#### Federal Reserve Bank of Cleveland

# Economic Trends

April 2007

(Covering March 10, 2006 - April 12, 2007)

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\*This issue has been revised since it was first published, specifically, in the Banking and Financial Institutions article on pages 35–38.

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# Homeownership at Any Price

04.10.07 by Mark S. Sniderman

The residential mortgage horses are out of the barn: To the extent that borrowers and lenders could make bad decisions, most already have. From here on out, we are destined to witness and discuss the consequences.

Subprime loans, which have grown rapidly in recent years, are made to borrowers who are more likely to default than the most creditworthy borrowers. A loan is designated subprime not because it is bad in itself but because its terms and the borrower's characteristics make it a riskier proposition for the lender. Blemishes in subprime borrowers' credit histories range all the way from a few late payments to multiple bankruptcy filings. These borrowers also tend to put less of their own equity at risk than prime borrowers do. Another change in the lending process is the greater prevalence of the piggyback loan—a separate loan of up to 20 percent of the home purchase price, which gives the buyer enough money for a down payment and creates a loan-to-value ratio of 100 percent (equity is so over). Prospective lenders consider both credit history and equity at risk, along with local laws that could affect their ability to take title of the property, to determine the expected loss from default, and, hence, the ultimate designation of loan quality.

The subprime market has expanded dramatically during the past 10 years because lenders can quickly, cheaply, and accurately assess a borrower's default risk based on the individual's personal circumstances (but just how accurately remains to be seen). At the same time, borrowers have been willing to accept loan offers whose prices and terms are predicated on their circumstances. In the retail industry, marketing strategists would describe this as "mass customization." Historically, the alternative for most subprime borrowers would have been a flat-out denial of credit.1

At one level, the subprime mortgage market closely resembles the prime market. Lenders come in many forms, from commercial banks and thrifts, to mortgage affiliates of bank holding companies, to companies that only originate mortgage loans. Some originate and hold their mortgages; others sell them off through their own offices, through independent brokers, or through both. There are plenty of similarities on the borrower's side as well. Some take out loans for home purchases, some for refinance, and others for home improvements. Some borrowers seek to take cash out of their existing home equity; others do not.

From another perspective, however, the subprime and prime markets differ greatly. There is evidence that lower-income borrowers, those whose loan amounts are relatively small, and those using piggy-back loans are more likely than prime borrowers to pay higher financing rates. And there are some lenders who specialize in making subprime loans on a very significant scale with the express purpose of selling them to remote investors who are looking for financial instruments with high yields.

During the past few years, subprime loans have grown to roughly 20 percent of home mortgage originations; within that category, adjustable-rate mortgages have become the dominant type. In many cases, both parties to the loan were counting on house price appreciation to compensate for the borrower's risky cash flow. In poker, this strategy is called betting on the come. As we now know, short-term interest rates rose by about 400 basis points between the summers of 2004 and 2006. The fact that a high proportion of these adjustable-rate loans carried prepayment penalties—which typically lowered the interest rate at the time of loan origination—added to borrowers' woes. A similar fate awaits those whose interest-rate reset dates are still to come.

The available data suggest that the average subprime borrower has less income and education than the prime-rate borrower, and, by definition, has a somewhat checkered credit history. For example, a Federal Reserve Board study2 finds that in 2005 the incidence of higher-priced loans originated for owner-occupied homes varied from a low of 4 percent (Ithaca, New York) to a high of 53 percent (McAllen, Texas). Per capita income in the McAllen MSA, one of the poorest in the nation, is half the national average (Ithaca's per capita income is nearly the same as the national average, and its educational attainment is much higher.)

Most of the statistics we see reflect the average experience of millions of people who differ markedly in their reasons for seeking higher-priced credit and in their experiences of obtaining it, but an average can mask many important differences in borrowers' circumstances. Some may be wealthy, financially savvy people speculating in the purchase of a vacation property; others may be less-educated, elderly people refinancing their homes to raise cash for daily living expenses. Some have obtained their mortgage from a neighborhood banker, while others were solicited to borrow from a company they had never heard of. Although most people knew exactly what they were doing, many, it seems, did not.

The financial markets are already punishing those, borrowers and lenders alike, who thought they had made smart moves and only belatedly realized their mistakes. The subprime market will not disappear, because subprime borrowers will not. But we can expect that both borrowers and lenders will learn from recent experience and that the market will adjust. Thomas Jefferson wrote in 1790 that "[o]ur business is to have great credit and to use it little." For people to use credit more sparingly may be too much to expect nowadays, but perhaps we may hope that it will be used—and sold—more carefully. What seems too good to be true is often just that.

- 1. For a good overview of the subprime mortgage market, see "The Evolution of the Subprime Mortgage Market" by Souphala Chomsisengphet and Anthony Pennington-Cross in the Federal Reserve Bank of St. Louis, Review, January/February 2006, pp. 31–56.
- 2. Some very insightful information about higher-priced mortgage loans, borrowers, and lenders is provided by Robert B. Avery, Kenneth P. Bravoort, and Glenn B. Canner in "Higher-Priced Home Lending and the 2005 HMDA Data," published in the September 2006 Federal Reserve Bulletin, pp. A123–A166. The authors use the term "higher-priced" rather than "subprime" because the HMDA data on loan pricing are based on specific thresholds above the interest rates on Treasury securities of comparable maturity: 3 percent for first liens and 5 percent for subordinated liens.

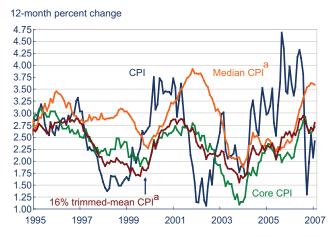
# **February Price Statistics**

### **February Price Statistics**

	Percent change, last					
	1mo.a	3mo.a	6mo.a	12mo.	5yr.a	2006 avg.
Consumer prices						
All items	4.5	4.0	0.1	2.4	2.7	2.6
Less food and energy	2.9	2.6	2.2	2.7	2.0	2.6
Median <sup>b</sup>	3.6	3.2	3.3	3.6	2.7	3.6
16% trimmed mean <sup>b</sup>	3.6	3.2	2.4	2.8	2.3	2.7
Producer prices						
Finished goods	16.9	6.4	1.0	2.5	3.3	1.6
Less food and energy	4.6	3.0	2.8	1.8	1.4	2.1

a. Annualized.

# **CPI, Core CPI, and Trimmed-Mean Measures**



a. Calculated by the Federal Reserve Bank of Cleveland.

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

03.26.07 by Michael F. Bryan and Linsey Molloy

At its meeting on March 21, the Federal Open Market Committee determined that "recent readings on core inflation have been somewhat elevated." The Consumer Price Index (CPI) rose 4.5 percent (annualized) in February, while the core inflation measures, including the CPI excluding food and energy, the median CPI, and the 16 percent trimmed-mean CPI, rose at brisk rates, which largely exceed their longer-term trends. The 12-month trend in the median CPI is now over 3-1/2 percent, while the 12-month trends in the CPI excluding food and energy and the 16 percent trimmed-mean are at about 2-3/4 percent.

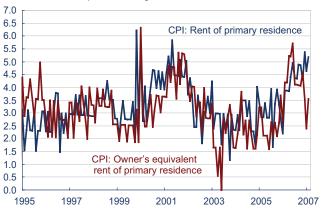
According to the Bureau of Labor Statistics, the monthly rise in shelter prices accounted for about one-half of the rise in the CPI excluding food and energy during the month. Owner's equivalent rent of primary residence (OER), which accounts for nearly one-quarter of the overall index and nearly three-quarters of shelter prices, rose 3.6 percent in February, following a relatively moderate 2.4 percent rise in January. The modest growth in OER in January may be partially explained by the softening of U.S. home sales (and prices), which encourages greater interest in home ownership and, as a result, puts downward pressure on rents (which are reweighted to measure OER). However, since rents have continued their persistent rise, it is likely that the moderation of OER growth in January overstated the degree to which the implied cost of home ownership is actually waning.

OER was not the only component whose growth rate exceeded the overall inflation trend; over half of the index grew at rates exceeding 3 percent. This might appear to be an improvement over 2006, during which over 60 percent of the overall index on average rose at rates exceeding 3 percent. However, so far this year, price increases of over 5 percent were more common than in 2006: About 20 percent of the overall index rose in excess of 5 percent in 2006, while over 30 percent of the

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.

### **Housing Prices**

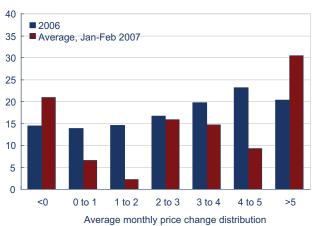
1-month annualized percent change



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

# **CPI Component Price Change Distributions**

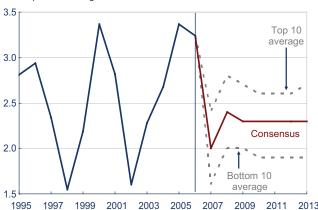
Weighted frequency



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

#### **CPI Inflation and Forecasts**

Annual percent change 3.5

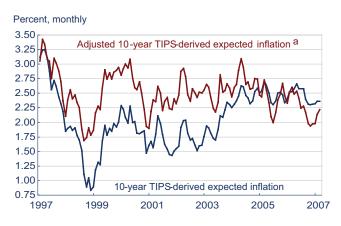


SOURCES: Blue Chip panel of economists, March 10, 2007.

overall index rose in excess of 5 percent during the first two months of this year. Additionally, in 2006, nearly 45 percent of the overall index rose at rates below 2 percent, while only about 30 percent rose at rates below 2 percent during the first two months of this year.

Professional forecasters expect inflation, as measured by the CPI, to drop to 2 percent in 2007, rise to 2.4 percent in 2008, and then to remain steady at 2.3 percent. This is consistent with the inflation expectations of financial market participants, who also anticipate that prices will generally grow between 2 and 2-1/2 percent over the next decade.

# Market-Based Inflation Expectations\*



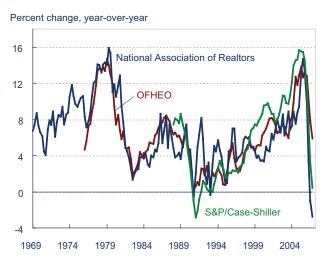
<sup>\*</sup>Derived from the yield spread between the 10-year Treasury note and Treasury inflation-protected securities.

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

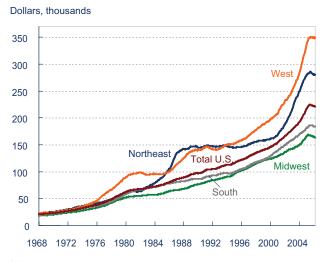
## **Home Prices**

#### **Home Price Indexes\***



\*Quarterly observations. SOURCES: Office of Federal Housing Enterprise Oversight; National Association of Realtors; and S&P, Fiserv, MacroMarkets LLC.

# Median Sales Price: One-Family Existing Homes\*



\*12-month moving average. SOURCE: National Association of Realtors. 04.12.07 by Andrea Pescatori and Bethany Tinlin

On March 21, the Federal Open Market Committee recast its perspective on the housing market. Its previous statement (January 31) noted that "some tentative signs of stabilization have appeared in the housing market," but its most recent statement presented the less optimistic view that "the adjustment in the housing sector is ongoing." Below, we examine one element of the issue, recent trends in housing prices.

After rising at an increasing rate since 1992, home prices decelerated sharply at the end of 2006. This reversal occurred across all housing price measures, regardless of whether the measure controls for changing home quality, whether it uses the median or the mean home price, and whether it is based on appraised values or actual sales. For example, the National Association of Realtors measure, which gives the median sales price but does not adjust for quality, reported the largest drop. The smallest drop was reported in the Office of Federal Housing Enterprise Oversight Index, which is based on repeat sales and uses both appraised values and actual sales. A third measure, compiled by Standard and Poors, is based on the Case-Shiller method and samples a smaller set of housing markets. Like the OFHEO, it uses repeat sale prices, but leaves appraised values out of its calculation.

The nationwide housing price indexes conceal noteworthy regional variations. The National Association of Realtors reports that the median price of a single-family home in the West is roughly double that of a comparable home in the South or Midwest. Although home prices in the West and Northeast are higher than in the South or Midwest, their growth rates are also more volatile: They have posted both the highest and lowest changes at various periods since 1969.

One explanation of regional home-price differences across regions is offered by Morris Davis and Michael Palumbo. They separate home values into

# Median Sales Price: One-Family Existing Homes\*

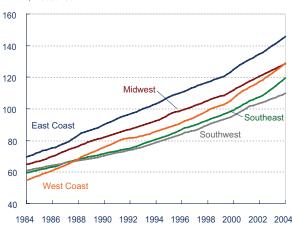
Percent change, year-over-year



\*12-month moving average. SOURCE: National Association of Realtors.

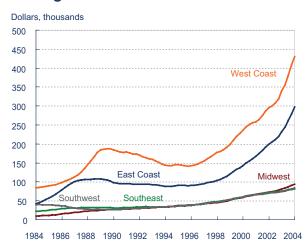
#### **Average Structure Cost\***





\*Interpolated for regions using city data. SOURCES: Morris A. Davis, and Michael Palumbo, "The Price of Residential Land in Large U.S. Cities." FEDS Working Paper, No. 2006-26 (June 2006); and authors' calculations.

#### **Average Land Value\***



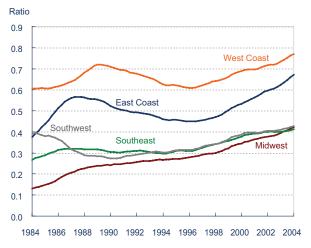
\*Interpolated for regions using city data. SOURCES: Morris A. Davis, and Michael Palumbo, "The Price of Residential Land in Large U.S. Cities." FEDS Working Paper, No. 2006-26 (June 2006); and authors' calculations.

two components, the value of the physical structure and the value of the land. Their view is that the amount of land on which structures may be built is ultimately fixed, so its supply is relatively inelastic. That is, the supply of land cannot increase even if the price rises sharply. One should thus expect land values to increase most in areas where housing demand is high and land supply is limited.

The charts below, which are based on data available through 2004, show that land values have increased more rapidly than those of physical structures, which is consistent with the supply of land being less elastic than that of structures. Although growth rates in structure values have been fairly similar and stable across regions, land values on both coasts have accelerated significantly. This means that the driving force behind home price growth is the value of the land rather than the structure itself. Except for the Southwest, where land is relatively abundant, land's share of total home value has increased in all regions.

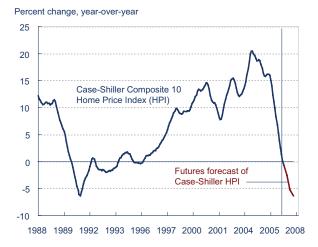
As the previous analysis suggests, housing prices have the potential for collapsing as the market adjusts—possibly with dramatic consequences for the U.S. economy. Two key questions are: Will housing prices continue to fall? And if so, by how much? For more than a year, the Chicago Mercantile Exchange has offered futures contracts, based on the Case—Shiller Index of housing prices in 10 cities. Some of the cities in the sample are among those with the sharpest price increases and may not characterize the housing market as a whole. The composite of such futures supports the FOMC's most recent statement, that "the adjustment in the housing sector is ongoing"—as well as the expectation that it will keep going.

#### Share of Land Value\*



\*Interpolated for regions using city data.
SOURCES: Morris A. Davis, and Michael Palumbo, "The Price of Residential Land in Large U.S. Cities." FEDS Working Paper, No. 2006-26 (June 2006); and authors' calculations

#### **Case-Shiller HPI and Futures Forecast**

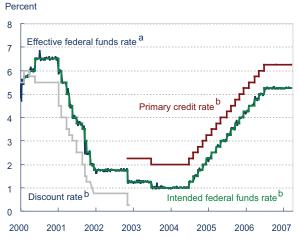


SOURCE: S&P, Fiserv, MacroMarkets LLC

# Money, Financial Markets, and Monetary Policy

# Monetary Policy: A Statement of Confidence?

#### **Reserve Market Rates**



a. Weekly average of daily figures.

b. Daily observations.

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15.

03.22.07 by John B. Carlson and Bethany Tinlin

Yesterday, the Federal Open Market Committee (FOMC) left the target level of the federal funds rate unchanged at 5.25 percent, as markets had expected. It was the sixth consecutive meeting with no change. The inflation-adjusted fed funds rate remains near 3 percent, or about 400 basis points above its low of June 2004.

While financial market participants were virtually unanimous in their expectation that rates would be unchanged, it was not clear how they would react to changes in the language of the policy statement released at the end of the meeting. Incoming data during the intermeeting period suggested that the outlook for both the economy and inflation had changed if only marginally.

In January, the statement noted that

"Recent indicators have suggested somewhat firmer economic growth, and some tentative signs of stabilization have appeared in the housing market. ... Readings on core inflation have improved modestly in recent months, and inflation pressures seem likely to moderate over time."

#### Real Federal Funds Rate\*

Percent



\*Defined as the effective federal funds rate deflated by the core PCE. Shaded bars represent periods of 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 Bloombero Financial Information Services.

### Implied Yields on Federal Funds Futures\*





- \*All yields are from the constant-maturity series
- a. One day after FOMC meeting.
- b. Day of FOMC meeting
- SOURCE: Bloomberg Financial Information Services.

### Implied Yields on Eurodollar Futures

Percent



a. One day after FOMC meeting.b. Day of FOMC meeting.

SOURCE: Bloomberg Financial Information Services.

In subsequent weeks, however, new information did not support the prospect for somewhat firmer economic growth and improved inflation conditions, necessitating a change in the language. Yesterday's statement was modified accordingly:

"Recent indicators have been mixed and the adjustment in the housing sector is ongoing. Nevertheless, the economy seems likely to continue to expand at a moderate pace over coming quarters. ... Recent readings on core inflation have been somewhat elevated. Although inflation pressures seem likely to moderate over time, the high level of resource utilization has the potential to sustain those pressures."

Since last August, the FOMC's postmeeting statements have also included the qualification,

"The extent and timing of any additional firming that may be needed to address these risks will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information."

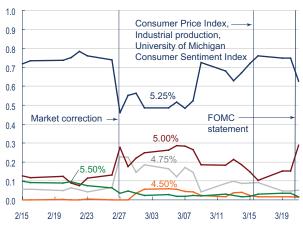
This language has been interpreted as a tightening bias. Although the new language made clear that "...the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected," the statement from March's meeting dropped any reference to "additional firming," a move interpreted by some as a lessening if not a removal of the tightening bias.

On the face of it, the FOMC's previous assessment of inflation risk might suggest to some that a rate hike would be more likely than a rate cut. The view inferred from market prices on futures and options, however, continues to suggest an alternative expectation. Implied yields based on fed funds futures prices since last summer have generally projected a decline in the policy rate. According to some market commentators, the new language seemed to be more consistent with market expectations.

Estimated probabilities derived from prices of options on federal funds indicate that the FOMC is still not likely to change its policy setting before late summer. Although the probability of a rate cut

## Implied Probabilities of Alternative Target Federal Funds Rates June Meeting Outcome\*

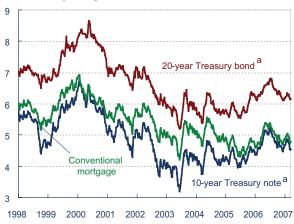
Implied probability



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

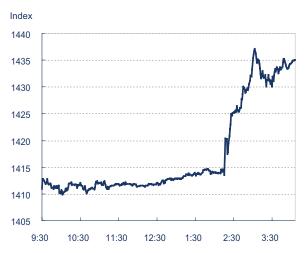
#### **Long-Term Interest Rates**

Percent, weekly average



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

#### S&P 500: March 21, 2007



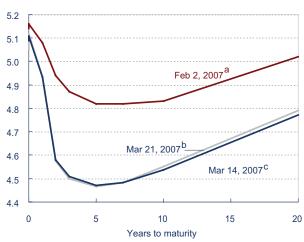
SOURCE: Bloomberg Information Services.

increased in response to the statement, the odds remain better than 50-50 that the policy rate will remain at 5.25 percent after the meeting in June.

Although bond yields dropped sharply from their premeeting highs, they ended up largely unchanged on the day. The two-year Treasury rate closed about 8 basis points lower. The level of interest rates at different maturities—commonly called the yield curve—flattened very modestly, but remained generally negative. Although negative yield curves have been associated with subsequent slowing in economic growth, equity market participants have seemed largely unfazed by the bond market indicator. Equity prices rallied sharply after the release of the policy statement, ending up about 1-1/2 percent higher on the day. Despite the uncertainty conveyed in the language, the stock market offered its own statement—one of confidence.

#### **Yield Curve**

Percent, weekly average



- a. Friday after the FOMC meeting
- b. Day of FOMC meeting
- c. One week before 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.

# The Yield Curve's Tale

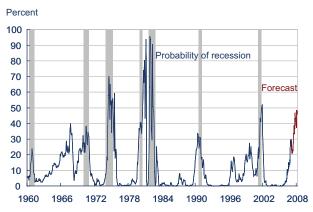
### Yield Spread and Real GDP Growth\*



\*Shaded bars indicate recessions.

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

# Probability of Recession Based on the Yield Spread\*

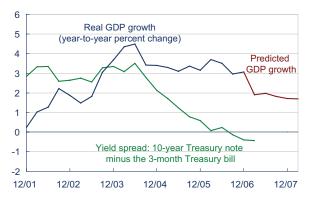


\*Estimated using probit model. Shaded bars indicate recessions.

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

# Predicted GDP Growth and the Yield Spread

#### Percent



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

03.21.07 by Joseph G. Haubrich and Brent Meyer

As mentioned in previous months, 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. More generally, though, a flat curve indicates weak growth, and conversely, a 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 has been giving a rather pessimistic view of economic growth for a while now. The spread is currently negative: With the 10-year Treasury note rate at 4.78 percent, and the 3-month Treasury bill rate at 5.07 percent (both for the week ending March 16), the spread stands at a negative 29 basis points, and indeed has been in the negative range since August. Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 1.7 percent rate over the next year. This prediction is well below many other forecasts. On the other hand, the recent woes in the subprime mortgage industry are making pessimism a bit more fashionable these days.

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 46 percent, up a bit from last month's value of 42 percent.

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

### 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.

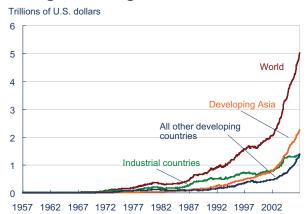
determinants of the yield spread today are materially different from the determinants that generated yield spreads during prior decades. Differences could arise from changes in international capital flows and inflation expectations, for example. The bottom line is that yield curves contain important 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

# **Asian Reserves**

### Foreign Exchange Reserves



Source: International Monetary Fund, International Financial Statistics.

# **Foreign Exchange Reserves**



Source: International Monetary Fund, International Financial Statistics.

03.30.07

by Owen F. Humpage and Michael Shenk

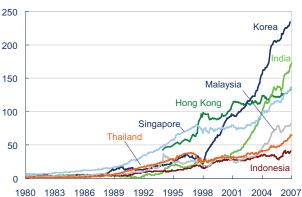
Since the early 1990s, developing Asian countries have greatly increased their holdings of foreign-exchange reserves. Traditionally, developing countries have held foreign-exchange reserves to manage—or fix—their key exchange rates in a manner that might promote their international trade. Trade considerations alone, however, have not motivated the recent build up. Increasingly, developing Asian countries hold reserves as insurance against a sudden outflow of international funds resulting from domestic financial turmoil.

Developing Asian countries invest these reserves in interest-earning, liquid assets, usually dollar-denominated securities. Yet there are costs to holding reserves. Countries could use these funds to reduce their external debts or to undertake domestic investments in infrastructure or social needs. Typically, the interest cost of external debt and the foregone return on domestic investments substantially exceeds the return on developing countries' reserve portfolios.

The Asian Development Bank (ADB) recently argued that most developing Asian countries, which together held \$2.3 billion in reserves at the end of 2006, have accumulated excessive amounts of

#### Foreign Exchange Reserves

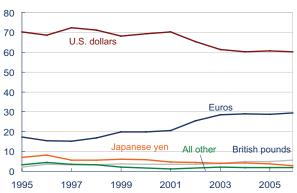
Billions of U.S. dollars



Source: International Monetary Fund, International Financial Statistics.

# Foreign Exchange Reserves Developing Countries

Percent of allocated reserves



Source: International Monetary Fund, COFER data.

reserves—typically 50 percent or more than their estimated needs. In addition to the opportunity cost of holding reserves, reserve accumulation in some developing countries has fueled excessive money growth.

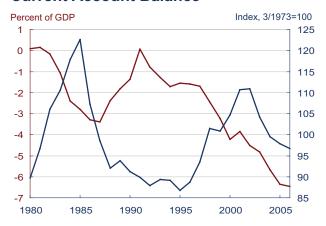
The ADB suggests that we may see more developing Asian countries—like China—follow Singapore's and South Korea's lead and seek higher returns on their foreign-exchange portfolios. A greater share of reserves could go into stocks, corporate bonds, real estate, and commodities.

How this will affect the currency composition of Asian reserves is not clear, but countries constructing portfolios in search of higher yields will undoubtedly weigh the potential for valuation changes carefully. Incomplete data suggest that developing countries have reduced the share of dollar-denominated securities in their portfolios since 2001, even after allowing that valuation adjustments stemming from the dollar's recent depreciation may skew the evidence. Anecdotal remarks also seems to support this pattern.

#### International Markets

# Deficits and the Dollar

#### **Current Account Balance**



Source: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System, "Foreign Exchange Rates," Federal Reserve Statistical Releases, H.10.

03.30.07

by Owen F. Humpage and Michael Shenk

Contrary to what many people seem to believe, a simple, straightforward relationship does not exist between a nation's current-account balance and movements in its trade-weighted exchange rate. A current-account deficit need not produce a currency depreciation, and an exchange-rate appreciation need not cause a current-account deficit. A nation's current-account balance and the value of its exchange rates result from the consumption and savings choices of individuals across the globe—all 6.6 billion of them. Many patterns of current-account balance and currency movement are possible,

#### **Net Savings and Investment**





Source: U.S. Department of Commerce, Bureau of Economic Analysis.

depending on the underlying factors that drive them.

Imagine, for example, that holding everything else in the world constant, aggregate demand in the United States increases, and as a consequence, U.S. citizens increase their imports from abroad. Any existing current-account deficit will then widen. Since U.S. residents need foreign currencies to buy foreign goods, their demands for imports will drive up the value of foreign currencies relative to the dollar. The dollar will depreciate.

This scenario needs one more element to be complete. As we previously explained, an inflow of foreign savings must match any current-account deficit. The dollar's depreciation will also make our financial assets look more attractive to foreigners, who now are consuming less than they produce (otherwise they could not ship goods to the United States) and saving the difference. The inflow of foreign savings will exactly match the current-account deficit.

A second example, however, shows just the opposite relationship between the current-account balance and the exchange rate. Again holding everything else in the world constant, allow that foreigners—for whatever reason—decide to save more of their income and to channel that savings into U.S. financial assets. In the process of buying U.S. financial assets, they will drive up the value of the dollar relative to their own currencies. The dollar's appre-

ciation will also raise the foreign-currency prices of our goods, lower the dollar price of foreign goods, and shift worldwide demand away from U.S. products. The resulting current-account deficit will be associated with a dollar appreciation.

From the relationships described in these scenarios, we can often infer the source of U.S. current-account deficits. Between the end of 1995 and early 2002, for example, the dollar appreciated 28 percent on a real trade-weighted basis, and the trade deficit increased from 1 percent of GDP to 4 percent of GDP. At the time, the United States was experiencing strong productivity growth. The resulting high yields on investment attracted an inflow of foreign savings, which helped to finance an investment boom in the United States. The inflow of foreign savings fostered a dollar appreciation that led to larger U.S. current-account deficits. This pattern closely fits Chairman Bernanke's "savings glut" description of the U.S. current-account shortfall.

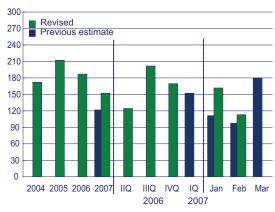
More recently, however, the pattern has been somewhat different. Since early in 2002, the U.S. dollar has depreciated nearly 17 percent, and the trade deficit has expanded from 4 percent of GDP to roughly 6 percent of GDP. Unlike the previous period, this pattern of deficit and exchange-rate movement is not consistent with a pure savings-glut scenario. In recent years, as aggregate demand in the United States has grown, we have consumed more of the world's resources. In the process, the current-account deficit has expanded, and the dollar has generally depreciated. The dollar's depreciation has made our financial assets more attractive to foreign savers and induced an inflow of foreign savings commensurate with a growing trade deficit.

In 17 of the past 26 years (65 percent), the correspondence between changes in the U.S. current account and movements in the real trade-weighted dollar suggest that decisions about where to place savings have driven the adjustments. Of course, myriad factors can affect those decisions.

# The Employment Situation

### Average Monthly Nonfarm Employment Change

Change, thousands of workers



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

#### **Labor Market Conditions**

Average monthly change (thousands of employees, NAICS)

				<i>,</i>	•
	2004	2005	2006	JanFeb. 2007	Mar. 2007
Payroll employment	172	212	189	138	180
Goods-producing	28	32	9	-17	43
Construction	26	35	11	-14	56
Manufacturing	0	-7	-7	-6	-16
Durable goods	8	2	0	-12	-10
Nondurable goods	_9	-9	-6	6	-6
Service-providing	144	180	178	154	137
Retail trade	16	19	-4	26	36
Financial activities*	8	14	15	7	0
PBS**	38	57	42	22	-7
Temporary help svcs.	11	18	-1	-3	-1
Education and health svcs.	33	36	41	37	54
Leisure and hospitality	25	23	37	28	21
Government	14	14	20	30	23
		Averag	e for peri	od (percent)	
Civilian unemployment rate	5.5	5.1	4.6	4.6	4.4

<sup>\*</sup>Financial activities include the finance, insurance, and real estate sector and the rental and leasing sector.

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

04.06.07 By Peter Rupert and Cara Stepanczuk

Nonfarm payroll employment increased by 180,000 in March, stronger than predicted (+130,000) after February's weak report. Net upward revisions to January and February's payrolls (+32,000) brought the quarter's average growth to 152,000.

Employment in goods-producing industries rose by 43,000 jobs, bolstered by rebounding strength in nonresidential construction. Construction employment as a whole posted the strongest net increase in March (56,000), counteracting February's weather-related drop of 61,000. Manufacturing continued its downward trend, losing 16,000 jobs.

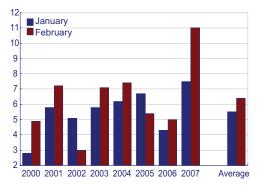
Employment in service industries increased by 137,000 despite weakness in professional business services, a traditionally strong sector. Professional and business services lost 7,000 jobs, the weakest single-month change growth in that area since November 2004. Education and health care employment showed continued strength, adding 54,000 jobs. Retail trade employment also grew by 36,000.

The job gains in the March employment report were abnormal because of the contributions of particular industries and the magnitude of those changes. For example, March's gain in construction was the largest since January of last year, and much higher than the average gain of 11,000 jobs in 2006. Also, March's loss in professional business services was well below the 2006 average monthly growth of 42,000.

<sup>\*\*</sup> PBS is Professional Business Services (professional, scientific, and technical services, management of companies and enterprises, administrative and support, and waste management and remediation services).

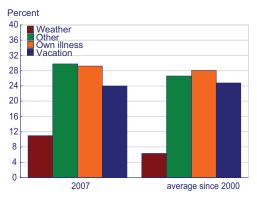
#### **Employed but not at Work,** Percent due to Weather\*





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

### **Employed but not at Work,** Percent by Reason in February\*



\*Nonfarm employment Source: Department of Labor, Bureau of Labor Statistics

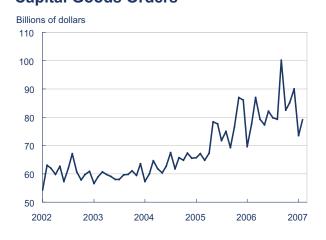
Economic Activity and Labor

The March employment report seemed to be a reaction to February's weak report—initially a 97,000 increase—which many economists attributed to unusually bad weather in North America. Construction, a sector that is sensitive to seasonal changes, fell in February, and rebounded firmly in March. Indeed, the percent of nonfarm employees who were not at work due to weather was elevated in February (11 percent) compared to the same month in prior years.

"Vacation" and "own illness" were the most popular reasons for not working (28.1 percent and 24.8 percent, respectively), while weather-related reasons accounted for 11 percent of absences in February. However, while the first two reasons were in line with their historical averages for February, weather was nearly four percentage points above its historical average. Therefore, the supposed weakness in February is probably weather-related, and the subsequent market correction appeared in the March employment report.

# Business Investment

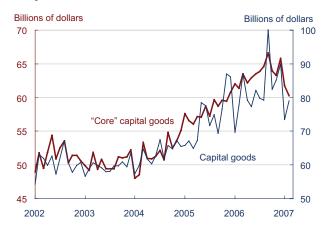
# **Capital Goods Orders**



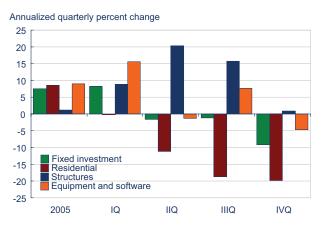
04.05.07 By Ed Nosal and Michael Shenk

While the housing market and the subprime sector have dominated the media's recent coverage of the economy, other indicators of current and future performance have, for some reason, received less attention. One rather important determinant for both current and future performance is business fixed investment—spending by businesses on structures, equipment, and software. February's report on durable goods showed that new orders for capital goods had increased 7.6 percent, which appears to be a very healthy monthly increase. However, when one digs a little deeper into the report, that number is not so comforting.

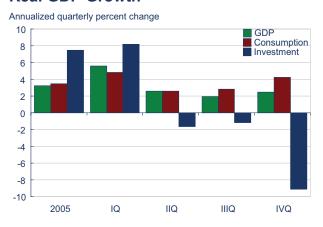
#### **Capital Goods Orders**



#### **Investment Growth**



#### **Real GDP Growth**

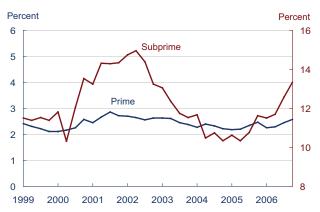


The report on capital goods orders is actually quite volatile, with monthly fluctuations of plus or minus ten percent not being that uncommon. Just as volatile components are removed from the Consumer Price Index to get a better idea of the underlying trend in prices, we might want to construct a coretype series for durables to get a better grip on their underlying trend. To do this for capital goods, we will first want to net out defense spending, since we are largely interested in what the private, and not the government sector, is up to. The series net of the government is also rather volatile. It turns out that private aircraft orders are extremely volatile on a month-to-month basis; aircrafts are very expensive, and orders arrive in a very lumpy fashion. When we net out government and private aircraft orders from capital goods spending, we should get a better feel for the underlying trend for this series and for the state of business investment.

Orders for "core" capital goods were fairly weak in February, falling 2.4 percent during the month. What's worse is that this decline follows a large 6.2 percent decline in January. If this pace has continued through March, orders for "core" capital goods will have fallen 7.2 percent in the first quarter of 2007. So what does this mean for the economy? While one should not read too much into a few months' numbers, the "core" numbers for capital goods, along with the weak new residential construction numbers, do not paint a very rosy picture for investment.

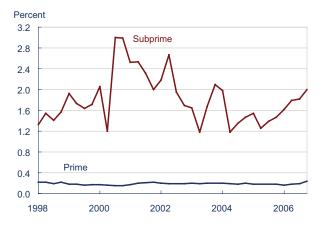
# **Subprime Statistics**

# Mortgage Delinquency Rates: Total Past Due



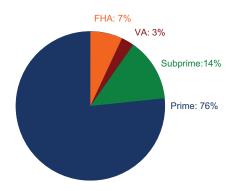
Source: Mortgage Bankers Association.

#### **Foreclosures Started**



Source: Mortgage Bankers Association.

#### Shares of Total Loans: 2006:IVQ



Source: Mortgage Bankers Association.

04.05.07 By Tim Dunne and Brent Meyer

Earlier in March, the Mortgage Bankers Association (MBA) published the results of their quarterly survey on the health of the mortgage market. The recent numbers (for the fourth quarter 2006) generated a great deal of discussion about lending abuses and the need for regulatory reform. In this article, we'll avoid all the debate and just delve more deeply into the facts.

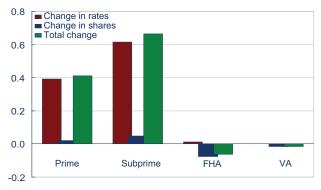
The key concern in mortgage markets has been the recent upturn in both delinquency and foreclosure rates. The delinquency rate measures the percentage of loans that are past due, and the foreclosure rate measures the percentage of loans that have entered the foreclosure process during the quarter. For the mortgage market as a whole, the delinquency rate rose year-over-year from 4.70 percent to 4.95 percent, and the foreclosure rate increased from 0.42 percent to 0.54 percent. Although delinquency and foreclosure rates increased in both the prime and subprime markets, most concern centers on subprime loans. After bottoming out in 2004, delinquency and foreclosures rates for subprime loans and have been on the rise since the middle of 2005.

While delinquency rates in the subprime market have risen as of late, they are still below those of 2001-2002. However, the market share of subprime loans has grown, and subprime loans currently make up 13.7 percent of all loans, according to the MBA.

Which types of loans are contributing most to the recent rise in foreclosure and delinquency rates? To answer that question, we decompose the change in each of the rates into the fraction that is due to shifts in the share of loans across loan types over the year and the fraction that is due to changes in the rates for different loan types—prime, subprime, FHA, and VA. The decompositions reveal that subprime loans indeed are causing most of the rise in both the overall foreclosure and delinquency rates. Movement in the share of loans across the loan

# Decomposition of the Change in Foreclosures: 2005–2006

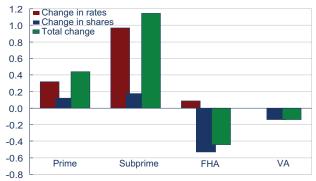
Contribution to percent change



Sources: Mortgage Bankers Association; and authors; calculations

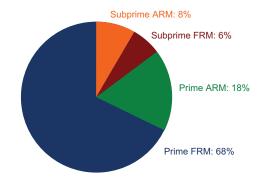
# Decomposition of the Change in Delinquencies: 2005–2006

Contribution to percent change



Source: Mortgage Bankers Association; and authors' calculations.

# Adjustable and Fixed-Rate Mortgage Shares: 2006:IVQ\*

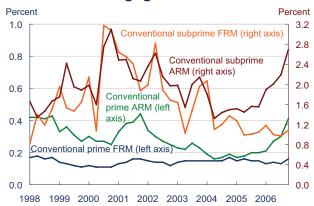


\*These are percentages of the prime and subprime markets only. FHA and VA are excluded. Source: Mortgage Bankers Association.

categories plays a less important role. (The negative contributions for the FHA and VA loans on the figure result because the share of these types of loans fell during the year.)

The recent data also reveal stronger increases in the foreclosures of adjustable-rate mortgages (ARMs) relative to fixed-rate mortgages (FRMs), in both the prime and subprime markets. However, a greater proportion of conventional mortgage loans have adjustable rates in the subprime market (over 50 percent at the end of 2006) than in the prime market (about 20 percent).

# Foreclosures Started: Adjustable and Fixed Rate Mortgages



Source: Mortgage Bankers Association.

# Minimum Wage Earners

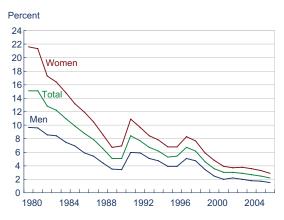
### Federal Minimum Wage\*



\*Through May 2006. If minimum wage changed during the course of a year, the value reflects the weighted average for the year.

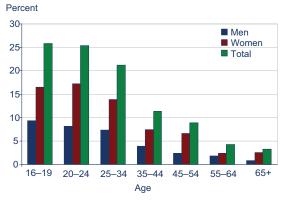
Source: U.S. Department of Labor, Bureau of Labor Statistics.

# Hourly Paid Workers at or below Prevailing Federal Minimum Wage



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

# Age Distribution of Workers Earning Less than \$5.15



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

03.30.07

By Murat Tasci and Cara Stepanczuk

Minimum-wage workers tend to be young. Nearly one-half of workers earning the federal minimum or less in 2006 were 25 or younger. One-quarter of these workers were teenagers between 16 and 19. Of course, most of teenagers have yet to earn their high school diploma, and as a group, minimum-wage earners have less education than those who earn more.

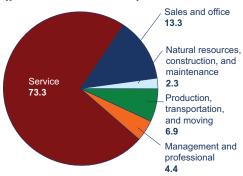
Of the nation's hourly paid workforce, however, minimum-wage workers are a tiny minority: Only 2.2 percent of hourly paid workers earn at or below the minimum wage. Even among youthful hourly paid workers, the percentage is small; for hourly paid workers 25 and under, only 5.2 percent earn at most \$5.15 an hour.

Most minimum-wage workers also tend to be employed in service occupations (more than 70 percent). However, most workers who are paid by the hour do not work in service jobs; only 7.3 percent do. The next-highest concentrations of minimum-wage earners occur in sales and office occupations (with 13.3 percent) and production, transportation, and moving occupations (with 6.9 percent).

More women than men earn minimum wage or less, and this has been the case ever since the minimum wage was introduced. For example, in 1980, more than 20 percent of hourly wage earners who earned the minimum or less were women as opposed to only 9.7 percent for men. Those numbers have fallen in the interim, and today, 2.9 percent are women, and 1.5 percent are men.

In fact, the fraction of workers paid at or below the federal minimum wage has been declining for both men and women since 1980, except for two years—1991 and 1997. These two episodes coincide with major increases of the federal minimum wage. In 1991, the minimum was raised to \$4.25 (from \$3.80), and in 1996 and 1997, it was raised once each year, first to \$4.75 and then to \$5.15, where it stands today.

# Occupational Distribution of Workers Earning Less than \$5.15 (percent in sector)



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

### Economic Activity and Labor

# Household Wealth and Consumption

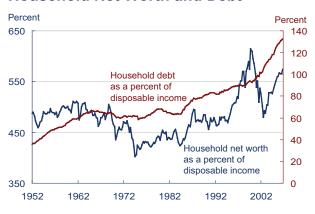
# Flow of Funds: Household Owners' Equity





Source: Board of Governors of the Federal Reserve System.

### Flow of Funds: Household Net Worth and Debt



Source: Board of Governors of the Federal Reserve System.

03.22.07 By David E. Altig and Brent Meyer

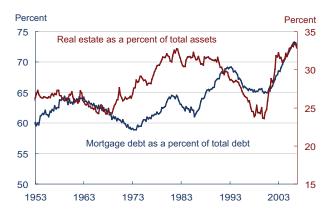
As if you haven't had to digest enough troublesome tales from the housing market, along comes the Federal Reserve System's Board of Governors with news that owners' equity as a percentage of the total value of residential real estate hit an all-time low of 53.1 percent in the fourth quarter of last year.

Simply looking at the picture demonstrates the problem with making too much out of that statistic: Most quarters bring a new low in owners' equity share. The same issue arises if we view the flip side of household balance sheets and look at household debt as a percentage of disposable income.

Although there is surely a limit on the level of debt that can be sustained relative to income, we have apparently not yet found that limit. What's more, total household net worth as a percent of disposable income continues to expand from its post-1991 recession low and is at historically high levels. Not everyone, however, will be impressed by that net worth statistic. As the experience of the late 1990s demonstrated, the net worth picture can change rapidly when the bottom falls out of an asset boom. And there is little doubt that the importance of housing investments in household balance sheets has increased over the past several years, on both the asset and liability side.

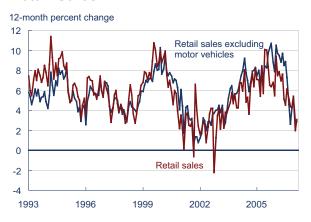
In the face of sharply declining rates of housing-

# Flow of Funds: Households, Home Mortgages



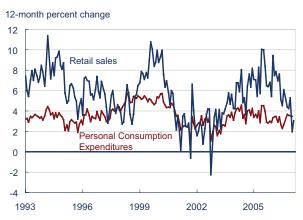
Source: Board of Governors of the Federal Reserve System

#### **Retail Sales**



Sources: U.S. Department of Commerce, Bureau of the Census

#### **PCE and Retail Sales**



Sources: U.S. Department of Commerce, Bureau of Economic Analysis, and Bureau of the Census.

price appreciation, these balance sheet developments are generating no shortage of concern about the financial health of U.S. households. One aspect of these concerns is that a deterioration in household wealth could cause a noticeable decline in consumption spending, requiring yet further, potentially disruptive, adjustments in the allocation of economic resources. It is true that growth in retail sales has been drifting south for over a year now...

...but we should remember that overall consumption expenditure only loosely tracks retail sales:

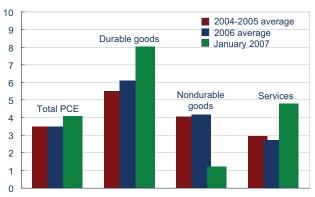
In fact, though the mix of expenditures on durable goods, nondurable goods, and services shifted in January, total consumption expenditures appear to be holding steady.

Though the most recent Blue Chip forecasts for 2007 show only a slight drop-off in the growth of consumption spending, it is possible that the pace of consumer spending will may look less appealing when the data for the first quarter arrives. Furthermore, those healthy spending levels of the past several years have been associated with a dramatic decline in household saving.

Relatively high levels of saving by businesses have been enough to keep net national saving in positive territory, and low personal saving rates do not automatically spell trouble. But it is fair to wonder just how long household saving can remain negative before consumption plans begin to feel the strain.

#### **PCE COMPONENTS**

Average 1-month percent change



Source: U.S. Department of Commerce, Bureau of Economic Analysis

#### Flow of Funds: Personal Saving

Dollars (billions, seasonally adjusted annual rate)



Source: Board of Governors of the Federal Reserve System.

### **Economic Activity and Labor**

# **Construction Activity and Employment**

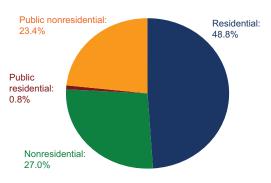
# **Residential Housing Starts**

Thousands of units (seasonally adjusted annual rate)



Source: U.S. Department of Commerce, Bureau of the Census.

# **Shares of Total Construction: January 2007**



Source: U.S. Department of Commerce, Bureau of the Census.

# 03.21.07 By Brent Meyer and Tim Dunne

The headline numbers for construction typically focus on residential construction activity. The recent news has not been very good. On a year-over-year basis, new housing starts fell 28.5 percent from February 2006; and although they rebounded in January by 9.0 percent, housing starts remain close to multi-year lows. Permits and completions have been similarly weak. A current Trends article provides a detailed analysis of recent housing market developments.

However, private residential construction makes up only about 48.8 percent of construction activity in the United States. The remainder of construction activity includes private nonresidential (27.0 percent), public nonresidential (23.4 percent), and public residential (0.8 percent) construction. About two-thirds of private nonresidential construction consists of commercial, office, health care, and manufacturing projects, whereas about one-half of public nonresidential construction consists of education and highway projects.

Following the 2001 recession, nonresidential construction spending grew much more slowly than residential spending but has accelerated more recently. In 2006, growth in residential spending turned negative but was partially offset by strong

#### **Construction Spending**

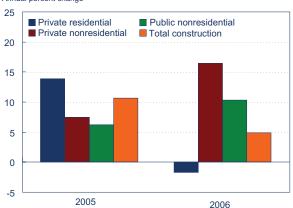
Dollars, billions (seasonally adjusted annual rate)



Source: U.S. Department of Commerce, Bureau of the Census

### **Growth in Construction Spending**

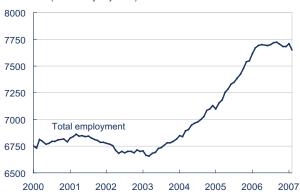
Annual percent change



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

### **Construction Employment**

Thousands (seasonally adjusted)



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

growth in both nonresidential public and private spending. As a result, nominal construction spending grew overall 4.9 percent in 2006, compared to 10.7 percent in 2005.

The slowdown in residential construction activity has had a muted impact on employment in the construction sector. Employment held steady in 2006, hovering around 7.7 million jobs, though employment in construction bears watching as there was a net decline of 62 thousand jobs last month. Still, on a year-over-year basis, construction employment is down only 0.2 percent from February 2006.

However, employment in the residential construction sector has not been immune to the weakness in housing statistics. Of all those employed in construction industries, only 43.2 percent work in residential construction, while 43.8 percent work in nonresidential building construction and 13.0 percent work in heavy and civil engineering construction. Of those employed in residential construction industries, about 30 percent work for general building contractors and the rest work in specialty trades (for example, roofing, plumbing, and concrete contractors).

The changes in recent employment look markedly different for nonresidential and residential building industries. On a year-over-year basis, employment in residential construction contracted by 133 thousand jobs, or -3.9 percent of residential construction jobs. Outside of residential construction, employment grew by 116 thousand jobs, or 2.7 percent of nonresidential construction employment.

On a cautionary note, the MIT Center for Real Estate reported that the demand for office properties remained strong at the end of 2006, but there was some weakening demand in the apartment, retail, and industrial property sectors based on their models. This weakening demand could affect workers employed in multifamily housing and private nonresidential industries going forward.

#### **Construction Employment**

Thousands (seasonally adjusted)



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

# **Construction Employment: Residential and Nonresidential**

Thousands (seasonally adjusted)

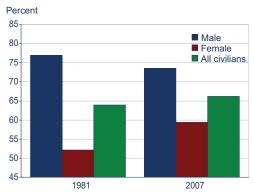


Source: U.S. Department of Labor, Bureau of Labor Statistics.

# Economic Activity and Labor

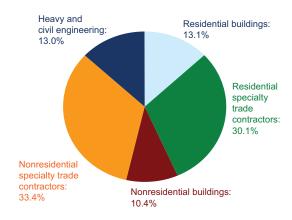
# Women in the Workforce

# **Labor Force Participation**



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

## Construction Sector Employment Share: February 2007



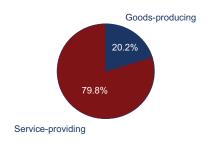
Source: U.S. Department of Labor, Bureau of Labor Statistics

03.15.07 by Peter Rupert and Cara Stepanczuk

Since Congress designated a week in March to honor women's history in 1981 (expanding it to the whole month six years later), women's contributions to the labor force have changed dramatically. In this report, we highlight gender differences in the employment situation over the last 25 years.

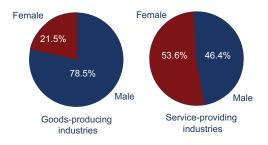
A higher percentage of working-age women are participating in the labor force today (59.5 percent) than in 1981 (52.1 percent). The labor force participation rate of men, on the other hand, has fallen since 1981 (from 77 percent to 73.5 percent). At the same time, the proportion of men and women

#### U.S. Employment by Industry, 2007



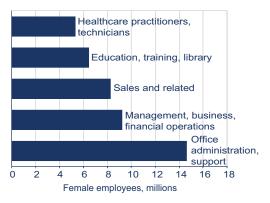
Source: Department of Labor, Bureau of Labor Statistics

#### **Industry Employment by Sex, 2007**



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

# Occupations with the Most Females in 2007



Source: Department of Labor, Bureau of Labor Statistics

# Occupations with the Most Males in 2007



Source: Department of Labor, Bureau of Labor Statistics

in the pool of working age noninstitutional civilians (ages 16-64) have remained roughly equal.

Both men and women today are more educated than in the past. The fraction of women with a high school degree (or more) has gone from 69.1 percent to 85.5 percent in the last 25 years. In 1981, only 13.4 percent of women age 25 and above had earned a bachelor's degree, but as of 2005 (the most recent data available), 27 percent had. Although men complete high school at a lower rate than women (84.9 percent, up from 70.3 percent), they still maintain a slight edge in completing four years of college (28.9 percent, up from 21.1 percent).

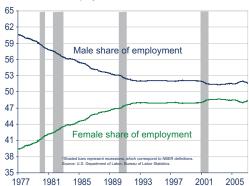
With better labor force participation and more education, women's median incomes have gradually improved over the past 25 years. In 2005, the women's median income reached \$18,600--about two-thirds of the median income of all employed men (nearly \$31,300). The gap was much larger in 1981, when the median annual income of all employed men was \$13,500 (in current dollars), and women made less than half that (\$5,500).

Historically, more women have worked in service industries, such as retail, business, and education, than in goods-producing industries, such as mining, construction, and manufacturing, and today's figures follow suit: Over half of the employees in service industries are female, but women constitute only 21.5 percent of the workforce in goods-producing industries. Service industries employ far more people than goods-producers, incidentally, as nearly four out of five workers (79.8 percent) are employed in the service sector.

The top five occupations for women in the United States today are in the services sector: 14.6 million women have jobs in office administration or office support, 9.2 million have jobs in management, business, or financial operations, and 8.2 million have sales or sales-related jobs. In the remaining two top jobs, women are employed as education, training, and library staff or healthcare practitioners and technicians. In contrast, two of the top five occupations for men are in goods-producing industries: 9.2 million men are employed in construction and extraction, and 6.3 million are employed in manufacturing jobs.

#### **Employment Share by Sex\***

Percent of total employment



### Business Cycle Pattern: Employment By Sex

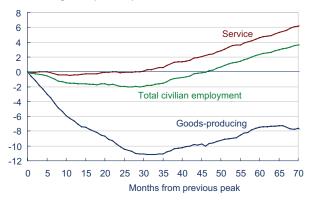
Percent change from previous peak



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

### Business Cycle Pattern: Employment By Industry

Percent change from previous peak



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

Over the course of the four most recent business cycles, women have gained a larger percentage of the job openings during recovery periods than men, helping to close the male-female gap in the employment share.

The recovery from the latest recession (March 2001), followed the same pattern: Women experienced fewer job losses and higher job gains on average than men over the same time period. Female employment recuperated after 40 months, 6 months before the average civilian employee. Male employment lagged behind, recovering 50 months after the recession, and did not catch up to female employment until 10 months later.

The current expansion shows a slight advantage for women in terms of employment, nearly 70 months after the previous business cycle peak. Most of the employment growth women have experienced during periods of recession and recovery is connected to the resilience of the service industries and the weakening of the manufacturing sector. Differences in the cyclical responses of the service and goods sectors have been more pronounced in the last two recessions. For example, service industries fared much better than goods-producing industries during the 2001 recession and its recovery, as well as during the subsequent expansion phases. Goods-producing industries shed many jobs over the course of the past business cycle and have yet to claim recovery, while service industries recaptured their losses about 28 months after the last cycle peak and have pulled total employment up from then on.

Service occupations, which employ more women, are becoming more prominent in today's economy and experience less cyclical volatility. Goods-producing industries, on the other hand, employ more men and have struggled to regain employment losses from recessions, even during long periods of expansion. Thus, the current expansion is not what some have termed a "jobless recovery" for women, but rather a chance to make up ground.

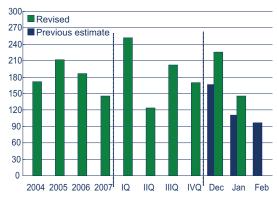
#### Additional Source:

"Women and Jobs in Recoveries: 1970-93," by William Goodman. Bureau of Labor Statistics, Office of Employment and Unemployment Statistics, Monthly Labor Review, July 1994, pp. 28-36.

# The Employment Situation

### Average Monthly Nonfarm Employment Change

Change, thousands of workers



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

#### **Labor Market Conditions**

Average monthly change (thousands of employees, NAICS)

	2004	2005	2006	Jan 2007	Mar. 2007
Payroll employment	172	212	189	146	97
Goods-producing	28	32	9	26	-71
Construction	26	35	11	28	-62
Manufacturing	0	-7	-7	-2	-14
Durable goods	8	2	0	-19	-7
Nondurable goods	-9	-9	-6	17	-7
Service-providing	144	180	179	120	168
Retail trade	16	19	-3	25	7
Financial activities*	8	14	16	4	8
PBS**	38	57	42	26	29
Temporary help svcs.	11	18	-1	3	-12
Education and health svcs.	33	36	41	30	31
Leisure and hospitality	25	23	38	22	31
Government	14	14	20	15	39
	Average for period (percent)				
Civilian unemployment rate	5.5	5.1	4.6	4.6	4.5

<sup>\*</sup>Financial activities include the finance, insurance, and real estate sector and the rental and leasing sector.

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

03.14.07 by Peter Rupert and Cara Stepanczuk

Nonfarm payrolls increased by 97,000 net jobs in February—down from January and lower than the three-month-average increase of 156,000 jobs per month. February's growth was the weakest since January 2005, when jobs increased by 95,000, but was only slightly below expectations. December and January payrolls were revised upward a net 55,000 jobs. The employment situation continues to show moderate growth in 2007 with continuing pockets of weakness.

Employment in service-providing industries surged in February, with 168,000 jobs added. The government (+39,000), leisure and hospitality (+31,000), and education and health services (+31,000) sectors led the group, with professional business services following close behind (+29,000). However, goodsproducing industries lost 71,000 jobs, completely reversing the impact of their positive report last month. A 62,000 payroll reduction in construction destroyed the 30,000 net job gain that had been posted over the past three months in these industries and did the most damage to total employment. Downswings in residential construction and adverse weather conditions across the nation were two explanations proposed for the slide. Manufacturing continued to soften, losing 14,000 jobs; durable and nondurable goods producers both posted weak numbers (-7,000 jobs each).

Employment losses in goods-producing industries this month were in line with the pattern of employment since the 2001 recession. During the recession itself, that is, from the peak of the previous business cycle to the cycle's lowest level of employment (August 2003), goods-producing industries lost 2.7 million jobs. The manufacturing sector was the main drag, cutting 2.5 million jobs. In contrast, service-providing industries added 22 million jobs during the same period; they were buoyed by education and health services, which added 1.2 million jobs.

<sup>\*\*</sup> PBS is Professional Business Services (professional, scientific, and technical services, management of companies and enterprises, administrative and support, and waste management and remediation services).

# Payroll Changes by Industry during the Recession and Expansion

	Jobs, thousands						
	Initial loss	Subsequent gain	Net to recovery	Current expansion Jan. 2005 to Feb. 2007			
	Apr. 2001 to Aug. 2003	Aug. 2003 to Jan. 2005	Apr. 2001 to Jan. 2005				
Total	-2686	2640	-46	4952			
Goods	-2708	270	-2438	507			
Services	22	2370	2392	4445			

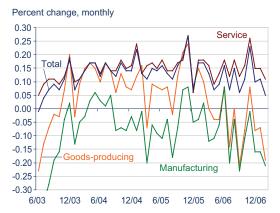
Source: Department of Labor, Bureau of Labor Statistics.

In the subsequent period of employment recovery, from the lowest level of employment to the point where employment finally returned to prerecession levels (January 2005), goods-producing industries added a meager 270,000 jobs, while service-providing industries added 2.4 million. During the current employment expansion, service-providing industries have continued to drive the headline number, growing by 4.4 million jobs. Professional business services account for 1.2 million, and education and health services account for 951,000 of that increase. Goods-producing industries have not yet caught up with prerecession employment levels, and have added only 507,000 jobs since January 2005. While construction has been strong, manufacturing has struggled to regain footing in today's economy.

### Economic Activity and Labor

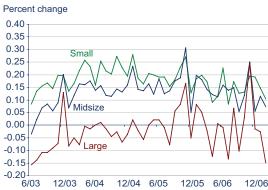
# The ADP National Employment Report

### **ADP Nonfarm Employment**



Source: Automatic Data Processing, Inc.

# Monthly Employment Change by Payroll Size\*



\*Small firms have 1-49 employees, midsize firms have 50-499 employees, and large firms have over 499 employees.

Source: Automatic Data Processing, Inc.

03.09.07

by Murat Tasci and Cara Stepanczuk

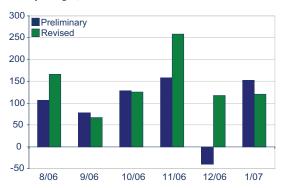
Automatic Data Processing (ADP), a company that provides payroll services to firms nationwide, reports monthly estimates of employment a few days before the Bureau of Labor Statistics (BLS) publishes its Employment Situation. ADP's estimates, published in ADP National Employment Report, are based on its clients' payroll data.

According to the estimates released Wednesday, March 7, private nonfarm employment increased nationwide a modest 57,000 in February (on a seasonally adjusted basis), following a strong increase of 121,000 in January. The latest estimate represents the smallest increase in ADP's total private nonfarm employment series since July 2003.

The service sector added 100,000 jobs, an increase which did not quite reach the past three-month average of 171,000. The goods-producing sector, however, lost 43,000 workers during February, mostly because of a 29,000 decrease in manufacturing jobs. This was the sharpest decline since September 2006.

# **Revisions to Total ADP Nonfarm Employment**

Monthly changes, thousand



Source: Automatic Data Processing, Inc.

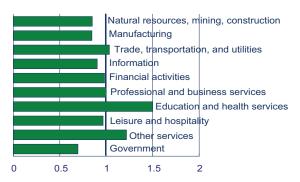
Small and midsize firms remained the main providers of employment growth in February. Small firms (those with fewer than 50 workers) added 53,000 more employees than midsize establishments (those employing 50 to 499), which added only 33,000. The employment growth at small and midsize employers was partially offset by a decline in payrolls at large establishments. According to ADP's estimates, large establishments lost 29,000 workers in February, marking the largest monthly decline in firms of this size since June 2003.

ADP National Employment Report sometimes revises its estimates. These revisions can significantly change the initial picture. For instance, in December 2006, ADP first reported a 40,000 decline in nonfarm employment for the previous month, but later revised the estimate up, reporting a strong 118,000 increase in payrolls. Because of potentially significant revisions, it is better to proceed with caution when interpreting initial monthly employment numbers. (This goes for the BLS as well. See a similar picture of revisions in BLS data in the March issue of *Economic Trends*, "Labor Market Conditions.")

# Regional Activity

# The Pittsburgh Metropolitan Statistical Area

# Location Quotients, 2006 Pittsburgh MSA / U.S.\*



\*The location quotient is the ratio between a given industry's employment share in two locations.

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

03.28.07 by Christian Miller and Brian Rudick

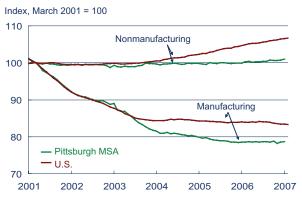
The Pittsburgh Metropolitan Statistical Area (MSA), home to more than 2.3 million people, is the District's largest metro area. (The MSA is composed of Alleghany, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland Counties.) Surprisingly, Pittsburgh's share of employment in manufacturing is smaller than the nation's. This wasn't the case in the 1970s and early 1980s, but since then, manufacturing's share of total employment has fallen faster in Pittsburgh than in the U.S. On the other hand, the metro area's share of employment in the education and health services industry is 1.5 times larger than the nation's. It is the MSA's second-largest sector (behind trade, transportation, and utilities), accounting for about one-fifth of total employment.

#### **Payroll Employment Since March 2001**



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

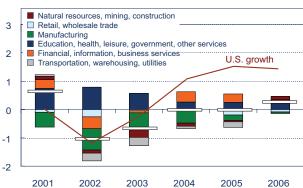
### **Payroll Employment since March 2001**



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

# Components of Employment Growth, Pittsburgh MSA

Percent change



\*The white bars represent total annual growth for the Pittsburgh MSA. Source: U.S. Department of Labor, Bureau of Labor Statistics.

Since the last business cycle peak, in March 2001, Pittsburgh has lost 1.5 percent of its jobs, compared to Pennsylvania's gain of 1.2 percent and the nation's gain of 3.6 percent. In this respect, the metro area bears a closer resemblance to other Fourth District MSAs than to Pennsylvania as a whole. Pittsburgh's employment growth began to improve in 2006.

Since the last business cycle peak, Pittsburgh has increased its nonmanufacturing employment by about 1 percent, whereas the U.S. is up 6.6 percent. In addition, manufacturing employment losses over this period were more severe in the metro area (21.4 percent) than in the nation (16.6 percent).

Not surprisingly, a look at the components of employment growth shows that manufacturing has been a drag on total employment growth for the past six years, although its negative impact has lessened over the past four. Transportation, warehousing, and utilities also weighed down employment growth. Service industries, on the other hand, have been critical for job growth over the past six years. Education, health, leisure, government, and other services have contributed an average of 0.5 percentage point to total employment growth in each of those years.

Since January 2006, Pittsburgh's employment has increased 1.0 percent, compared to the nation's gain of 1.6 percent. Although U.S. employment growth outpaced that of the metro area, the only industries that posted job losses in Pittsburgh were trade, transportation, and utilities; and financial activities. Moreover, the MSA's rate of employment growth in natural resources, mining, and construction industries outpaced the nation's by more than 1 percent.

The MSA's unemployment rate has closely tracked the nation's for the past decade. In January, Pittsburgh's unemployment rate was 4.8 percent, compared to 4.6 percent for the U.S.

Except for three years in the early 1990s, the population growth rate has been consistently negative in the metro area since 1980. By contrast, the nation's population has grown steadily since then, at an annual rate of about 1 percent.

# Payroll Employment Growth January 2007



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

# **Unemployment Rate**



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

Pittsburgh's population, like Pennsylvania's, has a smaller percentage of minorities than the U.S, although the MSA is still more homogenous than the state. Of Pittsburgh residents aged 25 and older, 27.1 percent have attained a bachelor's degree, compared to 27.2 percent for the nation and 25.7 percent for the state. Pittsburgh is home to more elderly residents (65 and older) than either the state or the nation and has a higher median age.

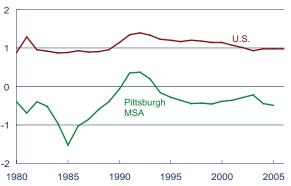
In 2005, Pittsburgh's per capita personal income was \$36,208, exceeding that of the state (\$34,848), the nation (\$34,495), and the average for all metropolitan areas (\$34,668 in 2004).

### **Selected Demographics**

	Pittsburgh MSA	Pennsylvania	U.S.
Total population (millions)	2.3	12.0	288.4
Percent by race			
White	90.1	85.5	76.3
Black	8.6	10.7	12.8
Other	1.3	3.8	10.9
Percent by age			
0 to 19	23.8	25.5	27.8
20 to 34	17.0	18.1	20.1
35 to 64	42.7	41.7	40.0
65 or older	16.5	14.6	12.1
Percent with bachelor's degree or higher	27.1	25.7	27.2
Median age	41.7	39.7	36.4

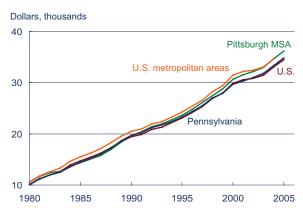
#### **Population Growth**

Year-over-year percent change



Source: U.S. Department of Commerce, Bureau of the Census

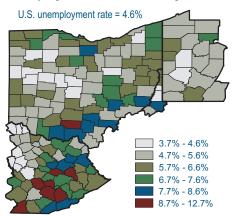
# Per Capita Personal Income



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

# Fourth District Employment Conditions

#### **Unemployment Rates, January 2007\***



\* Data are seasonally adjusted using the Census Bureau's X-11 procedure.

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

#### **Unemployment Rates\***



a. Seasonally adjusted using the Census Bureau's X-11 procedure \* Shaded bars represent recessions.

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

04.10.07 by Christian Miller and Paul Bauer

The Fourth District unemployment rate stayed at 5.4 percent in January 2007, the same as in the previous month. Though the rate did not change, the number of unemployed workers crept up slightly (0.57 percent). Because the unemployment rate is the ratio of unemployed workers divided by workers in the labor force, one would expect this outcome if the number of those in the labor force had risen as well. However, the labor force participation rate actually fell slightly (-0.12 percent) in January. What explains this month's odd outcome is a byproduct of rounding: the changes in the numbers of those in the labor force and those working were relatively small, and after rounding the resulting rate was the same in December and January. Nationally, the unemployment rate rose to 4.6 percent in January, up a bit from 4.4 percent in the previous month.

Most counties in the Fourth District reported unemployment rates above the national average (145 out of 169). Unemployment rates rose in 83 counties since December 2006 but fell in 76 counties and remained the same in 10 counties. In comparison with a year ago at this time, 85 counties now have higher rates of unemployment, 65 have lower rates, and 19 have approximately unchanged rates. Holmes County, Ohio, had the lowest unemployment rate at 3.7 percent; on the opposite end of the field, Jackson County, Kentucky, had the highest rate with 12.7 percent unemployment.

Over the past year, payroll employment levels fell in Cleveland, Dayton, and Toledo, but in Pittsburgh and Lexington, they posted gains of 1 percent or more. Goods-producing industries continued to slow employment growth in the Ohio MSAs. In service-providing industries, on the other hand, employment was either flat or positive. Education and health services registered positive employment growth across the board, while the other service industries had more mixed growth across MSAs. Information and leisure and hospitality grew more

than 6 percent in Lexington. The greatest growth in the number of jobs created occurred in Pittsburgh in the education and health services industry, which added 6,100 jobs over the past year.

#### **Payroll Employment by Metropolitan Statistical Area**

12-month percent change	e, January 2007
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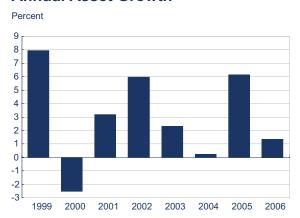
	TE Month por controllaring / Surface y 2007							
	Cleveland	Columbus	Cincinnati	Dayton	Toledo	Pittsburgh	Lexington	U.S.
Total nonfarm	-0.2	0.7	0.1	-0.7	-0.3	1.0	2.2	1.7
Goods-producing	-1.7	-1.4	-1.3	-4.5	-1.6	1.1	0.0	0.3
Manufacturing	-2.6	-1.5	-1.6	-5.3	-1.4	0.1	-0.3	-0.6
Natural resources, mining, and construction	1.6	-1.1	-0.6	-1.4	-2.1	5.6	0.8	2.1
Service-providing	0.1	1.0	0.4	0.1	0.0	1.0	2.7	1.9
Trade, transportation, and utilities	-0.4	0.6	-0.3	-2.4	-0.6	-0.6	-2.6	0.8
Information	-2.6	-3.7	-2.5	-0.9	0.0	0.0	6.5	0.7
Financial activities	-0.1	-0.1	0.0	1.5	-3.1	-0.9	3.7	2.1
Professional and business services	0.3	2.5	0.7	0.6	-1.5	2.1	5.4	3.0
Education and health services	2.3	1.4	2.6	-0.2	0.8	2.8	1.3	2.7
Leisure and hospitality	0.7	2.3	-0.4	3.9	2.0	1.5	7.6	3.6
Other services	0.2	-0.3	0.0	0.6	0.7	0.2	-3.0	0.4
Government	-1.7	0.4	0.1	0.3	0.6	0.6	5.3	1.3
January unemployment rate seasonally adjusted (percent)	5.5	4.6	5.0	6.1	6.8	4.7	4.2	4.6

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

# Banking and Financial Institutions

# A Close Look at Fourth District Bank Holding Companies \*

#### **Annual Asset Growth**



Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006.

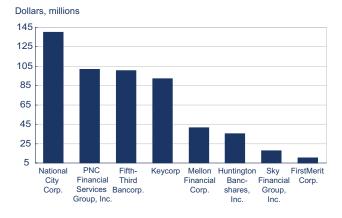
03.26.07

by James B. Thomson and Cara Stepanczuk

A bank holding company (BHC) is a company that owns one or more commercial banks. It may also own other types of depository institutions as well as nonbank subsidiaries. While BHCs come in all sizes, here we focus on BHCs with consolidated assets of more than \$1 billion. There are 21\* BHCs headquartered in the Fourth District that meet this definition, including seven of the top fifty BHCs in the United States, as of December 31, 2006.

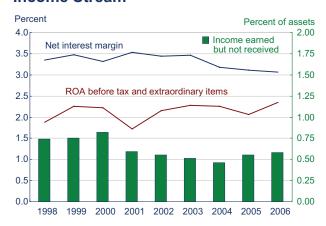
The ongoing consolidation of the banking system nationwide is also evident within the Fourth District. Between 1999 and 2006, the number of

# Largest Fourth District Bank Holding Companies by Asset Size\*



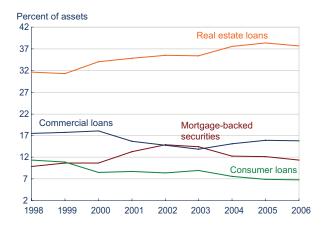
\*Rank is as of fourth quarter, 2006. Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006.

#### **Income Stream**



Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006.

### **Balance Sheet Composition**



Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006.

BHCs in the Fourth District fell one-eighth (from 24\* at the beginning of 1999 to 21\* at the end of 2006), but the total assets of the remaining BHCs increased every year except 2000. The decline that year reflects the acquision of Charter One Financial by Citizens Financial Group, a BHC headquartered in another district.

The largest seven BHCs in the Fourth District rank in the top 50 largest banking organizations in the nation. In all, Fourth District BHCs with more than \$1 billion in assets account for around 4.7 percent\* of BHC-held assets nationwide and the majority of assets held by BHCs in the Fourth District.

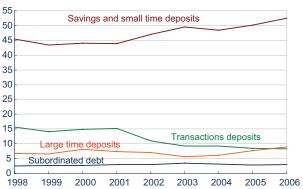
The income stream of Fourth District BHCs has improved slightly in recent years. The return on assets has risen unevenly from 1.9 percent in 1998 to 2.3 percent in 2006. (Return on assets is measured by income before taxes and extraordinary items, because a bank's extraordinary items can distort the true earnings picture.) This increase occurred despite weakening net interest margins (interest income minus interest expenses, divided by earning assets). Currently at 3.06 percent, the net interest margin is at its lowest level in eight years.

Another indication of the strength of earnings is the continued low level of income earned but not 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 end of 2006 (0.58 percent) was still well below the recent high of 0.82 percent at the end of 2000.

Fourth District BHCs are heavily engaged in realestate-related lending. As of the fourth quarter of 2006, about 38 percent of their assets were in loans secured by real estate. Including mortgage-backed securities, the share of real-estate-related assets on the balance sheet is 50 percent.

#### Liabilities

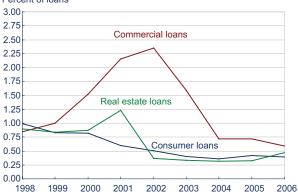
Percent of liabilities



Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006.

#### **Problem Loans**

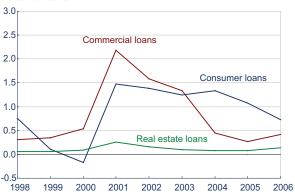
Percent of loans



Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006

### **Net Charge-offs**

Percent of loans



Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006.

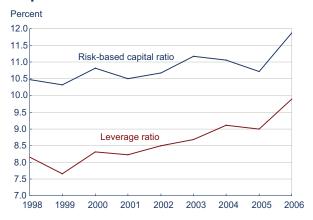
Deposits continue to be the most important source of funds for Fourth District BHCs. Saving and small time deposits (time deposits in accounts less than \$100,000) made up 52 percent of liabilities at the end of 2006. Core deposits (the sum of transaction, saving, and small time deposits) made up 60.8 percent of Fourth District BHC liabilities as of the end of 2006, the highest level since 1998. Finally, total deposits made up nearly 70 percent at the end of last year. Despite the requirement that large banking organizations must have a rated debt issue outstanding at all times, subordinated debt represents only around 3 percent of funding.

Problem loans are loans that have been 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, 0.68 percent of all commercial loans are problem loans. Problem real estate loans are only 0.47 percent of all outstanding real-estate-related loans, though this percentage edged upward in 2006. Problem consumer loans (credit cards, installment loans, etc.) remained relatively flat, declining slightly in 2006. Currently, 0.39 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 which have been recovered in the current year. As with problem loans, there was a sharp increase in net charge-offs of commercial and consumer loans in 2001. Fortunately, the charge-off levels returned to their pre-recession levels in recent years. The net charge-offs in the fourth quarter of 2006 were limited to 0.42 percent of outstanding commercial loans, 0.73 percent of outstanding consumer loans, and 0.14 percent of outstanding real estate loans.

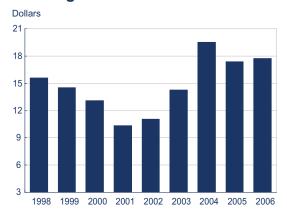
Capital is a bank's cushion against unexpected losses. The recent upward trend in the capital ratios indicates that Fourth District BHCs are sufficiently protected. The leverage ratio (balance sheet capital over total assets) stands at 9.9 percent, and the risk-

#### Capitalization



Source: Authors' calculation from Federal Financial Institutions Examination Council, *Quarterly Banking Reports of Condition and Income*, Fourth Quarter 2006.

#### Coverage Ratio\*



\*Ratio of capital and loan loss reserves to problem assets.

Source: Authors' calculation from Federal Financial Institutions Examination

Council, Quarterly Banking Reports of Condition and Income, Fourth Quarter 2006.

based capital ratio (a ratio determined by assigning a larger capital charge on riskier assets) is at 11.9 percent, both signs of strength for Fourth District BHCs.

An alternative measure of balance sheet strength is the coverage ratio. The coverage ratio measures the size of a bank's capital and loan loss reserves relative to its problem assets. As of the fourth quarter of 2006, Fourth District BHCs have \$17.72 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 at the end of the 1990s.

\*The number of BHCs and their assets relative to BHCs nationwide have been updated since this article was originally posted.