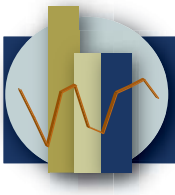
Federal Reserve Bank of Cleveland



Economic Trends

July 2007
(Covering June 20, 2007 - July 12, 2007)

In This Issue

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ISSN 0748-2922

Tick-tock…

07.12.07
by Mark S. Sniderman

The majority opinion among private economic forecasters is that the U.S. economy is in the last phase of adjusting to a series of disturbances from energy and housing markets. Most forecasters expect the economy to resume its growth, at a rate close to its longer-term trend, sometime in next year or perhaps earlier, depending on how soon the depressing effects of the housing markets start to wane.

Inflation, which has been uncomfortably high more often than not during the past few years, seems to be heading back toward an acceptable range, although evidence on this point is not conclusive. Drawing a bead on the inflation trend is tricky because there are many measures of inflation itself and of its underlying trend, termed core inflation. All the measures tend to paint to a similar picture over time horizons of a few years, but we are in one of those periods when convergence is not yet evident: Some scorecards still show inflation hanging above 3 percent, while others indicate that it has fallen to 2 percent or below.

Housing conditions are equally unclear. In terms of sales volumes and unit prices, new and existing homes have not been moving congruently for much of the past year. New and existing homes are not perfect substitutes for one another in either features or location, and we use different sources to estimate their sale prices. On average throughout the country, sales volumes have fallen more for new homes than for existing ones, but prices for new homes appear to be holding up somewhat better than those of existing homes.

The housing market is important, not only for individual owners and would-be owners but also for its potential macroeconomic implications. As housing credit markets tighten up, it is uncertain how the subsequent wave of adjustable-rate loan refinancing will play out. For some homeowners, higher interest payments will undoubtedly forestall spending elsewhere; for others, refinancing may not be possible at all. Apart from that, to the extent that consumption formerly was supported by cash-out mortgage refinancing, higher interest rates and more fragile housing valuations are likely to become constraining influences. Yet, so far this year, consumption spending on the whole appears sound.

The U.S. economy's rebalancing after these housing and energy shocks takes place in the context of a much larger and more profound rebalancing of world economic activity. Unless China, India, and a slew of other countries that are relatively new entrants to global trading and financial markets abruptly slow down or reverse course, the economies of the United States and other developed nations may be entering a long period of adjustment

The energy market is one of the most important markets being affected by this rebalancing. Over extended periods of time, as we have seen, energy is subject to substantial price swings, which can affect both economic growth and measured inflation. Unless rising energy prices are offset by price movements for other goods and services, inflation will rise. If people view energy price increases as largely transitory, they are not likely to foresee an enduring connection between events in the energy market and the general inflation rate. Indeed, during the past few years, longer-term inflation expectations have held relatively steady in the face of elevated short-term inflation, a sign of public confidence in the Federal Reserve. However, as investment advisors are fond of saying, past performance is no guarantee of future results. However, monetary policymakers would be unable to ignore persistent price increases for energy or for other goods and services, if those increases were accompanied by a notable deterioration in inflation expectations.

While an expanded world economy offers promising opportunities for all who join, it introduces fresh complications as nations work to harmonize their trading practices and agree on mechanisms for resolving their disputes. Global economic expansion also provides greater scope for prices, interest rates, and exchange rates to fluctuate as differences in national savings propensities, regulatory systems, labor market practices, and other forces influence patterns of consumption, investment, labor utilization, and productivity within and across countries. It is easy to underestimate the strength and duration of these forces, for they play out incrementally over time and often reveal themselves in prosaic ways. But play out they do.

Inflation and Prices

May Price Statistics

06.29.07
by Michael F. Bryan and Linsey Molloy

The headline CPI surged 8.4 percent (annualized rate) during the month—its highest monthly growth rate since the aftermath of Hurricane Katrina, in September 2005. The monthly CPI advance reflects elevated food prices and sharply higher energy prices. Energy prices have risen at an average annualized monthly rate of roughly 30 percent during the first four months of the year and soared nearly 90 percent in May. The total or "headline" CPI increase exceeded analyst expectations and was a marked acceleration from longer-term CPI-measured inflation trends. The relative price of energy, notably petroleum, has fluctuated rather widely over the past few years, after having shown a persistent and sharp rise during the first half of the current decade.

While the monthly headline inflation measure is a reasonably good approximation of the changing costs that households actually face, they are not very reliable measures of the inflation trend that a central bank hopes to contain. The core inflation measures, which reduce the influence of short-term price volatility coming from certain index components—like petroleum—have revealed a relatively more favorable pattern over the past few months. For example, the CPI excluding food and energy was up a modest 1.8 percent (annualized) in May while the median CPI fell to 1.0 percent, its slowest monthly growth rate in almost four years. And the monthly growth rate of the 16 percent trimmed-mean CPI dropped to 2.3 percent in May, below its 3-month, 6-month, and 12-month averages. In their June statement, the Federal Open Market

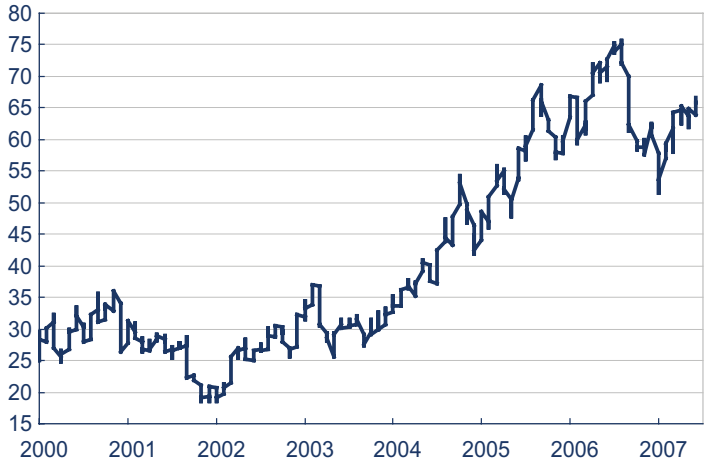
May Price Statistics

	Percent change, last:					
	1 mo.[a]	3 mo.[a]	6 mo.[a]	12 mo.	5 yr.[a]	2006 avg.
Consumer Price Index						
All items	8.5	7.0	5.5	2.7	3.0	2.6
Less food and energy	1.8	1.5	2.1	2.2	2.0	2.6
Median[b]	1.0	2.1	2.6	3.1	2.6	3.6
16% trimmed mean[b]	2.3	2.7	2.9	2.7	2.3	2.7
Producer Price Index						
Finished goods	11.4	11.0	8.5	4.1	3.9	1.5
Less food and energy	2.3	0.7	1.8	1.6	1.4	2.1

a. Annualized.
b. Calculated by the Federal Reserve Bank of Cleveland.
Sources: U.S. Department of Labor, Bureau of Labor Statistics; and Federal Reserve Bank of Cleveland.

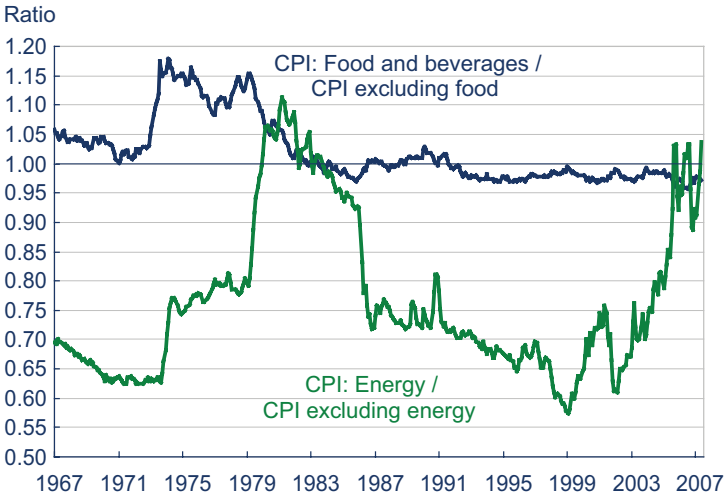
Oil Prices

Dollars per barrel, weekly



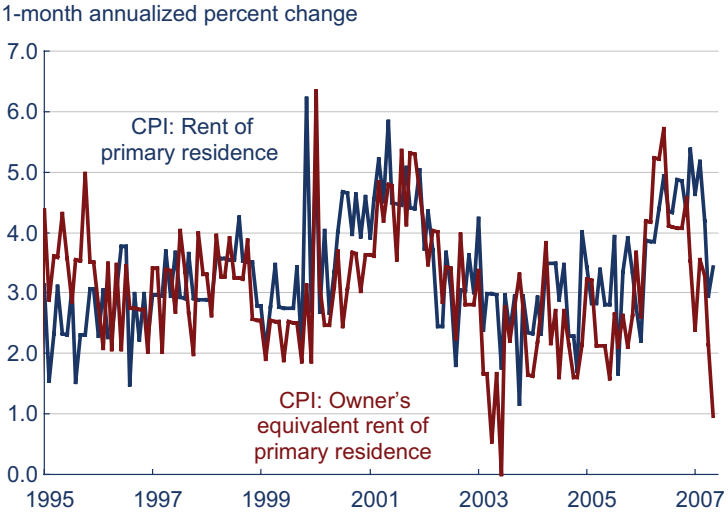
Source: *The Wall Street Journal*.

Relative Prices



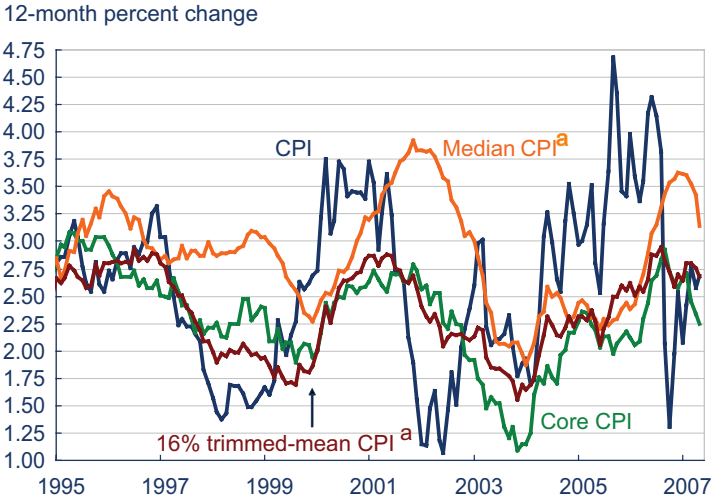
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Housing Prices



Sources: U.S. Department of Labor, Bureau of Labor Statistics; and Federal Reserve Bank of Cleveland.

CPI, Core CPI, and Trimmed-mean CPI Measures



a. Calculated by the Federal Reserve Bank of Cleveland.
Sources: U.S. Department of Labor, Bureau of Labor Statistics, and Federal Reserve Bank of Cleveland.

Committee asserted that "Readings on core inflation have improved modestly in recent months. However, a sustained moderation in inflation pressures has yet to be convincingly demonstrated."

Owner's equivalent rent of primary residence (OER), which accounts for nearly one-quarter of the overall CPI, rose at a mere 1.0 annualized rate in May—its slowest monthly growth rate in nearly four years. Some of the recent deceleration in monthly OER growth comes from a more moderate rise in rents and may be a consequence of a housing market that continues to flounder. However, some of the recent deceleration in monthly OER growth may also come from accelerating utilities costs, which are generally assumed by a landlord, and thus, subtracted from the OER housing cost measure. So recent patterns in the OER measure might not remain as favorable as the most recent data would suggest.

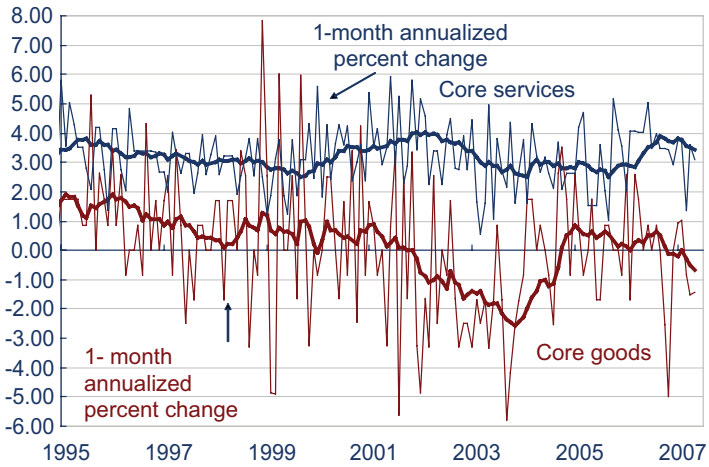
The inflation trend over the last 12 months, as measured by the CPI, CPI excluding food and energy, and the 16 percent trimmed-mean CPI, is between 2¼ and 2¾ percent. Inflation in core service prices has ranged largely between 3 percent and 4 percent over the past year, while prices for core goods (i.e., commodities less food and energy commodities) continue to decline.

Meanwhile, households' year-ahead inflation expectations remained a bit elevated at 4.2 percent in June, while expectations for inflation over the next 5 to 10 years, which are more correlated with movements in core inflation, fell from 3.7 percent in May to 3.3 percent. Longer-term inflation expectations are back in the 3 percent–3½ percent range in which they've generally fluctuated for nearly decade.

Professional forecasters and financial market participants are more optimistic about the inflationary environment. A consensus forecast from the Blue Chip panel of economists suggests that core inflation will register 2.3 percent in 2007 and 2008. This is the same rate as market-based measures of inflation expectations, which show that investors anticipate that the CPI will grow between 2¼ and 2½ percent over the next decade.

Core CPI Goods and Core CPI Services

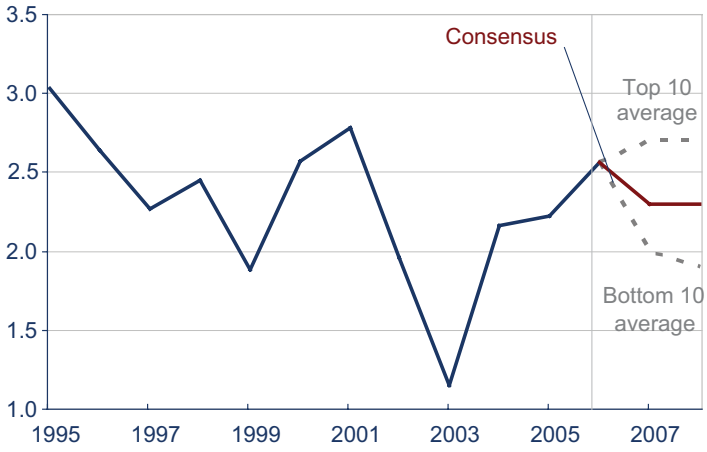
12-month percent change



a. Calculated by the Federal Reserve Bank of Cleveland.
Sources: U.S. Department of Labor, Bureau of Labor Statistics, and Federal Reserve Bank of Cleveland.

Core CPI Inflation and Forecasts

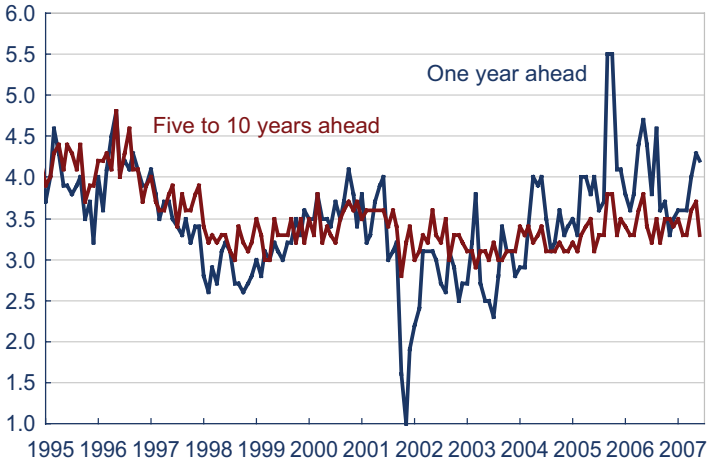
12-month percent change, December



Source: Blue Chip panel of economists, June 10, 2007.

Household Inflation Expectations*

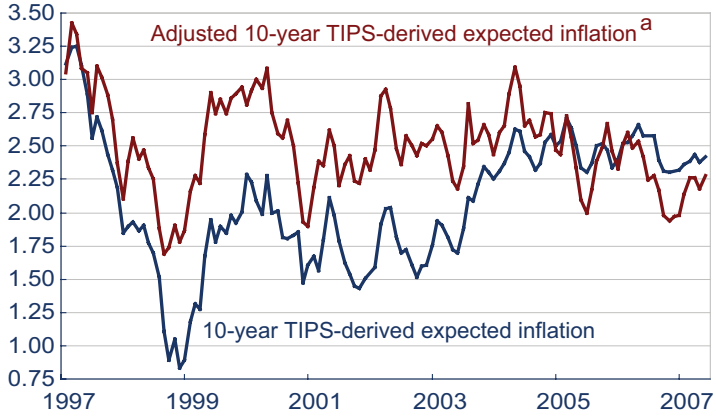
12-month percent change



*Mean expected change as measured by the University of Michigan's Survey of Consumers.
Source: University of Michigan.

Market-Based Inflation Expectations*

Percent, monthly

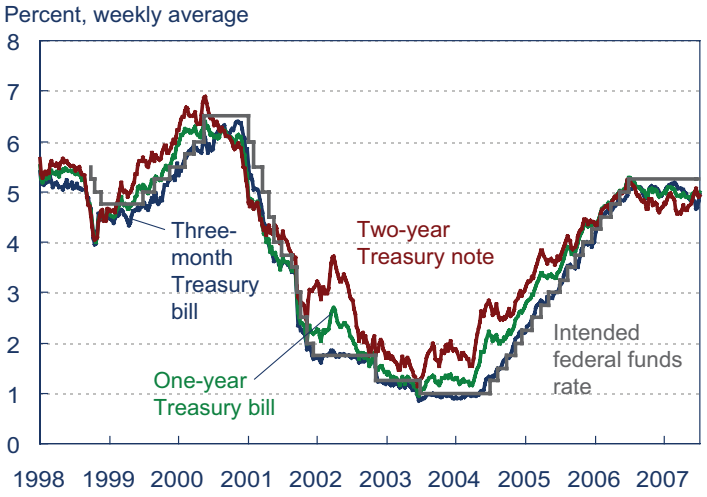


*Derived from the yield spread between the 10-year Treasury note and Treasury inflation-protected securities.
a. Ten-year TIPS-derived expected inflation, adjusted for the liquidity premium on the market for the 10-year Treasury note.
Sources: Federal Reserve Bank of Cleveland; and Bloomberg Financial Information Services.

Assessing New Information: What's Permanent, What's Not?

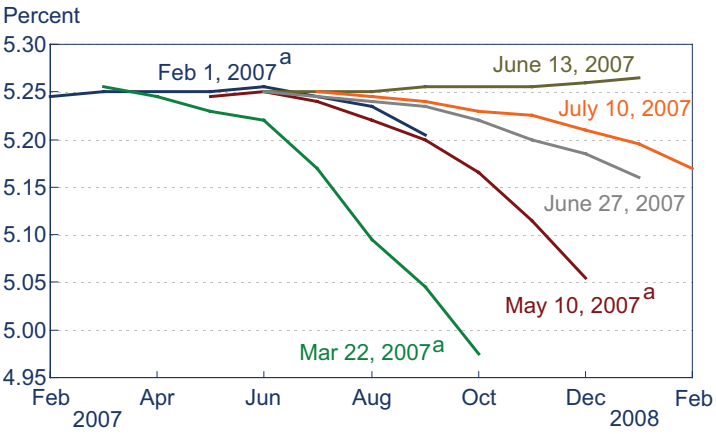
07.11.07
by John Carlson and Bethany Tinlin

Short-term Interest Rates*



*All yields are from constant-maturity series.
Source: Federal Reserve Board, "Selected Interest Rates," *Federal Reserve Statistical Releases, H.15*.

Implied Yields on Federal Funds Futures*



*All yields are from the constant-maturity series.
a. One day after FOMC meeting.
Source: Bloomberg Financial Information Services.

After the Federal Open Market Committee (FOMC) meets to determine its policy rate, it issues a statement to explain its decision. That statement typically includes a sentence to emphasize that future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information. Financial market analysts thus keep a keen eye on the flow of new information to assess how it will affect the Committee's choice of the federal funds rate target at upcoming meetings.

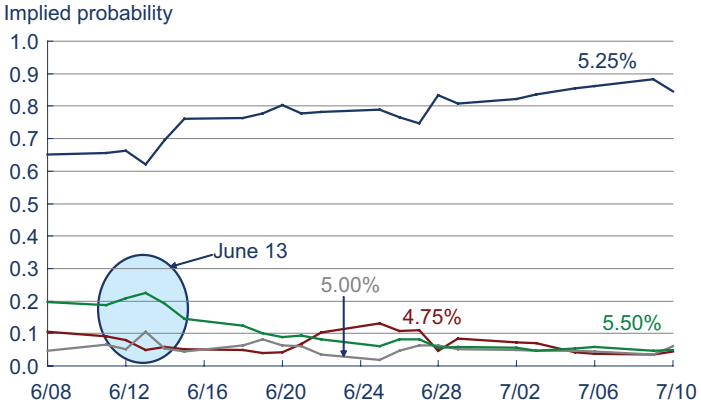
New information often does not affect the outlook enough to warrant a policy action. During the past year, for example, the policy rate—the intended federal funds rate—remained unchanged. Because short-term rates tend to be closely tethered to the policy rate, short-term Treasury yields did not vary much relative to periods over which the policy rate did change.

Although short-term rates varied some, they hovered at levels below the policy rate, providing a sign that market participants expected the next policy action to be a rate cut. To some extent, the movements reflect changes in the expected path of policy, given new information.

Prices of fed funds futures can also be used to infer the expected path of policy actions via their implied yields. Moreover, options based on those futures provide a means to estimate the distribution of those expectations. Implied yields based on futures prices corroborate the view that during the first four months of 2007, market participants built in a projection for rate cuts later in the year, as new information indicated a weaker than expected level of economic activity.

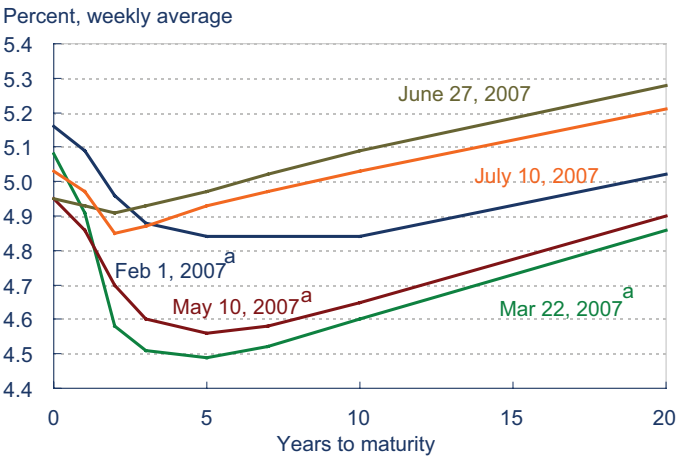
During the late spring, however, incoming data indicated that economic growth was rebounding to a moderate rate. Indeed, on June 13, 2007, implied yields suggested that no rate cut was on the horizon. This change in the expected policy path, however, has not been sustained.

Implied Probabilities of Alternative Target Federal Funds Rates, October Meeting Outcome*



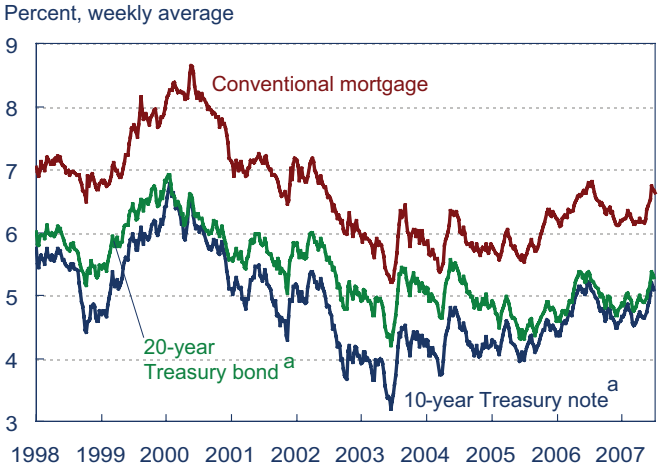
*Probabilities are calculated using trading-day closing prices from options on January 2007 federal funds futures that trade on the Chicago Board of Trade.
Sources: Chicago Board of Trade; and Bloomberg Financial Services.

Yield Curve



a. Day after the FOMC meeting.
b. Day of FOMC meeting.
Sources: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15; and Bloomberg Financial Information Services.

Long-term Interest Rates



a. Yields are from constant-maturity series.
Source: Federal Reserve Board, "Selected Interest Rates," *Federal Reserve Statistical Releases, H.15.*

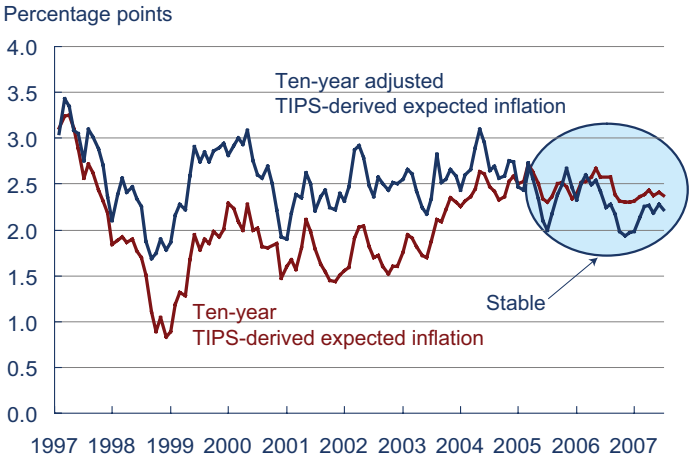
Estimated probabilities for alternative outcomes for the October meeting indicate a similar reaction to the data. Around June 13, 2007, market participants put a higher probability on a rate hike than a rate cut, although neither outcome seemed likely at that meeting.

More recently, the news on inflation has been relatively favorable, increasing the prospect of a rate cut. In sum, incoming news in recent weeks has altered expectations about the path of the fed funds rate, but not in any convincingly permanent way. When looked at in cumulative terms, the outlook seems little changed.

Long-term interest rates have tended to move up in recent weeks. Such rates are typically influenced less by policy actions in the near term. Rather they are influenced more by underlying economic conditions and expectations about inflation. The improvement in the economic outlook no doubt contributed to the recent rise, which seems consistent with a more positive slope of the yield curve.

Ideally, long-term inflation expectations are tightly anchored and hence relatively fixed. However, in his speech yesterday, Chairman Bernanke noted "Although inflation expectations seem much better anchored today than they were a few decades ago, they appear to remain imperfectly anchored." As an example, the Chairman noted that TIPs-based measures of inflation expectations still move in response to economic data and to current inflation news, "which would not be the case if expectations were perfectly anchored." Regardless of the variation, there's no clear change in the pattern of expected inflation.

Long-term Inflation Expectations

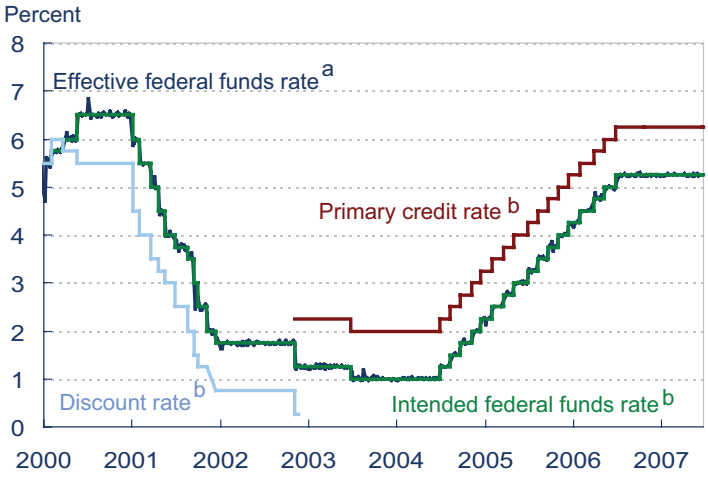


Sources: Bloomberg Financial Information Services, Board of Governors of the Federal Reserve System, "Selected Interest Rates," and *Federal Reserve Statistical Releases, H.15.*

Monetary Policy: What's in a Few Words?

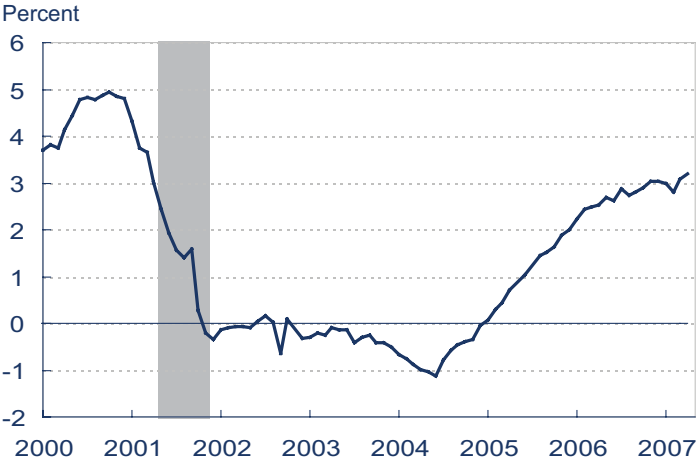
06.29.07
by John Carlson and Bethany Tinlin

Reserve Market Rates



a. Weekly average of daily figures.
b. Daily observations.
Source: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15.

Real Federal Funds Rate*



*Defined as the effective federal funds rate deflated by the core PCE. Shaded bar represents a recession.
Source: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15; Federal Reserve Bank of Philadelphia; and Bloomberg Financial Information Services.

The Federal Open Market Committee (FOMC) left the target level of the federal funds rate unchanged at 5.25 percent this afternoon. It was the eighth consecutive meeting at which the rate was held steady. The inflation-adjusted fed funds rate rests near 3 percent, or about 400 basis points above its low of June 2004.

Any changes in the policy rate would have come as a great surprise to market participants. Indeed, implied yields and estimated probabilities based on fed funds futures indicate that a rate change is not likely before the end of the year. An adjustment to the post-meeting statement language, on the other hand, was widely anticipated.

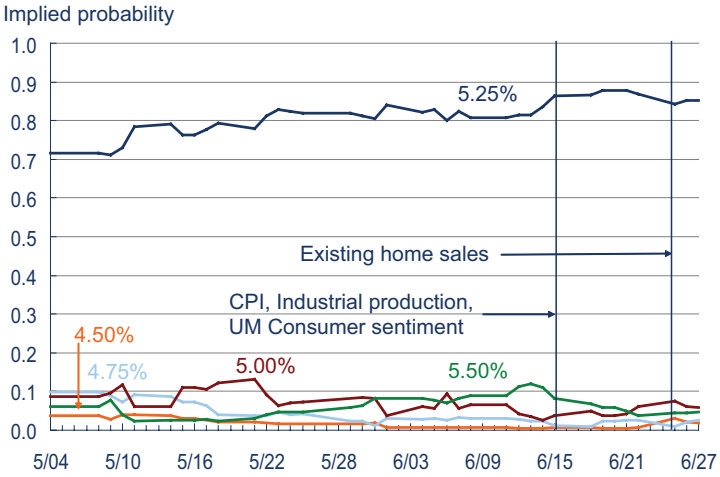
Language changes were seen as necessary to account for the evolution of the outlook for both inflation and economic growth since the last meeting. In its rationale for the May meeting decision, where rates were held steady, the FOMC said that economic growth had slowed and core inflation remained "somewhat elevated." Two favorable readings on CPI core inflation and some good news on economic activity altered the FOMC's basis for its rationale. The June statement reads: " Readings on core inflation have improved modestly in recent months. However, a sustained moderation in inflation pressures has yet to be convincingly demonstrated."

Concerning economic growth, the statement reads "Economic growth appears to have been moderate during the first half of this year, despite the ongoing adjustment in the housing sector." This compares with the May meeting statement, "Economic growth slowed in the first part of the year and the adjustment to the housing sector is ongoing." In the FOMC's assessment of risk, the statement repeated last meeting's language that "the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected."

Initial market reaction saw both equity prices and bond yields rise. Then after some erratic move-

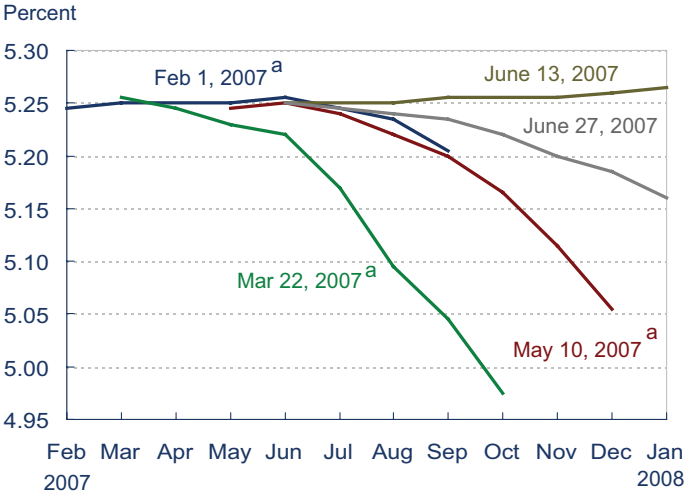
ments (the S&P index dropped briefly into negative territory), stocks finished the trading session lower than just prior to the statement's release and virtually unchanged on the day. The 10-year Treasury yield finished the day higher by about 5 basis points and near the level to which it jumped immediately after the announcement.

Implied Probabilities of Alternative Target Federal Funds Rates September Meeting Outcome



*Probabilities are calculated using trading-day closing prices from options on January 2007 federal funds futures that trade on the Chicago Board of Trade.
Sources: Chicago Board of Trade; and Bloomberg Financial Services.

Implied Yields on Federal Funds Futures*



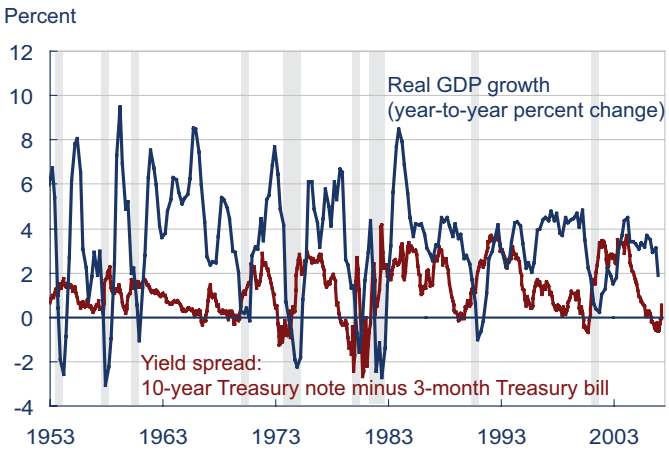
*All yields are from the constant-maturity series.
a. One day after FOMC meeting.
Source: Bloomberg Financial Information Services.

Money, Financial Markets, and Monetary Policy

The Yield Curve's Prognosis for Economic Growth

06.26.07
by Joseph G. Haubrich and Brent Meyer

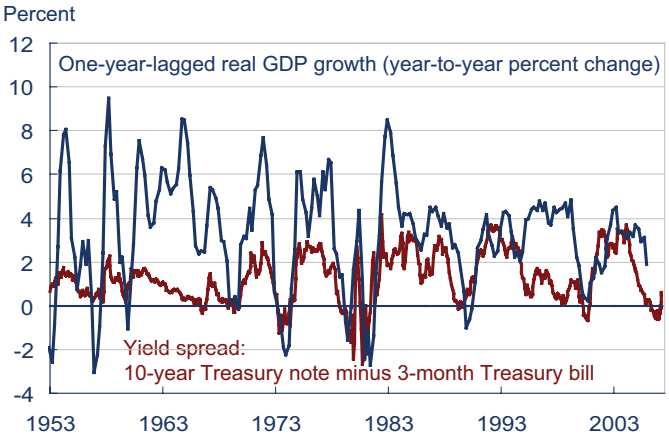
Yield Spread and Real GDP Growth*



*Shaded bars indicate recessions.
Sources: U.S. Department of Commerce, Bureau of Economic Analysis; and Board of Governors of the Federal Reserve System.

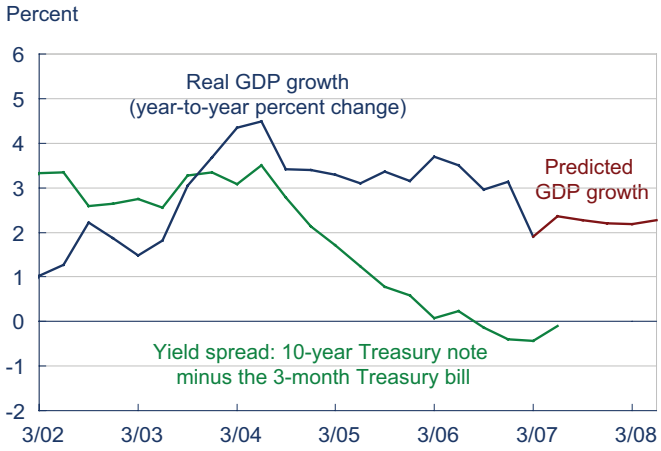
Since last month, the yield curve has steepened considerably, with short rates falling and long rates rising. As a consequence, the yield curve is no longer inverted. That is, long rates are once again higher than short rates. One reason for noting this is that the slope of the yield curve has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb is that an inverted yield curve (short rates above long rates) indicates a recession in about a year, and yield curve inversions have preceded each of the last six recessions (as defined by the NBER). Very flat yield curves preceded the previous two, and there have been two notable false positives: an inversion in late 1966 and a very flat curve in late 1998. More generally, though, a flat curve indicates weak growth, and conversely, a

Yield Spread and Lagged Real GDP Growth



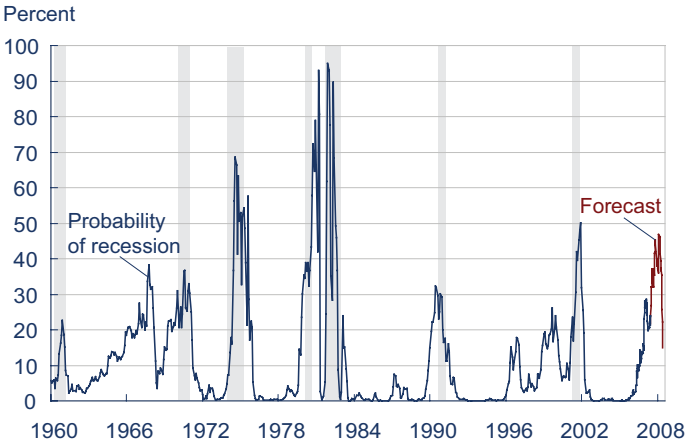
Sources: U.S. Department of Commerce, Bureau of Economic Analysis; and Board of Governors of the Federal Reserve System.

Predicted GDP Growth and the Yield Spread



Sources: U.S. Department of Commerce, Bureau of Economic Analysis; the Board of Governors of the Federal Reserve System; and authors' calculations.

Probability of Recession Based on the Yield Spread*



*Estimated using probit model. Shaded bars indicate recessions.
Sources: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; and authors' calculations.

steep curve indicates strong growth. One measure of slope, the spread between 10-year bonds and 3-month T-bills, bears out this relation, particularly when real GDP growth is lagged a year to line up growth with the spread that predicts it.

The yield curve had been giving a rather pessimistic view of economic growth for a while now, but with the inversion gone, this is less pronounced. The spread has turned positive: With the 10-year rate at 5.20 percent and the 3-month rate at 4.66 percent (both for the week ending June 15), the spread stands at 54 basis points, up a lot from May's –23 basis points. Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 2.3 percent rate over the next year. This prediction is on the low side of other forecasts, in part because the quarterly average spread used here remains negative.

While such an approach predicts when growth is above or below average, it does not do so well in predicting the actual number, especially in the case of recessions. Thus, it is sometimes preferable to focus on using the yield curve to predict a discrete event: whether or not the economy is in recession. Looking at that relationship, the expected chance of a recession in the next year is 15 percent, down a quite a bit from Mays's value of 35 percent and April's 38 percent. The 15 percent is close to the 16.9 percent calculated by James Hamilton over at Econbrowser (though to be fair we are calculating different events: Our number gives a probability that the economy will be in recession over the next year. Econbrowser looks at the probability that the quarter fourth quarter of 2006 was in a recession).

Of course, it might not be advisable to take this number quite so literally, for two reasons. First, this probability is itself subject to error, as is the case with all statistical estimates. Second, other researchers have postulated that the underlying determinants of the yield spread today are materially different from the determinants that generated yield spreads during prior decades. Differences could arise from changes in international capital flows and inflation expectations, for example. The bottom line is that yield curves contain important information for business cycle analysis, but, like other indicators, should be interpreted with caution.

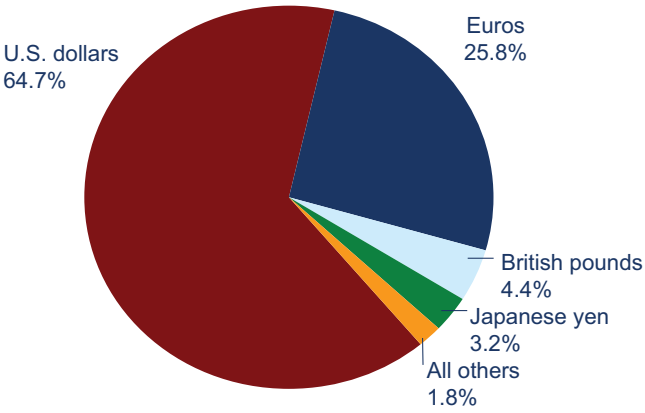
For more detail on these and other issues related to using the yield curve to predict recessions, see the Commentary "Does the Yield Curve Signal Recession?"

International Markets

Sovereign Wealth Funds

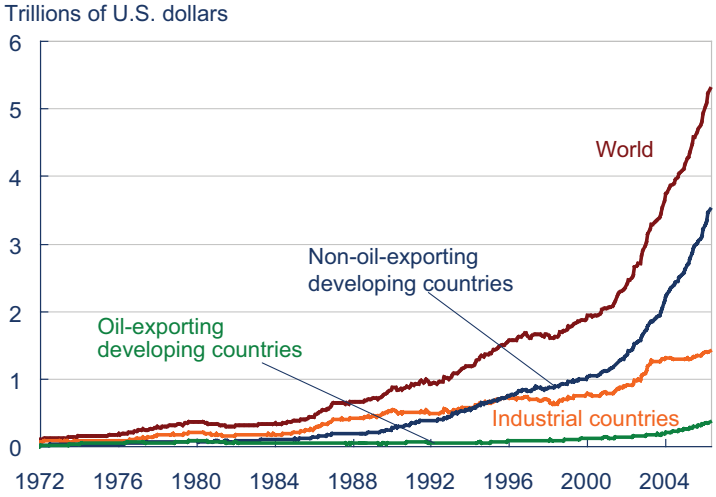
07.02.07
by Owen F. Humpage and Michael Shenk

Currency Composition of Worldwide Reserve Holdings



Source: International Monetary Fund, International Financial Statistics, COFER data.

Foreign Exchange Reserves



Source: International Monetary Fund, International Financial Statistics.

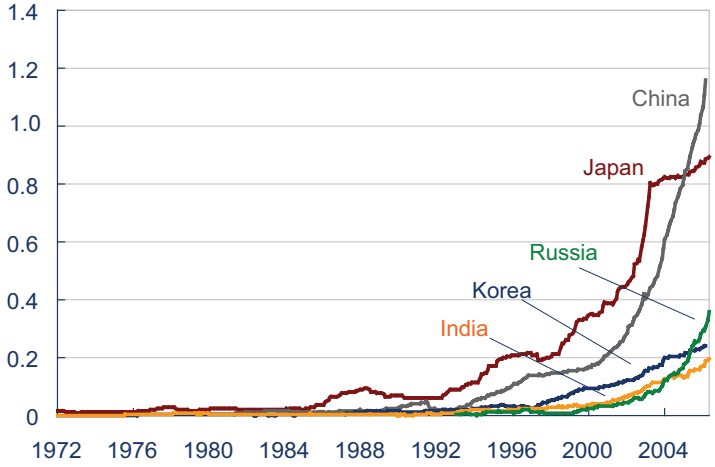
The flip side of our current account deficits these past 25 years has been an inflow of foreign savings. These funds have been quite beneficial: They helped to keep real interest rates lower than they otherwise would have been, thereby promoting interest-sensitive sectors of the economy, like investment and consumers' durable spending. But would we be so sanguine about the economic benefits of these financial inflows if foreign governments directed the placement? Foreign governments are increasingly interested in earning higher returns on their large and growing reserve portfolios.

Most governments maintain portfolios of foreign exchange reserves as insurance funds against temporary shortfalls or reversals in their foreign currency receipts. Countries' ability to sell their foreign exchange reserves in the face of short-lived problems with their balance of payments helps them avoid currency depreciations without either imposing restraints on imports and financial outflows or immediately adopting deflationary macroeconomic policies. Countries acquire foreign exchange reserves by managing their exchange rates; they traditionally invest their reserves in low-risk liquid assets like foreign government securities, interest-bearing deposits, or repurchase agreements. The U.S. dollar is the key international reserve currency, accounting for about 65 percent of the world's total portfolio. The euro, with approximately 25 percent of the total, is a distant second, and the British pound comes in third with 5 percent. The Japanese yen also plays a noteworthy role as an official reserve currency.

A sharp increase in official holdings of foreign exchange reserves began in the early 1990s and accelerated after 2001, probably in response to the global financial crises of 1997 and 1998 and the

Foreign Exchange Reserves

Trillions of U.S. dollars



Source: International Monetary Fund, International Financial Statistics.

sustained rise in oil prices. The gains seem large, not only in an absolute sense but also relative to traditional rules of thumb for reserve needs like countries' imports or their outstanding short-term debts. The sharpest increase in reserve holdings has occurred among the developing countries, although Japan's portfolio expanded rapidly through 2003. China, which tightly manages the renminbi–dollar exchange rate, holds the largest reserve portfolio, approximately $1.2 trillion.

Traditionally, reserve portfolios' low yield has made them rather expensive insurance funds, particularly for developing countries where the rate of return on domestic infrastructure and the interest cost of foreign loans can be rather high. Concerns about the opportunity cost of holding large and rapidly growing reserve portfolios have prompted some developing countries to seek higher yields.

In doing so, they have turned to sovereign wealth funds. These are government investment vehicles that seek a higher yield on official foreign exchange receipts by diversifying into a broad range of assets, including long-term government bonds, corporate bonds and stocks, derivatives, commodities, and real estate. These funds have a higher tolerance for risk than do traditional official reserve portfolios. To the extent that the financial resources contained in sovereign wealth funds are not readily available to monetary authority for exchange rate stabilization or balance-of-payments purposes, they are distinct from official foreign exchange reserves.

Sovereign wealth funds have been around since at least 1956. Countries that either owned or taxed exported commodities—like oil—initially established them, effectively replacing real assets taken from the ground with high-yielding financial assets and thereby creating a revenue source for future generations. Norway's Government Pension Fund-Global is a prominent example of a commodity-based sovereign wealth fund. Such funds account for an estimated two-thirds of all sovereign wealth funds.

The emergence of reserve-based sovereign wealth funds is fairly recent. Singapore created the first—the Singapore Global Investment Corporation—in 1981. Korea started a reserve-based sovereign

wealth fund last year, and China recently completed the process of setting one up. Japan, Russia, and India reportedly are also considering reserve-based sovereign wealth funds.

Little is known about the aggregate size of sovereign wealth funds, but the U.S. Treasury estimates[1] that they control approximately $1 trillion to $2.5 trillion. Including official foreign exchange reserves, governments now control a portfolio of $6.3 trillion to $7.8 trillion. Many observers believe sovereign wealth funds will continue to demonstrate strong growth, particularly if oil prices remain high, and they project that such funds will eventually become the single most important factor in global financial markets.

The growing clout of sovereign wealth funds has left a lot of anxious people wondering if state-controlled investment funds will act like privately owned investment funds. With the exception of Norway's, sovereign wealth funds' operations are notoriously opaque, which has given rise to many questions: Will they invest for non-economic or strategic reasons? Do they raise national defense and security issues? Will they provide the firms in which they hold a stake unfair access to their home markets? Will they be subject to as much market discipline as private investment funds?

And what may be the biggest concern: Will they encourage financial protectionism? Germany recently announced plans for establishing an agency to review investments by sovereign wealth funds for national security reasons. The United States has maintained a similar mechanism since 1988. While these are legitimate concerns, they also could offer individuals who simply do not appreciate competition—domestic or foreign—another means of seeking protection. How far, after all, might security issues extend?

1. "Remarks by Acting Under Secretary for International Affairs Clay Lowery on Sovereign Wealth Funds and the International Financial System," June 21, 2007. Available at <http://www.treas.gov/press/releases/hp471.htm>.

The Employment Situation

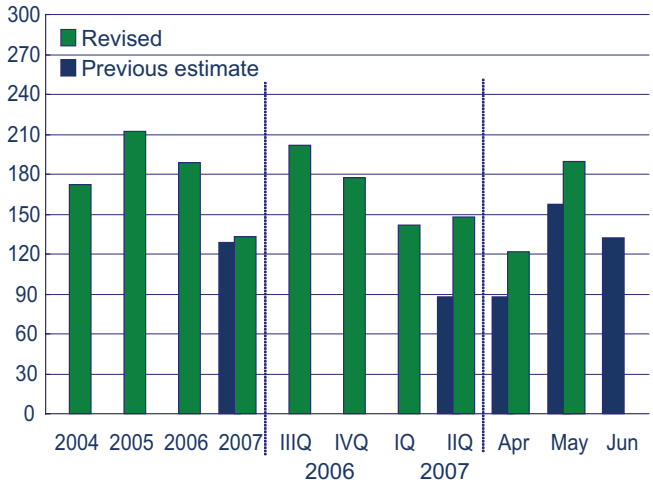
07.09.07
By Peter Rupert and Cara Stepanczuk

Nonfarm payroll employment rose by 132,000 jobs in June, edging above an average forecast of 128,000. April and May payrolls were revised upward a cumulative 75,000 (to 122,000 and 190,000, respectively). The average monthly gain in the first half of 2007 was 145,000, which was a step down from the first two quarters of 2006 (+188,000).

The service sector showed continued firmness, gaining 135,000 jobs. Education and health services rose sharply, posting its highest increase (+59,000) since August 2006. Government (+40,000) and leisure and hospitality (+39,000) showed strength, but there were pockets of weakness in retail trade (-24,000) and professional business services (-9,000). In 2006 retail trade averaged a monthly loss of 3,000 jobs per month, and professional business services averaged a monthly gain of 42,000.

The goods-producing sector lost only 3,000 jobs, which was better than its average monthly loss of 12,000 jobs so far in 2007. The construction industry edged up to a modest increase of 12,000 and nearly counteracted the continued losses in manufacturing (-18,000). Manufacturing job losses were concentrated in primary metals, computer equipment, wood products, and textile mills.

Average Monthly Nonfarm Employment Change



Source: Department of Labor, Bureau of Labor Statistics.

Labor Market Conditions

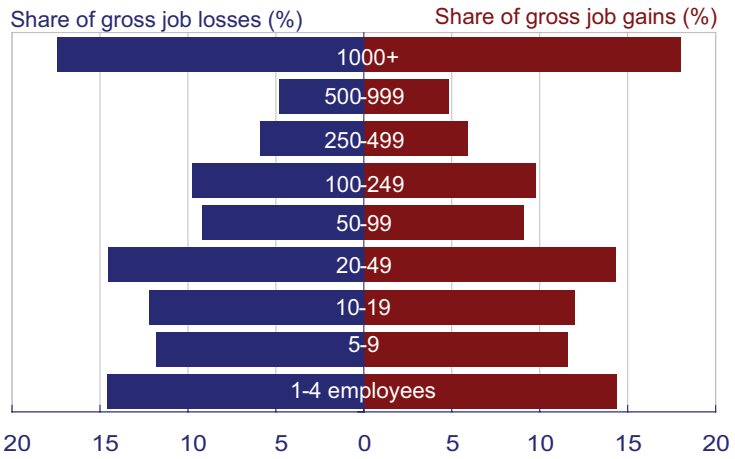
	Average monthly change (thousands of employees, NAICS)				
	2004	2005	2006	Jan-May 2007	June 2007
Payroll employment	172	212	189	148	132
Goods-producing	28	32	9	–14	–3
Construction	26	35	11	–3	12
Manufacturing	0	–7	–7	–13	–18
Durable goods	8	2	0	–12	–13
Nondurable goods	–9	–9	–6	–1	–5
Service-providing	144	180	179	162	135
Retail trade	16	19	–3	13	–24
Financial activities[a]	8	14	16	5	1
PBS[b]	38	57	42	18	–9
Temporary help services	11	18	–1	–8	–8
Education and health services	33	36	41	46	59
Leisure and Hospitality	25	23	38	31	39
Government	14	14	20	28	40
	Average for period (percent)				
Civilian unemployment rate	5.5	5.1	4.6	4.5	4.5

a.Financial activities include the finance, insurance, and real estate sector and the rental and leasing sector.
b. PBS is professional business services (professional, scientific, and technical services, management of companies and enterprises, administrative and support, and waste management and remediation services.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Employment and Firm Size over the Business Cycle

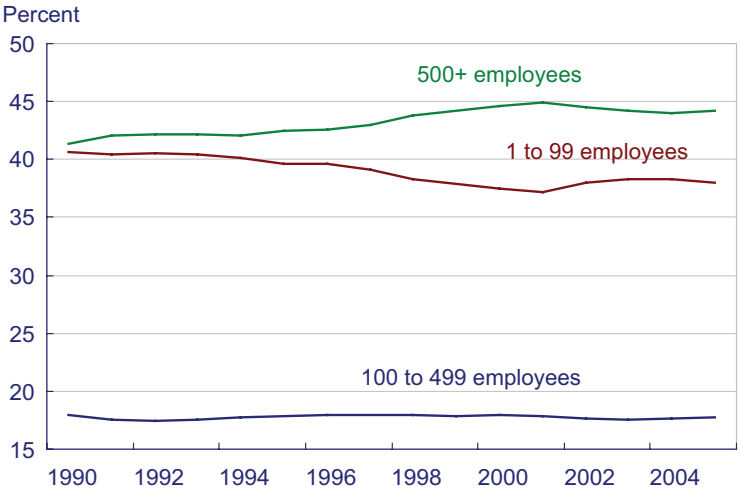
06.26.07
by Murat Tasci and Cara Stepanczuk

Average Percentage Share of Gross Job Gains and Losses by Firm Size



Source: *Monthly Labor Review*, Bureau of Labor Statistics, March 2007.

Share of Employment by Size Class



Source: *Monthly Labor Review*, Bureau of Labor Statistics, March 2007.

Large firms in the United States create and destroy jobs at a slower pace than small firms, but they nevertheless make a large contribution to gross job creation, gross job destruction, and the net change in employment. (See "Employment Flows and Firm Size" for an overview of these points[1]). A recent study in Monthly Labor Review looks at recent patterns of gross job gains and losses across different sizes of firms and argues that there is more to the relationship between firm size and employment than meets the eye.[2]

The study's authors observe first that large firms have been making sizable contributions to job creation for some time. Using data from Business and Employment Dynamics of Bureau of Labor Statistics, they show that between the second quarter of 1990 and the third quarter of 2005, firms with more than a thousand employees accounted for nearly one-third (29.9 percent) of the total net change in employment over the period, contributing 18 percent of gross job gains and 17.4 percent of gross job losses. Small firms—those with 20 to 49 employees and those with 1 to 4 employees—follow in terms of contributions to gross job gains and losses.

As relatively large firms grow, we expect to see the fraction of employment they account for increase. In some cases, this is what the authors find. Firms with more than 500 workers, for example, saw their share of employment increase from 41.4 percent to 44.2 percent over the period. On the other hand, firms with fewer than 100 workers saw their share decline, from 40.6 percent to 38.2 percent, during the same time.

Net Job Change During Economic Recessions and Expansions

Number of employees	Recession 1990:QII–1992:QI	Expansion 1992:QII–2001:QI	Recession 2001:QII–2003:QII	Recovery 2003:QIII–2005:QIII
1–4	3.69	7.25	−2.98	11.43
5–9	7.6	5.69	0.64	5.83
10–19	12.16	7.46	3.5	7.26
20–49	19.9	11.57	8.52	11.29
50–99	14.71	9.29	8.98	8.99
100–249	15.12	11.82	12.31	11.79
250–499	7.15	7.77	9.88	7.48
500–999	2.37	6.77	10.5	5.65
1,000+	17.3	32.38	48.64	30.28
1–99	58.06	41.26	18.67	45.4
100+	41.94	58.74	81.33	54.6

Source: Monthly Labor Review, Bureau of Labor Statistics, March 2007.

But here's where it gets really interesting. The authors discover that the role small and large firms play in net job creation over the course of the business cycle changed over the period studied. During that period, there were two recessionary episodes in which net job losses occurred. During the first (from the second quarter of 1990 to the first quarter of 1992), most of the net job loss (58.06 percent) came from firms employing fewer than 100 workers. But in the second episode (second quarter of 2001 to the second quarter of 2003), this share declined to a mere 18.67 percent. This sharp difference was not caused by differences in the shares of gross job gains across the two recessions but by higher job losses at large firms (which increased from 15.9 percent to 20.06 percent).

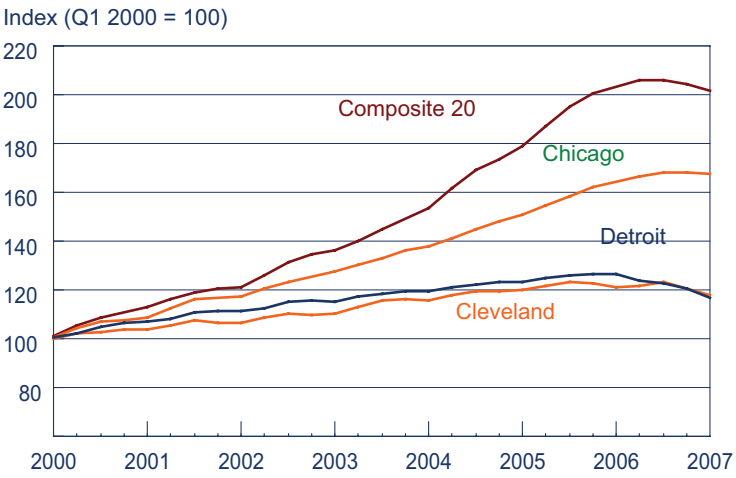
1. "Employment Flows and Firm Size," by Tim Dunne, and Brent Meyer, Federal Reserve Bank of Cleveland, Economic Trends, (May 2, 2007).
2. "Employment Dynamics: Small and Large Firms over the Business Cycle," by Jessica Helfand, Akbar Sadeghi, and David Talan. (March, 2007) Monthly Labor Review. Bureau of Labor Statistics. 130-3, pp. 39-50.

Regional Activity

Midwest Housing Markets

07.11.07
By Tim Dunne and Kyle Fee

Case-Shiller Home Price Index

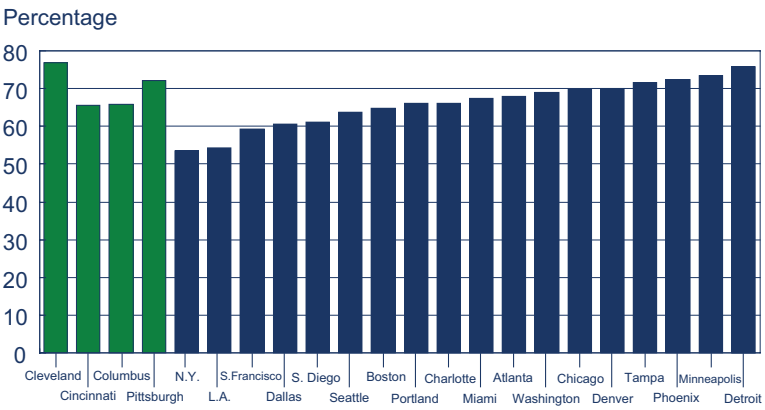


Sources: S&P; Fiserv; MacroMarkets, LLC; and Haver Analytics.

In the first four months of 2007, U.S. home prices declined slowly but steadily, dropping 1.4 percent according to the Case-Shiller Index of Home Prices. Cleveland, the only Fourth District city included in the index, fell slightly more than the composite index over the same period (1.8 percent). The index measures the change in single-family house prices in 20 large U.S. cities, holding the quality of homes constant.

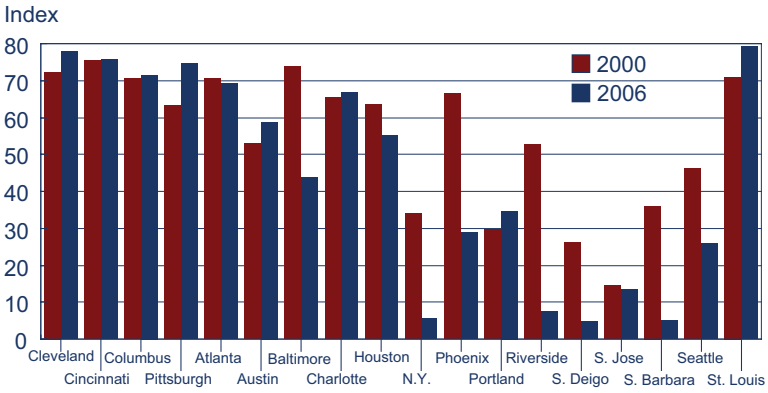
Between 2000 and 2006, the composite index doubled in value, though Midwest housing markets experienced considerably less price appreciation than those on the coasts. Cleveland's and Detroit's index rose only about 20 percent; and although price appreciation in Chicago was considerably stronger, it

Home Ownership Rate, 2006



Source: U.S. Census Bureau.

Housing Opportunity Index



Sources: National Association of Home Builders; and Haver Analytics.

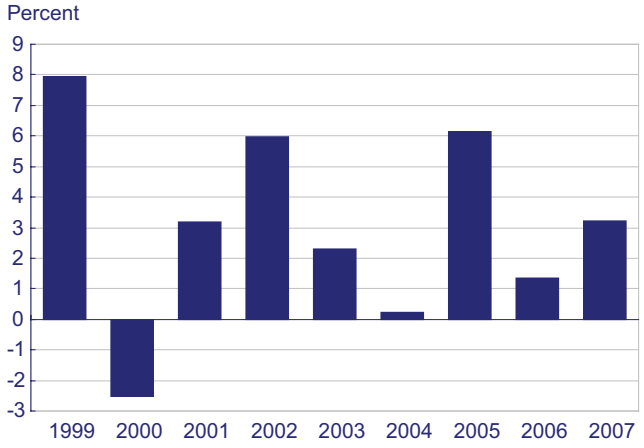
still lagged the growth of the composite index by a substantial margin. The index's top gainers over this period were Los Angeles and Miami, where price appreciation exceeded 170 percent. Moreover, Midwestern cities like Cleveland and Detroit started with relatively low house prices, making the difference in absolute price appreciation between coastal and Midwestern markets even greater.

That said, there is a positive side to a more modestly priced housing market: Homeownership rates in Fourth District cities are generally high. In Pittsburgh and Cleveland, home ownership rates exceed 70 percent. In contrast, the rate of home ownership in expensive cities such as New York, Los Angeles, and San Francisco has reached only 54 percent, 54 percent, and 59 percent, respectively—well below the rates observed in the Fourth District and other Midwestern markets.

An alternative view of housing affordability across cities is provided by the Housing Opportunity Index of the National Association of Home Builders (NAHB). The index measures the percentage of homes sold in an area that a family earning the median income could afford using traditional mortgage application requirements. To arrive at their estimates of affordability, the NAHB assumes that a family can spend up to 28 percent of its income to finance a 30-year mortgage at market interest rates (adjustments for property taxes and property insurance are included). In Cleveland, the index averaged 78.0 for 2006, indicating that a family earning the median income ($60,700) could afford to buy 78.0 percent of the homes that had been sold in the area. Alternatively, in San Diego—an example of a high-price, high-appreciation coastal city—the index is 4.9, so that a family with that city's median income ($69,400) could only afford to buy 4.9 percent of the homes that had been sold in the area. The indices have also been moving in opposite directions over the past 6 years. Cleveland's market has become somewhat more affordable for homebuyers, while San Diego's has clearly become less so.

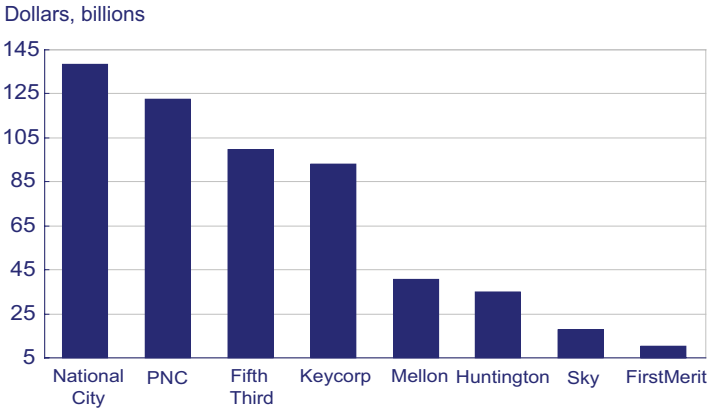
Fourth District Bank Holding Companies

Annual Asset Growth



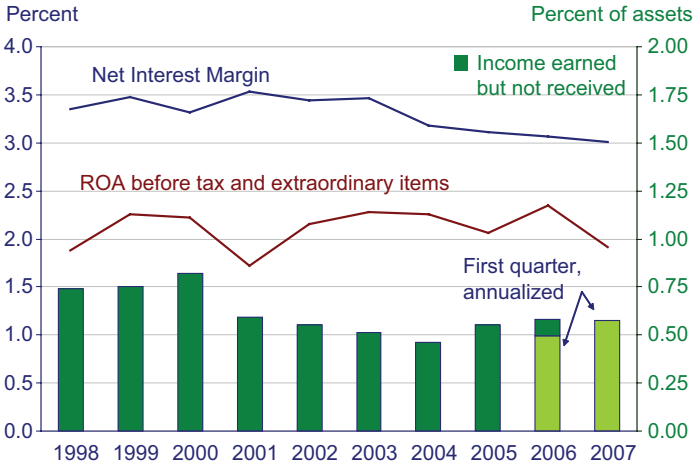
Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

Largest Fourth District Bank Holding Companies by Asset Size



*Rank is as of first quarter, 2007.
Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

Income Stream



Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

06.26.07
by O. Emre Ergungor and Cara Stepanczuk

A bank holding company (BHC) is a company that owns one or more commercial banks, other depository institutions, and nonbank subsidiaries. While BHCs come in all sizes, we focus here on BHCs with consolidated assets of more than $1 billion. There are 21 BHCs headquartered in the Fourth District that meet this definition as of the first quarter of 2007, including seven of the top fifty BHCs in the United States.

The banking system continues to consolidate nationwide, a process that is evident in the Fourth District. Between the beginning of 1999 and the beginning of 2007, the number of BHCs in the Fourth District with assets over $1 billion fell from 24 to 21, but the total assets of the remaining BHCs increased every year except 2000. The decline that year reflects the acquisition of Charter One Financial by Citizens Financial Group, a BHC headquartered in in the First Federal Reserve District, served by the Federal Reserve Bank of Boston.

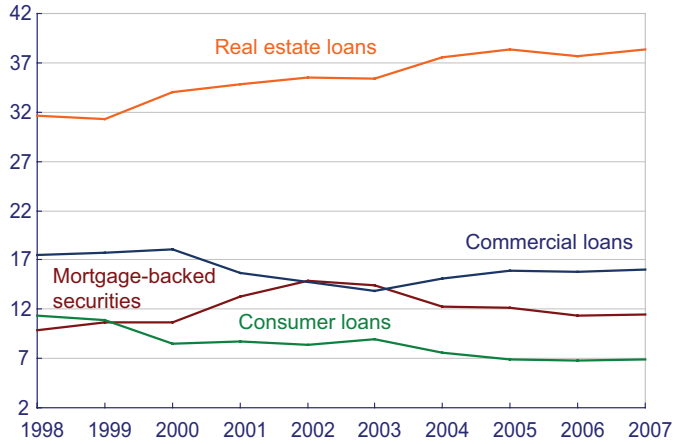
Fourth District BHCs of all asset sizes account for roughly 4.8 percent of BHC assets nationwide, and BHCs with over $1 billion in assets make up the majority of the assets held by Fourth District BHCs.

The income stream of BHCs in the district has improved slightly in recent years. The return on assets has fluctuated between 1.7 percent and 2.3 percent since 1998, and it edged down to 1.9 percent in the first quarter of 2007 (Return on assets is measured by income before taxes and extraordinary items, because a bank's extraordinary items can distort the average earnings picture in a small sample of 21 banks). This decrease has coincided with a weakening of net interest margins (interest income minus interest expense divided by earning assets). Currently at 3.0 percent, the net interest margin is at its lowest level in over eight years.

Another indication of the strength of earnings is the continued low level of income earned but not

Balance Sheet Composition

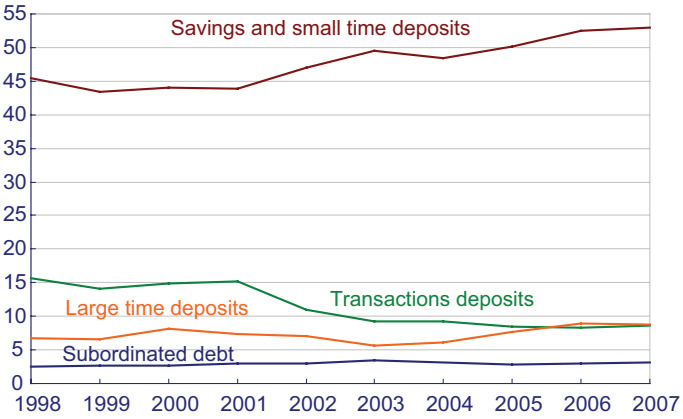
Percent of assets



Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

Liabilities

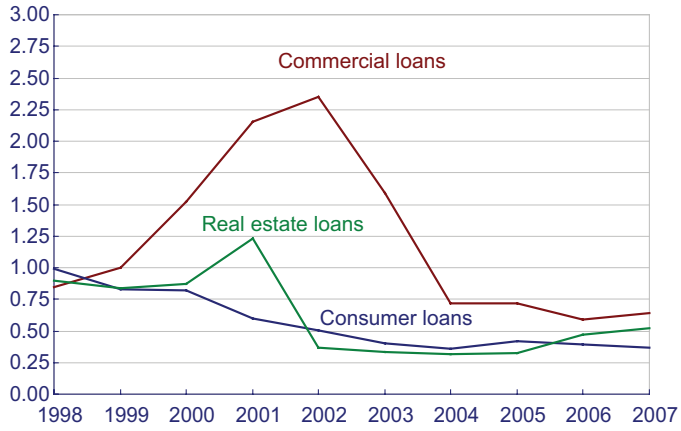
Percent of liabilities



Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

Problem Loans

Percent of loans



Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

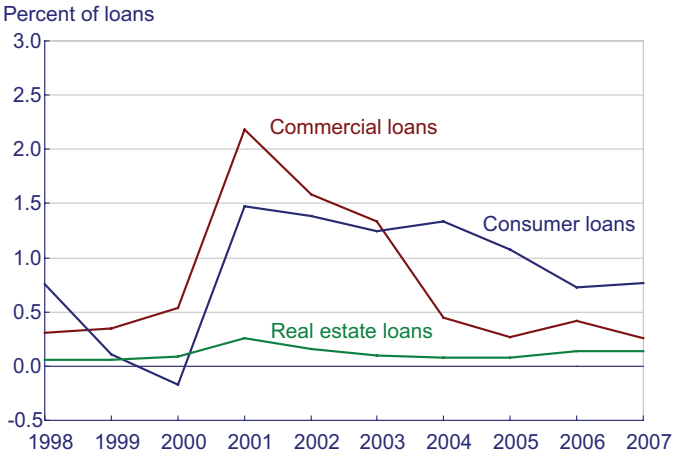
received. If a loan allows the borrower to pay an amount that does not cover the interest accrued on the loan, the uncollected interest is booked as income even though there is no cash inflow. The assumption is that the unpaid interest will eventually be paid before the loan matures. However, if an economic slowdown forces an unusually large number of borrowers to default on their loans, the bank's capital may be impaired unexpectedly. Despite a slight rise over the past two years, income earned but not received at the beginning of 2007 (0.57 percent) was still well below the recent high of 0.82 percent, registered at the end of 2000.

Fourth District BHCs are heavily engaged in real estate related lending. As of the first quarter of 2007, about 38 percent of their assets are in loans secured by real estate. Including mortgage-backed-securities, the share of real estate-related assets on the balance sheet is 50 percent.

Deposits continue to be the most important source of funds for Fourth district BHCs. Saving and small time deposits (time deposits in accounts less than $100,000) made up 53 percent of liabilities at the beginning of 2007. Core deposits, the sum of transaction, saving, and small time deposits, made up 61.5 percent of the district's BHC liabilities as of the beginning of 2007, the highest level since 1998. Finally, total deposits made up almost 70 percent of funds so far this year. Despite the requirement that large banking organizations must have a rated debt issue outstanding at all times, subordinated debt represents only 3 percent of funding. As with large holding companies outside the district, Fourth district BHCs rely heavily on large negotiable certificates of deposit and nondeposit liabilities for funding.

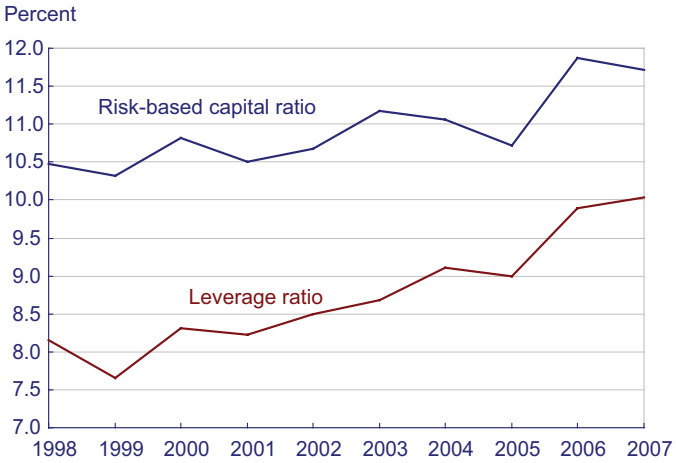
Problem loans are loans that are past due for more than 90 days but are still receiving interest payments, as well as loans that are no longer accruing interest. Problem commercial loans rose sharply starting in 1999, peaked in 2002, and settled below 0.75 percent of assets in 2004, thanks in part to the strong economy. Currently, 0.64 percent of all commercial loans are problem loans. Problem real estate loans are only 0.52 percent of all outstanding real-estate-related loans, though they have been

Net Charge-offs



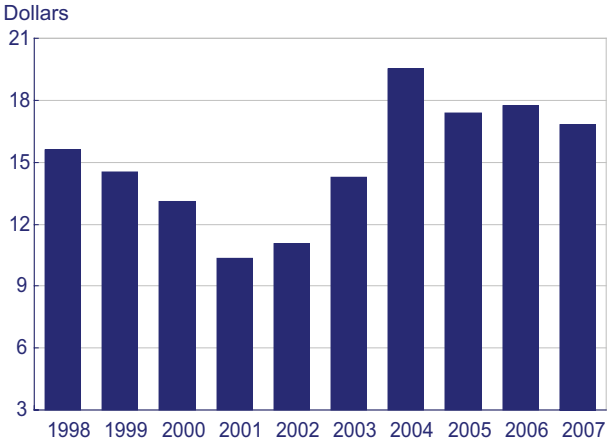
Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

Capitalization



Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

Coverage Ratio*



*Ratio of capital and loan loss reserves to problem assets.
Source: Authors' s calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, first quarter, 2007.

creeping upward since 2005. Problem consumer loans (credit cards, installment loans, etc.) remained relatively flat, declining slightly through the first quarter of 2007. Currently, 0.37 percent of all outstanding consumer loans are problem loans.

Net charge-offs are loans removed from the balance sheet because they are deemed unrecoverable, minus the loans that were deemed unrecoverable in the past but are recovered in the current year. As with problem loans, there was a sharp increase in the net charge-offs of commercial and consumer loans in 2001. Fortunately, the charge-off levels have returned to their pre-recession levels in recent years. Net charge-offs in the first quarter of 2007 were limited to 0.25 percent of outstanding commercial loans, 0.77 percent of outstanding consumer loans, and 0.14 percent of outstanding real estate loans.

Capital is a bank's cushion against unexpected losses. The recent upward trend in capital ratios indicates that Fourth District BHCs are sufficiently protected. The leverage ratio (balance sheet capital over total assets) at 10.0 percent and the risk-based capital ratio (a ratio determined by assigning a larger capital charge on riskier assets) at 11.7 percent are signs of strength for the district's BHCs.

An alternative measure of balance sheet strength is the coverage ratio. The coverage ratio measures the size of the bank's capital and loan loss reserves relative to its problem assets. As of the first quarter of 2007, the district's BHCs have $16.84 in capital and reserves for each dollar of problem assets. While the coverage ratio is below its recent high at the end of 2004, it remains well above the levels of the early 2000s.