Economic Advisory Panel Meeting

October 12, 2007

Overview of the U.S. Economy

Discussion and Charts

Prepared by the staff of the
Macroeconomic and Monetary Studies Function

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Overview of Recent U.S. Economic Performance

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At the time of our last meeting in early May, it appeared that the economy was regaining some forward momentum after roughly a year of below potential growth. The slowing of economic activity was heavily concentrated in housing and, to a lesser extent, auto production by domestic nameplates. The decline in housing starts and sales had turned out to be more severe than we anticipated, while the credit crunch centered in the nonprime mortgage market had begun to emerge. Consumer spending was somewhat sluggish in 2007Q2, but we attributed that to the steep run up of energy prices during that period, similar to what occurred in 2005Q4. Despite these significant areas of weakness, employment growth was well maintained, as was growth of nominal income. The service sector of the economy continued to expand at a healthy pace. Business investment in equipment and software was strengthening while business investment in new structures was booming. Export growth continued to be strong, boosted by relatively strong growth among our major trading partners. The consensus forecast anticipated a return to potential growth by the end of 2007 [**Figure 2**]. At the same time, CPI inflation, which was quite elevated at the time due to soaring energy prices, was expected to moderate substantially due to an anticipated leveling off of oil prices in combination with the modest output gap that had opened up over the previous year [**Figure 1**].

As of early September, there has been relatively little change in the consensus forecast for growth and inflation. Growth is somewhat lower in the very near term, reflecting the further weakening of residential investment. But while the point forecast is little changed, there is clearly a sense that the downside risk to that forecast has increased. Similarly, the consensus point forecast for overall CPI is essentially unchanged from May, with overall inflation expected to converge to the midpoint of the de facto “comfort zone.” However, in this case there is increased upside risk, likely stemming from the renewed upward pressure on oil prices and persistent rapid increases in food prices.

Inflation. Total inflation increased substantially in the first half of 2007, led by sharp increases in energy prices and faster increases in food prices. In recent months total inflation has moderated somewhat but still remains relatively high. Nonetheless, on a 12-month change basis, core PCE inflation has moderated considerably this year, declining to 1.8% as of August [**Figure 3**]. Nonfood, nonenergy goods prices continue to fall. Moreover, the rate of increase of prices of nonenergy services has also slowed, with the 12-month change in owners equivalent rent (OER) inflation down to 3% in August from 4¼% at the end of 2006. Tenant rent inflation has also slowed in recent months but the 12-month change remains elevated. The rate of increase of medical care prices as measured in the PCE deflator has slowed sharply in recent months after steep increases in 2007Q1. However, medical care services prices as measured in the CPI have increased at a faster rate in 2007 than in 2006.

Alternative measures of underlying inflation, including the FRBNY’s underlying inflation gauge (UIG) and smoothed inflation continue to exhibit behavior consistent with a slow moderation in inflation [**Figure 3**]. At shorter time horizons, expected inflation measures from financial markets remain contained [**Figure 4**]. However, at longer horizons, particularly 5 to 10 years, inflation expectations have moved higher over the past few months [**Figure 5**]. The increase in 4-5 year ahead inflation expectations does not appear to be related to expectations of easing of monetary policy [**Figure 6**].

Real activity. After increasing just 0.6% (annual rate) in 2007Q1, real GDP grew a robust 3.8% in the second quarter [**Figure 2**]. Forecasts for 2007Q3 growth of real GDP are in the 2.5% to 3.5% range, with the expectation that growth will moderate to around 2 1/2% in the fourth quarter.

Consumer spending increased at a relatively sluggish 1.4% (annual rate) in the second quarter as growth of real disposable income stalled in the face of sharply higher energy prices [**Figure 7**]. However, it has since rebounded and is expected to increase at a 3.5% to 4% annual rate in the third quarter. September sales of light-weight vehicles were well maintained at 16.2 million units, roughly the same pace as in August. As such, there is not as yet evidence of any spill over effects onto consumption from the steep decline in housing market activity and slowing of the rate of increase of home prices. That being said, it does not appear that the housing market correction has run its full course.

Growth of real business investment in equipment and software recovered somewhat in 2007Q2 after having been essentially unchanged over the prior four quarters [**Figure 8**]. Investment in information process equipment has been well maintained over this period, and is expected to continue to be so over the second half of 2007. However, investment in most other categories of equipment and software has fallen off sharply over the past year, likely due in large part to the severe contraction in housing construction.

In contrast to equipment and software, business investment in nonresidential structures has increased sharply since early 2006 and expected to continue to expand at a healthy pace over the forecast horizon [**Figure 9**]. The strength in this sector has been broad based, with particularly strong increases in construction of new office buildings, hotels and motels, and structures related to natural resource extraction and distribution.

The inventory correction, which restrained growth in 2006Q4 and 2007Q1, now appears to be largely over [**Figure 10**]. Inventory investment is expected to provide a modest contribution to growth in the second half of 2007 with the NIPA-based inventory-sales ratio resuming its downward trend.

An important reason that US economic growth has not slowed more in the face of the ongoing housing correction is that export growth has been sustained at a relatively high pace while import growth has slowed appreciably [**Figure 11**]. Growth among our major trading partners has remained strong in 2007. Indeed, relative to last May our current staff forecast for world growth has been increased somewhat. But the real surprise has been the sharp slowing of imports, particularly for industrial supplies and materials. It is unclear at this point whether this signals a structural shift in the US income elasticity of demand for imports or is a reflection of the nature of the current slowing of growth.

Government consumption and gross investment has also provided significant support to overall growth, particularly at the state and local level [**Figure 12**]. At the federal level, growth of spending has been quite erratic but appears to be slowing in 2007 over 2006. In contrast, growth of spending at the state and local level has strengthened this year, led by investment in structures and equipment.

The housing market. As mentioned above, the correction in housing construction and sales has turned out to be much deeper than anticipated. From a peak of nearly 1.75 million units (annual rate) in 2005Q3, single-family housing starts in August were down 43 percent to just under 1 million units [**Figure 13**]. Further declines in starts are expected as inventories of unsold new homes remain quite elevated relative to the current sales pace [**Figure 14**]. These relatively high inventories of unsold new homes will likely continue to exert downward pressure on real home prices [**Figure 15**]. In fact, one national home price index, the S&P/Case-Schiller index, is now registering year-over-year declines in home prices in nominal terms.

The weakness in home construction and sales is likely to get worse before it gets better as the credit crunch in the nonagency mortgage market—jumbo, alt-a, and subprime--has intensified over the past few months such that this market is essentially shut down. These three loan categories represented over half of the dollar volume of first mortgage originations in 2006. Moreover, even in cases where these types of loans are offered, the rates are considerably higher: the spread between 30-year fixed jumbo mortgages and similar conforming mortgages has widened substantially since July and is still about 75 basis points (before July this spread was less than 25 basis points).

The crisis stems from the fact that defaults and foreclosures on these loans, particularly those originated in 2005 and 2006, has turned out to be much worse than anticipated [**Figure 16**]. As a result, investors have lost faith in models used to predict credit losses. The unexpectedly large increases in defaults and foreclosures have been concentrated in two groups of states. In Florida, California, Arizona, and Nevada, there is evidence of significant overbuilding, likely the result of speculative behavior [**Figures 17, 18**]. Indeed, industry sources report that 1 of 4 delinquent mortgage loans in those four states is secured by unoccupied, investor-owned properties. In contrast, in Michigan, Indiana, and Ohio, serious delinquencies were already higher than the national average at the peak of the housing cycle and have since moved to quite high levels. In fact, delinquencies in Michigan are now as high as they were in Texas during the energy bust of the mid 1980s.

Labor market. Job growth, which had been fairly well maintained in the first part of the year (despite weak real GDP growth), has slowed over the past few months, although it remains solidly positive. For the three months through September, overall job growth averaged 97,000 per month and private employment growth was 74,000 per month, about 90,000 below the 2006 average pace and 35,000 below the 2007H1 average [**Figure 19**].[1] Employment has fallen in goods-producing industries, with construction finally showing a more sizable fall (after several months of surprisingly stability). Growth in service employment has slowed to a lesser extent, but a decline in temp services employment a potential worrisome sign for future employment. The weak August labor market report was one factor that had signaled greater downside risks to real activity, but the September report along with revisions to previous months indicate a reduction in those risks. Initial unemployment insurance claims have remained quite stable over the period, suggesting little increase in job destruction activity. The growth of hours also has moderated in recent months, although to a lesser extent than employment.

The unemployment rate was 4.7% in September, compared to its cyclical peak of 6.3% (June 2003) and its most recent low of 4.4% (March 2007) [**Figure 20**]. The labor force participation rate has fallen some from the late 2006 levels and appears to be stabilizing around 66%. Through this expansion, the labor force participation rate has been fairly flat and below the late 1990s levels; surprising given the low unemployment rate. This pattern suggests that participation may remain near current levels. The employment-population ratio also has fallen some since late 2006 and is now around 63%, which is about 1-1.5 percentage points below the late 1990s levels. Employment growth in the household survey has slowed recently, and its 12-month change now is slightly under that in the establishment survey, a change in the pattern that prevailed in 2006. If real growth recovers to near potential, the unemployment rate would likely remain near its current level over the medium term.

The 12-month change in average hourly earnings was 4.1%, near where it has been since mid-2006. After rising in 2006, compensation growth as measured by the Employment Cost Index also stabilized in the first half of 2007 at a level fairly close to that of average hourly earnings [**Figure 21**]. In contrast, compensation growth as measured in the productivity and costs release rose more sharply in the first half of the year; with productivity growth rather weak, the four-quarter change in unit labor costs rose to its highest level since 2000 [**Figure 22**]. Given the differences between average hourly earnings and compensation per hour, the rise in unit labor costs may reflect higher bonus and option realizations, which could indicate a lesser sustained

[1] The September labor market report stated that the preliminary estimate of benchmark revision of the March 2007 employment level is -297,000, or about -0.2 percent of total employment, which is within the normal realm of these revisions. Also, the benchmark revision in construction employment was relatively minor. This revision will not be incorporated into the employment data until the release of the January 2008 labor market report.

impact on labor cost pressures. However, this development will need to be monitored closely over coming months.

Productivity growth has remained low in the first half of 2007. After several years of very strong (in excess of 3 percent) numbers following the 2001 recession, productivity growth has averaged only 1.3 percent since mid-2004 and only 0.9 percent over the four quarters through 2007Q2 [**Figure 22**]. Moreover, productivity growth over 2004-2007Q2 was revised downward in the aftermath of the revisions to real GDP. Therefore, although this productivity slowdown may still partly reflect normal cyclical slowing as an expansion matures, there is more justification for the concern that the underlying trend in productivity growth has slowed relative to the strong pace observed from 1996 to 2004. In fact, many estimates of trend productivity growth and potential GDP growth were reduced after the revisions in the summer. The possibility of continued weak productivity growth is another source of downside risk to the outlook for real activity.

Surveys. Business surveys have declined following the financial market turbulence that began in late July, but they remain at levels typically consistent with modest-to-moderate growth in production, as typified by the ISM manufacturing and non-manufacturing indices [**Figure 23**]. Consumer confidence surveys also have slipped recently to the lower levels of their ranges that have prevailed over the past two years; nevertheless, they do not indicate yet a significant deterioration in consumer attitudes that could signal weaker spending [**Figure 24**]. Consequently, these indicators have yet to signal a significant downturn in economic activity.

Financial markets and monetary policy. The major developments in financial markets revolved around the effects of rising delinquencies of subprime mortgages on a variety of structured financial instruments and eventually on liquidity and credit markets beginning in July. These developments appeared to increase perceived downside risks of market participants, and affected a range of interest rates and financial market prices. They also caused disruptions in trading in a number of markets, including commercial paper and inter-bank lending markets.

In response to these events, the Fed engaged in a number of actions to support liquidity in the markets as well as raise confidence of wary traders. On August 17, the Fed lowered the discount rate 50 basis points and eased some terms of borrowing at the window. On that same day the FOMC issued a statement that the deterioration of financial conditions had increased the downside risks to real activity appreciably. Also during this period, the open market desk at times added extra reserves to combat early morning illiquidity in the inter-bank market (this sometimes produced a daily effective rate below the target).

Because of the concerns about the impact of tighter credit conditions, a weaker housing market, and slowing in the labor market (after the release of the August labor market report that indicated a slight downturn in payrolls) on real activity, the FOMC cut the target Fed funds rate 50 basis points to 4.75 percent at the September FOMC meeting. Another factor that contributed to the decision was the moderation of core inflation over the past six months, which put underlying inflation closer to the perceived implicit objective(s) of committee members and has signaled less upside inflation risks.

Even before the September FOMC meeting, the market-expected path of the Fed funds rate had moved down considerably as the financial market turbulence progressed. The current path has further cuts moved forward to late 2007 and early 2008 as well as having a larger cumulative reduction in the funds rate over the medium-term horizon [**Figure 25**] (the response of futures to the September labor market report that is not pictured in the figure suggests that rates in mid-2008 and 2009 may be about 10 basis points higher than shown in the figure). With the financial market developments raising risk and uncertainty, market participants also have become less certain about the path of monetary policy, so that interest rate uncertainty has risen sharply and remains above the low levels that had prevailed over most of the last two years [**Figure 26**].

There are a number of reasons why the expected Fed funds rate curve has fallen so much over this period. First, as has been mentioned repeatedly, the perceived downside risks to real activity have increased notably during this period. Second, possibly based on FOMC reactions in some prior financial crises, market participants may expect that the FOMC would be more aggressive in cutting rates. Third, market participants may have taken some of the FOMC actions as consistent with at least some members having a somewhat higher implicit inflation objective than previously thought. Fourth, the tightening of credit conditions may signal that the "neutral" Fed funds rate may be somewhat lower than previously thought.

These developments in credit markets and monetary policy also had a significant effect on Treasury interest rates [**Figure 27**]. After rising to above 5 percent in the early summer, the 10-year Treasury rate fell to under 4½ percent during the crisis before rising to a little above that level. The 3-month Treasury rate dropped more sharply during the crisis, as market participants moved into short-term Treasuries in a "flight-to-quality" (and away from perceived risks). Consequently, the 3-month/10-year term premium, which had been negative through much of the year, has become positive more recently [**Figure 28**]. Long-term real interest rates also displayed similar patterns to those of nominal rates, rising through the early summer before falling to relatively low levels after the onset of the financial market turbulence [**Figures 29, 30**]. This is another indication of the downside real risks placed by market participants.

Although the financial market turbulence was precipitated by developments in subprime mortgage markets, it has had a significant impact on corporate credit markets. Credit spreads on investment- and speculative-grade corporate bonds increased significantly during the period [**Figure 33**]. Although many analysts believed that these spreads, especially for speculative-grade bonds, had become too narrow, the process of adjustment was somewhat wrenching. Still, issuance of investment-grade corporate debt has been fairly strong and speculative-grade issuance appears to have begun to recover. Another effect of the crisis was on the commercial paper market, as conduits began to have difficulty placing paper because of greater concern about the value of their underlying assets. Consequently, commercial paper outstanding has declined over the past two months, particularly for asset-backed commercial paper [**Figure 34**]. Moreover, the maturity of issued paper has shortened drastically. The tightening of corporate credit does suggest that monetary policy was becoming effectively tighter before the September FOMC meeting.

As has been mentioned already, the major impetus of the financial market turbulence was the continued decline in the subprime mortgage market. With rising delinquencies and announced changes in ratings assumptions and rating downgrades, prices on subprime mortgage-backed securities (MBS) continued to decline. The ABX, which had stabilized after the late February/early March concerns, began to fall again in early July [**Figure 35**]. Unlike that earlier episode, the ABX for higher-rated tranches also declined along with lower-rated tranches, indicating a concern about the overall quality in these markets. With these concerns about MBS pricing (at least without an agency backing), this has effectively tightened mortgage credit considerably and probably has contributed to the latest leg of the housing downturn.

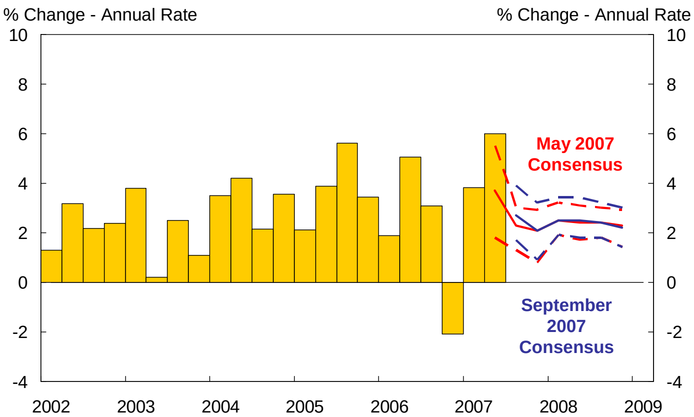
In contrast to many financial markets, equity markets had a relatively moderate decline during August, and have recovered most or all of those losses subsequently with the result that many indices at near historic highs [**Figure 31**]. Even so, implied volatilities rose sharply during August, well exceeding their March spike [**Figure 32**]. Although they have fallen since, they remain elevated as they are still near the early March levels.

Gradual dollar depreciation, which has been a general trend since 2002, intensified some during the period, particularly in the immediate aftermath of the September FOMC meeting [**Figure 36**]. As has been the case recently, the depreciation appears consistent with expectations that U.S. real growth and interest rate path will be somewhat softer relative to those of other economies. The depreciation was particularly evident against the euro, as the dollar/euro exchange rate has hit record highs recently. Developments in the dollar/yen exchange rate have reflected the influence of the carry trade, with the dollar depreciating against the yen as carry trade positions were reduced (as risk appetite waned) during the financial market turbulence. As conditions as improved recently, the dollar has appreciated as carry trade positions apparently have been reinstated. Still, further depreciation of the dollar, especially if it is “disorderly,” could have impact on the global outlook (through effects on capital flows) and US inflationary pressures.

Conclusion. A great deal has changed in financial markets and conditions, which have impacted the views of the possible downside risks to real activity. At the same time, much of the economic data have been consistent with a relatively sanguine view: real growth at or slightly below the potential growth rate and a slow moderation of underlying inflation. Of course, the housing market has been very weak, perhaps more so than expected by many analysts (except for those with gloomy outlooks predicated on a housing “bubble”), indicating a more severe and prolonged slump. However, the feared spillovers from housing into the broader economy do not appear to have materialized to any great extent, although it remains a risk going forward. As far as inflation, the continued moderation in core inflation (as well as alternative measures) and fairly contained inflation expectations suggest that inflation can remain within the perceived “comfort zone” of the FOMC, although dollar depreciation and rising commodity prices could be risk factors.

Overview

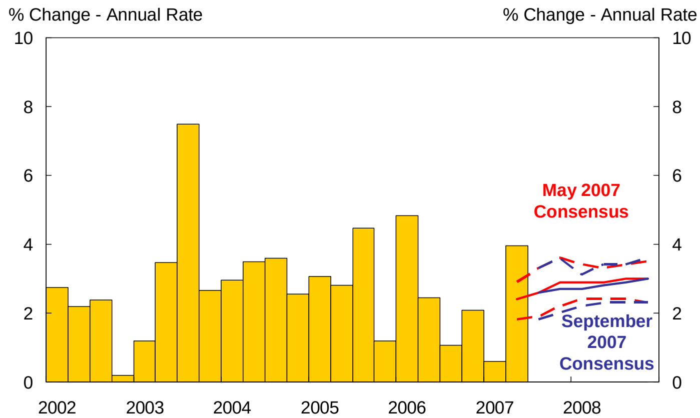
Figure 1: Actual and Projected Growth of CPI



Source: Bureau of Economic Analysis and Blue Chips

Note: Dotted lines represent top and bottom ten forecasts.

Figure 2: Actual and Projected Growth of Real GDP

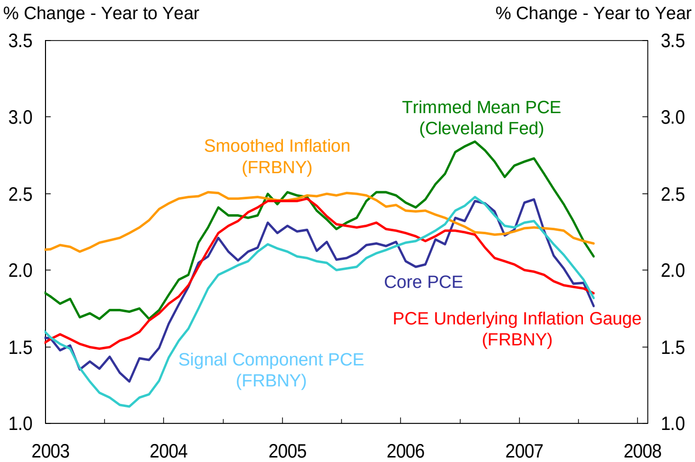


Source: Bureau of Economic Analysis and Blue Chips

Note: Dotted lines represent top and bottom ten forecasts.

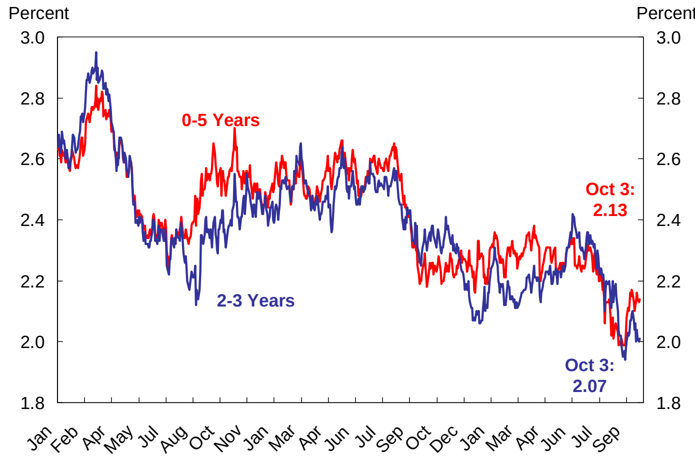
Inflation

Figure 3: Alternative Measures of PCE Inflation



Source: Bureau of Economic Analysis, Cleveland Fed, Swiss National Bank and FRBNY

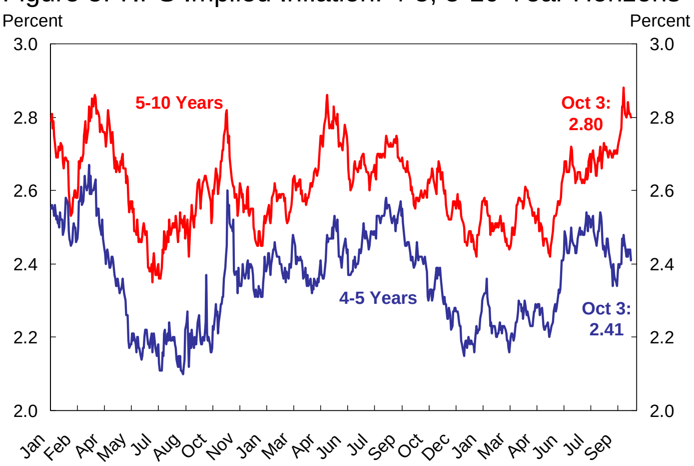
Figure 4: TIPS Implied Inflation: 0-5, 2-3 Year Horizons



Source: Federal Reserve Board

Note: Carry-adjusted

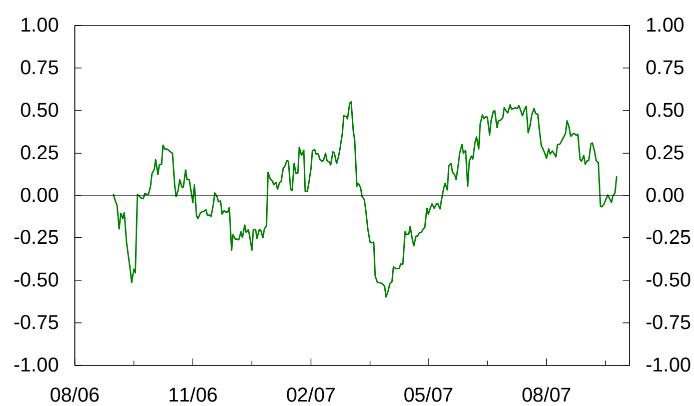
Figure 5: TIPS Implied Inflation: 4-5, 5-10 Year Horizons



Source: Federal Reserve Board

Note: Carry-adjusted

Figure 6: Rolling 20-Day Correlation of Daily Changes in 4-5 Year Inflation Compensation and One-Year Ahead Eurodollar Futures Rate

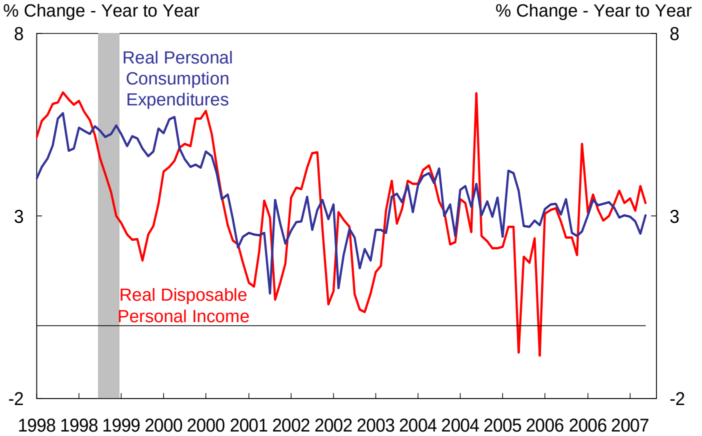


Source: FRBNY Calculations, Board of Governors

Note: Shading represents NBER recessions, unless otherwise noted.

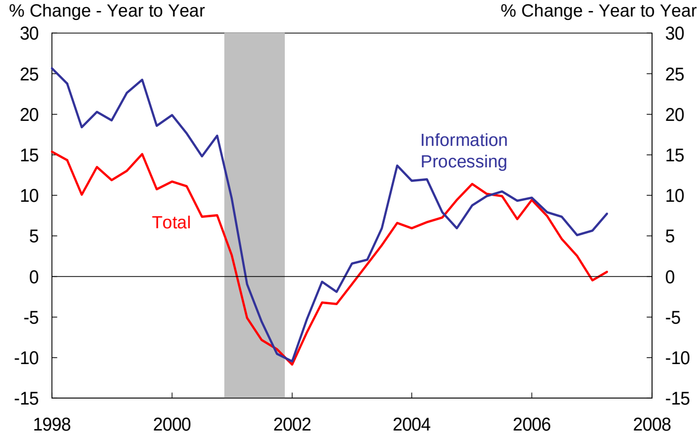
Real Activity

Figure 7: Personal Income and Consumption: Real PCE and DPI



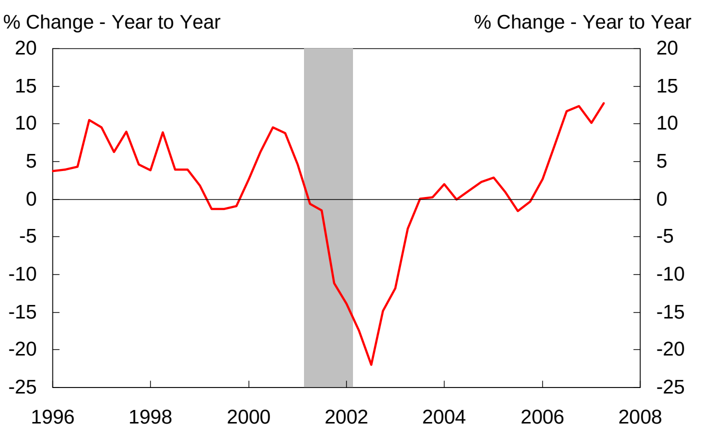
Source: Bureau of Economic Analysis

Figure 8: Real Business Investment: Equipment and Software



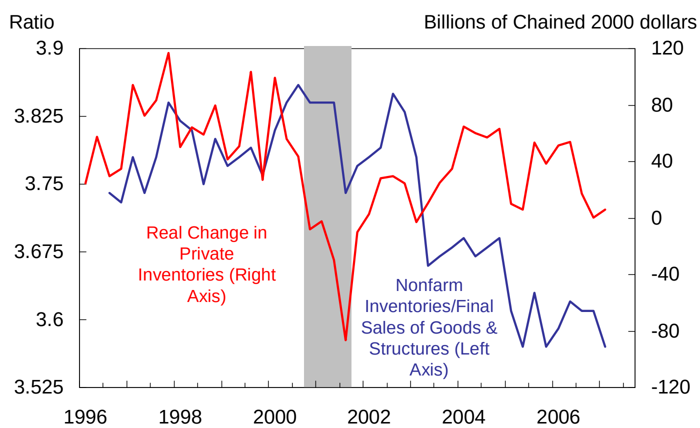
Source: Bureau of Economic Analysis

Figure 9: Business Investment: Nonresidential Structures



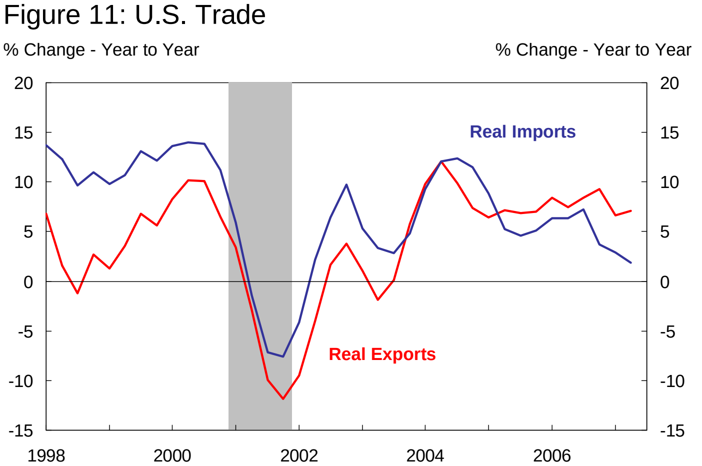
Source: Bureau of Economic Analysis

Figure 10: Inventory Change and Inventories over Final Sales



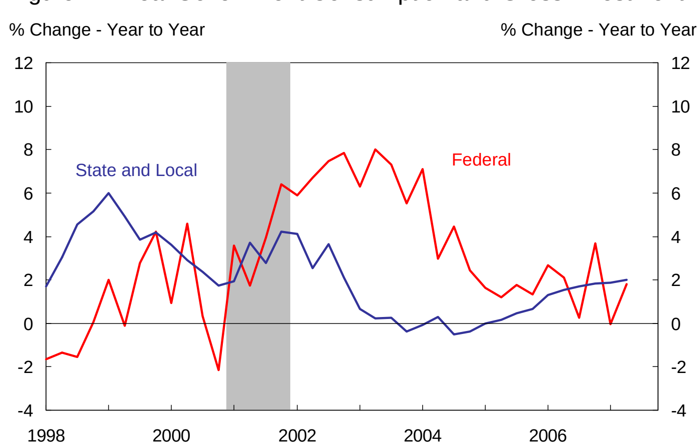
Source: Bureau of Economic Analysis

Figure 11: U.S. Trade



Source: Bureau of Economic Analysis Note: Shading represents NBER recessions.

Figure 12: Real Government Consumption and Gross Investment



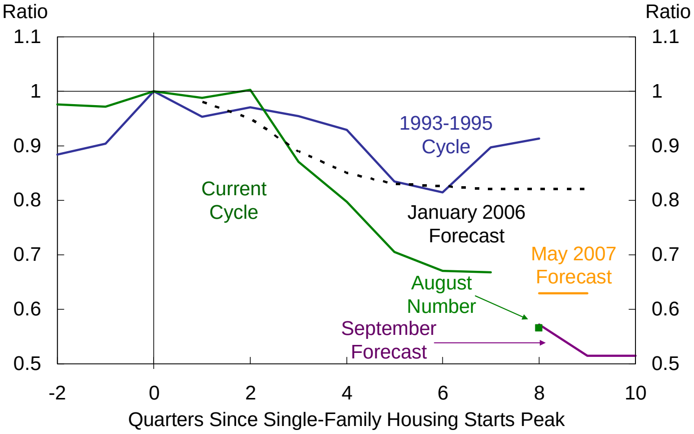
Source: Bureau of Economic Analysis

Note: Shading represents NBER recessions, unless otherwise noted.

The Housing Sector

Figure 13: Single-Family Housing Starts

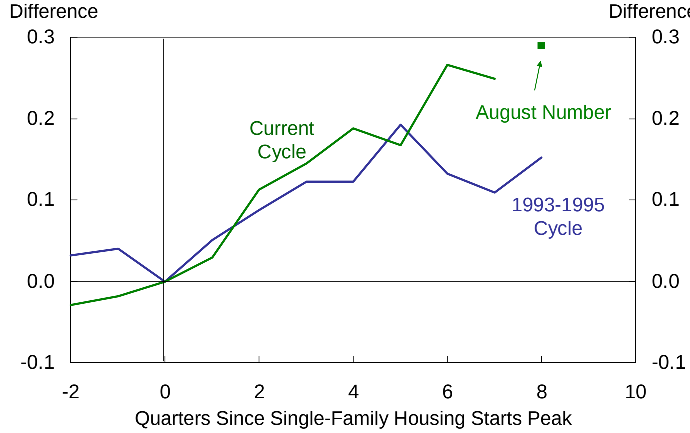
(Series Set to 1.0 at Housing Start Peak)



Source: Census Bureau

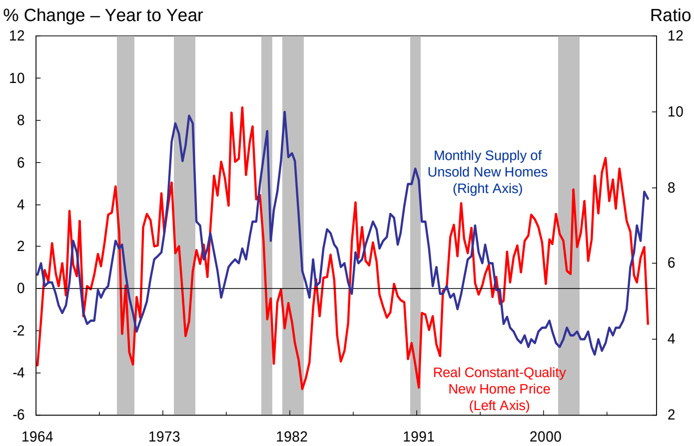
Figure14: New Home Inventory / Sales Ratio

(Series Set to 1.0 at Housing Start Peak)



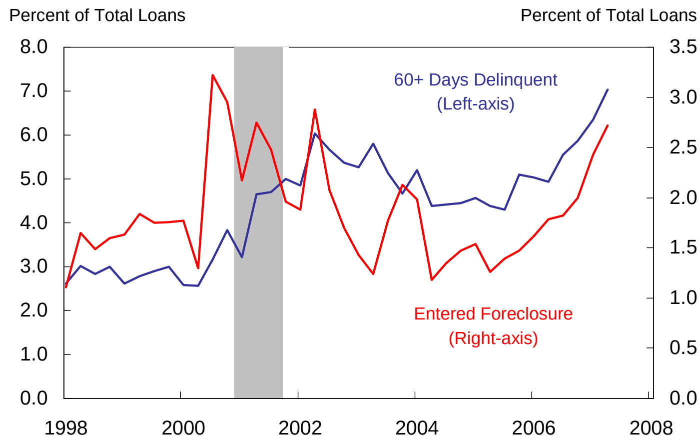
Source: Census Bureau

Figure 15: New Home Inventories & Real Price Change



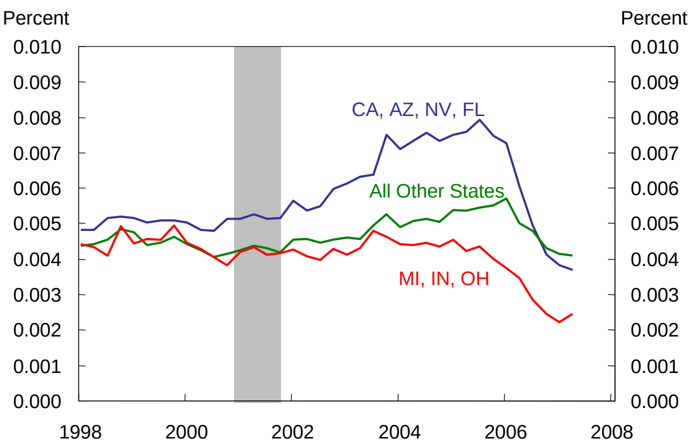
Source: Census Bureau and Bureau of Economic Analysis

Figure 16: Nonprime Delinquencies & Foreclosures, SA



Source: Mortgage Bankers Association and Economy.com

Figure 17: Housing Starts Per Capita



Source: Economy.com

Figure 18: Nonprime 60+ Delinquency Rate (%)

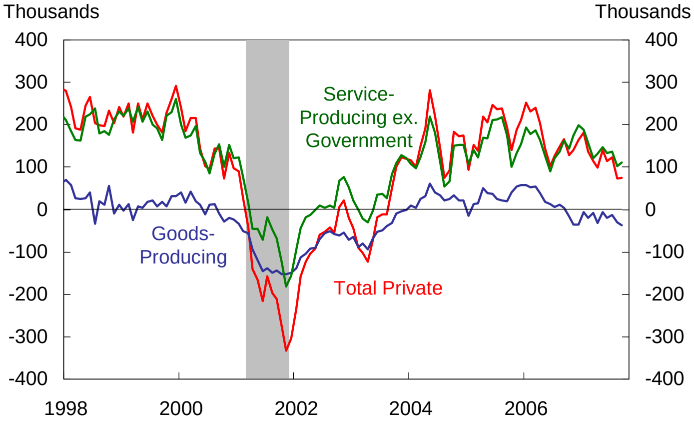
	2005Q3	2006Q4	2007Q2
US	4.3	5.9	7.0
CA	1.7	4.2	6.4
FL	2.7	4.4	7.0
AZ	1.8	3.0	4.5
NV	1.8	4.1	5.8
MI	6.8	9.5	11.0
IN	6.3	7.2	7.7
OH	6.3	7.4	7.9

Note: Shading represents NBER recessions, unless otherwise noted.

Labor Markets

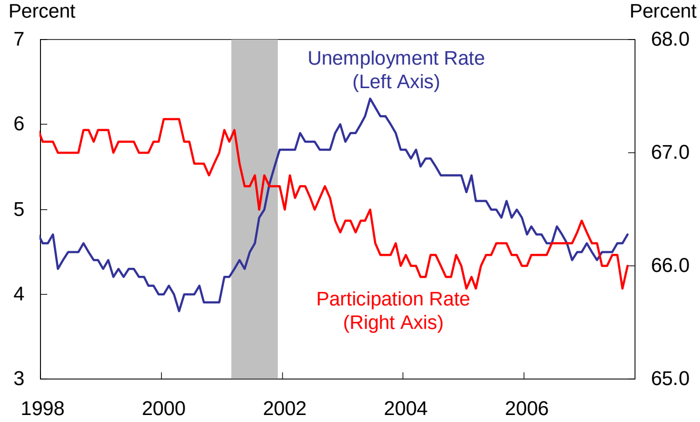
Figure 19: Private Nonfarm Payroll Employment

3-Month Moving Average of Change



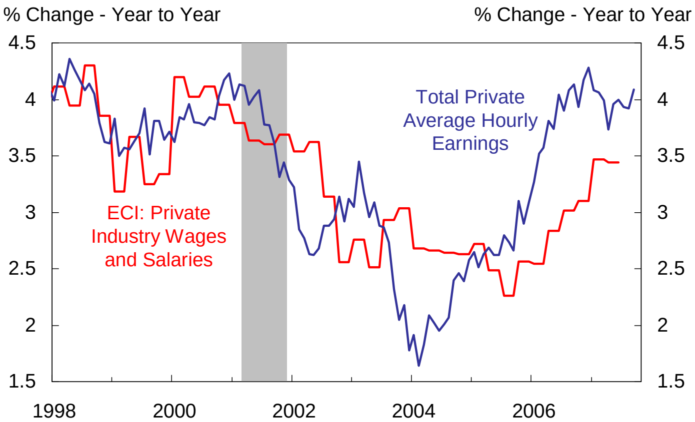
Source: Bureau of Labor Statistics

Figure 20: Unemployment and Participation Rates



Source: Bureau of Labor Statistics

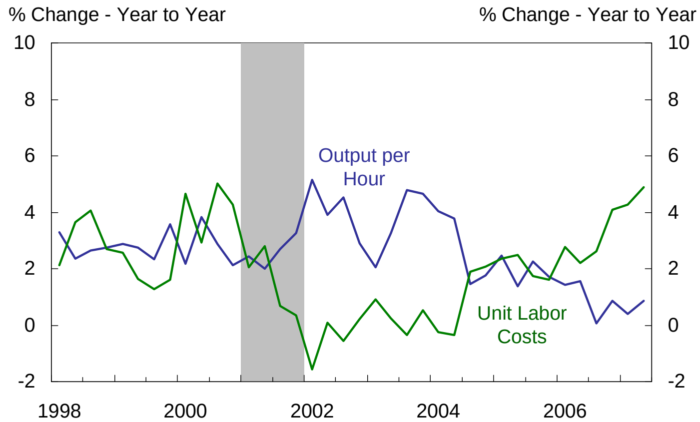
Figure 21: Average Hourly Earnings vs. ECI



Source: Bureau of Labor Statistics

Figure 22: Productivity and Unit Labor Costs

Nonfarm Business Sector

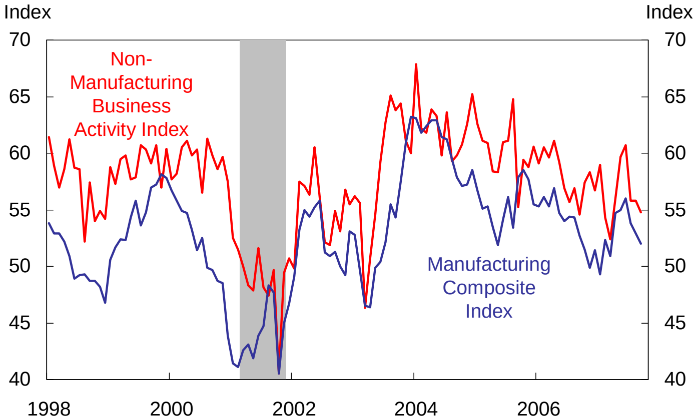


Source: Bureau of Labor Statistics

Note: Shading represents NBER recessions, unless otherwise noted.

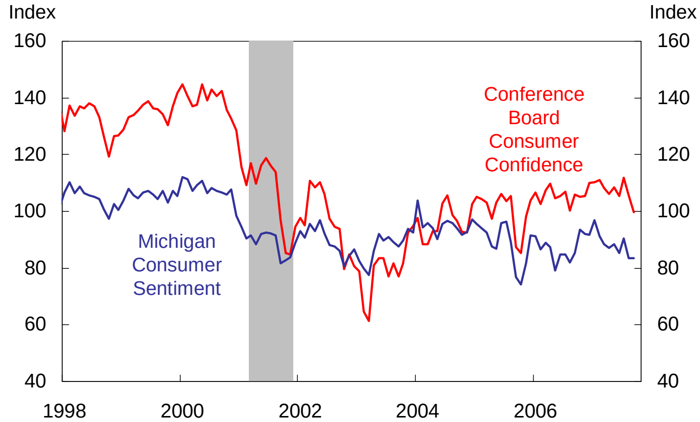
Surveys

Figure 23: ISM Indices



Source: Institute for Supply Management

Figure 24: Consumer Confidence Surveys

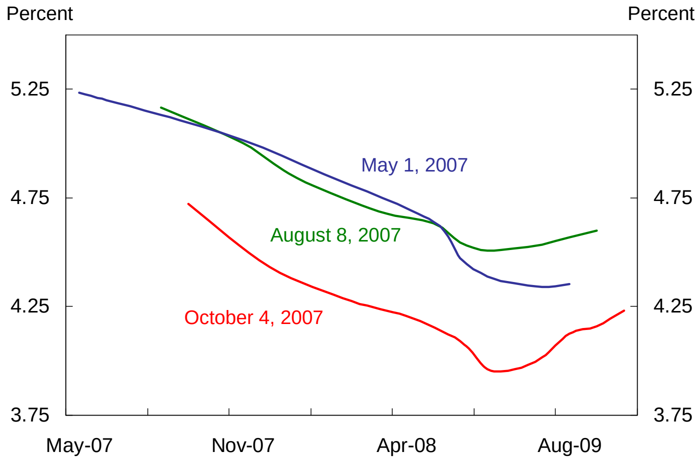


Source: University of Michigan and Conference Board

Note: Shading represents NBER recessions, unless otherwise noted.

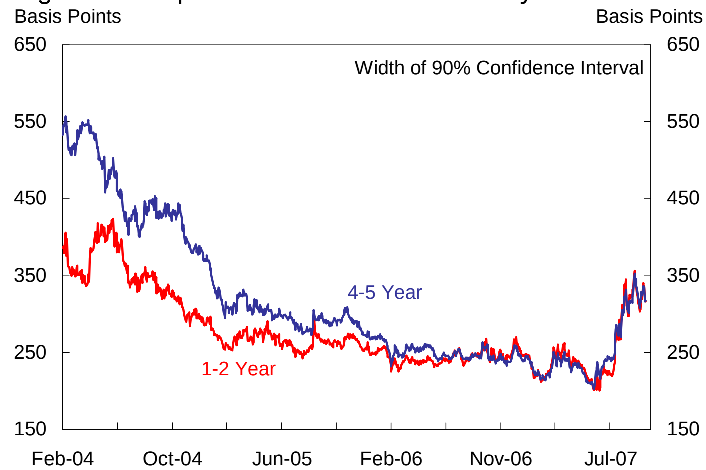
Financial Markets

Figure 25: Expected Fed Funds Rate



Source: Federal Reserve Board

Figure 26: Expected Interest Rate Volatility



Source: Datastream and FRBNY

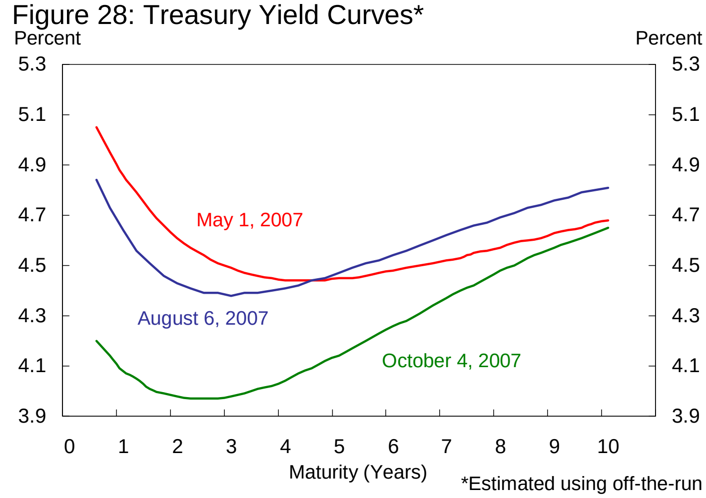
Note: Implied volatilities from swaptions.

Figure 27: Short- and Long-Term Rates

Source: Bloomberg

Note: Yields of on-the-run securities.

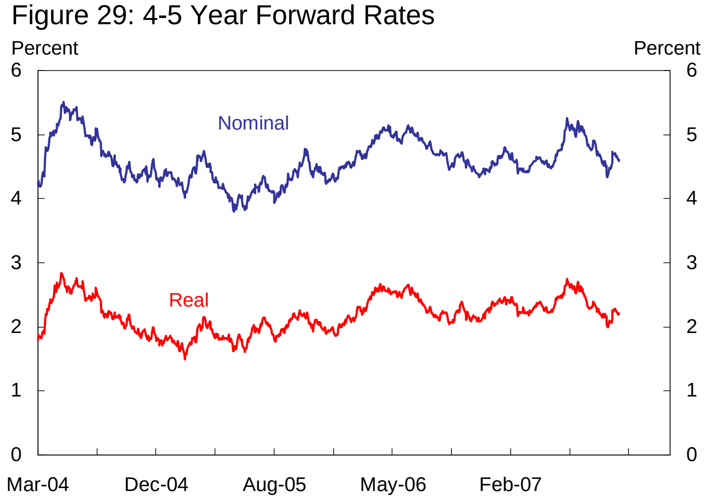
Figure 28: Treasury Yield Curves*



Source: 8:40AM quotes and FRBNY Calculations

*Estimated using off-the-run Treasury securities

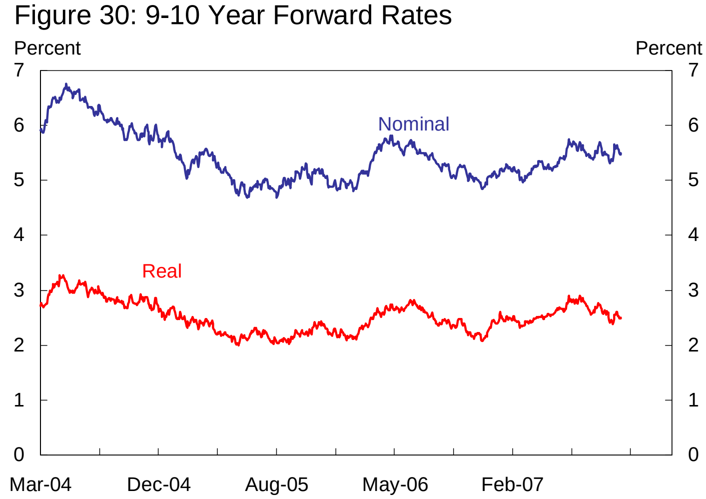
Figure 29: 4-5 Year Forward Rates



Source: Bloomberg

Note: Yields of on-the-run securities.

Figure 30: 9-10 Year Forward Rates



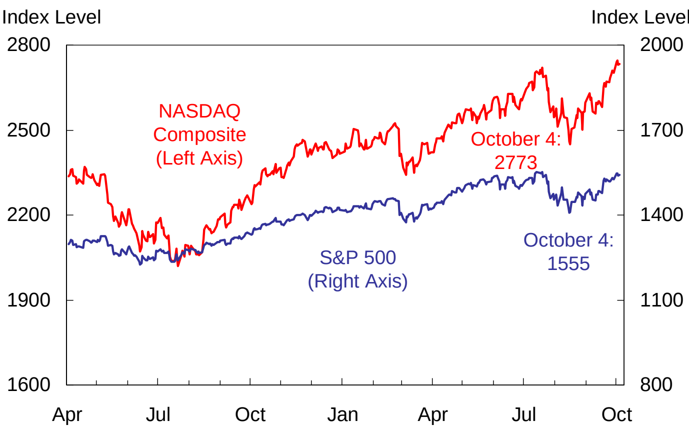
Source: Bloomberg

Note: Yields of on-the-run securities.

Note: Shading represents NBER recessions, unless otherwise noted.

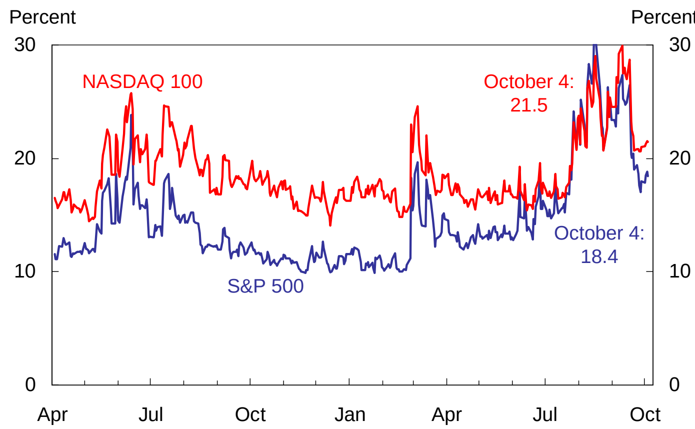
Financial Markets, ctd.

Figure 31: Equity Market Values



Source: Bloomberg

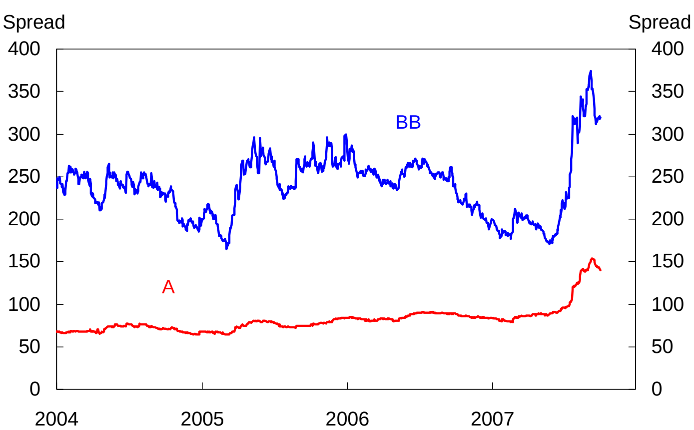
Figure 32: Equity Market Implied 1-Month Volatilities



Source: CBOE

Note: Annualized

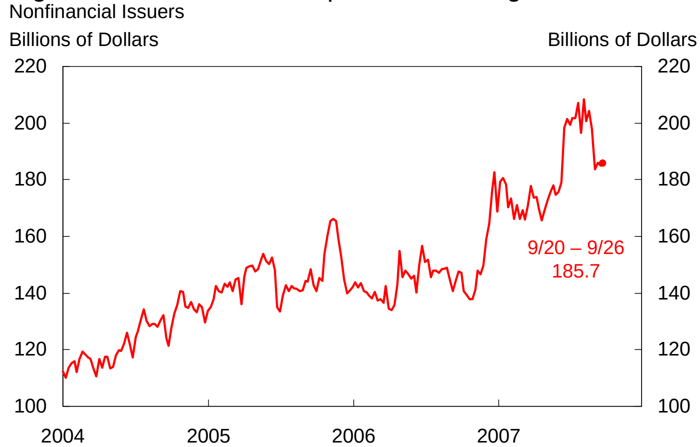
Figure 33: Corporate Credit Spreads (A & BB)



Source: Federal Reserve Board

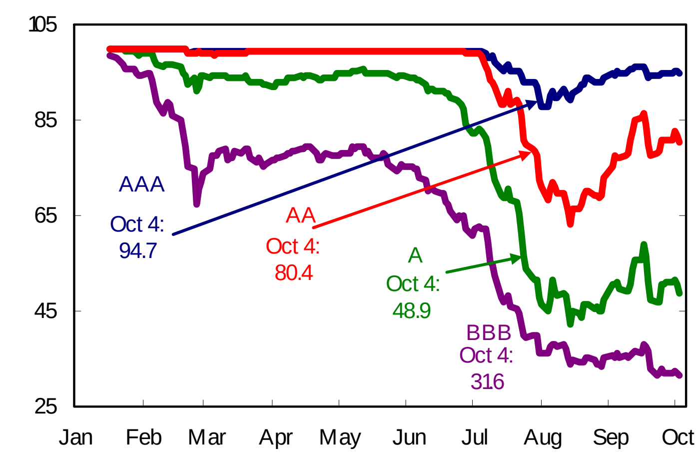
Figure 34: Commercial Paper Outstanding

Nonfinancial Issuers



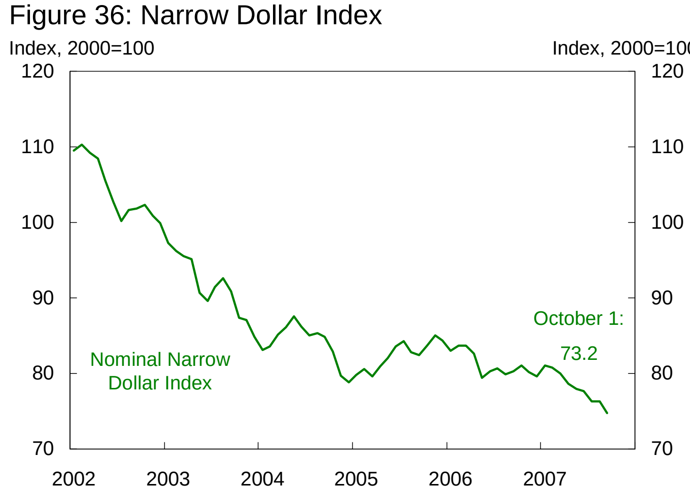
Source: Federal Reserve Board

Figure 35: 2007-1 ABX Closing Price



Source: JPMorgan

Figure 36: Narrow Dollar Index



Source: BIS and Federal Reserve Board

Note: Data are monthly averages.

Note: Shading represents NBER recessions, unless otherwise noted.

Economic Advisory Panel Meeting

October 12, 2007

Reference Charts and Tables

Prepared by the staff of the
Macroeconomic and Monetary Studies Function

Inflation: PCE Deflator

PCE Deflator
(percent change at an annual rate)

	24 Month	12 Month	6 Month	3 Month	1 Month
PCE Deflator	2.5	1.8	2.8	0.6	-0.9
Market-Based	2.4	1.7	3.1	0.8	0.0
Durable Goods	-1.4	-2.2	-1.9	-1.8	-4.5
Motor Vehicles and Parts	0.4	-0.7	1.3	2.0	3.2
Nondurable Goods	2.5	1.0	5.5	-1.6	-5.3
Clothing and Shoes	-1.0	-1.8	-4.7	-3.3	-5.5
Services	3.2	2.9	2.3	2.2	1.9
Housing	3.7	3.4	2.7	2.9	2.3
Transportation	3.0	2.4	4.3	7.1	5.6
Medical Care	3.1	3.1	2.0	2.2	1.6
Recreation Services	2.1	0.8	2.4	-0.1	0.1
Other Services	2.9	2.9	2.4	2.1	4.0
PCE Deflator Excluding Food and Energy	2.1	1.8	1.3	1.5	1.1
Market-Based	1.8	1.5	0.9	1.0	0.0
Personal Business Services-MB	3.7	5.8	5.6	2.8	7.6
Personal Business Services-NMB	2.4	2.9	2.1	1.6	3.8

Source: Bureau of Economic Analysis

Note: Data through August 2007.

Note: Shading represents NBER recessions, unless otherwise noted.

Inflation: Consumer Prices

Consumer Price Data

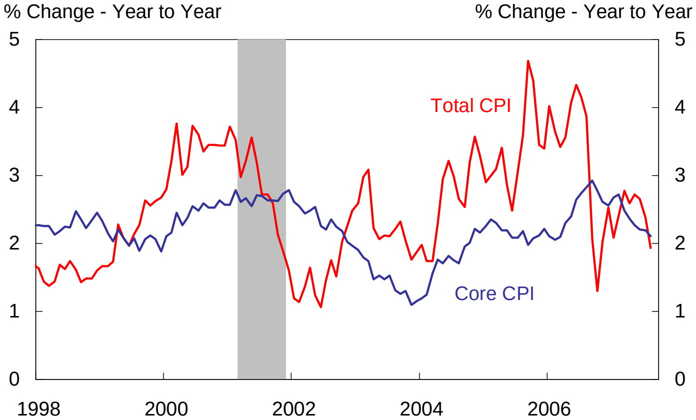
(percent change at an annual rate)

	Weights (December 2005) Total	Core	24 Month	12 Month	6 Month	3 Month	1 Month
Consumer Price Index	100.00		2.9	1.9	3.8	0.7	-1.7
Energy	8.69		5.9	-2.6	18.8	-17.5	-32.3
All Items Ex. Energy			2.6	2.4	2.4	2.8	2.3
Food	13.94		3.4	4.3	4.5	4.7	5.0
Food Away From Home (NSA)	5.95		3.4	3.8	3.8	5.0	4.9
All Items Ex. Food and Energy	77.37	100.00	2.5	2.1	2.0	2.5	1.8
Core Chain-Weight CPI (NSA)			2.2	1.7	1.5	0.8	2.2
Core Goods	22.32	28.85	-0.1	-0.7	-0.5	0.2	-0.4
Apparel	3.79	4.89	-0.7	-1.5	-4.7	-2.8	-6.4
Medical Care Commodities	1.46	1.88	2.6	1.3	2.2	3.7	4.7
Durable Goods	11.58	14.96	-1.0	-2.0	-0.5	0.3	1.6
New Vehicles	5.16	6.66	0.1	-0.9	0.4	0.5	0.8
Used Vehicles	1.80	2.33	-1.7	-3.7	3.8	8.1	10.3
Core Services	55.06	71.16	3.5	3.2	3.0	3.4	2.7
Rent of Primary Residence	5.83	7.54	3.9	4.0	3.2	2.9	2.3
Owners' Equivalent Rent	23.44	30.30	3.4	3.0	2.3	2.4	2.8
Lodging Away from Home	2.61	3.37	5.8	6.5	7.9	11.0	-6.9
Medical Care Services	4.76	6.16	4.9	5.5	5.1	6.1	6.6
Transportation Services	5.71	7.38	1.6	1.0	1.3	4.9	5.1
Other Services	10.67	13.79	3.2	2.6	3.3	1.7	2.1

Source: Bureau of Labor Statistics

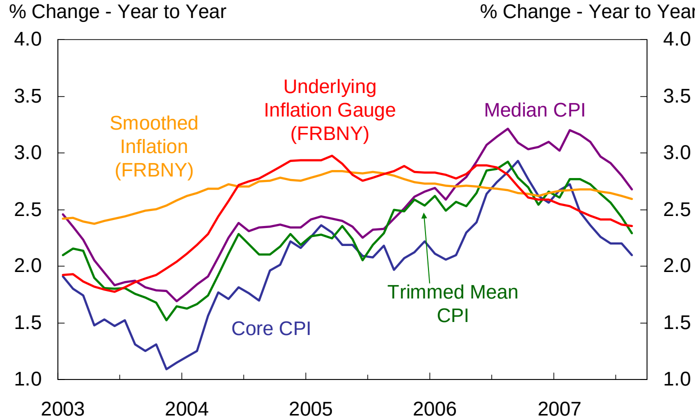
Note: Data through August 2007.

Total and Core CPI



Source: Bureau of Labor Statistics

Alternative Measures of CPI

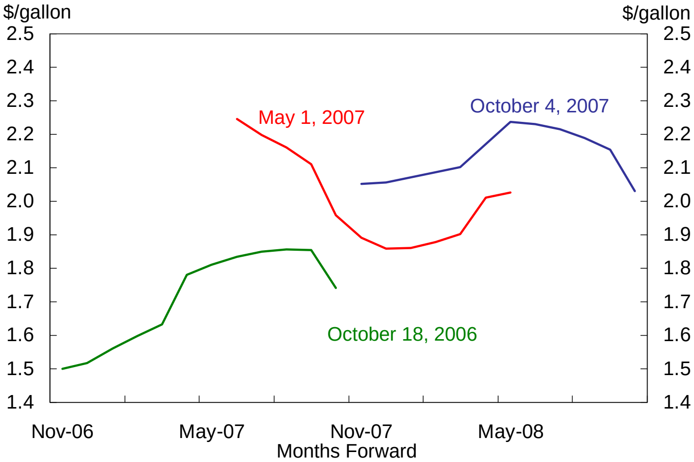


Source: Bureau of Labor Statistics, Cleveland Fed, and FRBNY

Note: Shading represents NBER recessions, unless otherwise noted.

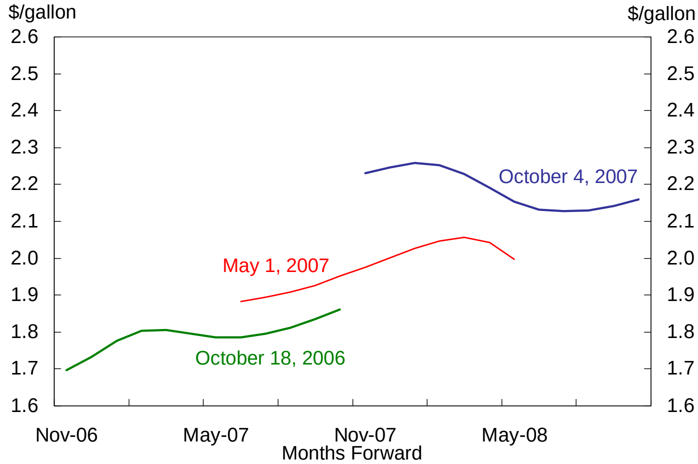
Energy Prices

Gasoline Futures



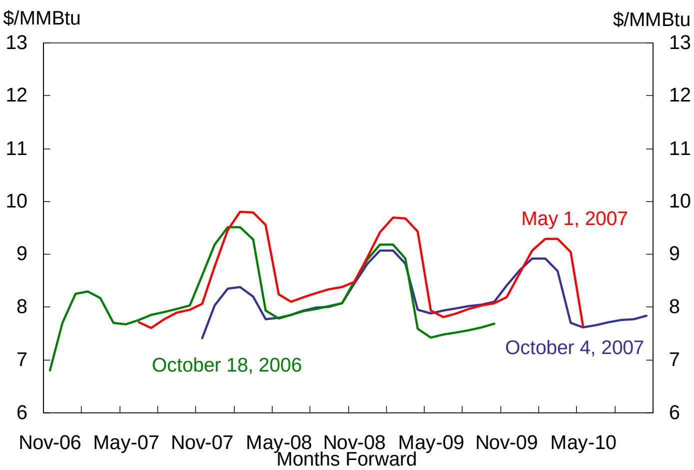
Source: Bloomberg, End-of-Day Quotes

Heating Oil Futures



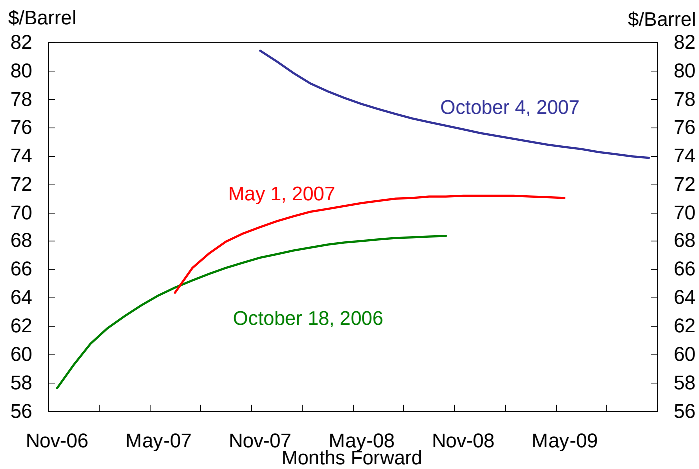
Source: Bloomberg, End-of-Day Quotes

Natural Gas Futures



Source: Bloomberg, End-of-Day Quotes

Crude Oil Futures



Source: Bloomberg, End-of-Day Quotes

Note: Shading represents NBER recessions, unless otherwise noted.

Real Activity: Consumer Spending

Real Personal Consumption Expenditures
(percent change at an annual rate)

	2007Q2 Nominal Share	24 Months	12 Months	6 Months	3 Months	1 Month
Personal Consumption Expenditures	100.0	3.0	3.4	2.4	4.1	8.0
Durable Goods	11.1	4.2	6.6	5.2	3.1	39.7
Motor vehicles and parts	4.6	-0.9	3.9	-1.8	-6.1	81.2
Furniture and household equipment	4.3	10.1	9.4	9.3	12.3	20.2
Other durable goods	2.3	4.3	6.8	12.8	5.6	12.2
Nondurable goods	29.2	2.9	2.3	1.0	1.7	-0.5
Food	13.7	2.7	1.6	0.1	0.1	0.0
Clothing and shoes	3.8	5.6	7.0	8.5	7.5	12.7
Gasoline, fuel oil, and other energy goods	3.9	-1.6	-2.2	-8.7	-4.1	-20.7
Other nondurable goods	7.8	3.9	3.4	3.6	4.7	3.3
Services	59.7	2.8	3.4	2.6	5.5	7.2
Housing services	15.0	2.4	2.2	2.3	1.7	2.0
Household operation services	5.4	0.7	3.7	-3.6	20.9	34.4
Gas and electric	2.3	-0.1	5.7	-10.8	50.1	91.4
Other	3.1	1.2	2.3	2.6	3.6	4.2
Transportation services	3.7	2.4	3.7	4.1	3.3	6.1
Medical care services	17.3	3.0	3.0	2.7	3.2	3.9
Recreation services	4.1	4.0	5.1	4.2	4.3	1.3
Other	14.1	3.8	4.5	4.4	8.1	9.8
Energy goods and services	6.2	-1.0	0.7	-10.0	13.2	10.6
PCE less food and energy	80.1	3.4	3.9	3.8	4.2	9.2
PCE less autos and household operation	90.0	3.4	3.4	3.0	3.9	3.4

Source: Bureau of Economic Analysis

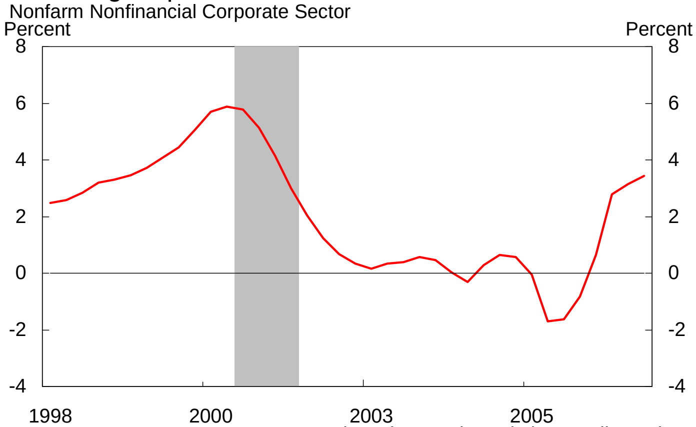
Note: Datat through August 2007.

Note: Shading represents NBER recessions, unless otherwise noted.

Household and Business Finances

Financing Gap as a Percent of Value Added

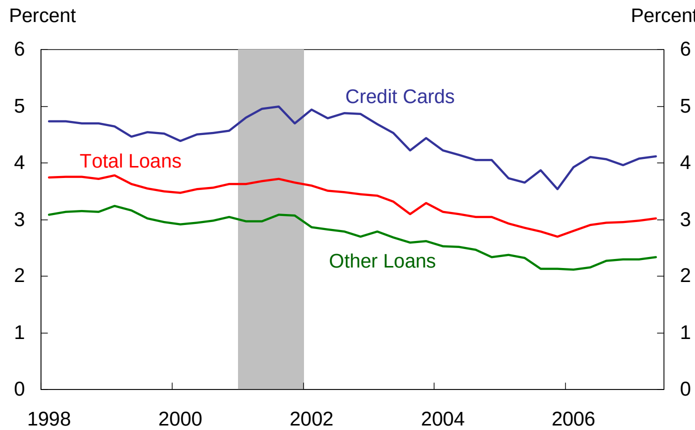
Nonfarm Nonfinancial Corporate Sector



Financing gap is capital expenditures less the sum of U.S. internal funds and inventory valuation adjustment (IVA).

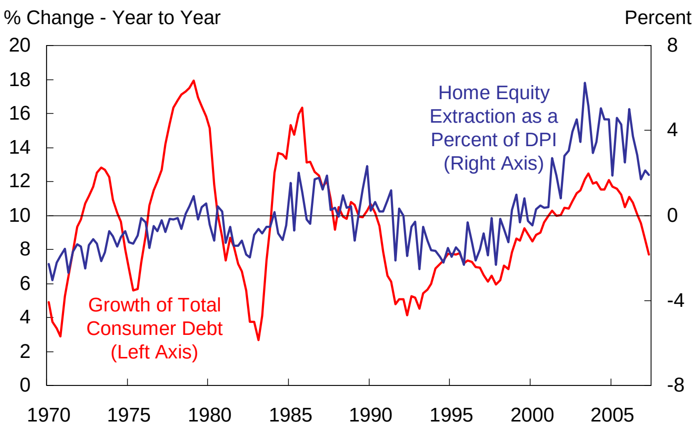
Source: Flow of Funds, Federal Reserve Board, and BEA

Consumer Installment Debt Delinquency Rates



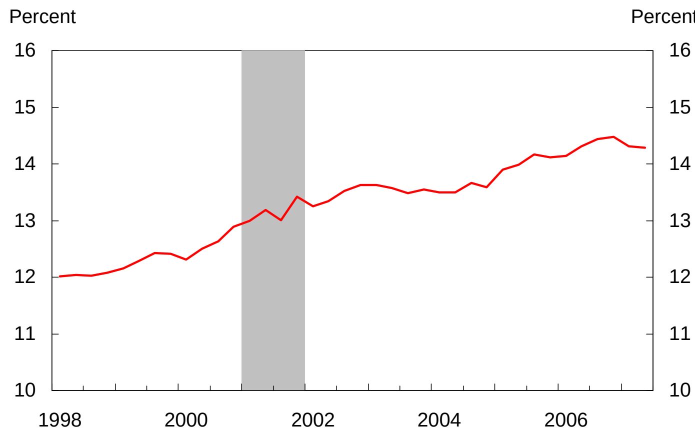
Source: Federal Reserve Board

Consumer Debt and Home Equity Extraction



Source: Flow of Funds and Bureau of Economic Analysis

Consumer Debt Service over DPI

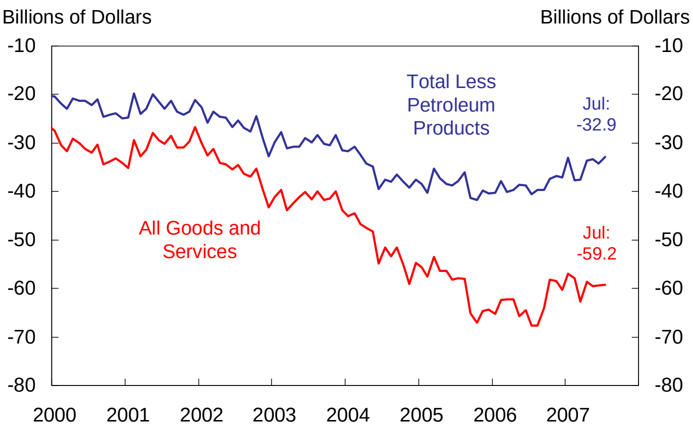


Source: Federal Reserve Board

Note: Shading represents NBER recessions, unless otherwise noted.

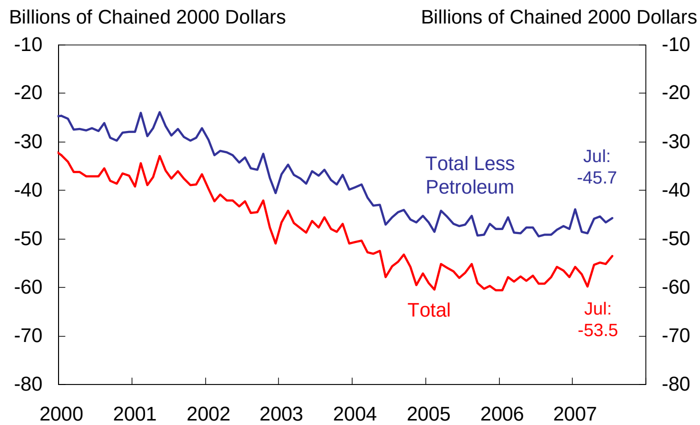
U.S. Trade: Goods and Services

Trade Balance in Goods and Services



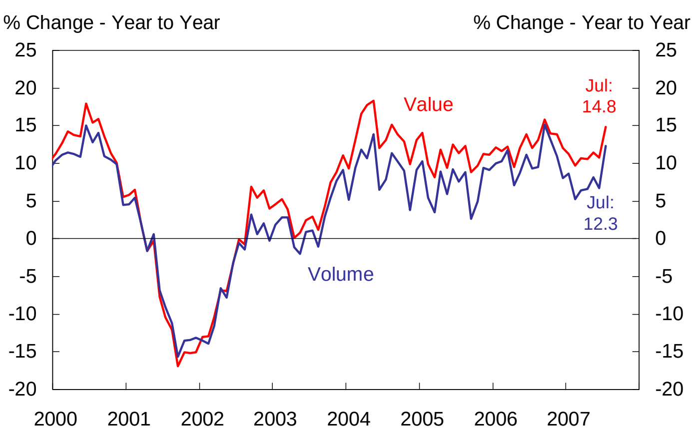
Source: Census Bureau

Real Trade Balance of Goods



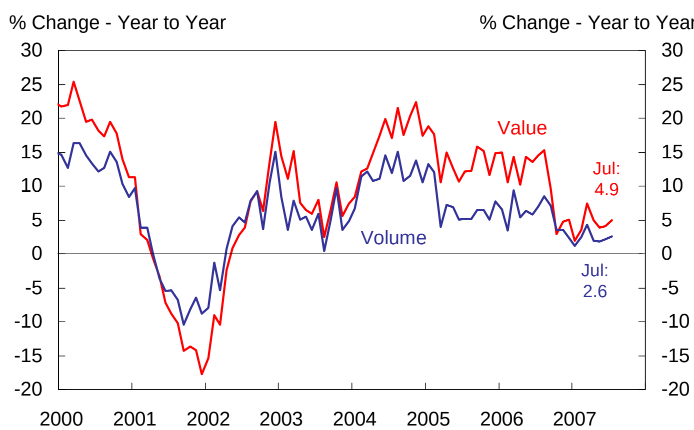
Source: Census Bureau

Exports of Goods



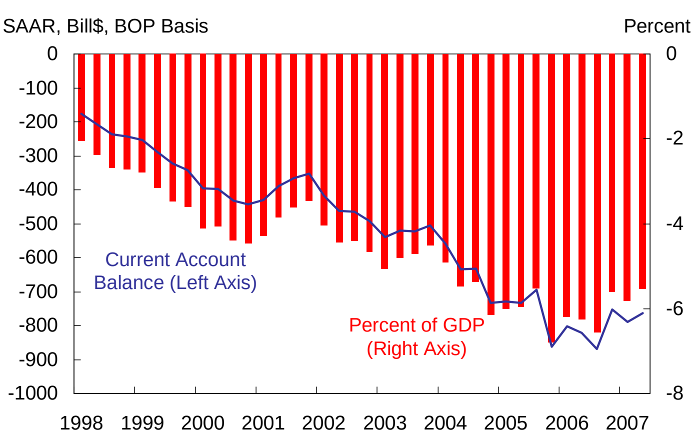
Source: Census Bureau

Imports of Goods



Source: Census Bureau

Current Account Balance



Source: Bureau of Economic Analysis

Labor Market: Nonfarm Payroll Employment

Annualized Growth of Nonfarm Payroll Employment
(percent change at an annual rate)

	24 Month	12 Month	6 Month	3 Month	1 Month
Total	1.5	1.2	1.0	0.8	1.0
Private	1.6	1.2	1.0	0.8	0.8
Goods-Producing	0.2	-1.3	-1.5	-2.0	-1.8
Construction	1.3	-1.4	-2.0	-2.7	-2.2
Manufacturing	-0.7	-1.6	-1.5	-1.9	-1.5
Durables	-0.4	-1.7	-1.5	-1.5	-1.3
Nondurables	-1.2	-1.3	-1.6	-2.5	-1.9
Private Service Providing	1.9	1.9	1.6	1.4	1.4
Wholesale Trade	2.1	1.8	2.3	1.4	1.5
Retail Trade	0.2	0.7	-0.1	0.3	-0.4
Transportation and Warehousing	1.9	1.3	1.0	2.0	2.8
Utilities	0.2	1.4	1.9	0.7	0.0
Information	0.6	1.5	0.8	0.8	4.4
Financial Activities	1.6	0.5	0.1	-0.6	-2.0
Professional and Business Services	2.4	1.8	1.3	1.4	1.4
Temporary Help Services	-0.8	-2.8	-5.4	-5.9	-8.8
Education and Health Services	2.9	3.3	3.8	3.7	2.9
Leisure and Hospitality	2.8	3.1	2.4	1.7	3.1
Food and Drinking Places	3.5	3.8	3.5	2.6	3.2
Other Services	0.7	0.6	0.6	-0.3	-0.9
Government	1.0	1.0	1.0	1.3	2.0
Federal Government	-0.5	-0.8	-0.6	0.0	-2.6
State Government	1.3	1.2	1.6	2.8	6.7
Local Government	1.2	1.3	1.0	0.9	1.3

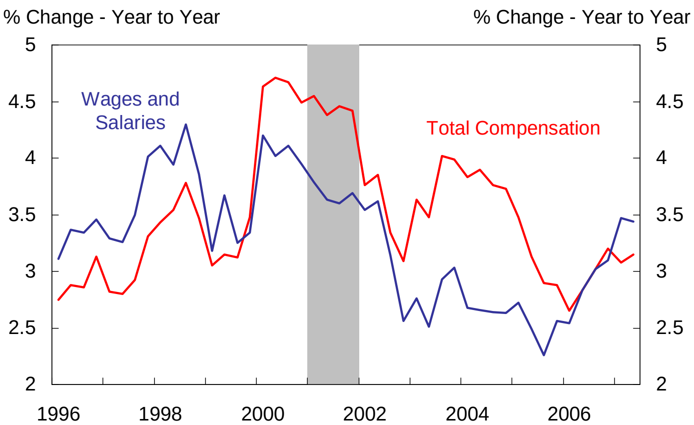
Source: Bureau of Labor Statistics

Note: Data through September 2007.

Note: Shading represents NBER recessions, unless otherwise noted.

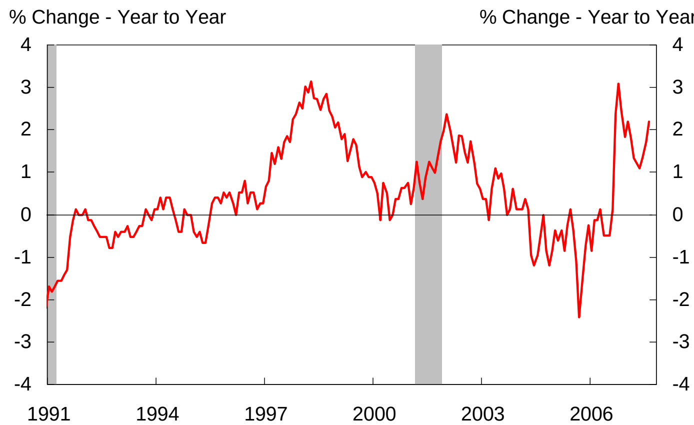
Labor Market: Labor Costs, Earnings and Hours

Employment Cost Index: Private Industry



Source: Bureau of Labor Statistics

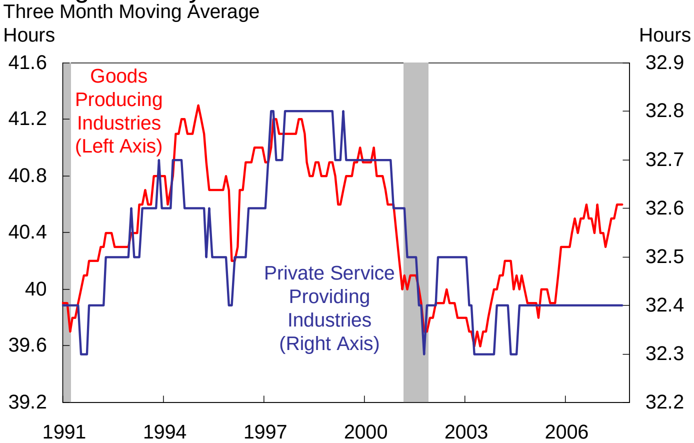
Real Average Hourly Earnings



Source: Bureau of Labor Statistics

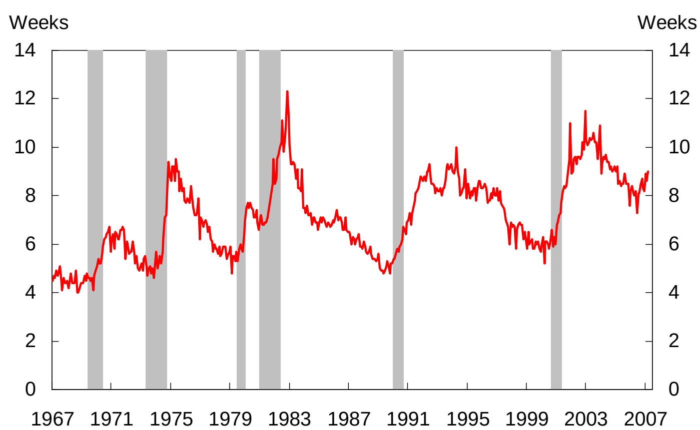
Average Weekly Hours

Three Month Moving Average



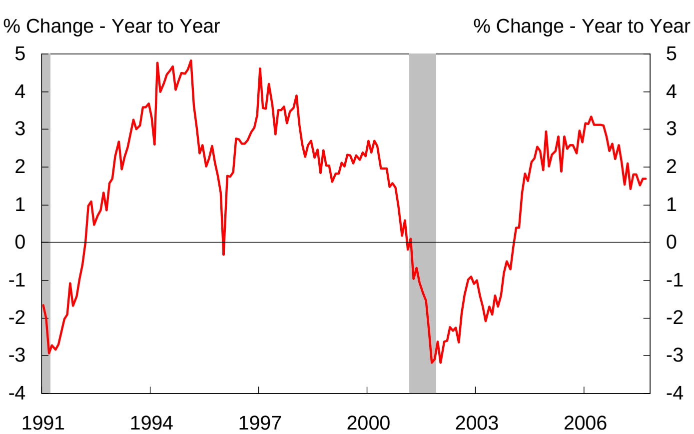
Source: Bureau of Labor Statistics

Median Duration of Unemployment



Source: Bureau of Labor Statistics

Aggregate Weekly Hours Index: Total Private Industries

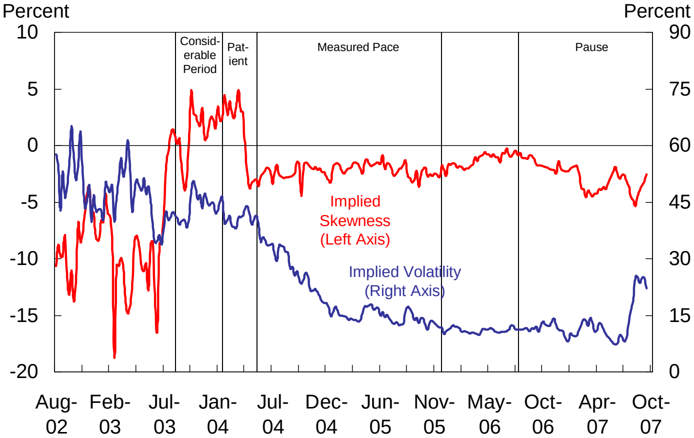


Source: Bureau of Labor Statistics

Note: Shading represents NBER recessions, unless otherwise noted.

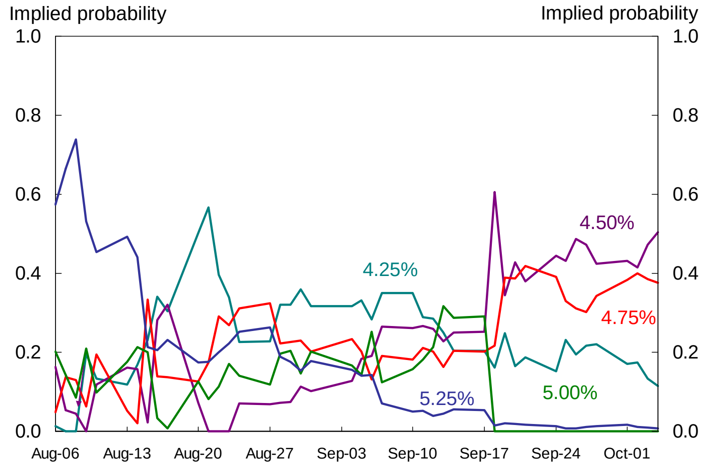
Financial Markets

Implied Skewness and Volatility of Fed Funds Rate



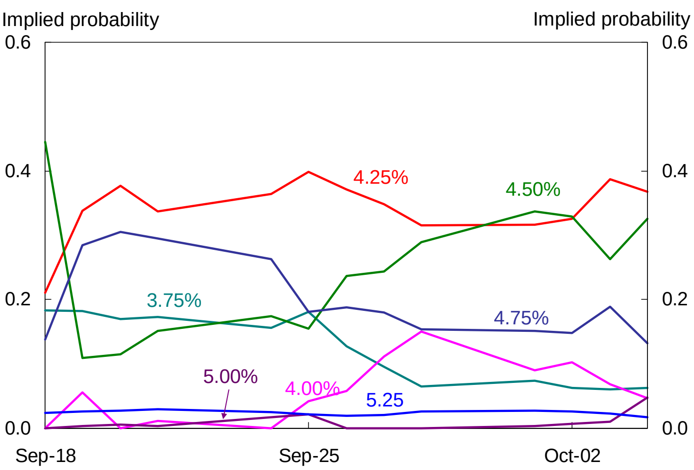
Source: CME and FRBNY Calculations

Alternative Fed Funds Rates: October 2007 FOMC



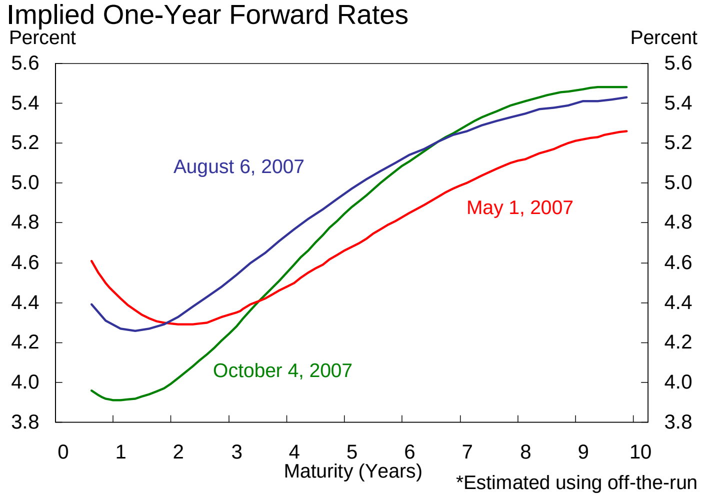
Source: Cleveland Federal Reserve Bank

Alternative Fed Funds Rates: December 2007 FOMC



Source: Cleveland Federal Reserve Bank

Implied One-Year Forward Rates

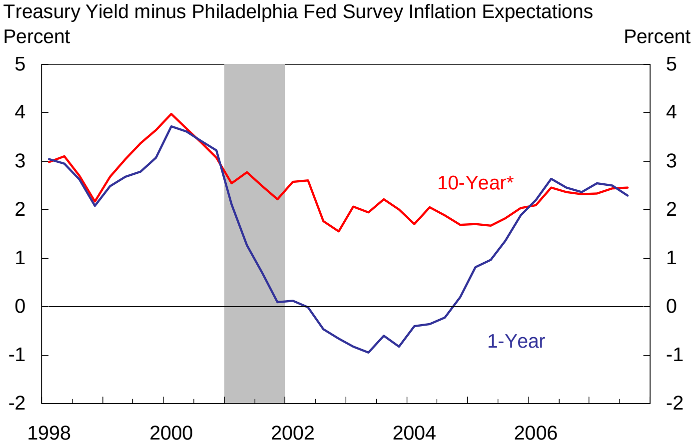


Source: 8:40AM quotes and FRBNY Calculations

*Estimated using off-the-run Treasury securities

Real Interest Rates

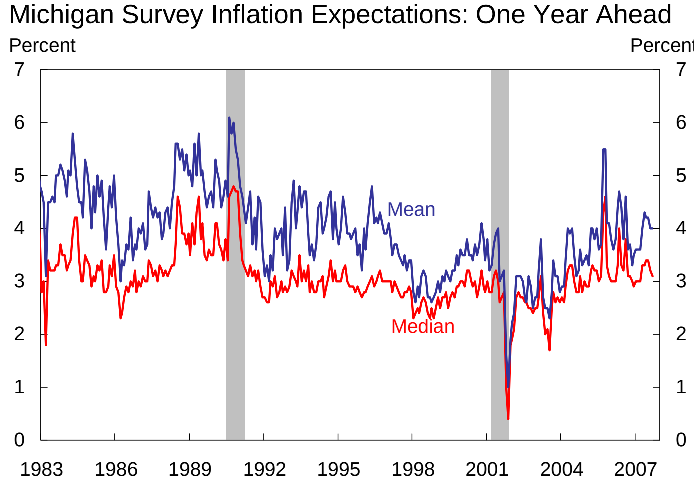
Treasury Yield minus Philadelphia Fed Survey Inflation Expectations



Source: Federal Reserve Board and Philadelphia Fed

*After 2003, calculated using inflation-indexed bonds

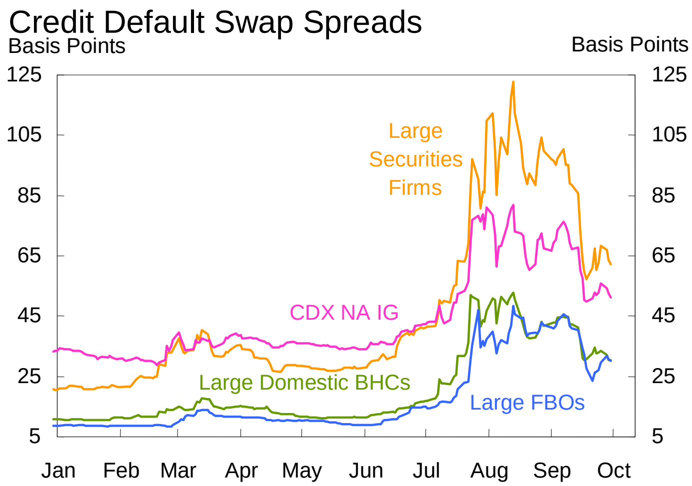
Michigan Survey Inflation Expectations: One Year Ahead



Source: University of Michigan

Note: Shading represents NBER recessions, unless otherwise noted.

Financial Markets, ctd.

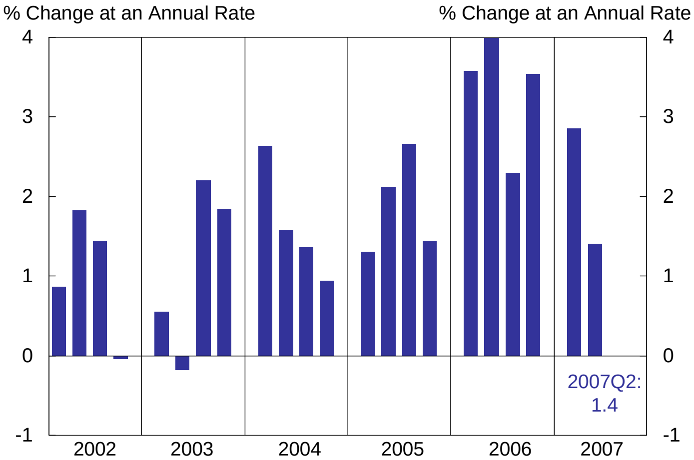


Source: Markit

Note: Shading represents NBER recessions, unless otherwise noted.

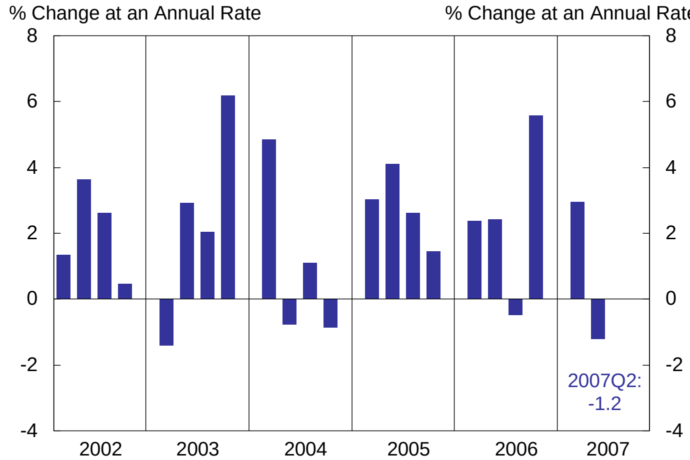
International Overview

Euro Area Real GDP Growth



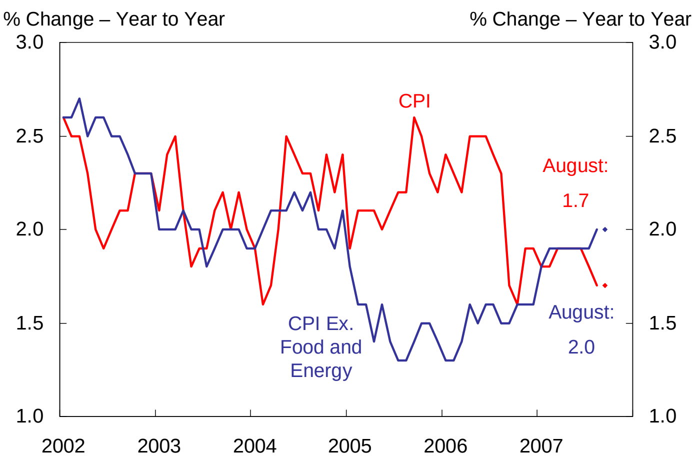
Source: Eurostat

Japan Real GDP Growth



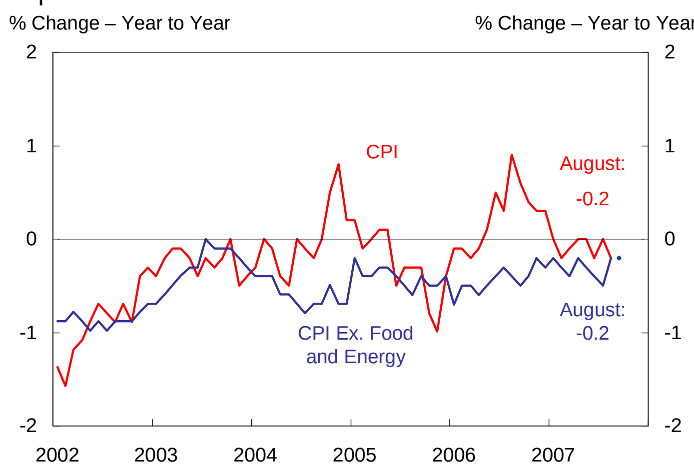
Source: BIS

Euro Area Inflation



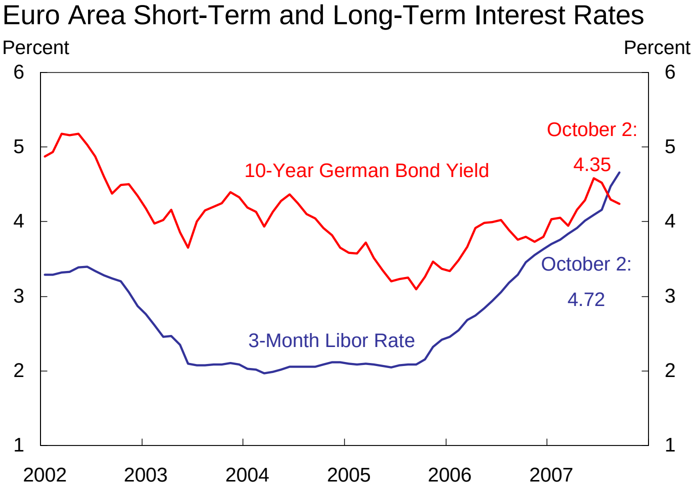
Source: BIS and Federal Reserve Board

Japan Inflation



Source: BIS and Federal Reserve Board

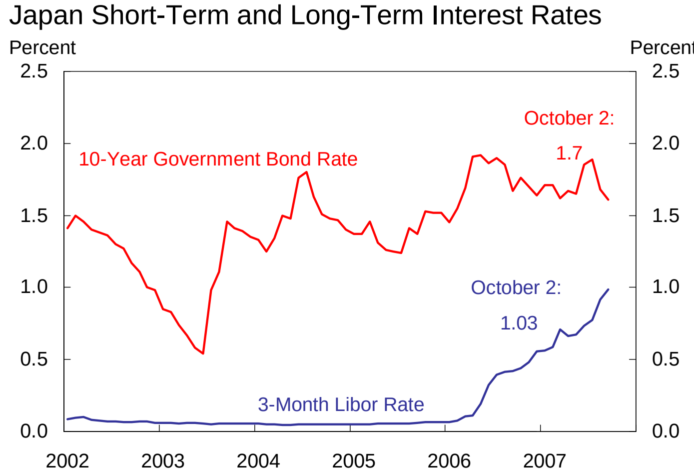
Euro Area Short-Term and Long-Term Interest Rates



Source: BIS and Federal Reserve Board

Note: Data are monthly averages.

Japan Short-Term and Long-Term Interest Rates

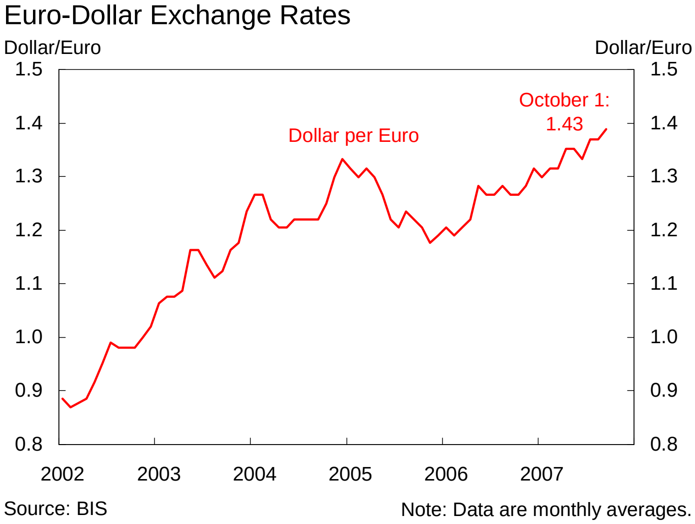


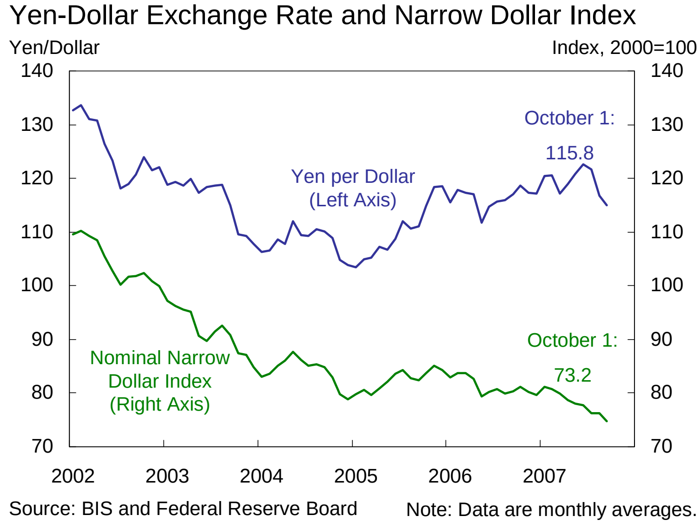
Source: Bloomberg and Federal Reserve Board

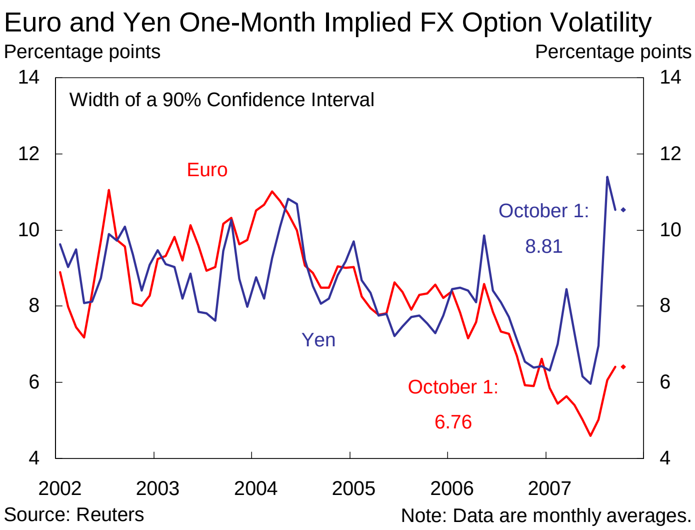
Note: Data are monthly averages.

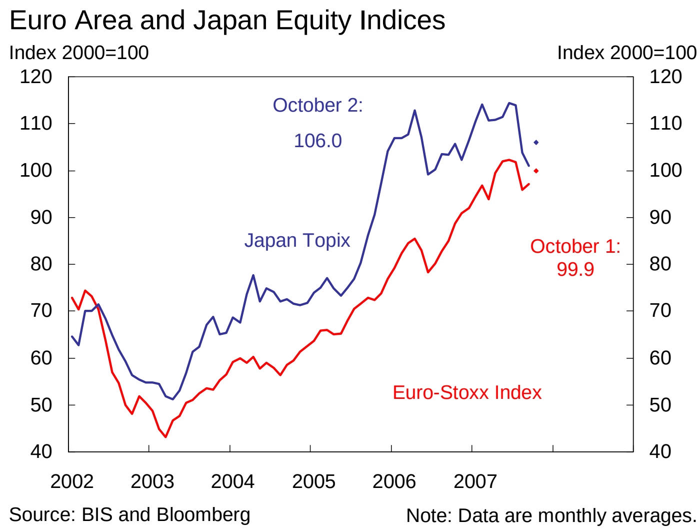
Note: Shading represents NBER recessions, unless otherwise noted.

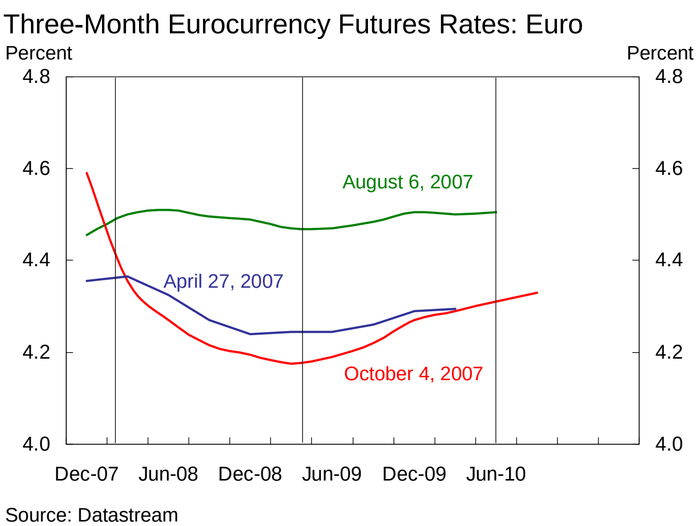
International Overview, ctd.

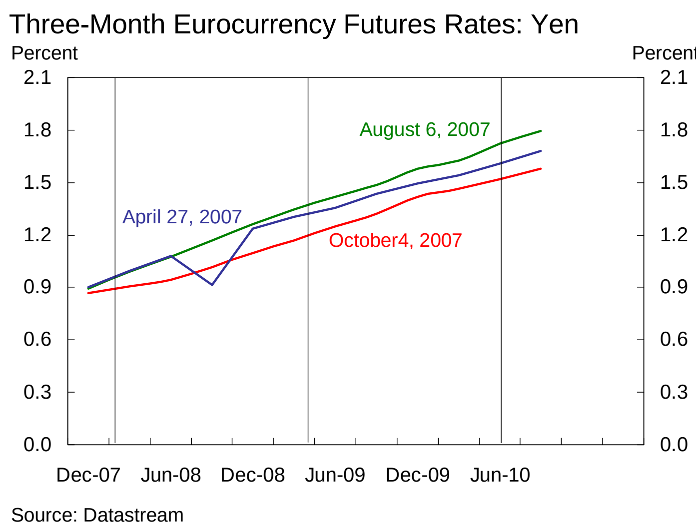












Note: Shading represents NBER recessions, unless otherwise noted.