearly reached its pre-recession level. Although employment in professional and business services has also grown rapidly at the national level, this sector has been somewhat less important for overall U.S. job growth, accounting for just less than one-third of the increase over the period.

Recession-Resistant Sectors

An oft-neglected feature of the recent recession and recovery is that some sectors experienced job growth throughout the recession and recovery. In particular, education and health services saw job gains through much of the period, both nationally and in St. Louis. In July 2004, St. Louis employment in this sector was 8 percent higher than it had been in March 2001. At the same time, employ-

ment in education and health services at the national level grew steadily, adding more than 1.4 million jobs, an increase of 9 percent. For St. Louis, though, job gains in this sector were mostly in health services rather than in education, whereas at the national level, health and education both saw steady employment growth.

Where Things Stand

The labor-market recovery has become firmly entrenched in the St. Louis area, and most of the jobs lost during and following the recession have been replaced. If employment growth continues at the rate experienced in the first seven months of the year, St. Louis will reach its March 2001 employment level by October of this year. For St. Louis, the dark side of the recession was that it experienced relatively more job losses than did the nation as a whole. The bright side, however, is that, so far, the recovery in St. Louis has been stronger.

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