FEDERAL RESERVE BANK OF DALLAS

Issue 6 November/December 2003

Southwest Economy

U.S. Immigration and Economic Growth: Putting Policy on Hold

The United States takes pride in being a nation of immigrants. There is no more popular story than the one about the penniless immigrant who comes to America, works hard, overcomes adversity, and makes a good life for himself and his family. These ideals persist today as immigrants continue to contribute greatly to U.S. economic growth.

Nonetheless, the terrorist attacks of September 11 (and those preceding them) have led to the realization that not everyone who comes to this country arrives with such honorable intentions. The consequences have been heightened security at ports of entry, stricter background checks on visa applicants, requirements for tamper-proof and machine-readable passports and visas, and a host of other changes, many of them yet to come.

This article discusses immigrants' economic contributions and how these recent changes impact both the foreign-born population already living here and those trying to enter the United States. Despite the common perception that 9/11

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How Low Interest Rates Impact Financial Institutions

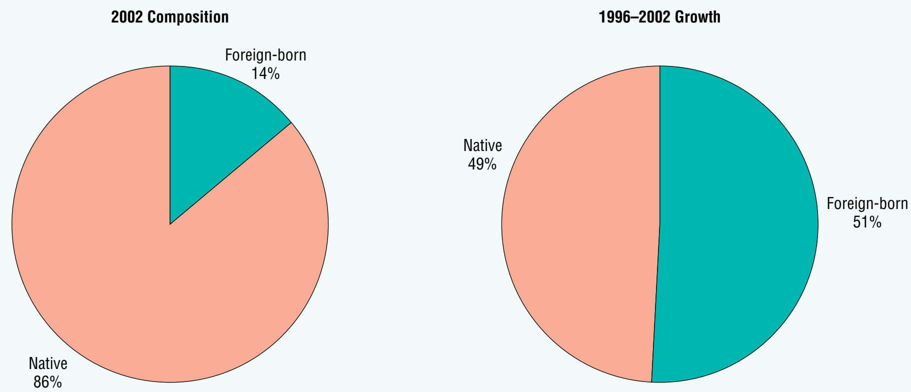
In recent years, the Federal Reserve has aggressively pushed down short-term interest rates to prevent the price level from falling. This has been done as part of the Fed's strategy to promote an atmosphere of price stability, essential to maintaining sustainable economic growth. The Federal Open Market Committee has publicly indicated it expects the overnight federal funds rate, which affects short-term interest rates, to remain low for a considerable period. This article discusses the impact low interest rates have on financial institutions, as part of a series examining the conduct of monetary policy at low interest rates.[1]

(Continued on page 8)

INSIDE:
Do What You Do Best, Outsource the Rest?

Chart 1

Foreign-Born Share of U.S. Labor Force and Labor Force Growth



SOURCES: U.S. Census Bureau, based on Current Population Survey data, and author's calculations.

The flow of foreign-born is so large that immigrants currently account for a larger share of labor force growth than natives.

triggered a crackdown on immigration (the enactment of the USA Patriot Act, the reorganization of the Immigration and Naturalization Service into Homeland Security, and other changes), pre-9/11 policies actually constituted a much more substantive effort in this direction. The post-9/11 period is most striking for the lack of change. Significant immigration reform pending before the terrorist attacks was taken off the table and remains on indefinite hold.

Immigrants' Contribution to Economic Growth

The pace of recent U.S. economic growth would have been impossible without immigration. Since 1990, immigrants have contributed to job growth in three main ways: They fill an increasing share of jobs overall, they take jobs in labor-scarce regions, and they fill the types of jobs native workers often shun. The foreign-born make up only 11.3 percent of the U.S. population and 14 percent of the labor force. But amazingly, the flow of foreign-born is so large that immigrants currently account for a larger share of labor force growth than natives (*Chart 1*).

In the 1990s, the labor force grew by 16.7 million workers, 6.4 million—or 38 percent of them—foreign-born. The majority of foreign-born workers (4.2 million) came during the boom of 1996–2000, when their share of job growth shot up to 44 percent. In essence, immigrants filled four of every 10 job openings at a time when the unemployment rate hit record lows.[1]

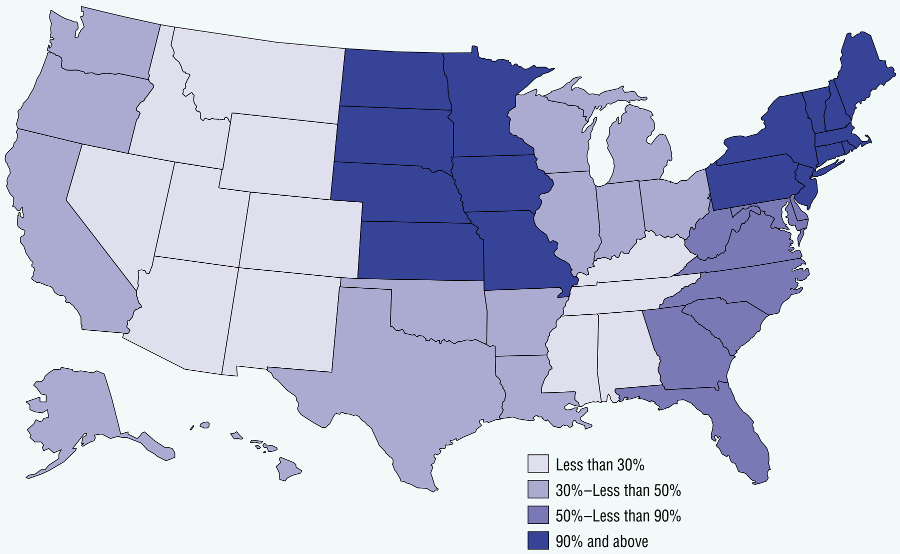
Due to the weak economy, job growth has slowed since 2000 and so has the growth of the labor force. Nonetheless, the foreign-born share of growth has risen, and it reached 51 percent of the total between 1996 and 2002. This share has increased in the slow economy because natives typically have more options, and during periods of weak job growth, they can exit the labor force and pursue other alternatives, such as going back to school.

Despite the weak economy, immigrant workers have held up well in the recession. Between 2000 and 2002, the foreign-born unemployment rate rose 2 percentage points to 6.9 percent. This compares favorably with the native unemployment rate, which rose 1.8 points to 6.1 percent.

The number of jobs immigrants fill is important, but where these jobs are filled is also important. In the 1990s, there was large-scale geographic dispersion among recent immigrants. Whereas in earlier years most new immigrants from Latin America and Asia clustered in a few large cities—such as Los Angeles, New York and Chicago—the '90s witnessed a spread to the western Midwest, New England, and the Mid- and South Atlantic regions. In some parts of the country, almost all labor force growth between 1996 and 2000 was due to immigration. As Chart 2 shows, in the western Midwest, New England and Mid-Atlantic regions, the foreign-born accounted for more than 90 percent of employment growth.[2]

Chart 2

Foreign-Born Share of Labor Force Growth by Region, 1996–2000



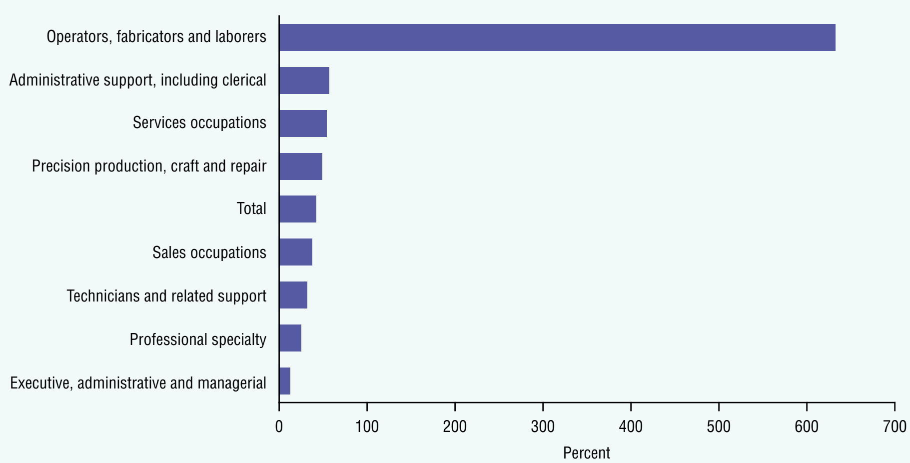
SOURCE: Bureau of Labor Statistics, *Monthly Labor Review*, May 2002, Abraham T. Mosisa.

A large percentage of immigrants have less than a high school education.

Meatpacking, for example, drew thousands of immigrants to the Midwest, and poultry processing did the same in the South Atlantic states. Jobs in these two industries exemplify the type of jobs new immigrants commonly fill—low-skill, blue-collar jobs. This is because a large percentage of immigrants have less than a high school education. About 33 percent of immigrants have not finished high school, compared with 13 percent of natives. Chart 3 shows the share of employment growth in each job category attributed to foreign-born workers in 1996–2000.[3] Immigrants overwhelmingly filled blue-collar jobs (operators, fabricators and laborers) but also accounted for as much as half the growth in categories such as administrative support and services. The more than sixfold growth in

Chart 3

Foreign-Born as a Percentage of Employment Change by Occupation, 1996–2000



NOTE: Numbers are based on annual averages.
SOURCE: Bureau of Labor Statistics, *Monthly Labor Review*, May 2002, Abraham T. Mosisa.

Chart 4

Illegal Immigration Responds to Growth Slowdown and 9/11

Monthly Apprehensions Along Southwest Border

NOTE: Shaded area denotes 2001 recession.

SOURCE: Homeland Security Department, Office of Immigration Statistics.

The foreign-born are both less apt to come and more likely to leave when the U.S. economy is doing poorly.

the laborer category reflects that many immigrants are not only low-skilled compared with natives but that their skills do not transfer easily to the U.S. workplace. It also means that as immigrants entered these occupations, native workers exited.[4]

When employment is not growing—largely the case since early 2001—immigration naturally slows. The foreign-born are both less apt to come and more likely to leave when the U.S. economy is doing poorly. Current Population Survey data indicate that while the immigrant population increased 6.1 percent between 2000 and 2001, it rose only 2 percent between 2001 and 2002. One indicator of illegal immigration—the number of migrants apprehended at the U.S.–Mexico border—also shows a drop at the beginning of 2001 (*Chart 4*). Because these immigrants are not delayed by visa processing, the changes in apprehensions move closely with the strength of the U.S. economy relative to Mexico's. The drop in early 2001 coincides with the onset of the recession that March. The decline in apprehensions intensifies in midsummer and more so following the September 11 attacks. In October 2001, apprehensions hit a low of 44,619. The fact that they are nowhere near where they were in the late 1990s indicates how the volume of immigration has adjusted to the jobless recovery.

Immigration and Monetary and Fiscal Policy. The fact that it fluctuates with the business cycle is one way immigration facilitates the work of monetary policymakers. By providing workers when and where they are needed, immigration raises the speed limit of the economy by keeping wage and price pressures at bay. In 2000, at the height of the economic boom, Fed Chairman Alan Greenspan attributed the U.S. economy's remarkable growth record to two main factors: productivity growth and labor force growth. Both factors held down unit labor costs and allowed the economy to grow faster with less inflation, thereby reducing the need for the Fed to intervene by tightening interest rates to slow growth.

In the long run, immigrants also have a beneficial effect on the fiscal health of pay-as-you-go government programs, such as Social Security and Medicare. Because immigrants are younger than natives on average and have higher fertility rates, immigration decelerates the aging of the population. This slows the ongoing decline in the ratio of workers to retirees and helps maintain the solvency of these programs.[5]

Immigration Policy Changes

The crackdown on immigration came long before 9/11. In fact, the impact of post–9/11 legislation on immigration has been limited so far. The biggest impact of 9/11 on immigration policy is that significant reform—pending before the attacks—has been dropped from the political agenda. The best example is President Bush's proposal for a guest-worker program. If passed, it would have regularized the status of millions of unauthorized Mexican workers.

Immigration Policy Pre-9/11. Two trends emerged in the 1990s: a crackdown on illegal immigration and a move to limit the rights of noncitizen immigrants. To counteract a resurgence in illegal immigration in the mid-'90s, the federal government poured unprecedented resources into the Border Patrol in terms of both personnel and technology. Between 1994 and 1999, the number of hours policing the border—Border Patrol linewatch hours—more than tripled. As enforcement rose, smugglers' fees increased rapidly. Data gathered from surveys of Mexican migrants indicate smugglers' prices rose from about $500 in 1993 to $1,000 in 1998. Today, migrants reportedly pay about $1,500 to $2,000 for a typical crossing.

The Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), passed in 1996, was instrumental in the crackdown on illegal immigration. The law added Border Patrol agents, allowed the removal of illegal immigrants without a hearing or judicial review, and greatly expanded the definition of deportable crimes. The expanded definition was applied retroactively to cover crimes that were not deportable at the time they were committed. As a result, deportations of criminal aliens—both legal and illegal immigrants—more than doubled between 1996 and 1998, rising from roughly 80,000 to 180,000.

The passage of IIRIRA reflects the move toward limiting the rights of noncitizens. The Welfare Reform Act, passed the same year, also reflects this trend. This law made most legal immigrants ineligible for federal public assistance programs such as food stamps and Supplemental Security Income. A consequence of these laws was a sudden surge of eligible immigrants applying for citizenship, reversing a long trend of declining citizenship rates among legal immigrants. As Chart 5 shows, applications for citizenship peaked at 1.4 million petitions in 1997, just after the 1996 laws were implemented.[6] Applications rose again after 2001.

Immigration Policy Post-9/11. Compared with the immigration laws passed in the 1990s, changes affecting immigration since 9/11 have been more subtle and indirect.[7] Three important acts were passed in the wake of September 11—the USA Patriot Act, Enhanced Border Security Act and Homeland Security Act of 2002. The acts do not speak to immigration per se but are directed at more carefully screening and monitoring of foreigners who want to temporarily visit the United States.

The most important changes so far have been stricter background checks for visa applicants and requirements for tamper-proof, machine-readable travel documents. U.S. consulates have raised their fees, and wait times for visa approvals have gone from less than one month to several months in some cases. Individuals are paying more and are more likely to be denied entry. U.S. companies are complaining that the new procedures hamper their ability to compete for foreign business because they are unable to arrange for their customers to travel to the United States in a timely way. This problem is particularly bad in fast-growing markets in countries that require a U.S. visa, such as China, India and Russia.

The more lengthy and expensive process has led to drastic declines in visas issued to tourists and businesspeople. There has been a 37.4 percent drop in these B1/B2 visas—from 3.5 million visas in 2001 to 2.2 million in 2003 (*Chart 6*). The weak global economy has likely contributed to the drop, as did the war in Iraq, but the main underlying factor is the stepped-up screening of applicants required by the new laws.

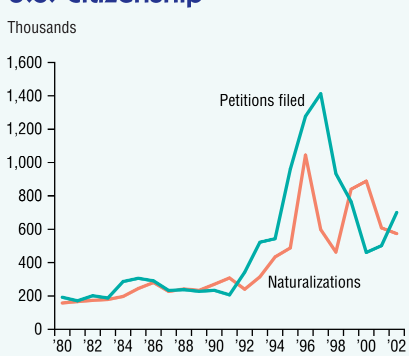
Although the decline in visas is large, it does not translate into an equivalent drop in foreign visitors. Many millions more come from countries in the visa waiver program, whose citizens are exempt from visa requirements. Temporary visitor admissions dropped 17.3 percent between 2001 and 2002. (2003 data are not yet available.)

Two other groups have also been impacted by stricter procedures: foreign students and refugees. Background checks on foreign students and stricter requirements on the universities and schools that admit them have reduced the number of student visas issued (*Chart 7*). The United States issued 298,730 student visas in 2001, compared with 219,851 in 2003, a fall of 26 percent over two years. Refugee resettlement has also slowed substantially. Whereas 89,726 refugee applications were filed in 2002, only 18,652 were approved, a 72 percent decline from 2001 (*Chart 7*). The decline in approvals stems in part from stricter security provisions on natives of countries linked to terrorism, such as Sudan and Somalia.

Interestingly, while the impact on the number of foreigners able to enter the United States temporarily has been substantial, there has been no slowdown in the number of foreigners granted permanent legal status. About 1.1 million

Chart 5

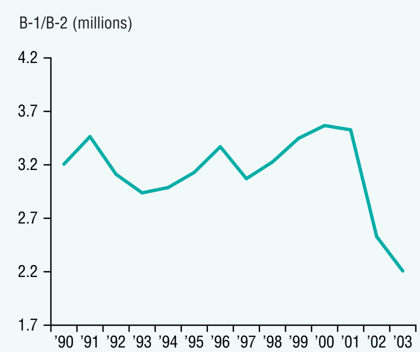
Immigrants File for U.S. Citizenship



SOURCE: Homeland Security Department, *Yearbook of Immigration Statistics.*

Chart 6

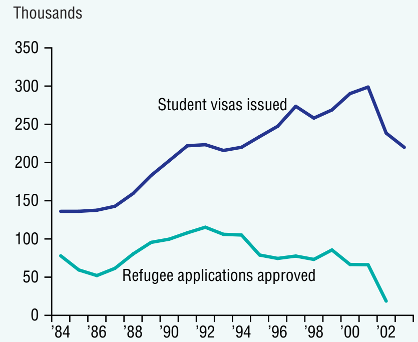
U.S. Visas Issued for Business and Pleasure



SOURCE: State Department, Office of Visa Services.

Chart 7

Student Visa and Refugee Approvals Decline After 9/11



NOTE: 2003 student visa numbers are preliminary.

SOURCES: State Department, Office of Visa Services; Homeland Security Department, *Yearbook of Immigration Statistics.*

The size of the flows and stock of unauthorized immigrants from Mexico speak to their importance from both a policy and an economic perspective.

green cards were issued in 2001 and again in 2002 (*Chart 8*). Nevertheless, since a share of legal immigration typically originates from foreign students, refugee resettlement and, to a smaller extent, visits by tourists and businesspeople, declines in these categories should eventually lead to fewer permanent immigrants, all other things equal.

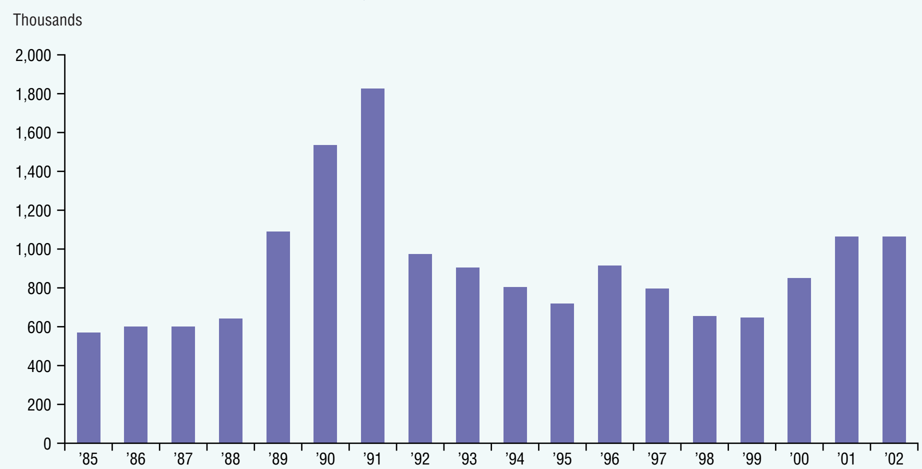
Putting Policy on Hold. In one tragic day, Sept. 11, 2001, the prevailing sentiment turned from pro-immigration and free trade to closing the borders. One immigration think tank declared immigration reforms now dead on arrival. The most significant immigration reform on the table at the time was President Bush's proposed guest-worker plan. During a visit to the White House just six days before the terrorist attacks, President Fox of Mexico and President Bush seemed very close to reaching an agreement that would have provided work permits for about 4 million unauthorized Mexicans living in the United States.

The size of the flows and stock of unauthorized immigrants from Mexico speak to their importance from both a policy and an economic perspective. Net migrant inflows are estimated to have numbered between 400,000 and 600,000 each year in the 1990s. Although they have since slowed due to the recession, the population of undocumented immigrants from Mexico is currently estimated at more than 4.8 million.[8]

Another example of immigration policy that will likely not get much play by lawmakers in the current environment is an increase in the H1-B cap. The H1-B program provides once-renewable three-year work permits for foreign professionals hired by U.S. firms and universities. In 2001, the 115,000 annual cap on H1-B visas was raised to 195,000 (*Chart 9*). But the change was temporary, and on Oct. 1, 2003, the cap reverted to the original 1992 cap of 65,000 visas. According to immigration lawyers, with approximately 20,000 visa applications carried over from fiscal 2003, the current visa allotment will be exhausted by early 2004.

Chart 8

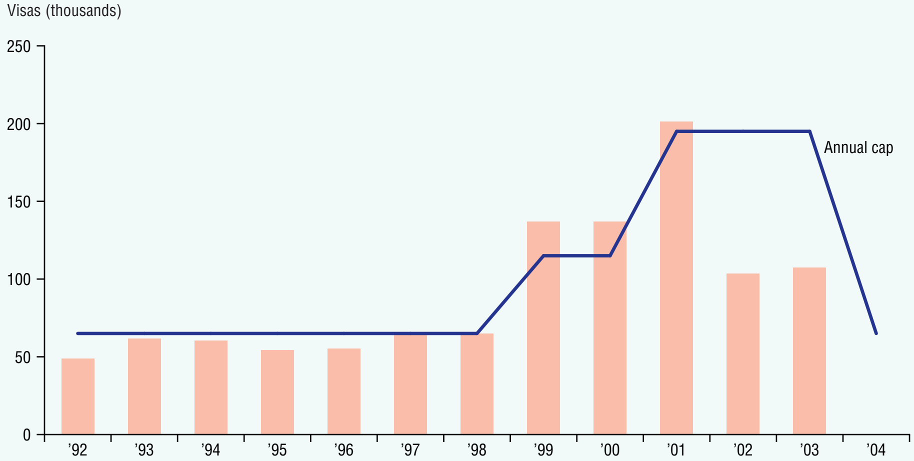
Green Cards Remain Steady in 2001–02



SOURCE: Homeland Security Department, *Yearbook of Immigration Statistics.*

Chart 9

H1-B Visas Will Run Out in Early 2004 Under Lower Cap



SOURCE: Homeland Security Department, *Yearbook of Immigration Statistics.*

Immigration policy not only determines how effectively the United States can compete for foreign workers but also their socioeconomic progress after they have arrived.

Implications for the Future

The economic contributions of immigrants are enormous. With immigrants filling such a significant share of job openings, it is clear the pace of U.S. employment growth is closely tied to the pace of immigration. Official post–9/11 changes have reduced entries of temporary visitors and foreign students and are negatively impacting travel to and from the United States, but it is still unclear what they will mean for the level of permanent immigration. If new policies deter future immigration, this has to be evaluated with respect to national security and economic concerns.

Meanwhile, post–9/11 political sentiment is having a significant effect on immigrants already here. Potentially beneficial reforms, such as a guest-worker program or a higher H1-B visa cap, have been put on indefinite hold. States are attempting to tackle some immigration issues on their own, such as driver's licenses and college tuition for undocumented residents.

Immigration policy not only determines how effectively the United States can compete for foreign workers but also their socioeconomic progress after they have arrived. Both aspects are important to future economic growth. Both also require these policies to be implemented, not just left to languish.

—Pia M. Orrenius

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Notes

The author thanks Manuel García y Griego, Mark Guzman, Jason Saving and Alan Viard for helpful comments and Anna Berman for research assistance.

1 This article uses the terms *immigrant* and *foreign-born* interchangeably. Unless otherwise specified, immigrant refers to anyone residing in the United States who was born abroad of non-U.S. citizens, including illegal immigrants and temporary workers.

2 Abraham T. Mosisa, "The Role of Foreign-Born Workers in the U.S. Economy," *Monthly Labor Review*, May 2002, pp. 3–14.

3 Mosisa 2002.

4 In this case, 664,000 foreign-born workers entered while 559,000 natives exited, for a net gain of 105,000.

5 For a more detailed account of the fiscal impact of immigrants, see Pia Orrenius and Alan Viard, "The Second Great Migration: Economic and Policy Implications," Federal Reserve Bank of Dallas *Southwest Economy*, May/June 2000.

6 Many factors underlie the surge in naturalizations, not just the new legislation. For example, many immigrants legalized in the 1986 amnesty became eligible for citizenship in the mid-1990s.

7 The exception is the treatment of certain immigrants from predominantly Arab or Muslim countries. The crackdown on foreign-born from countries linked to terrorism resulted in hundreds of detentions, deportations and a registration program. Until recently, visitors from many of these countries were required to register with U.S. Citizenship and Immigration Services during their stay.

8 The number of undocumented Mexican immigrants was 4.8 million in 2000, according to "Estimates of the Unauthorized Immigrant Population Residing in the United States: 1990–2000," Office of Policy and Planning, Immigration and Naturalization Service, January 2003.

How Low Interest Rates Impact Financial Institutions

(Continued from front page)

With interest rates near lows not seen since the early 1960s, financial institutions face new challenges. There have been concerns that possible further reductions in short-term rates could impair money market mutual funds and bank profits, thereby altering the flow of finance from households to firms. These concerns have abated since spring 2003 as bond yields have edged up in response to mounting evidence the economic recovery is gaining steam and as an unwinding of the decline in bond yields during the Iraq War. Nevertheless, short-term rates remain low and are notably affecting money market mutual funds and banks.

How Money Funds Differ from Banks

Money market mutual funds are financial intermediaries that accept money from shareholders and invest it in securities. After deducting operating expenses, money funds pay shareholders the returns on their investments.

Although shareholders' investments are not insured by the federal government, as is the case for many types of bank accounts, money funds invest in low-risk and highly liquid short-term Treasury bills and commercial paper. These portfolio characteristics mean that money fund investments are relatively stable and face little risk from price fluctuations arising from changes in creditworthiness or interest rates. Because of this and because short-term interest rates have usually been well above zero since the mid-1970s, money funds have paid positive rates that generally have moved with short-term market rates and shielded investors from share price declines.

In the big picture, money funds provide investors with a highly liquid and diversified way to invest in high-quality, short-term debt. Most major mutual fund families offer a money market option in addition to stock, bond and income funds, partly to encourage investors to stay within their product offerings.

Money funds have grown in popularity since their inception in the mid-1970s, and their assets have become sizable. Three types of bank regulations encouraged the creation of these funds. Ceilings on deposit interest rates prevented banks from offering yields as high as those on short- and long-term Treasury and corporate debt. Second, banks were prohibited from paying interest on checkable deposits. Third, banks could not invest all their deposits in interest-earning assets because regulations forced them to set aside a fraction of the money as non-interest-bearing required reserves.

Money funds sprang up as a means of circumventing the cost and burden of such regulations. They offered households higher interest rates than banks, with returns from funds that could be fully invested (not subject to reserve requirements) and minimum account balances lower than those of Treasury and corporate securities. Furthermore, money funds offered limited check-writing privileges in the late 1970s, when banks were prohibited from paying interest on checking accounts. All these advantages were enhanced when interest rates were very high, such as in the late 1970s and early 1980s.

Regulatory Changes. Since the late 1970s, many regulations that put banks at a disadvantage have been dropped or eased. The prohibition on paying interest on household checking deposits and the ceilings on deposit interest rates were dropped in the late 1970s and early 1980s. Business sweep accounts were legalized in the late 1990s, enabling banks to circumvent restrictions on paying interest on business checking accounts. Also, reserve requirements on several types of deposits were dropped or reduced. On the other hand, since the late 1980s banks have been required to fund investments with a higher percentage of equity capital, thereby reducing the extent to which they can use insured deposits to fund investments.

Even with these regulations, banks had some advantages over money funds. Banks can invest in short- and long-term Treasury and high-grade corporate securities, including long-term mortgage-backed bonds. Banks can also lend directly to households and firms. And because depositors are federally insured against capital losses on many types of bank accounts, banks are able to raise deposits of short maturities and then lend at longer maturities. They are also able to lend to borrowers posing some risk of default, lending directly or by owning bonds.

Owing to these factors, money funds channel credit to a narrower customer base than banks. With respect to firms, money funds help meet the short-term credit needs of very high credit quality corporations, whose stellar reputations enable them to issue commercial paper to meet their working capital needs (for example, inventories and materials). Money funds have an advantage over banks in this business segment. Regulations raise banks' cost of providing credit to such companies by more than the savings gained from deposit insurance, whose value to depositors would be relatively low if banks invested in the commercial paper of rock-solid companies.

However, the value of regulations for lending to less highly ranked firms gives banks an advantage in meeting the credit needs of small firms—which lack access to open financial markets—and the short- and medium-term credit needs of large and midsized companies. The latter firms are not ranked high enough to issue commercial paper investors will buy with noninsured deposits. But some of these firms have reputations good enough to enable them to issue corporate bonds to meet their longer term needs.[2]

Banks also provide backup lines of credit to large firms that issue commercial paper. These firms can tap the credit lines if they are unable to issue new paper to pay off maturing commercial paper or meet new credit needs. As a result, banks act as a backup if market or firm-specific conditions prevent a firm from issuing enough commercial paper. Such market conditions could include factors limiting the ability of money funds to raise money for buying commercial paper.

To provide perspective on their importance, retail money fund balances total about $870 billion, or 14 percent of the M2 monetary aggregate. M2, which primarily tracks household money balances, also includes currency, household and business checking accounts, savings deposits (including MMDAs—money market deposit accounts) and small time deposits (under $100,000). Adding in $1,170 billion in institutionally held funds, money fund balances constitute nearly 23 percent of M3, the broadest monetary aggregate. (M3 includes M2 plus institutional holdings of money funds, MMDA balances of firms, repurchase agreements and Eurodollar deposits.)

On the asset side of their balance sheets, money funds held about $2.2 trillion in assets at the end of 2002, including nearly $600 billion in commercial paper—almost 44 percent of the commercial paper issued by private U.S. corporations. Money fund holdings of commercial paper account for roughly 6 percent of the total debt of nonfinancial and private financial corporations, not much below the 9 percent that is in the form of nonmortgage loans at commercial banks. Because money funds are sizable, it is important to consider them, as well as banks, in assessing how low short-term interest rates impact financial institutions.

How Low Short-Term Interest Rates Affect Money Funds

Money funds could encounter difficulties in paying shareholders positive interest rates if already low market rates fall further. The reason is that the funds distribute the net earnings on their investments to account holders. Money fund rates equal the return on short-term instruments, such as Treasury bills and commercial paper, plus any fees minus expenses. As short-term market rates approach zero, more funds would find it difficult to avoid paying negative interest, which would mean passing a capital loss on to investors. With short-term Treasury yields near 1 percent and money fund rates at around 0.5 percent, some money fund margins are pressed since expense ratios generally range from 0.2 to 1 percent of assets. Indeed, a few smaller and less efficient funds have posted losses, and a handful have even closed.

If short-term Treasury and commercial paper rates fall further, more money funds would encounter the zero bound. Although the money funds might like to lower their rates below zero, they would be unable to do so because investors always have the option of holding currency, which offers a sure return of zero. In that case, money funds would face four options: bear the losses, close, raise checking and wiring fees, or "break the buck"—that is, expose shareholders to capital losses.

Breaking the buck is unlikely, because money funds derive much of their appeal from their safe-haven reputation. If short-term rates fall, it is more likely that some funds would close, raise fees or temporarily bear the losses. If markets expect short-term rates and economic growth to rise, in which case the yield curve is steep (long-term rates are higher than short-term rates), more money funds may bear temporary losses until short-term rates go up. Many mutual fund families may do so because having a viable money fund enhances the appeal of their other offerings. Bearing losses could take the form of asset managers temporarily reducing their fees or money funds receiving subsidies from parent financial firms.

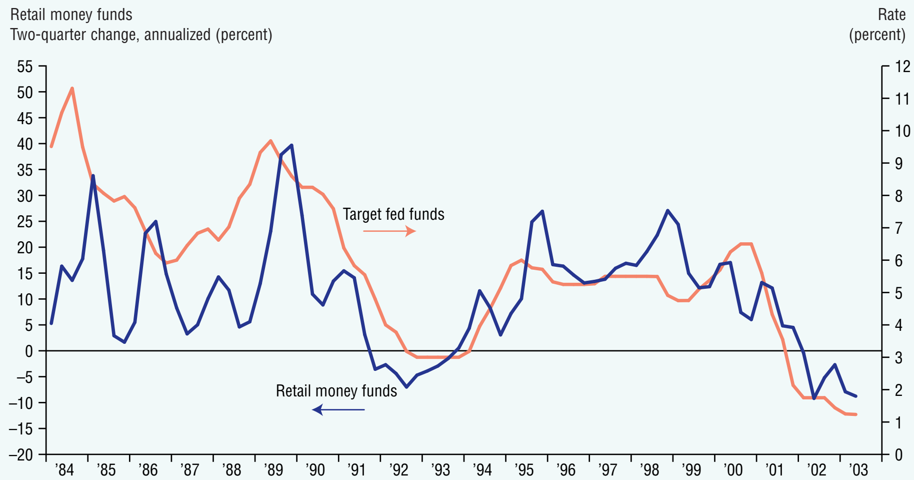
The impact of even lower short-term interest rates on the viability of money funds would probably be uneven across funds. Funds specializing in Treasury bills would likely be hit harder by the zero bound than those oriented toward holding commercial paper, since yields on commercial paper are slightly higher than those on Treasury bills. In addition, more cost-efficient funds are less vulnerable to the zero bound, especially larger funds with greater economies of scale and institutional money. These funds generally have lower administrative costs than retail money funds (owned by households) because they have fewer and larger customers.

Even if most money funds skirt the zero bound, at current low interest rates their assets would likely continue declining as households shift to other assets. The target federal funds rate and the two-quarter moving average of growth in retail money fund assets have swung together (*Chart 1*). As short-term rates plunge, people can earn higher yields on

Money market mutual funds could encounter difficulties in paying shareholders positive interest rates if already low market rates fall further.

Chart 1

Low Short-Term Rates Hold Back Money Funds



SOURCE: Federal Reserve Board.

Even if most money funds skirt the zero bound, at current low interest rates their assets would likely continue declining.

alternative assets, some posing the risk of capital losses and some not.

For example, they could shift out of money funds into MMDAs at banks without facing potential capital losses. In an environment of very low short-term interest rates and somewhat higher longer-term rates, banks are able to earn returns high enough to pay positive yields on MMDAs. The reason is that unlike money funds, banks can lend at longer horizons and to moderate-risk investors and thereby earn higher expected returns because markets reward investors for taking interest rate and default risk.

Typically, money funds have offered higher interest rates than bank MMDAs because the pattern of rates and the wider menu of bank investments have not usually offset the lower regulatory burden on money funds. For example, Reid, Millar and Sevigny (2002) show money fund yields exceeded MMDA yields by roughly 2.5 percentage points over the last half of the 1990s and by nearly 4 percentage points in much of 2000.[3] However, as the authors note, the unusual constellation of interest rates eroded this yield gap during 2001, and data indicate that MMDA rates have exceeded money fund yields in recent months. Reid, Millar and Sevigny also show that the smaller the gap, the slower money fund growth is. It can even turn negative if money fund yields fall below MMDA rates. If short-term market interest rates fall further, these substitution effects would likely further reduce money fund balances, and outflows could become even larger if some funds close, raise fees or break the buck.

Since money funds invest in commercial paper, money fund outflows could reduce the demand for it, thereby pushing up commercial paper rates relative to Treasury rates and possibly forcing some issuers out of the market. For at least two reasons, the net economic impact of such a shift in funding sources has been limited and would likely continue to be if short-term interest rates do not fall much more. First, because firms typically use commercial paper to finance inventories, inventory changes are a big factor affecting how much firms tap this form of finance. For example, since late 2000, commercial paper issuance by nonfinancial corporations has fallen largely as a by-product of firms' cost-cutting efforts to reduce inventories.

The second reason is that because commercial paper issuers are among the most creditworthy firms, they could borrow from banks, which would be flush with deposit inflows from money fund withdrawals. In addition, if spreads between yields on commercial paper and Treasury bills widened, some large investors (either very wealthy households or institutional investors) would have a greater incentive to purchase more commercial paper, partially offsetting the impact of fewer paper purchases by money funds. Some firms of high credit quality might even issue medium- or long-term bonds to replace commercial paper. Consequently, smaller commercial paper purchases by money funds would likely have little net impact on the economy.

Chart 2 illustrates this point. High-quality large firms could raise funds from commercial paper sold to money funds or directly to households or institutional investors. They could also obtain short-term financing from banks, which would be flush with deposits from money fund withdrawals. As the chart shows, these large firms could also obtain long-term financing from banks or sell bonds either directly to households or indirectly through bond mutual funds or other institutional investors. Nevertheless, large firms would likely pay more for these alternatives because bond investors would be paid for bearing price and rate risk, and bank loan interest rates reflect regulatory costs money funds don't have.

How Low Short-Term Interest Rates Affect Banks

While banks may enjoy deposit inflows if short-term rates continue to be low or get lower, banks may not gain as much from a steep yield curve as in the past. Since banks borrow short-term funds from depositors and lend for longer terms, their profit margins on loans typically benefit from a steep yield curve. Bank profits are tracked in Chart 3 using banks' net interest margin—the gap between interest earned on investments and interest paid to depositors. The steepness of the yield curve is measured by the difference between the yields on the 10-year Treasury bond and the three-month Treasury bill. Using consistent measures of bank net interest margins back to 1989, it can be seen how closely these margins and the yield curve moved together until recently, when the yield curve became much steeper while margins improved by less than what historical relationships would have suggested.

Although banks hold assets with a longer term than money funds, banks do not earn as much from investing short-run deposits under the current steep

Banks may not gain as much from a steep yield curve as in the past.

Chart 2

Money Fund Woes Boost Other Debt Sources for Large Firms

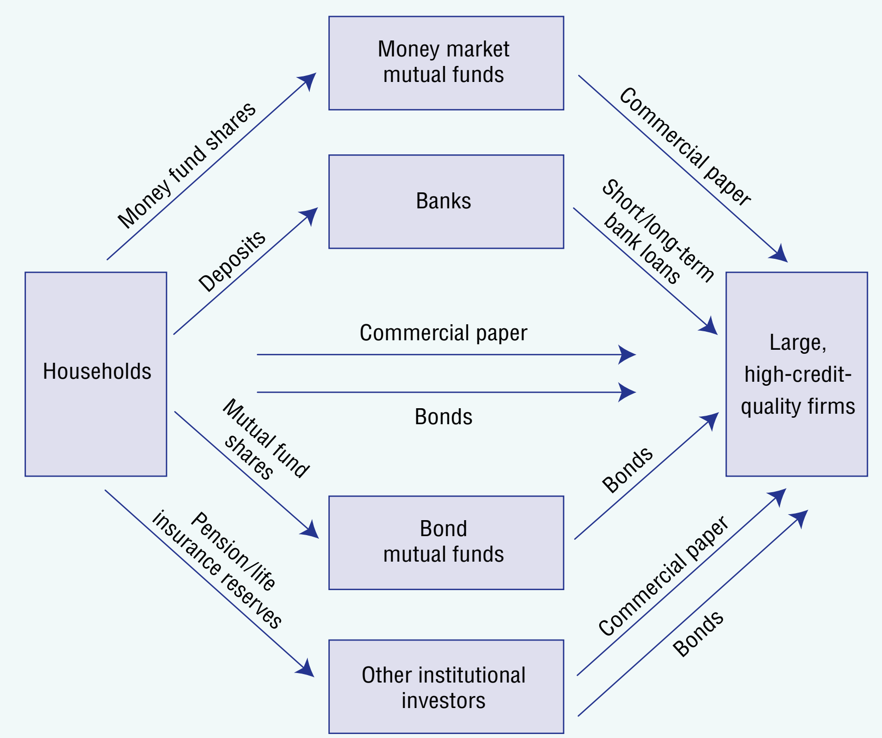


Chart 3

Steep Yield Curve Boosts Banks' Net Interest Margins Less Than in the Past

NOTE: Shaded areas denote recessions.

SOURCES: Federal Reserve Board; Federal Deposit Insurance Corp.

yield curve, even though loan losses are under control. The reason is that interest income on many of their floating-rate loans falls with market rates, but deposit rates on short-term accounts fall by less as overnight rates get closer to zero and account management expenses become relatively more important. Thus, as with money funds, bank margins can suffer under low short-term interest rates, though to a lesser extent because banks can lend at longer horizons and to moderate-risk borrowers.

This restraining effect on bank profits could have a minor impact on the economy. Owing to low short-term market interest rates, banks are under pressure to raise fees or minimum balance requirements on short-term accounts. Conceivably, banks might not lower loan rates one-for-one with any further market interest rate declines if their margins are narrowed by a zero bound on deposit rates. Instead, they might tighten credit standards or not ease standards as much as they would have otherwise, which would hurt some less highly rated borrowers.

Conclusion

In recent years, the Federal Reserve has aggressively shifted policy to keep short-term interest rates low, as part of a strategy of reducing the probability of an unwelcome drop in inflation or future deflation, either of which would negatively affect the economy. Although low short-term rates have hurt some financial intermediaries, the stimulus provided benefits the overall economy and the broad financial system.

Furthermore, by acting quickly, the Federal Reserve has prevented the U.S. economy from slipping into deflation and monetary policy from falling into a zero-interest trap. Because the Fed cannot push short-term rates below zero, it runs the risk in a slow economy that inflation could fall too low or turn into deflation. If nominal interest rates were at zero and inflation were low enough, or if prices were falling, conventional monetary actions to push down short-term rates would be unable to reduce the inflation-adjusted, short-term interest rate, the primary way the Federal Reserve has stimulated the economy. By acting aggressively, the Fed has reduced, but not eliminated, the probability of further cuts in short-term rates and their impact on the financial system.

If short-term rates do not decline further, the net economic impact of the currently low rates on money funds and banks would likely not get worse. Most money funds would avoid operating losses, although their assets would decline or barely grow until short-term rates rose. Banks would continue to see strong deposit growth, but the steep yield curve would bolster their net interest margins less than in the past. If a further reduction in short-term rates were warranted, any effects on large firms would likely have a limited net impact on the economy, as they could shift from issuing commercial paper to bank loans or possibly even bonds.

The composition of financial flows differs under these two scenarios, but there likely would be limited net impact on aggregate economic activity in either case, largely due to the depth and breadth of the American financial system.

—John V. Duca

Duca is a vice president and senior economist in the Research Department of the Federal Reserve Bank of Dallas.

Notes

The author thanks Jeff Gunther, Evan Koenig and Harvey Rosenblum for helpful comments and suggestions.

1 "Monetary Policy in a Zero-Interest-Rate Economy," Evan F. Koenig and Jim Dolmas, Federal Reserve Bank of Dallas *Southwest Economy*, July/August 2003.

2 Many firms are able to issue longer term bonds but not commercial paper, which subjects investors to the added risk that a firm may not be able to issue new paper to replace maturing commercial paper.

3 See Brian Reid, Kimberlee Millar and Stephen Sevigny, "Mutual Fund Industry Developments in 2001," Investment Company Institute *Perspective*, February 2002.

Do What You Do Best, Outsource the Rest?

International trade generates higher overall output by redirecting jobs to those who create the most added value—that is, to those who maximize their productive abilities. Put simply, the benefits of free trade can be summarized as: "Do what you do best. Trade for the rest." But times are changing, and so are many traded commodities.

The newest U.S. trade commodity is skilled white-collar work, with an estimated 60 percent of these outsourced jobs going to India. As with most traded commodities, outsourcing work abroad is the product of lower foreign labor costs and potentially higher future profits. And like free trade, outsourcing has become controversial.

Outsourcing's critics see only the elimination of work previously done in the United States and view outsourcing as exporting white-collar jobs to other countries. What they fail to recognize is that attempting to protect these jobs would mean higher prices for consumers and the unrealized potential for more productive jobs in new industries.

What is outsourcing? Why is India the leading country in attracting outsourced work? And what are the economic and political implications as firms do what they do best and outsource the rest?

Outsourcing: What It Is and Why It Is Done

Outsourcing occurs when an organization transfers some of its tasks to an outside supplier. In many recent cases, businesses in India have served as suppliers. A variety of jobs are being outsourced, including routine office work, computer-related work, business (accounting and finance), architecture, legal, art and design, and sales (*Chart 1*). The availability of real-time information via the Internet, satellite and transoceanic communications allows businesses to be sustained instantaneously around the globe. New information technologies let fewer people do more work and also help quickly bring new skills to learners everywhere.

Specialized tasks—such as software development, financial research and call centers—can often be accomplished elsewhere in the world at a fraction of U.S. costs. Through outsourcing, it is not uncommon for companies to realize net cost savings of 30 to 50 percent (*Chart 2*). As a result, it is often in a firm's best interest to outsource certain tasks and use the abilities of its remaining workers in other, more productive activities.

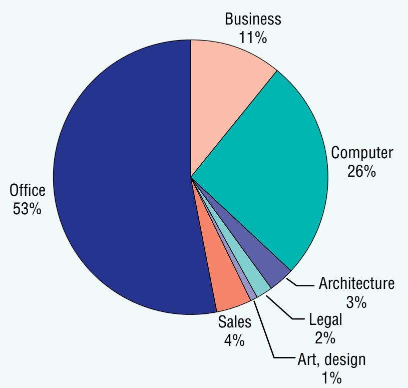
Why India?

Many countries offer low production and labor costs. But to make outsourcing viable, other business-promoting factors must be considered as well, such as the number and quality of skilled workers, maturity of the outsource market, government support, the legal system, political stability, location and accessibility, education, infrastructure, time differentials, technological modernity and English language skills.

For myriad services, India has emerged as the most appealing country in many of these areas. India has the second-largest English-speaking population in the world (after the United States) and an educated technical workforce pool of more than 4.1 million workers. In addition, the outsourcing market in India—especially for information technology (IT) services—has had time to mature and gain support from U.S. businesses.

India's 1991 Statement on Industrial Policy facilitated foreign direct investment and technology transfers, ushering in a new era with fewer of the regulatory burdens that had previously kept foreign firms from establishing business operations there. In the decade since this policy reform, foreign direct investment in India has increased more than fiftyfold. And even though India's basic infrastructure is among the worst in the world, businesses in India have found ways to compete globally in the IT arena, making India one of the world's leaders in software exports. The city of Bangalore—home to many IT outsourcing firms and

Chart 1
A Variety of Jobs Being Outsourced

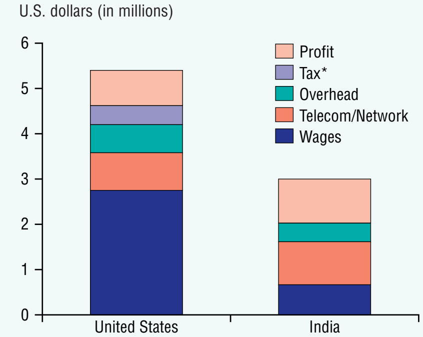


NOTE: Percentages computed on estimates for 2000.

SOURCE: John C. McCarthy (2002), "3.3 Million U.S. Services Jobs to Go Offshore," TechStrategy Research Brief, Forrester Research Inc., November 11.

Chart 2
Outsourcing to India Can Net Large Savings

U.S. dollars (in millions)



* India exempts taxes for exports, including call centers for foreign businesses.

NOTE: This comparison is based on annual costs for a 100-seat call center.

SOURCE: Antonio Riera, Janmejaya Sinha and Alpesh Shah (2002), "Passage to India: The Rewards of Remote Business Processing," The Boston Consulting Group.

U.S. corporations—contributed $2.5 billion last year to India's total software exports of $9.5 billion.

Furthermore, promoting IT is one of the Indian government's top priorities. The Ministry of Information Technology was established in October 1999 to accelerate the implementation of IT projects in government, education and the private sector. India has many universities dedicated to maintaining state-of-the-art IT curriculums, and more than 70,000 software engineers graduate annually from Indian institutes.

Innovations that create economic growth simultaneously destroy specific jobs as new technologies replace older ones.

Outsourcing's Implications

As long as there are workers in India (or elsewhere) willing and able to perform the same work for less pay, U.S. firms will increasingly examine outsourcing as an option to hold the line on costs and remain globally competitive. Forrester Research estimates that the number of outsourced jobs will increase to nearly 600,000 by 2005 and to 3.3 million by 2015, including jobs requiring management and life science skills. This is unwelcome news to U.S. workers whose jobs will be lost. But history suggests that this phenomenon will also generate many better, higher-paying jobs at home as long as the United States can keep its competitive advantage in innovation. Entrepreneurship and innovation depend on a broadly educated workforce committed to continuous learning and risk-taking.

Even though these are anxious times for U.S. workers, consumers are sure to benefit from outsourcing. In 1776, Adam Smith emphasized that "it is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest."[1] Following Smith's ideas, modern companies participate in the international market and pursue their own interests by making the most productive use of their resources. By pursuing profit maximization, firms remain competitive.

For U.S. consumers, competition leads to more and better economic choices. And the desire to meet consumer demand is the reason for all productive activity. Competition sustained through outsourcing has positively affected the well-being of consumers and producers. By participating in international trade, we increase our ability to consume the goods and services we value most, and we can do so at lower cost. If firms did not pursue outsourcing, or if governments placed barriers or limits on outsourcing in an attempt to "help" American workers, there would be less motivation to produce (because of lower profit potential) and higher prices for consumers.

International competition is often blamed for job losses and depressed sales. But protecting lost jobs is always harmful to consumers. Even so, several states are contemplating legislation that would prohibit their state government from contracting with foreign firms to perform services. Such actions cost taxpayers more by taking away opportunities for significant savings.

Think Globally, Act Globally

With specialization comes trade. Work once sheltered from faraway competition is no longer secure. Innovations that create economic growth simultaneously destroy specific jobs as new technologies replace older ones. The fact is, the Internet creates jobs and the Internet destroys jobs.

Businesses in India and elsewhere are developing an important competitive advantage in outsourcing by providing quality services at low costs. In the Internet Age—where a company's physical location is of little relevance and information travels quickly and cheaply—firms will continue to boost productivity and keep costs low by doing what they do best and outsourcing the rest.

And consumers reap the benefits.

—Thomas F. Siems
Adam S. Ratner

Siems is a senior economist and policy advisor in the Research Department of the Federal Reserve Bank of Dallas. Ratner is a student at DePauw University.

Note

1 Adam Smith, *An Enquiry into the Nature and Causes of the Wealth of Nations* (1776), reprint, ed. Edwin Cannan (New York: Modern Library), 1937, p. 14.

Throughout much of 2003, a recovery of the Texas economy has been debatable, but the most recent data provide sound evidence the economy has turned up. During the third quarter, job growth in most Texas industries was either positive or flat and the unemployment rate dropped. Both the Texas Coincident and Leading indexes suggest that the state's economy is out of the woods.

Most Texas industries' payrolls rose in the third quarter. Manufacturing and information continue to lose jobs, but at a slower pace. The most encouraging evidence in employment is the end to job losses in the trade, transportation and utilities sector. The sector is the biggest in Texas and accounts for almost 21 percent of total employment. A turnaround in this sector could offset the losses in high tech and provide the boost needed in a job-starved Texas.

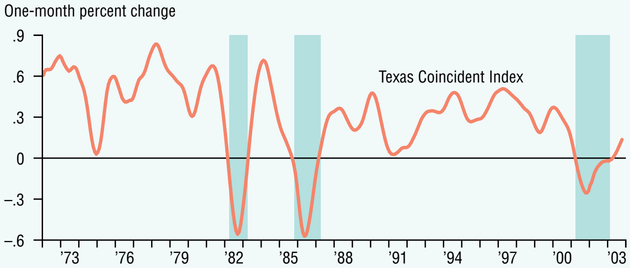
Another encouraging sign is the Texas unemployment rate. In October the rate dropped to 6.5 percent from 6.6 percent. Nonetheless, it remained well above the nation's, which declined to 5.9 percent in November. Continued improvement of the national economy should help drive down the Texas unemployment rate.

Although it was revised downward in September, the Texas Coincident Index has remained in positive territory since May and is accelerating. The Texas Leading Index also grew during the August–October period, suggesting the pickup in the region's economy will continue. The index also provides evidence of a recovery in the Texas job market as all the employment components of the index—average weekly hours, help wanted index and new unemployment claims—improved. Throughout the year, the Texas recovery has been regarded as a jobless recovery. The latest employment figures indicate this is no longer the case.

—Priscilla Caputo

Texas Out of Recession

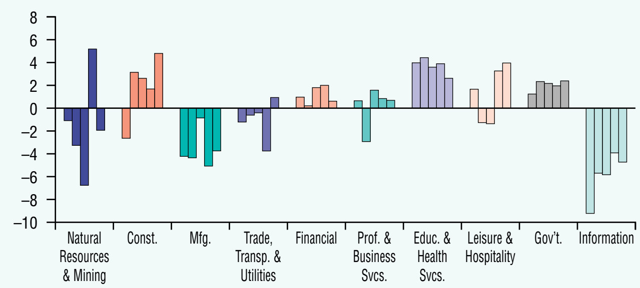
One-month percent change



NOTE: Shaded areas indicate recession.

Employment in Most Texas Industries Stable or Growing

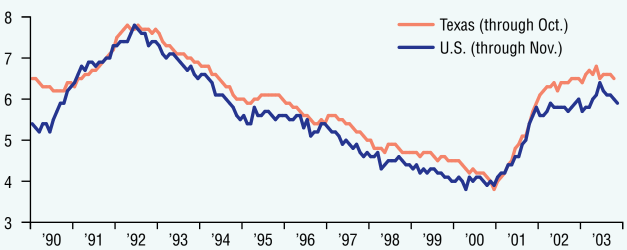
Percent*



*Quarter-over-quarter, seasonally adjusted, annualized rate.

Texas and U.S. Unemployment Rate

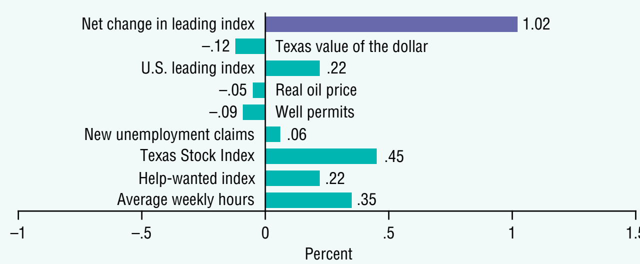
Percent*



*Seasonally adjusted.

Leading Index Increases

August–October 2003

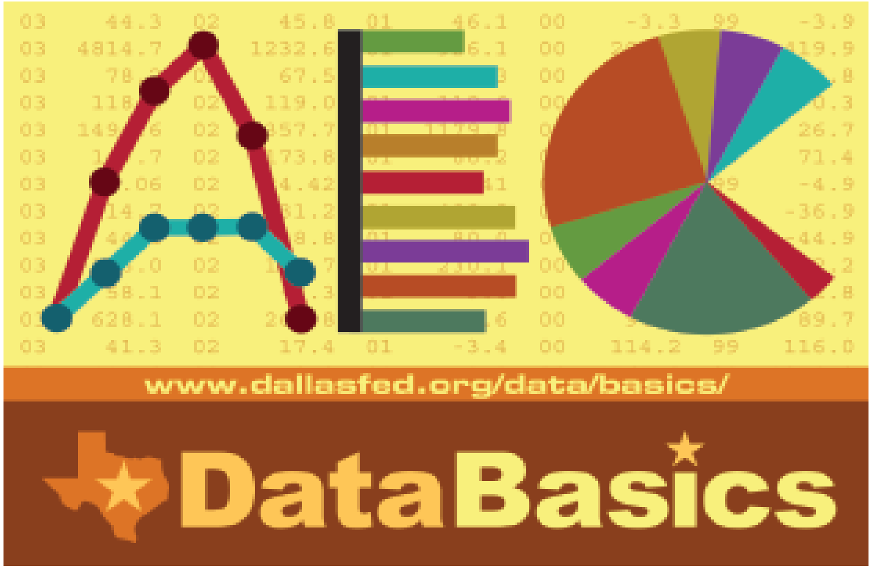


Regional Economic Indicators

	Texas Leading Index	TIPI† total	TEXAS EMPLOYMENT* Mining	Construction	Manufacturing	Government	Private service-producing	TOTAL NONFARM EMPLOYMENT* Texas	Louisiana	New Mexico
10/03	115.5	127.1	139.3	582.2	903.6	1,667.6	6,168.5	9,464.3	1,895.1	778.3
9/03	114.4	127.9	139.5	583.9	907.4	1,664.4	6,165.2	9,463.4	1,894.9	778.5
8/03	114.5	127.4	139.9	581.0	908.1	1,648.7	6,170.9	9,451.5	1,895.8	779.2
7/03	114.3	127.5	140.5	577.5	910.0	1,640.6	6,154.8	9,425.5	1,894.1	780.1
6/03	113.9	127.2	141.2	577.2	915.9	1,654.6	6,146.1	9,437.2	1,898.5	779.1
5/03	114.1	127.6	141.7	576.4	923.1	1,651.3	6,153.9	9,448.3	1,897.6	779.0
4/03	112.7	127.5	141.5	577.8	925.4	1,649.4	6,142.3	9,437.5	1,896.5	778.9
3/03	112.0	127.1	139.8	574.8	927.9	1,646.6	6,141.5	9,432.4	1,895.7	775.8
2/03	112.3	126.8	139.5	573.2	928.7	1,642.3	6,141.4	9,426.4	1,897.9	776.7
1/03	113.4	125.7	140.0	574.2	930.5	1,639.3	6,146.0	9,431.0	1,903.2	773.2
12/02	112.4	125.1	140.4	571.1	929.9	1,637.8	6,137.3	9,420.2	1,898.4	772.0
11/02	112.6	124.9	141.4	569.8	934.7	1,643.3	6,143.7	9,436.3	1,896.9	770.6

* In thousands. † Texas Industrial Production Index.

For more information on employment data, see "Reassessing Texas Employment Growth" (*Southwest Economy*, July/August 1993). For TIPI, see "The Texas Industrial Production Index" (Dallas Fed *Economic Review*, November 1989). For the Texas Leading Index and its components, see "The Texas Index of Leading Indicators: A Revision and Further Evaluation" (Dallas Fed *Economic Review*, July 1990). Online economic data and articles are available on the Dallas Fed's Internet web site, www.dallasfed.org.



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