Page 11: **Implied One-Year Forward Rates** are calculated by this Bank from Treasury constant maturity yields. Yields to maturity, $R(m)$, for securities with $m = 1,...,$ 10 years to maturity are obtained by linear interpolation between reported yields. These yields are smoothed by fitting the regression suggested by Nelson and Siegel (1987),

$$R(m) = a_0 + (a_1 + a_2)(1 - e^{-m/50})/(m/50) - a_2 \times e^{-m/50},$$

and forward rates are calculated from these smoothed yields using equation (a) in table 13.1 of Shiller (1990),

$$f(m) = [D(m)R(m) - D(m–1)] / [D(m) - D(m–1)],$$

where duration is approximated as $D(m) = (1 - e^{-R(m) \times m})/R(m)$. These rates are linear approximations to the true instantaneous forward rates; see Shiller (1990). For a discussion of the use of forward rates as indicators of inflation expectations, see Sharpe (1997). **Rates on 3-Month Eurodollar Futures** and **Rates on Selected Federal Funds Futures Contracts** trace through time the yield on three specific contracts. **Rates on Federal Funds Futures on Selected Dates** displays a single day's snapshot of yields for contracts expiring in the months shown on the horizontal axis. **Inflation-Indexed Treasury Securities and Yield Spreads** are those plotted on page 3. **Inflation-Indexed 10-Year Government Notes** shows the yield of an inflation-indexed note that is scheduled to mature in approximately (but not greater than) 10 years. The current French note has a maturity date of 7/25/2015, the current U.K. note has a maturity date of 8/16/2013, and the current U.S. note has a maturity date of 1/15/2017. **Inflation-Indexed Treasury Yield Spreads** and **Inflation-Indexed 10-Year Government Yield Spreads** equal the difference between the yields on the most recently issued inflation-indexed securities and the unadjusted security yields of similar maturity.

Page 12: **Velocity** (for MZM and M2) equals the ratio of GDP, measured in current dollars, to the level of the monetary aggregate. **MZM** and **M2 Own Rates** are weighted averages of the rates received by households and firms on the assets included in the aggregates. Prior to 1982, the 3-month T-bill rates are secondary market yields. From 1982 forward, rates are 3-month constant maturity yields.

Page 13: **Real Gross Domestic Product** is GDP as measured in chained 2000 dollars. The **Gross Domestic Product Price Index** is the implicit price deflator for GDP, which is defined by the Bureau of Economic Analysis, U.S. Department of Commerce, as the ratio of GDP measured in current dollars to GDP measured in chained 2000 dollars.

Page 14: **Investment Securities** are all securities held by commercial banks in both investment and trading accounts.

Page 15: **Inflation Rate Differentials** are the differences between the foreign consumer price inflation rates and year-over-year changes in the U.S. all-items Consumer Price Index.

Page 17: **Treasury Yields** are Treasury constant maturities as reported in the Board of Governors of the Federal Reserve System's H.15 release.

Sources

Agence France Trésor: French note yields.

Bank of Canada: Canadian note yields.

Bank of England: U.K. note yields.

Board of Governors of the Federal Reserve System: Monetary aggregates and components: H.6 release. Bank credit and components: H.8 release. Consumer credit: G.19 release. Required reserves, excess reserves, clearing balance contracts, and discount window borrowing: H.4.1 and H.3 releases. Interest rates: H.15 release. Nonfinancial commercial paper: Board of Governors website. Nonfinancial debt: Z.1 release. M2 own rate.

Bureau of Economic Analysis: GDP.

Bureau of Labor Statistics: CPI.

Chicago Board of Trade: Federal funds futures contract.

Chicago Mercantile Exchange: Eurodollar futures.

Congressional Budget Office: Potential real GDP.

Federal Reserve Bank of Philadelphia: Survey of Professional Forecasters inflation expectations.

Federal Reserve Bank of St. Louis: Adjusted monetary base and adjusted reserves, monetary services index, MZM own rate, one-year forward rates.

Organization for Economic Cooperation and Development: International interest and inflation rates.

Standard & Poor's: Stock price-earnings ratio, stock price composite index.

University of Michigan Survey Research Center: Median expected price change.

U.S. Department of the Treasury: U.S. security yields.

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Taylor, John B. (1993). "Discretion versus Policy Rules in Practice," *Carnegie-Rochester Conference Series on Public Policy*, vol. 39, pp. 195-214.

Note: *Available on the Internet at research.stlouisfed.org/publications/review/.

Monetary Trends

June 2007

What Is Subprime Lending?

Mortgage loans are typically classified as either prime or subprime, depending on their credit risk—the risk that a borrower will default on the loan. Interest rates are higher on subprime mortgages, reflecting their higher credit risk. However, despite its common usage, the prime-subprime distinction is not clear-cut and there is still some confusion regarding a precise characterization of subprime lending.

Some agencies characterize subprime lending in terms of lender practices. For example, the U.S. Department of Housing and Urban Development (HUD) uses Home Mortgage Disclosure Act (HMDA) data and interviews with lenders themselves to identify lenders that specialize in subprime mortgages. This approach raises the obvious query: Why not simply look for lenders that make high-priced mortgages? One problem lies in the fact that HMDA reports did not include interest rate data prior to 2004. Moreover, HUD argues that a high average mortgage interest rate is neither a necessary nor a sufficient characteristic of subprime lending.[1] HUD has published a list of subprime lenders annually since 1993, with 210 lenders on the 2005 list. It notes that, in contrast to prime lenders, subprime specialists typically (i) have fewer originations, (ii) have a higher share of refinance loans as a proportion of total originations, and (iii) sell a smaller percentage of their portfolios to the government-sponsored enterprises (GSEs), i.e., Fannie Mae and Freddie Mac. Importantly, HUD notes that some prime lenders originate a significant number of subprime loans and some subprime lenders also originate prime loans.

A second approach to identifying subprime lending is to focus on borrower attributes, regardless of the lender involved. In a joint proposal to provide expanded guidance to institutions that engage in subprime lending, the federal bank and thrift supervisory agencies—the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision—specify that "subprime" refers to the credit characteristics of individual borrowers. They characterize subprime borrowers as those who display, among other characteristics, (i) a previous record of delinquency, foreclosure, or bankruptcy, (ii) a low credit score, and (iii) a debt service-to-income ratio of 50 percent or greater. Again, this checklist includes the caveat that the "list is illustrative rather than exhaustive and is not meant to define specific parameters for all subprime borrowers."[2]

Clearly, a precise characterization of subprime lending is elusive. The difficulty lies in that, unlike prime mortgages, subprime mortgages are not homogenous. Indeed, each underwriter independently evaluates the credit risk on the mortgage which, in addition to borrower-specific attributes, depends also on the terms of the loan contract. Therefore, a third (and perhaps simpler) way might be to define a prime mortgage and then classify other non-prime mortgages as "subprime" or "near-prime." Hancock et al. (2005) make an attempt in this direction by dividing the first-lien conventional mortgage market into three broad credit risk segments based on a couple of summary characteristics. First, creditworthiness of the mortgagor is summarized by her *credit score*. Second, the terms and conditions of a mortgage contract are summarized by the *loan-to-value ratio*. Hancock et al. (2005) use these two characteristics to define three segments of the mortgage market as shown in Table 1. This definition provides a much-needed benchmark to clearly define subprime loans, and its appeal lies in its simplicity.

—Rajdeep Sengupta and William R. Emmons

[1] More details are available on the HUD web site: www.huduser.org/datasets/manu.html.

[2] For details on the supervisory guidance, see www.federalreserve.gov/boarddocs/press/bcreg/2007/20070302/default.htm.

Summary of Conventional Mortgage Market Segment Definitions

	Loan-to-value ratio		
Credit score	<80 Percent	80-90 Percent	>90 Percent
660 or higher	**Prime**	***Near-prime***	Subprime
581 to 659	***Near-prime***	***Near-prime***	Subprime
580 or lower	Subprime	Subprime	Subprime

SOURCE: Hancock, Diana; Lehnert, Andreas; Passmore, Wayne and Sherlund, Shane M. "An Analysis of the Potential Competitive Impacts of Basel II Capital Standards on U.S. Mortgage Rates and Mortgage Securitization." Basel II White Paper No. 4, Board of Governors of the Federal Reserve System, 2005.

Contents

Conventions used in this publication:

1. Unless otherwise indicated, data are monthly.
2. Shaded areas indicate recessions, as determined by the National Bureau of Economic Research.
3. *Percent change at an annual rate* is the simple, not compounded, monthly percent change multiplied by 12. For example, using consecutive months, the percent change at an annual rate in x between month $t-1$ and the current month t is: $[(x_t/x_{t-1})-1]\times 1200$. Note that this differs from *National Economic Trends.* In that publication, monthly percent changes are compounded and expressed as annual growth rates.
4. The *percent change from year ago* refers to the percent change from the same period in the previous year. For example, the percent change from year ago in x between month $t-12$ and the current month t is: $[(x_t/x_{t-12})-1]\times 100$.

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On March 23, 2006, the Board of Governors of the Federal Reserve System ceased the publication of the M3 monetary aggregate. It also ceased publishing the following components: large-denomination time deposits, RPs, and eurodollars.

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Definitions

M1: The sum of currency held outside the vaults of depository institutions, Federal Reserve Banks, and the U.S. Treasury; travelers checks; and demand and other checkable deposits issued by financial institutions (except demand deposits due to the Treasury and depository institutions), minus cash items in process of collection and Federal Reserve float.

MZM (money, zero maturity): M2 minus small-denomination time deposits, plus institutional money market mutual funds (that is, those included in M3 but excluded from M2). The label MZM was coined by William Poole (1991); the aggregate itself was proposed earlier by Motley (1988).

M2: M1 plus savings deposits (including money market deposit accounts) and small-denomination (under $100,000) time deposits issued by financial institutions; and shares in retail money market mutual funds (funds with initial investments under $50,000), net of retirement accounts.

M3: M2 plus large-denomination ($100,000 or more) time deposits; repurchase agreements issued by depository institutions; Eurodollar deposits, specifically, dollar-denominated deposits due to nonbank U.S. addresses held at foreign offices of U.S. banks worldwide and all banking offices in Canada and the United Kingdom; and institutional money market mutual funds (funds with initial investments of $50,000 or more).

Bank Credit: All loans, leases, and securities held by commercial banks.

Domestic Nonfinancial Debt: Total credit market liabilities of the U.S. Treasury, federally sponsored agencies, state and local governments, households, and nonfinancial firms. End-of-period basis.

Adjusted Monetary Base: The sum of currency in circulation outside Federal Reserve Banks and the U.S. Treasury, deposits of depository financial institutions at Federal Reserve Banks, and an adjustment for the effects of changes in statutory reserve requirements on the quantity of base money held by depositories. This series is a spliced chain index; see Anderson and Rasche (1996a,b, 2001, 2003).

Adjusted Reserves: The sum of vault cash and Federal Reserve Bank deposits held by depository institutions and an adjustment for the effects of changes in statutory reserve requirements on the quantity of base money held by depositories. This spliced chain index is numerically larger than the Board of Governors' measure, which excludes vault cash not used to satisfy statutory reserve requirements and Federal Reserve Bank deposits used to satisfy required clearing balance contracts; see Anderson and Rasche (1996a, 2001, 2003).

Monetary Services Index: An index that measures the flow of monetary services received by households and firms from their holdings of liquid assets; see Anderson, Jones, and Nesmith (1997). Indexes are shown for the assets included in M2, with additional data at research.stlouisfed.org/msi/index.html.

Note: M1, M2, M3, Bank Credit, and Domestic Nonfinancial Debt are constructed and published by the Board of Governors of the Federal Reserve System. For details, see *Statistical Supplement to the Federal Reserve Bulletin*, tables 1.21 and 1.26. MZM, Adjusted Monetary Base, Adjusted Reserves, and Monetary Services Index are constructed and published by the Research Division of the Federal Reserve Bank of St. Louis.

Notes

Page 3: Readers are cautioned that, since early 1994, the level and growth of M1 have been depressed by retail sweep programs that reclassify transactions deposits (demand deposits and other checkable deposits) as savings deposits overnight, thereby reducing banks' required reserves; see Anderson and Rasche (2001) and research.stlouisfed.org/aggreg/swdata.html. **Primary Credit Rate**, **Discount Rate,** and **Intended Federal Funds Rate** shown in the chart **Reserve Market Rates** are plotted as of the date of the change, while the **Effective Federal Funds Rate** is plotted as of the end of the month. Interest rates in the table are monthly averages from the Board of Governors H.15 Statistical Release. The **Treasury Yield Curve** and **Real Treasury Yield Curve** show constant maturity yields calculated by the U.S. Treasury for securities 5, 7, 10, and 20 years to maturity. **Inflation-Indexed Treasury Yield Spreads** are a measure of inflation compensation at those horizons, and it is simply the nominal constant maturity yield less the real constant maturity yield. Daily data and descriptions are available at research.stlouisfed.org/fred2/. See also *Statistical Supplement to the Federal Reserve Bulletin*, table 1.35. The 30-year constant maturity series was discontinued by the Treasury as of February 18, 2002.

Page 5: **Checkable Deposits** is the sum of demand and other checkable deposits. **Savings Deposits** is the sum of money market deposit accounts and passbook and statement savings. **Time Deposits** have a minimum initial maturity of 7 days. **Large Time Deposits** are deposits of $100,000 or more. **Retail** and **Institutional Money Market Mutual Funds** are as included in M2 and the non-M2 component of M3, respectively.

Page 7: **Excess Reserves plus RCB (Required Clearing Balance) Contracts** equals the amount of deposits at Federal Reserve Banks held by depository institutions but not applied to satisfy statutory reserve requirements. (This measure excludes the vault cash held by depository institutions that is not applied to satisfy statutory reserve requirements.) **Consumer Credit** includes most short- and intermediate-term credit extended to individuals. See *Statistical Supplement to the Federal Reserve Bulletin*, table 1.55.

Page 8: **Inflation Expectations** measures include the quarterly Federal Reserve Bank of Philadelphia *Survey of Professional Forecasters*, the monthly University of Michigan Survey Research Center's *Surveys of Consumers*, and the annual Federal Open Market Committee (FOMC) range as reported to the Congress in the February testimony that accompanies the Monetary Policy Report to the Congress. Beginning February 2000, the FOMC began using the personal consumption expenditures (PCE) price index to report its inflation range; the FOMC then switched to the PCE chain-type price index excluding food and energy prices ("core") beginning July 2004. Accordingly, neither are shown on this graph. **CPI Inflation** is the percentage change from a year ago in the consumer price index for all urban consumers. **Real Interest Rates** are ex post measures, equal to nominal rates minus year-over-year CPI inflation.

Page 9: **FOMC Intended Federal Funds Rate** is the level (or midpoint of the range, if applicable) of the federal funds rate that the staff of the FOMC expected to be consistent with the desired degree of pressure on bank reserve positions. In recent years, the FOMC has set an explicit target for the federal funds rate.

Page 10: **Federal Funds Rate and Inflation Targets** shows the observed federal funds rate, quarterly, and the level of the funds rate implied by applying Taylor's (1993) equation

$$f_t^* = 2.5 + \pi_{t-1} + (\pi_{t-1} - \pi^*)/2 + 100 \times (y_{t-1} - y_{t-1}^P)/2$$

to five alternative target inflation rates, $\pi^* = 0, 1, 2, 3, 4$ percent, where f_t^* is the implied federal funds rate, π_{t-1} is the previous period's inflation rate (PCE) measured on a year-over-year basis, y_{t-1} is the log of the previous period's level of real gross domestic product (GDP), and y_{t-1}^P is the log of an estimate of the previous period's level of potential output. **Potential Real GDP** is as estimated by the Congressional Budget Office.

Monetary Base Growth and Inflation Targets shows the quarterly growth of the adjusted monetary base (modified to include an estimate of the effect of sweep programs) implied by applying McCallum's (1988, 1993) equation

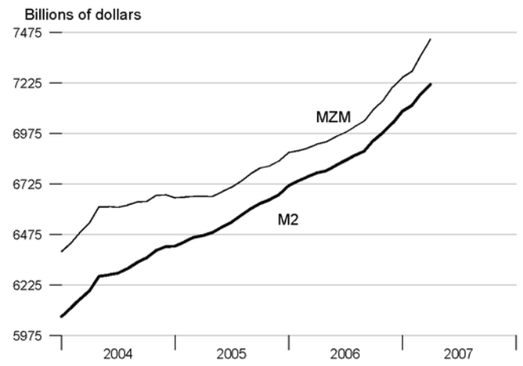
$$\Delta MB_t^* = \pi^* + (\text{10-year moving average growth of real GDP}) - (\text{4-year moving average of base velocity growth})$$

to five alternative target inflation rates, $\pi^* = 0, 1, 2, 3, 4$ percent, where ΔMB_t^* is the implied growth rate of the adjusted monetary base. The 10-year moving average growth of real GDP for a quarter t is calculated as the average quarterly growth during the previous 40 quarters, at an annual rate, by the formula $((y_t - y_{t-40})/40) \times 400$, where y_t is the log of real GDP. The 4-year moving average of base velocity growth is calculated similarly. To adjust the monetary base for the effect of retail-deposit sweep programs, we add to the monetary base an amount equal to 10 percent of the total amount swept, as estimated by the Federal Reserve Board staff. These estimates are imprecise, at best. Sweep program data are found at research.stlouisfed.org/aggreg/swdata.html.

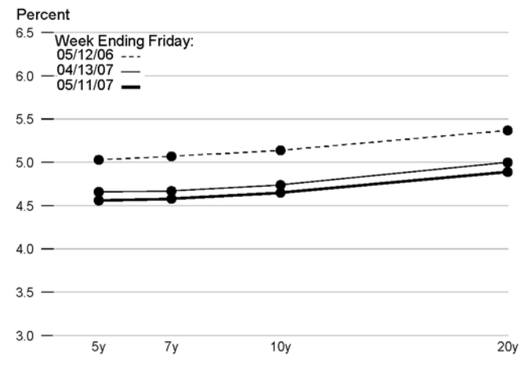
		M1	MZM	M2	M3*
Percent change at an annual rate					
	2002	4.91	12.76	7.47	7.98
	2003	6.46	7.42	6.94	6.40
	2004	5.57	3.97	4.62	5.09
	2005	2.03	2.23	4.34	5.97
	2006	0.20	4.06	4.73	4.95
2005	1	-0.59	0.04	3.08	5.63
	2	0.05	0.70	3.07	5.98
	3	1.96	4.14	4.98	7.81
	4	-0.25	4.66	4.88	9.29
2006	1	1.36	4.20	5.39	
	2	0.53	2.74	3.34	
	3	-3.49	4.05	4.09	
	4	-0.02	7.90	6.89	
2007	1	-0.62	8.48	8.03	
2005	Apr	-11.87	0.30	1.66	6.97
	May	8.35	-0.24	2.82	5.50
	Jun	11.75	4.19	5.14	7.48
	Jul	-10.66	3.85	4.28	4.58
	Aug	8.66	5.43	6.31	12.56
	Sep	0.83	6.57	6.08	10.48
	Oct	-4.00	5.04	4.56	9.79
	Nov	0.95	1.96	3.56	5.57
	Dec	-2.38	4.19	4.46	8.99
2006	Jan	4.95	7.38	7.97	10.49
	Feb	-3.20	1.59	4.26	6.55
	Mar	7.59	2.06	3.44	
	Apr	-3.19	3.48	3.52	
	May	6.27	2.04	1.91	
	Jun	-10.10	4.42	4.51	
	Jul	-3.85	3.47	4.21	
	Aug	0.36	5.11	4.62	
	Sep	-6.65	4.80	3.88	
	Oct	4.78	10.01	9.18	
	Nov	1.34	7.51	6.99	
	Dec	-4.15	10.83	7.77	
2007	Jan	4.90	7.95	10.05	
	Feb	-10.35	4.97	4.91	
	Mar	7.48	12.88	9.30	
	Apr	7.44	13.09	8.10	

*See table of contents for changes to the series.

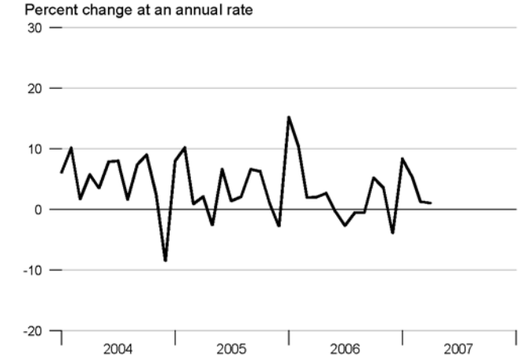
M2 and MZM



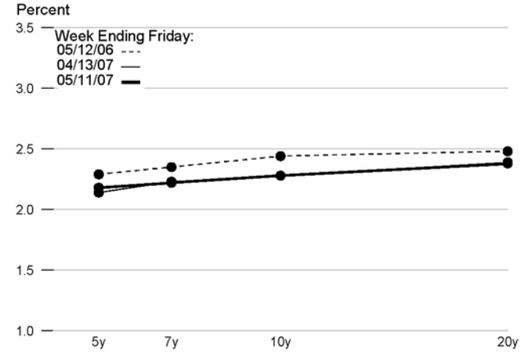
Treasury Yield Curve



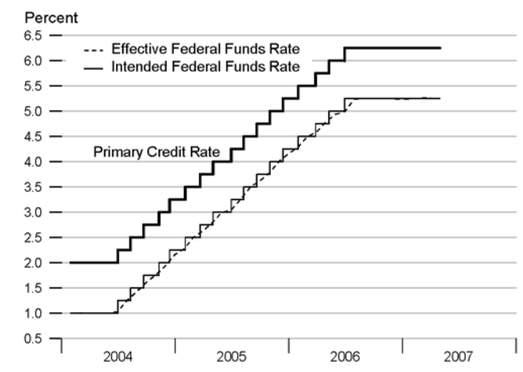
Adjusted Monetary Base



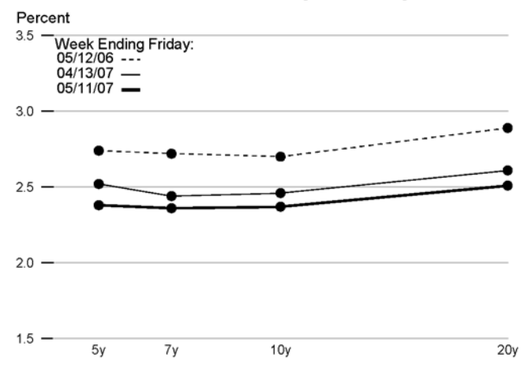
Real Treasury Yield Curve



Reserve Market Rates

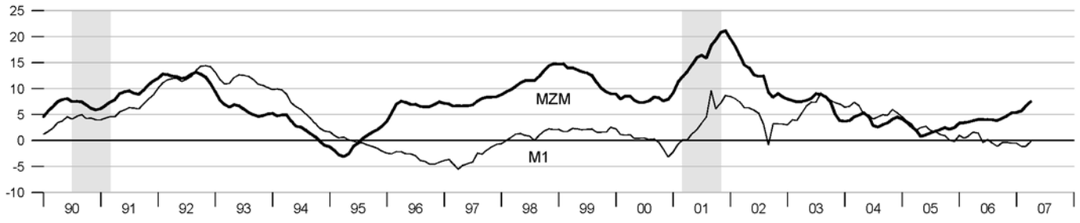


Inflation-Indexed Treasury Yield Spreads



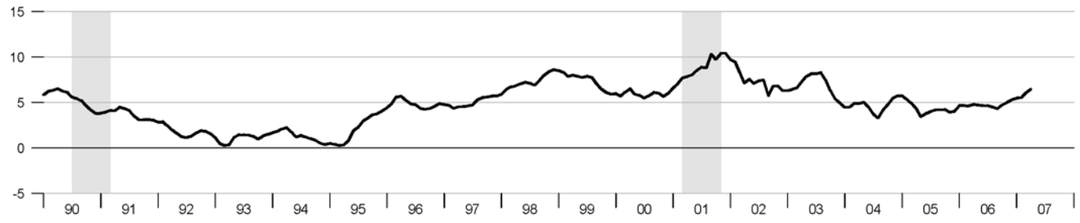
MZM and M1

Percent change from year ago



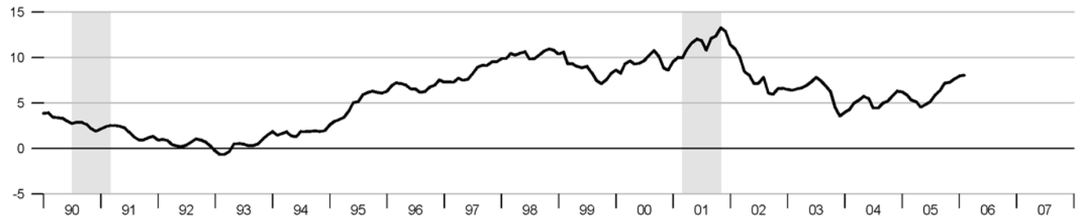
M2

Percent change from year ago



M3*

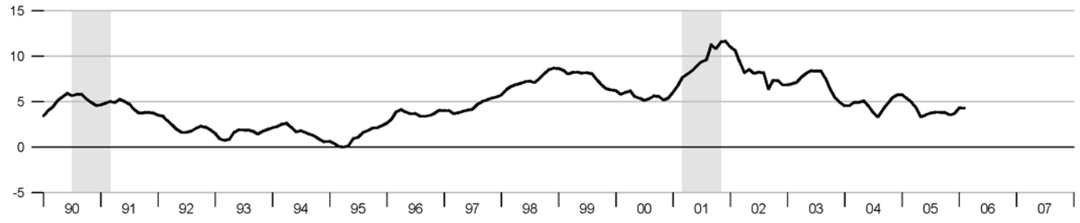
Percent change from year ago



*See table of contents for changes to the series.

Monetary Services Index - M2**

Percent change from year ago



**We will not update the MSI series until we revise the code to accomodate the discontinuation of M3.

updated through
05/15/07

		Federal Funds	Primary Credit Rate	Prime Rate	3-mo CDs	Treasury Yields 3-mo	Treasury Yields 3-yr	Treasury Yields 10-yr	Corporate Aaa Bonds	Municipal Aaa Bonds	Conventional Mortgage
2002		1.67		4.68	1.73	1.63	3.10	4.61	6.49	4.87	6.54
2003		1.13	2.11	4.12	1.15	1.03	2.11	4.02	5.67	4.52	5.82
2004		1.35	2.34	4.34	1.56	1.40	2.78	4.27	5.63	4.50	5.84
2005		3.21	4.19	6.19	3.51	3.21	3.93	4.29	5.23	4.28	5.86
2006		4.96	5.96	7.96	5.15	4.85	4.77	4.79	5.59	4.15	6.41
2005	1	2.47	3.44	5.44	2.78	2.58	3.61	4.30	5.32	4.23	5.76
	2	2.94	3.91	5.91	3.23	2.93	3.73	4.16	5.15	4.15	5.72
	3	3.46	4.43	6.43	3.74	3.43	3.98	4.21	5.09	4.28	5.76
	4	3.98	4.97	6.97	4.30	3.91	4.37	4.49	5.38	4.45	6.22
2006	1	4.46	5.43	7.43	4.72	4.50	4.58	4.57	5.39	4.29	6.24
	2	4.91	5.90	7.90	5.18	4.83	4.98	5.07	5.89	4.36	6.60
	3	5.25	6.25	8.25	5.39	5.03	4.87	4.90	5.68	4.13	6.56
	4	5.25	6.25	8.25	5.32	5.03	4.65	4.63	5.39	3.82	6.24
2007	1	5.26	6.25	8.25	5.31	5.12	4.68	4.68	5.36	3.91	6.22
2005	Apr	2.79	3.75	5.75	3.09	2.84	3.79	4.34	5.33	4.18	5.86
	May	3.00	3.98	5.98	3.22	2.90	3.72	4.14	5.15	4.20	5.72
	Jun	3.04	4.01	6.01	3.38	3.04	3.69	4.00	4.96	4.08	5.58
	Jul	3.26	4.25	6.25	3.57	3.29	3.91	4.18	5.06	4.18	5.70
	Aug	3.50	4.44	6.44	3.77	3.52	4.08	4.26	5.09	4.33	5.82
	Sep	3.62	4.59	6.59	3.87	3.49	3.96	4.20	5.13	4.34	5.77
	Oct	3.78	4.75	6.75	4.13	3.79	4.29	4.46	5.35	4.49	6.07
	Nov	4.00	5.00	7.00	4.31	3.97	4.43	4.54	5.42	4.42	6.33
	Dec	4.16	5.15	7.15	4.45	3.97	4.39	4.47	5.37	4.46	6.27
2006	Jan	4.29	5.26	7.26	4.56	4.34	4.35	4.42	5.29	4.27	6.15
	Feb	4.49	5.50	7.50	4.72	4.54	4.64	4.57	5.35	4.33	6.25
	Mar	4.59	5.53	7.53	4.88	4.63	4.74	4.72	5.53	4.29	6.32
	Apr	4.79	5.75	7.75	5.03	4.72	4.89	4.99	5.84	4.36	6.51
	May	4.94	5.93	7.93	5.15	4.84	4.97	5.11	5.95	4.38	6.60
	Jun	4.99	6.02	8.02	5.35	4.92	5.09	5.11	5.89	4.35	6.68
	Jul	5.24	6.25	8.25	5.46	5.08	5.07	5.09	5.85	4.41	6.76
	Aug	5.25	6.25	8.25	5.38	5.09	4.85	4.88	5.68	4.10	6.52
	Sep	5.25	6.25	8.25	5.34	4.93	4.69	4.72	5.51	3.87	6.40
	Oct	5.25	6.25	8.25	5.33	5.05	4.72	4.73	5.51	3.91	6.36
	Nov	5.25	6.25	8.25	5.32	5.07	4.64	4.60	5.33	3.81	6.24
	Dec	5.24	6.25	8.25	5.32	4.97	4.58	4.56	5.32	3.76	6.14
2007	Jan	5.25	6.25	8.25	5.32	5.11	4.79	4.76	5.40	3.89	6.22
	Feb	5.26	6.25	8.25	5.31	5.16	4.75	4.72	5.39	3.95	6.29
	Mar	5.26	6.25	8.25	5.30	5.08	4.51	4.56	5.30	3.88	6.16
	Apr	5.25	6.25	8.25	5.31	5.01	4.60	4.69	5.47	3.99	6.18

Note: All values are given as a percent at an annual rate.

		Money Stock				Bank	Adjusted		
		M1	MZM	M2	M3*	Credit	Monetary Base	Reserves	MSI M2**
	2002	1196.222	5888.562	5599.639	8259.055	5596.904	697.092	88.159	294.080
	2003	1273.495	6325.506	5988.030	8787.321	6122.676	740.929	93.312	315.192
	2004	1344.426	6576.553	6264.922	9234.718	6598.926	776.710	96.069	329.873
	2005	1371.729	6723.448	6537.063	9786.477	7240.448	806.315	96.245	343.539
	2006	1374.465	6996.536	6846.139	10270.74	7952.748	835.025	94.886	
2005	1	1368.468	6660.610	6439.542	9528.052	6989.292	798.248	96.657	339.356
	2	1368.622	6672.231	6488.980	9670.405	7160.509	802.653	96.085	341.280
	3	1375.340	6741.248	6569.822	9859.294	7351.563	808.407	96.305	344.766
	4	1374.486	6819.702	6649.906	10088.16	7460.426	815.954	95.931	348.753
2006	1	1379.146	6891.339	6739.564		7641.179	830.498	96.443	
	2	1380.960	6938.626	6795.913		7887.783	836.374	95.057	
	3	1368.907	7008.902	6865.373		8028.464	834.590	94.793	
	4	1368.845	7147.275	6983.705		8253.567	838.639	93.251	
2007	1	1366.707	7298.811	7123.864		8392.486	846.341	94.281	
2005	Apr	1357.859	6665.383	6469.583	9620.909	7106.470	802.318	97.427	340.663
	May	1367.312	6664.029	6484.782	9665.013	7159.232	800.604	94.597	340.941
	Jun	1380.695	6687.281	6512.575	9725.292	7215.826	805.036	96.232	342.235
	Jul	1368.434	6708.719	6535.816	9762.435	7281.718	805.982	95.547	343.275
	Aug	1378.315	6739.076	6570.185	9864.629	7362.243	807.394	95.652	344.739
	Sep	1379.271	6775.950	6603.466	9950.818	7410.728	811.844	97.715	346.285
	Oct	1374.673	6804.385	6628.575	10031.96	7429.714	816.118	97.365	347.590
	Nov	1375.759	6815.472	6648.219	10078.49	7450.008	816.800	96.884	348.603
	Dec	1373.025	6839.248	6672.925	10154.03	7501.556	814.944	93.545	350.067
2006	Jan	1378.694	6881.317	6717.223	10242.79	7558.540	825.252	96.865	353.032
	Feb	1375.021	6890.449	6741.058	10298.68	7647.698	832.441	96.893	353.943
	Mar	1383.722	6902.252	6760.410		7717.298	833.801	95.571	
	Apr	1380.041	6922.253	6780.219		7807.820	835.231	95.486	
	May	1387.256	6934.041	6790.998		7923.878	837.093	94.394	
	Jun	1375.582	6959.585	6816.522		7931.651	836.797	95.290	
	Jul	1371.171	6979.730	6840.415		7982.554	834.951	94.852	
	Aug	1371.578	7009.465	6866.757		8041.622	834.581	94.643	
	Sep	1363.973	7037.511	6888.946		8061.216	834.238	94.885	
	Oct	1369.404	7096.210	6941.666		8199.863	837.861	93.919	
	Nov	1370.935	7140.598	6982.118		8250.666	840.381	94.754	
	Dec	1366.197	7205.016	7027.330		8310.173	837.674	91.079	
2007	Jan	1371.770	7252.744	7086.163		8346.655	843.498	94.247	
	Feb	1359.934	7282.766	7115.147		8422.966	847.315	94.610	
	Mar	1368.416	7360.922	7170.282		8407.837	848.210	93.985	
	Apr	1376.900	7441.245	7218.666		8462.619	848.959	93.825	

Note: All values are given in billions of dollars. *See table of contents for changes to the series.

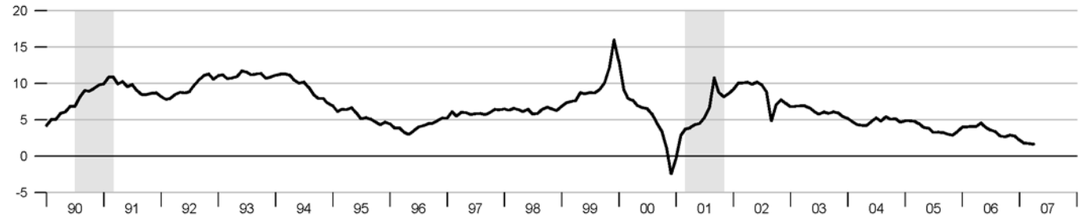
**We will not update the MSI series until we revise the code to accommodate the discontinuation of M3.

updated through
05/15/07

Monetary Trends

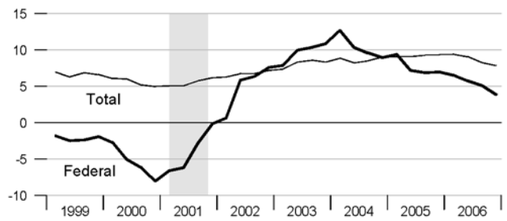
Adjusted Monetary Base

Percent change from year ago



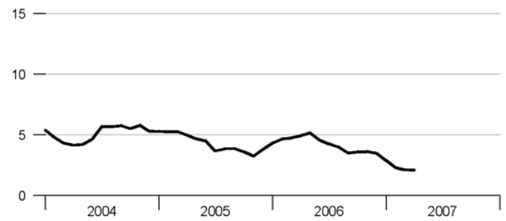
Domestic Nonfinancial Debt

Percent change from year ago



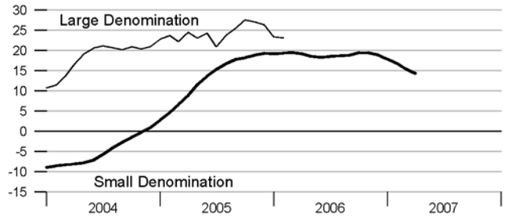
Currency Held by the Nonbank Public

Percent change from year ago



Time Deposits*

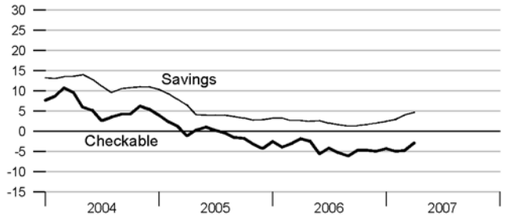
Percent change from year ago



*See table of contents for changes to the series.

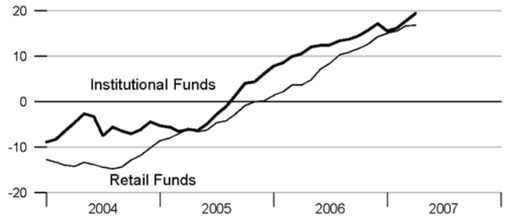
Checkable and Savings Deposits

Percent change from year ago



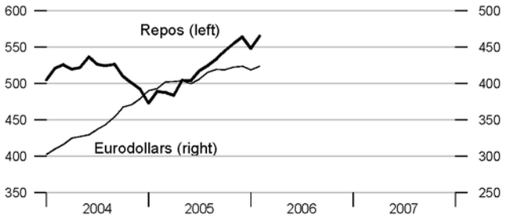
Money Market Mutual Fund Shares

Percent change from year ago



Repurchase Agreements and Eurodollars*

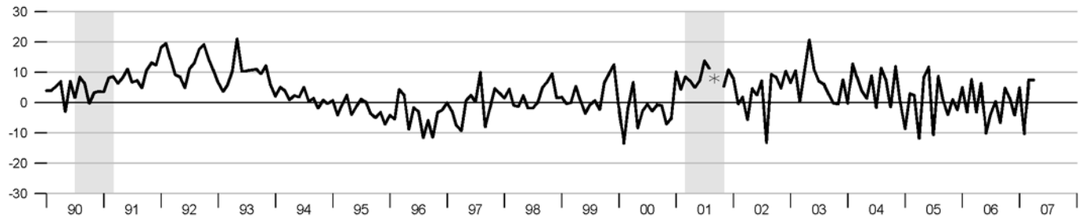
Billions of dollars



*See table of contents for changes to these series.

M1

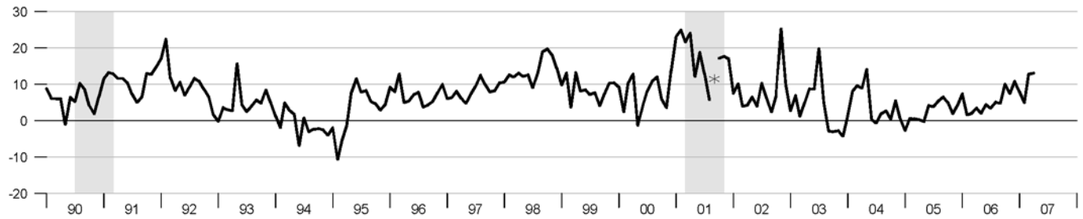
Percent change at an annual rate



*Actual values for September and October 2001 are 55.87 and -38.35 percent rate, respectively.

MZM

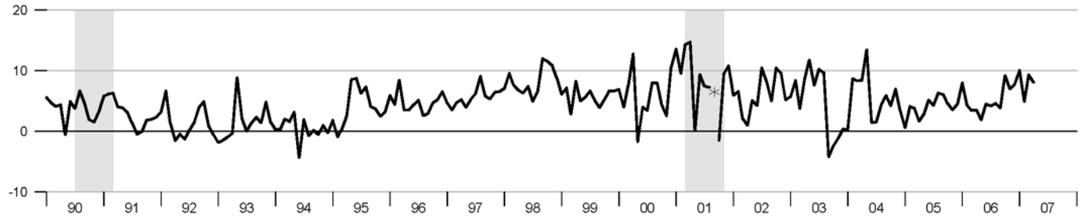
Percent change at an annual rate



*Actual value for September 2001 is 39.41 percent rate.

M2

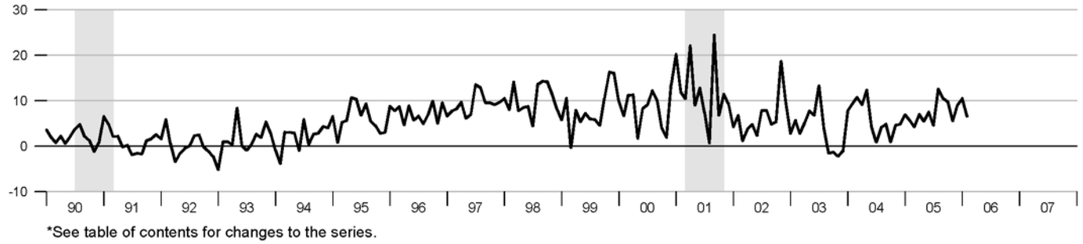
Percent change at an annual rate



*Actual value for September 2001 is 24.90 percent rate.

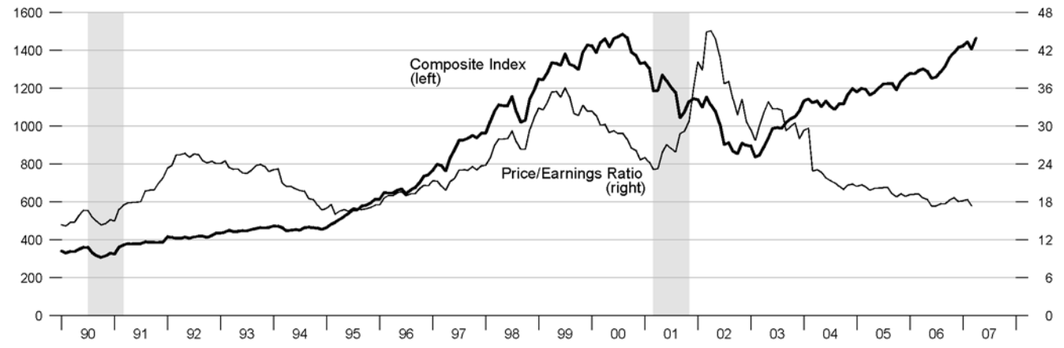
M3*

Percent change at an annual rate



*See table of contents for changes to the series.

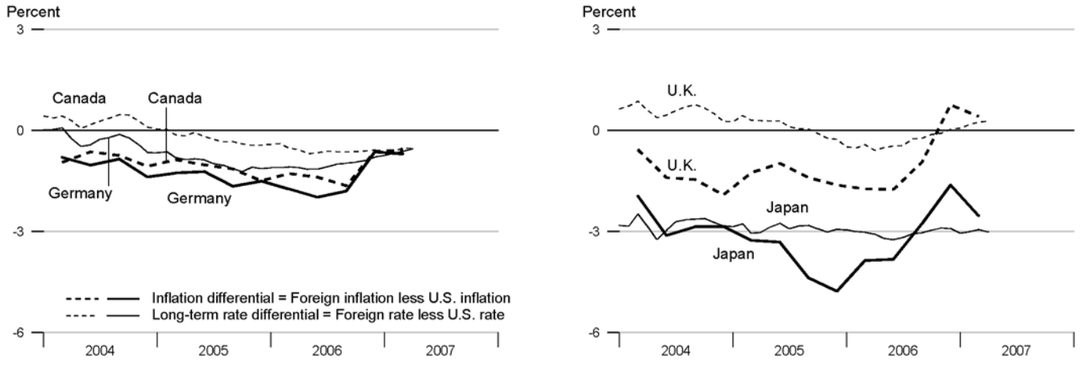
Standard & Poor's 500



Recent Inflation and Long-Term Interest Rates

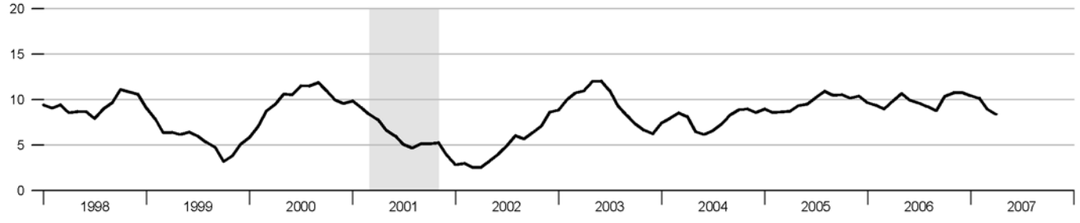
	Consumer Price Inflation Rates (Percent change from year ago)				Long-Term Government Bond Rates (Percent)			
	2006Q2	2006Q3	2006Q4	2007Q1	Jan07	Feb07	Mar07	Apr07
United States	3.99	3.36	1.95	2.43	4.76	4.72	4.56	4.69
Canada	2.60	1.72	1.32	1.83	4.12	4.09	4.04	4.16
France	1.92	1.68	1.34	1.16	4.07	4.10	4.00	.
Germany	2.01	1.56	1.31	1.74	4.02	4.05	3.94	4.15
Italy	2.23	2.17	1.82	1.73	4.26	4.28	4.18	4.37
Japan	0.17	0.60	0.33	-0.10	1.71	1.72	1.62	1.68
United Kingdom	2.24	2.43	2.71	2.84	4.83	4.90	4.81	4.97

Inflation and Long-Term Interest Rate Differentials



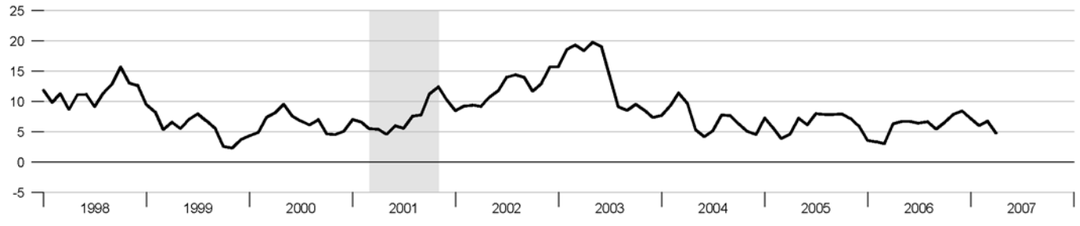
Bank Credit

Percent change from year ago



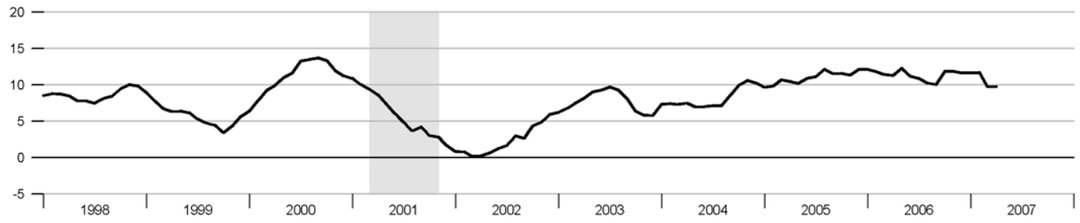
Investment Securities in Bank Credit at Commercial Banks

Percent change from year ago



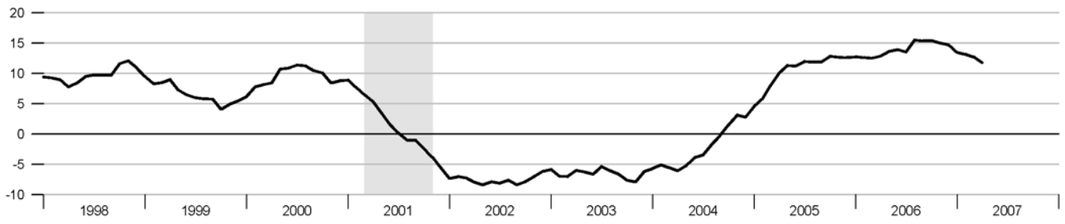
Total Loans and Leases in Bank Credit at Commercial Banks

Percent change from year ago



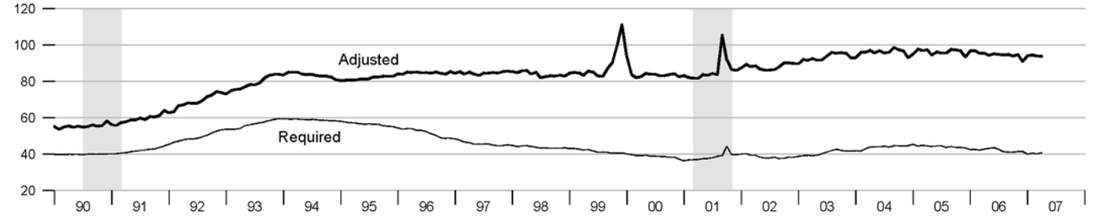
Commercial and Industrial Loans at Commercial Banks

Percent change from year ago



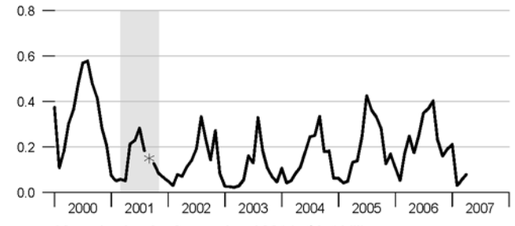
Adjusted and Required Reserves

Billions of dollars



Total Borrowings, nsa

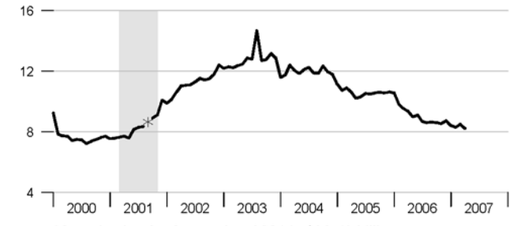
Billions of dollars



*Actual value for September 2001 is $3.4 billion.

Excess Reserves plus RCB Contracts

Billions of dollars



*Actual value for September 2001 is $26.43 billion.

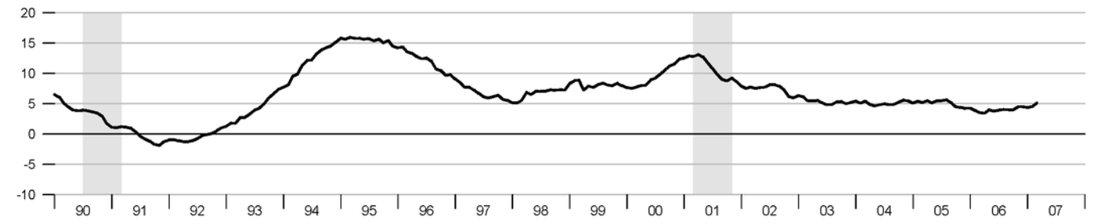
Nonfinancial Commercial Paper

Percent change from year ago

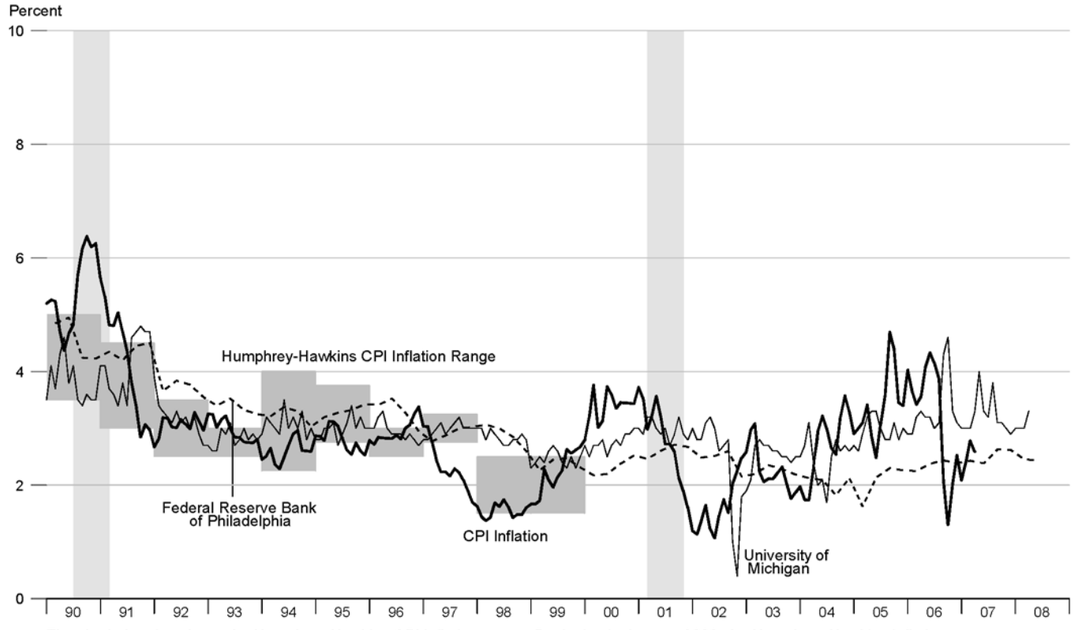
As of April 10, 2006, the Federal Reserve Board made major changes to its commercial paper calculations.
For more information, please refer to http://www.federalreserve.gov/releases/cp/about.htm.

Consumer Credit

Percent change from year ago



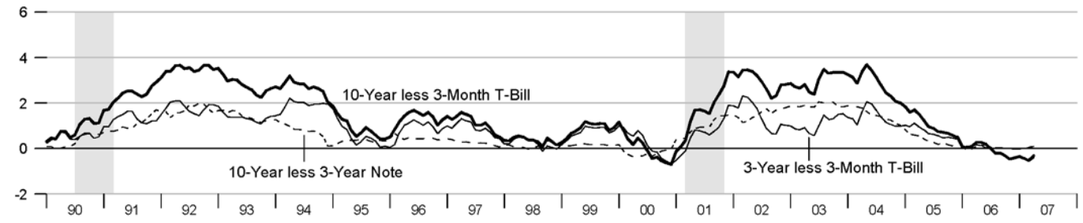
Inflation and 1-Year-Ahead Inflation Expectations



The shaded region shows the Humphrey-Hawkins CPI inflation range. Beginning in January 2000, the Humphrey-Hawkins inflation range was reported using the PCE price index and therefore is not shown on this graph. See notes on page 19.

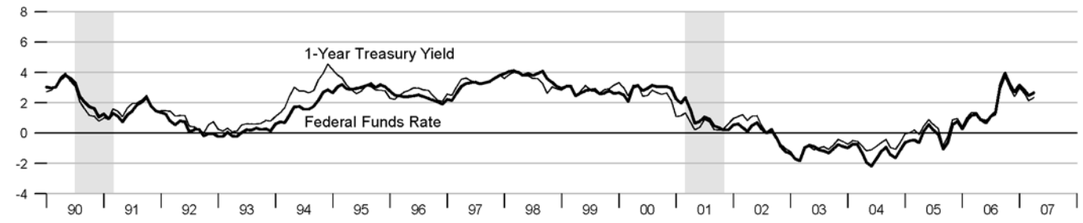
Treasury Security Yield Spreads

Yield to maturity



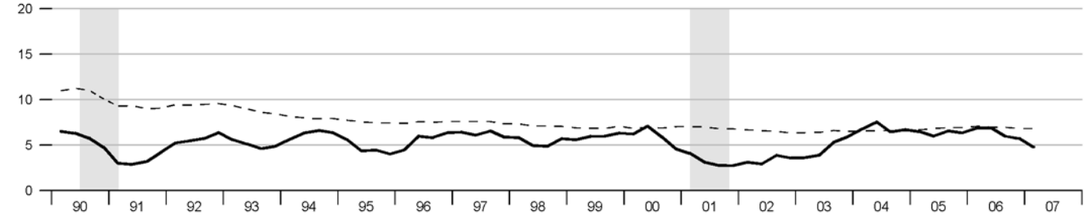
Real Interest Rates

Percent, Real rate = Nominal rate less year-over-year CPI inflation



Gross Domestic Product

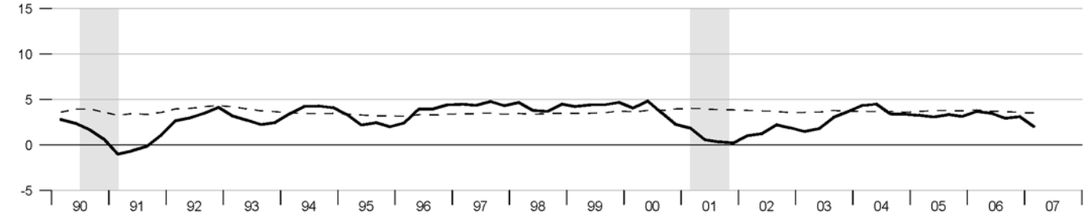
Percent change from year ago



Dashed lines indicate 10-year moving averages.

Real Gross Domestic Product

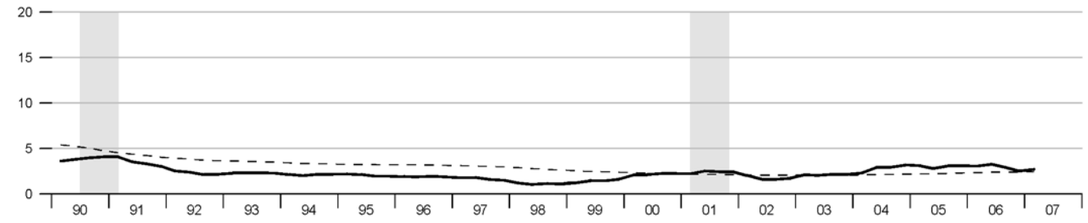
Percent change from year ago



Dashed lines indicate 10-year moving averages.

Gross Domestic Product Price Index

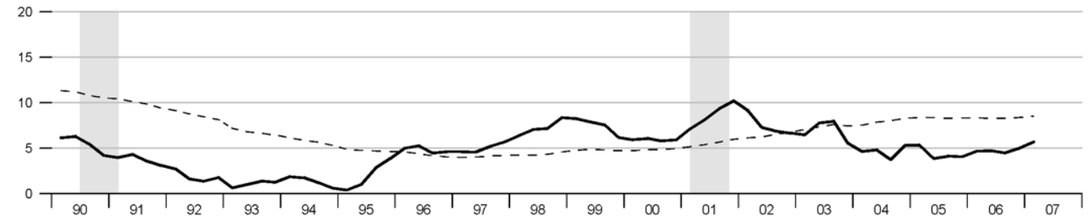
Percent change from year ago



Dashed lines indicate 10-year moving averages.

M2

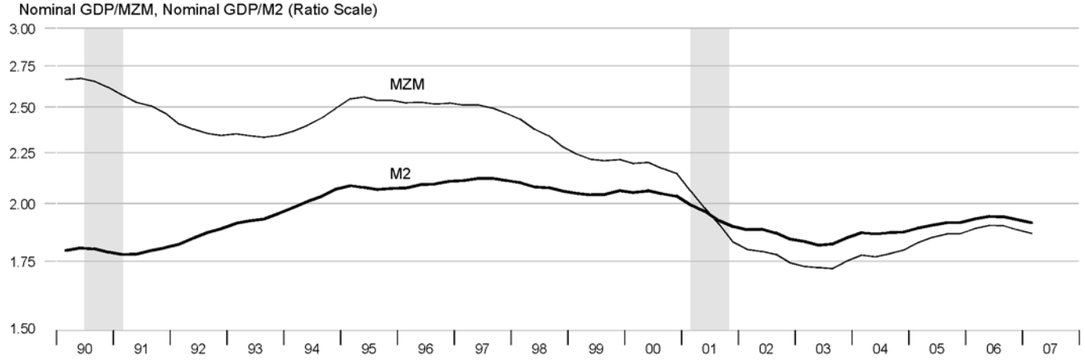
Percent change from year ago



Dashed lines indicate 10-year moving averages.

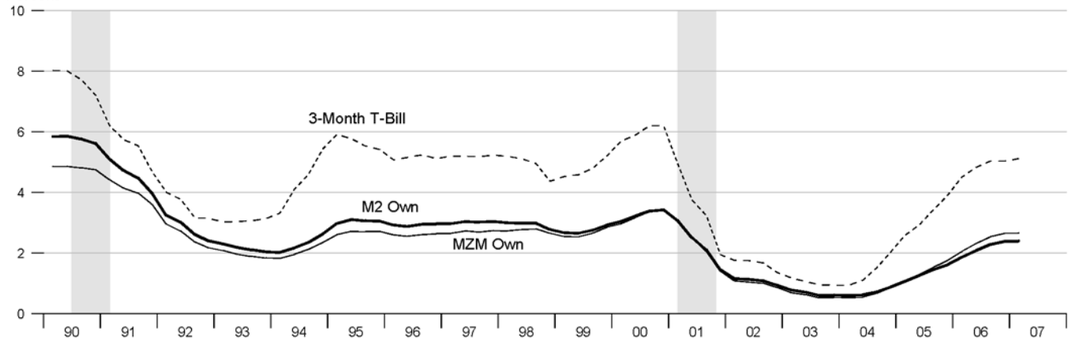
Velocity

Nominal GDP/MZM, Nominal GDP/M2 (Ratio Scale)



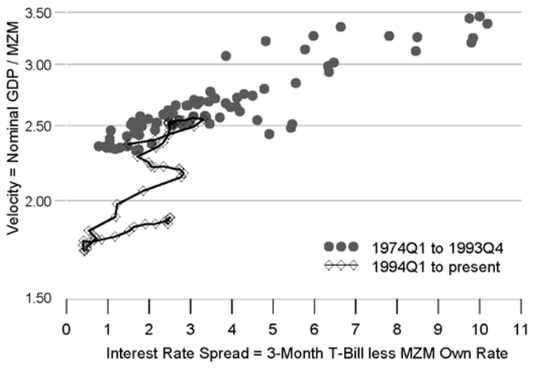
Interest Rates

Percent



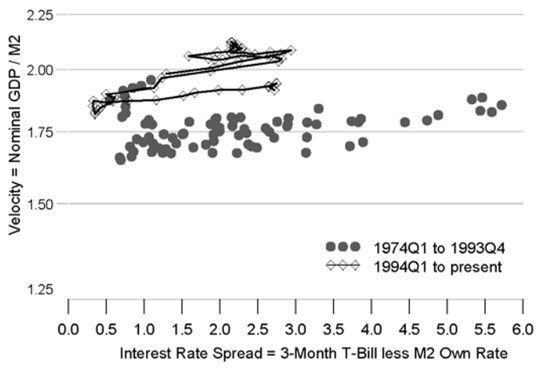
MZM Velocity and Interest Rate Spread

Ratio Scale



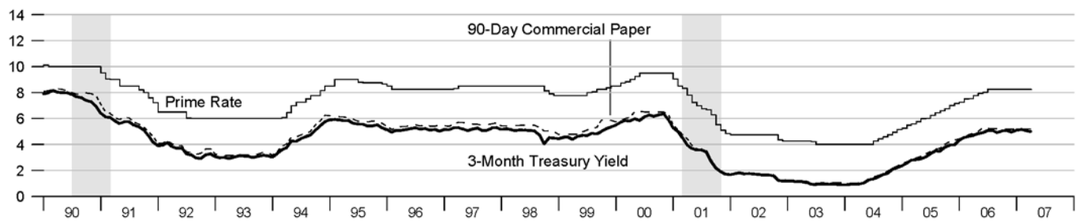
M2 Velocity and Interest Rate Spread

Ratio Scale



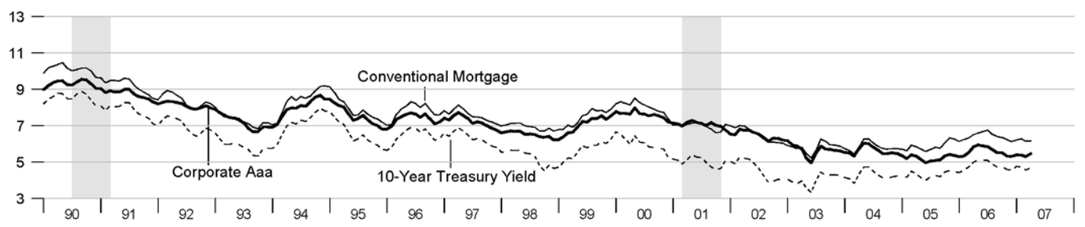
Short-Term Interest Rates

Percent



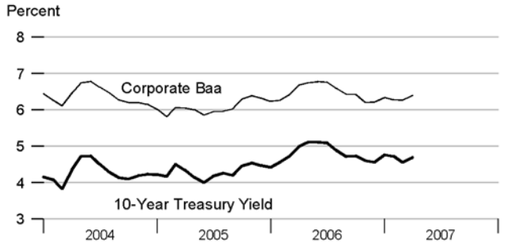
Long-Term Interest Rates

Percent



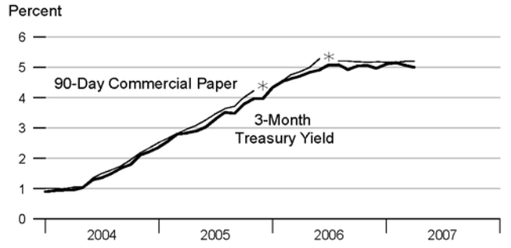
Long-Term Interest Rates

Percent



Short-Term Interest Rates

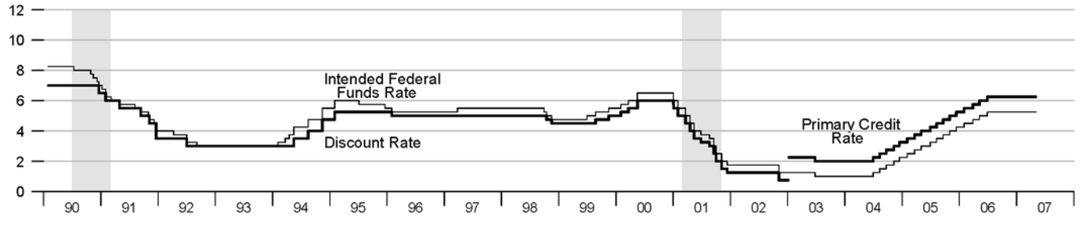
Percent



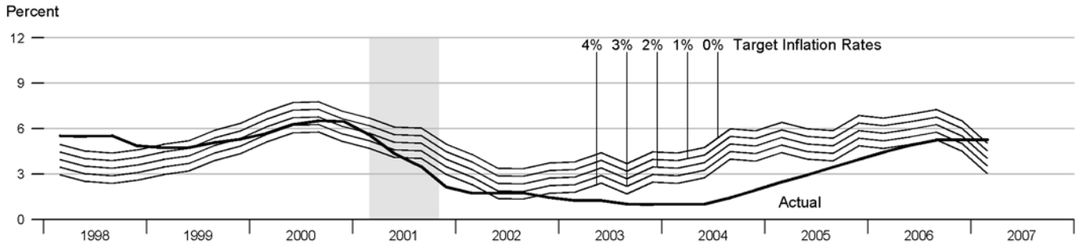
*90-Day Commercial Paper data are not available for December 2005, January 2006, and July 2006.

FOMC Intended Federal Funds Rate, Discount Rate, and Primary Credit Rate

Percent



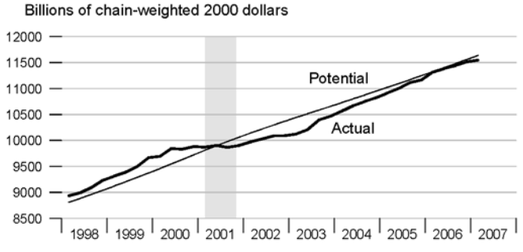
Federal Funds Rate and Inflation Targets



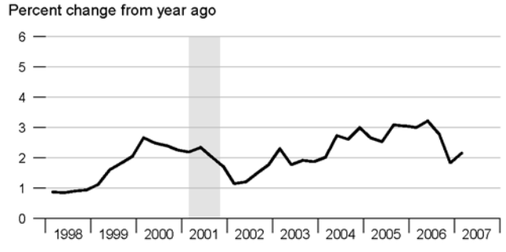
Calculated federal funds rate is based on Taylor's rule. See notes on page 19.

Components of Taylor's Rule

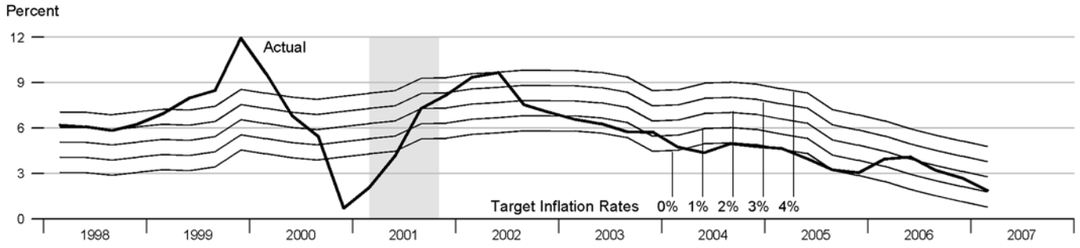
Actual and Potential Real GDP



PCE Inflation



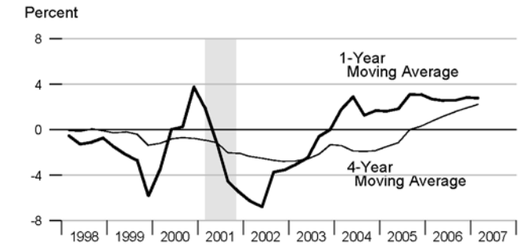
Monetary Base Growth* and Inflation Targets



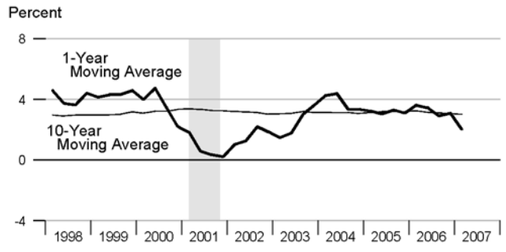
*Modified for the effects of sweeps programs on reserve demand.
Calculated base growth is based on McCallum's rule. Actual base growth is percent change from year ago. See notes on page 19.

Components of McCallum's Rule

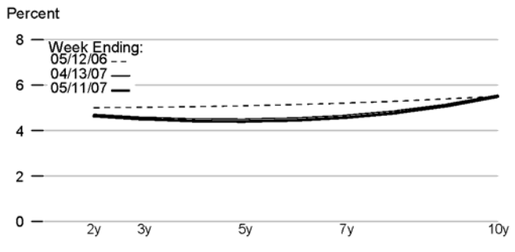
Monetary Base Velocity Growth



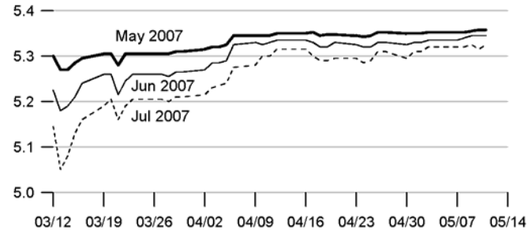
Real Output Growth



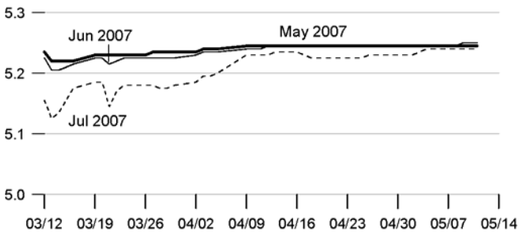
Implied One-Year Forward Rates



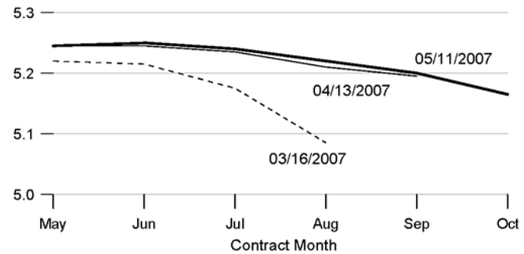
Rates on 3-Month Eurodollar Futures



Rates on Selected Federal Funds Futures Contracts

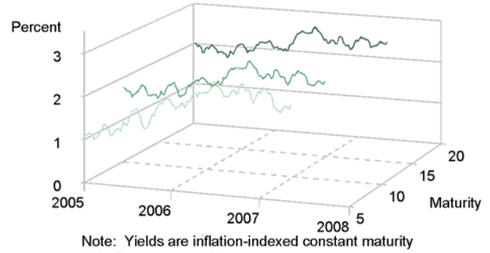


Rates on Federal Funds Futures on Selected Dates



Inflation-Indexed Treasury Securities

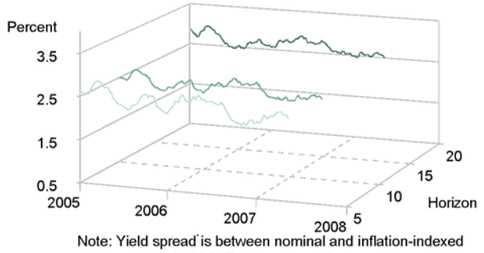
Weekly data



Note: Yields are inflation-indexed constant maturity U.S. Treasury securities

Inflation-Indexed Treasury Yield Spreads

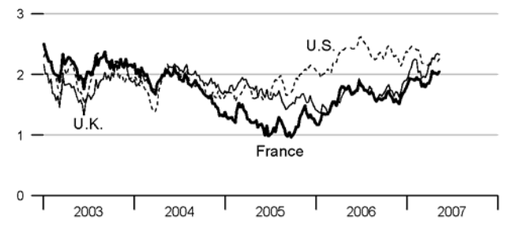
Weekly data



Note: Yield spread is between nominal and inflation-indexed constant maturity U.S. Treasury securities.

Inflation-Indexed 10-Year Government Notes

Percent, weekly data



Inflation-Indexed 10-Year Government Yield Spreads

Percent, weekly data