

# 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

*(Continued on page 2)*

## 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.<sup>1</sup>

*(Continued on page 8)*

### *INSIDE:*

*Do What You Do Best,  
Outsource the Rest?*

# 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.<sup>2</sup>

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.

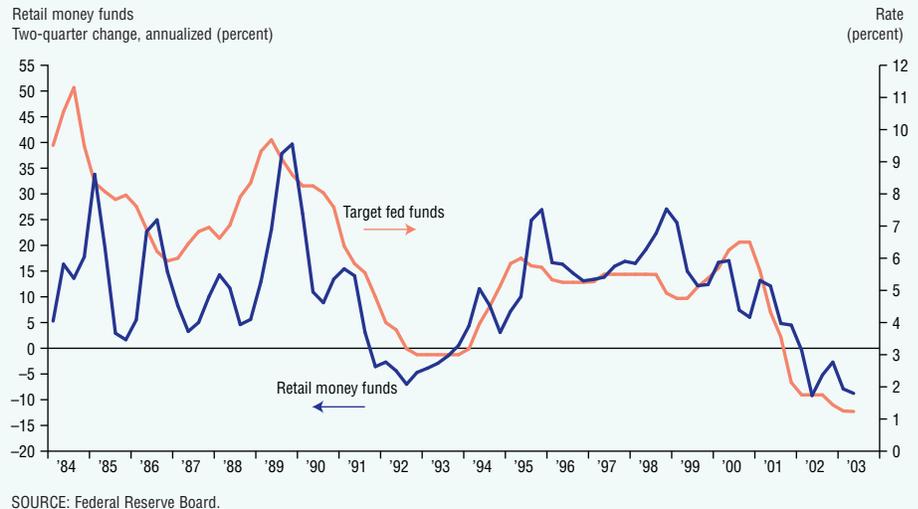
The impact of even lower short-term interest rates on the viability of money funds would probably be uneven across funds. Funds specializing in Treasury bills would likely be hit harder by the zero bound than those oriented toward holding commercial paper, since yields on commercial paper are slightly 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



*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.<sup>3</sup> 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

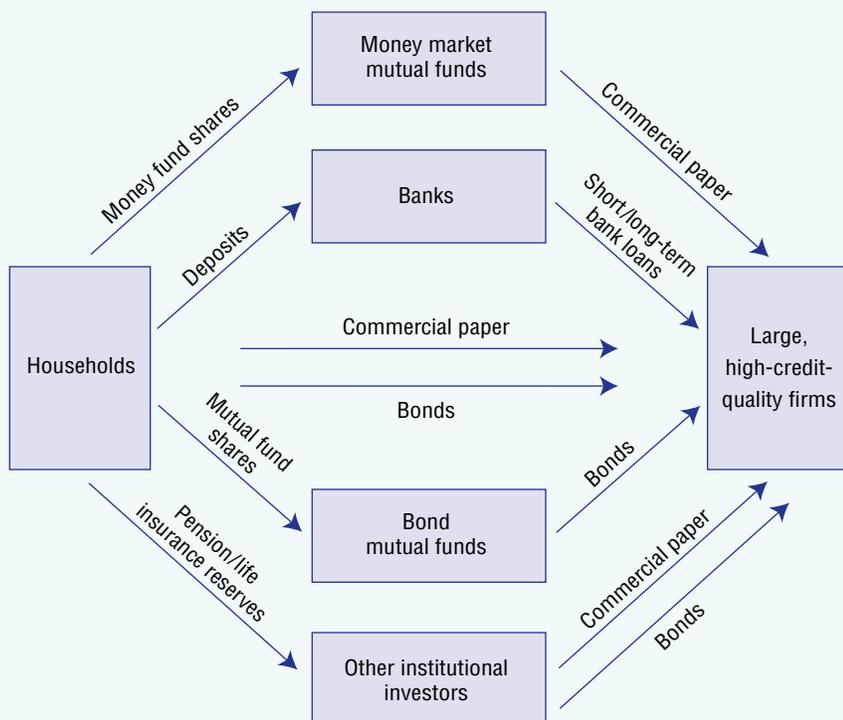


Chart 3

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



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.

- <sup>1</sup> "Monetary Policy in a Zero-Interest-Rate Economy," Evan F. Koenig and Jim Dolmas, Federal Reserve Bank of Dallas *Southwest Economy*, July/August 2003.
- <sup>2</sup> 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.
- <sup>3</sup> See Brian Reid, Kimberlee Millar and Stephen Sevigny, "Mutual Fund Industry Developments in 2001," Investment Company Institute *Perspective*, February 2002.