

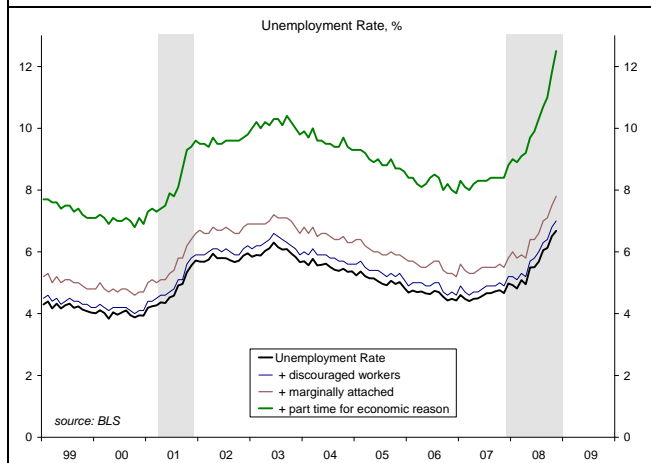
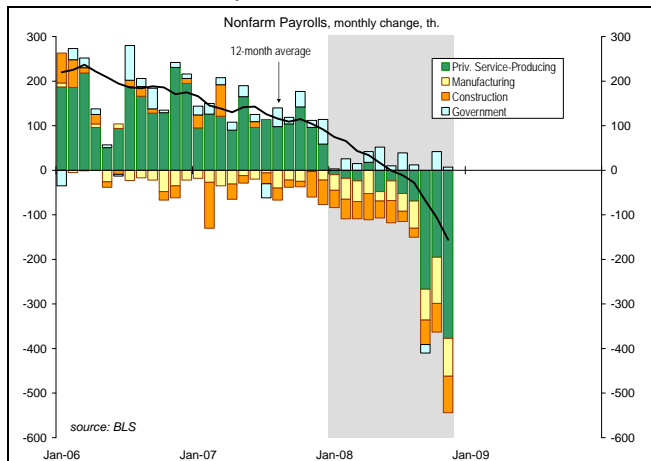
Monday, December 8, 2008

## Economic Research – Scott J. Brown, Ph.D. 2009 Outlook – Big Challenges, Big Solutions

- *The U.S. economy weakened throughout 2008, but has deteriorated at a much sharper pace since August.*
- *Strained credit conditions and a retrenchment in consumer spending are likely to continue well into 2009.*
- *Federal Reserve policymakers will resort to quantitative easing to support economic growth. A massive stimulus bill will likely be signed by President Obama on (or soon after) the January 20 Inauguration.*

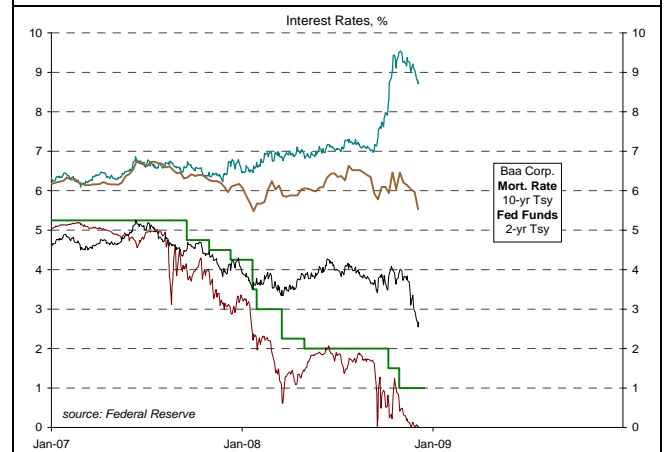
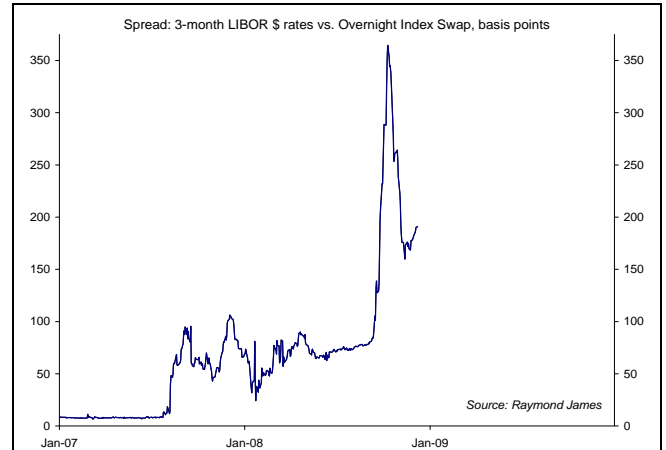
Inflation-adjusted Gross Domestic Product rose at a 1.8% annual rate in the first half of the year, but fell at a 0.5% pace in the third quarter (according to the government's revised estimate). Consumer spending fell at a 3.7% annual rate in 3Q08 – the worst performance since 1Q82 – and appears likely to make a similar negative contribution to overall growth in 4Q08.

Job losses have accelerated. Nonfarm payrolls fell by 655,000 in the first eight months of the year (seasonally adjusted), with declines largely concentrated in manufacturing and construction. Payrolls fell another 1.256 million from August to November and losses have become more widespread across industries.



The unemployment rate rose to 6.7% in November (vs. 4.7% in November 2007), but would have been higher (7%) if not for a drop in labor force participation. The broadest measure of labor underutilization, which includes discouraged and marginally attached workers and those working part-time but preferring full-time employment, rose to 12.5% (vs. 8.4% a year ago).

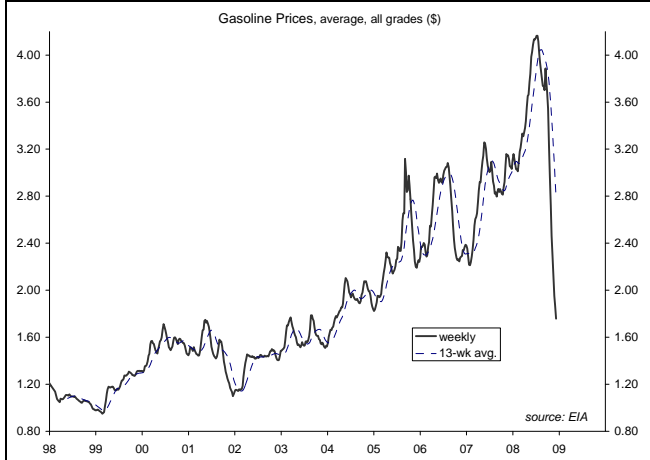
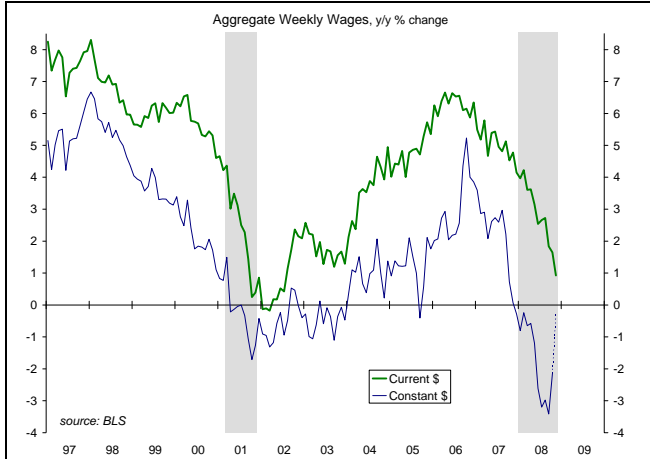
Credit market conditions remain highly strained. Interbank lending rates have fallen from the October peak, but are still very high by historical standards.



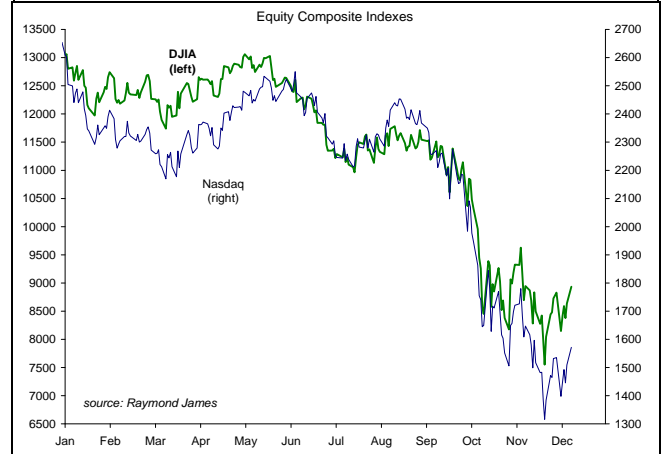
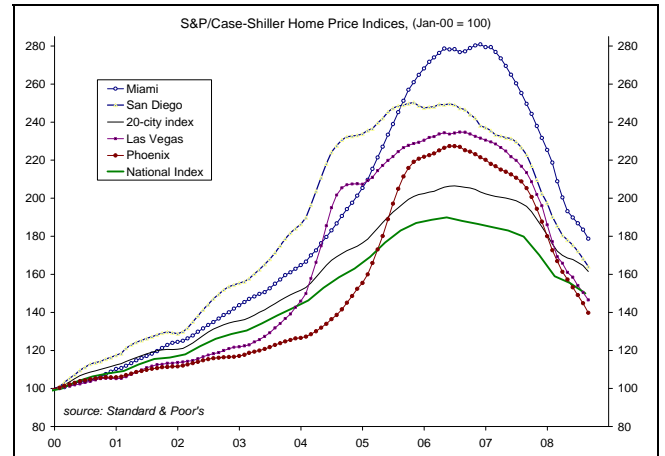
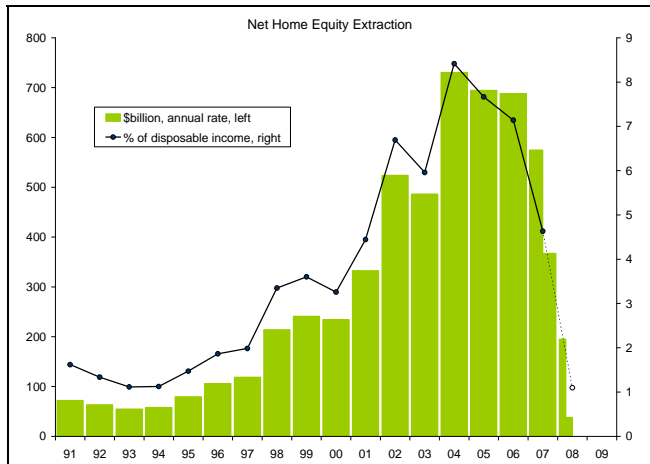
Yields on Treasury securities have sunk to very low levels, reflecting a flight to quality amid increased fear and uncertainty in the economic outlook. Credit spreads have widened, more recently due to the sharp drop in Treasury yields. However, mortgage rates and yields on investment-grade corporate bonds have begun to fall.

With the scope for cuts in short-term interest rates growing limited, Federal Reserve officials have shifted toward quantitative easing – focusing on the quantity of credit rather than the price (the interest rate). Last month, the Fed initiated plans to buy up to \$100 billion in agency debt, up to \$500 billion in mortgage-backed bonds, and up to \$200 billion in asset-backed securities.

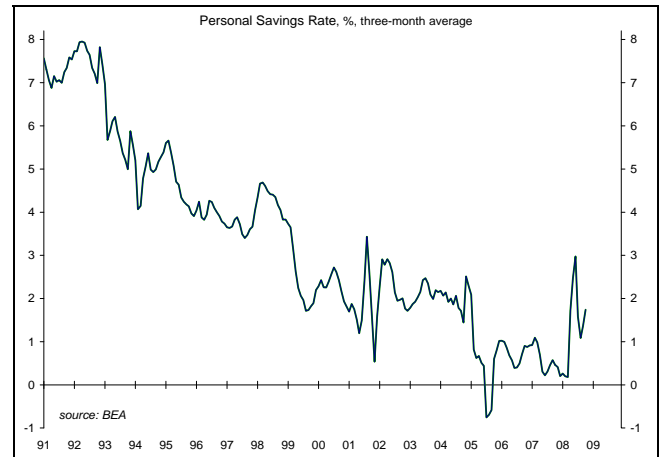
Higher inflation in the summer months led to a large year-over-year decline in aggregate real wage income. A sharp drop in gasoline prices is now boosting consumer purchasing power. However, nominal income has slowed sharply as the labor market has weakened.



Tighter consumer credit and housing market weakness have reduced one source for consumer spending. Updated estimates provided by Jim Kennedy of the mortgage system presented in "Estimates of Home Mortgage Originations, Repayments, and Debt On One-to-Four-Family Residences" (Alan Greenspan and James Kennedy, Federal Reserve Board FEDS working paper no. 2005-41) show that mortgage equity withdrawals, roughly 8% of the size of disposable income from 2004 to 2006, ground to a halt by 2Q08.

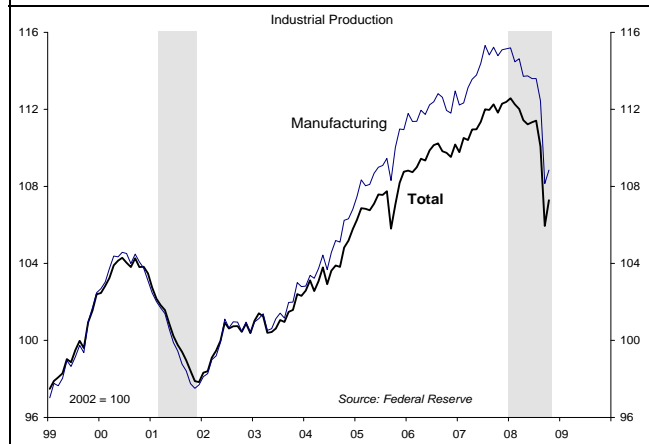
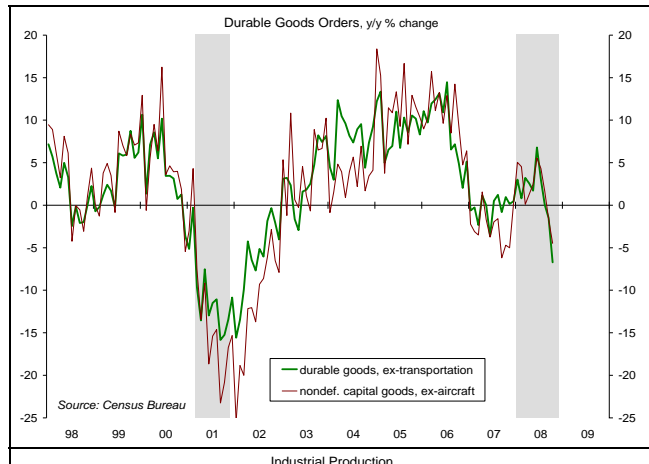


The wealth effect on spending is relatively small (consumers may spend 3 or 4 cents less for each dollar of lost wealth). However, losses in housing and stock market wealth have been very large.



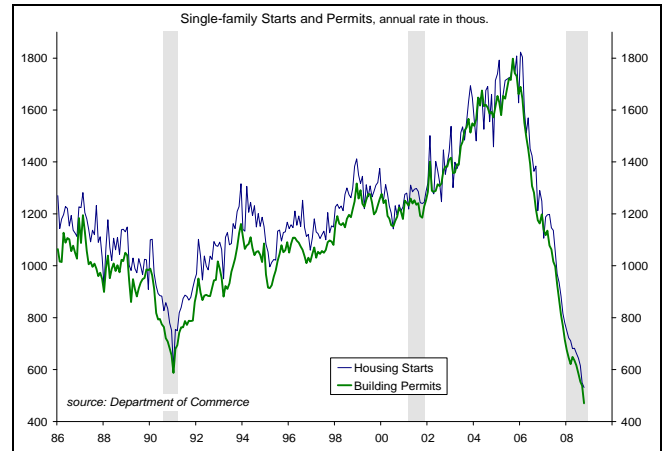
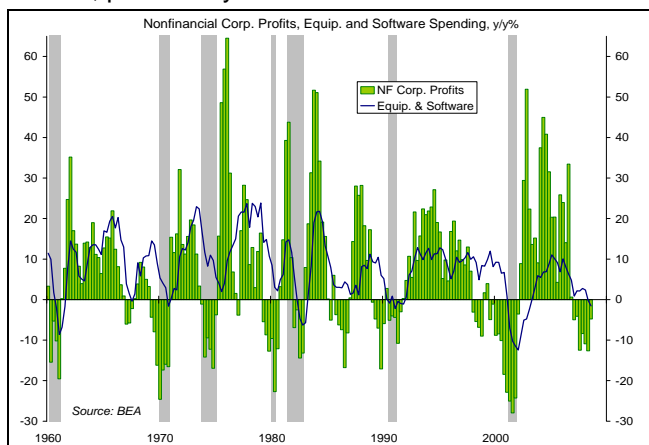
Low gasoline prices will help. However, tight credit, a weak job market, and the loss of wealth will have large negative impacts on consumer spending. Moreover, we may be undergoing a critical shift in consumer behavior. It's good that people save, but it's bad if everyone decides to save more at the same time. In saving more, consumers would be spending less out of disposable income – that spending is someone else's income – and overall growth would be a lot weaker (and the current recession would be longer and more severe). Some of the retrenchment in consumer spending is due to short-term fear, but some may be longer-lasting.

After softening significantly in 2007, new orders rose in the first half of this year (perhaps reflecting a rebound from the over-caution of a year earlier). However, orders have slumped broadly in recent months, reflecting a sharper deterioration in the overall economy. Unfilled orders have begun to fall – a bad sign.

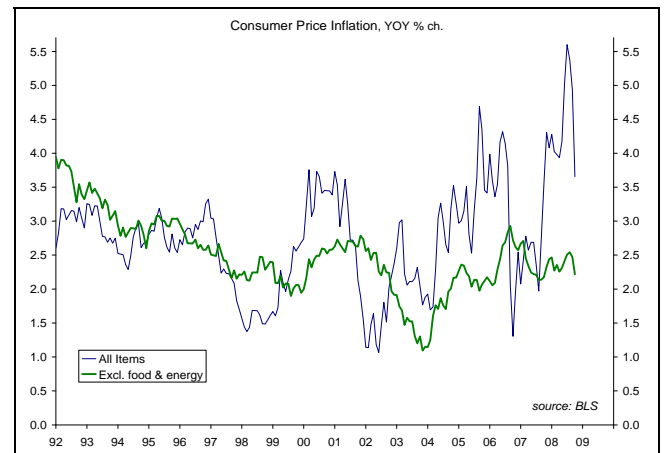


Industrial production has also fallen sharply, although some of the recent decline reflects hurricane disruptions in energy products and strike activity in the aerospace industry. Factory output is likely to continue trending lower into early 2009. With or without a bailout, the auto industry must significantly reduce capacity.

The nonfinancial business sector generally met the current slowdown with limited leverage and healthy balance sheets. However, weak profits typically lead to reduced business investment. Tight credit will be a restraint, particularly for small- to medium-sized firms.

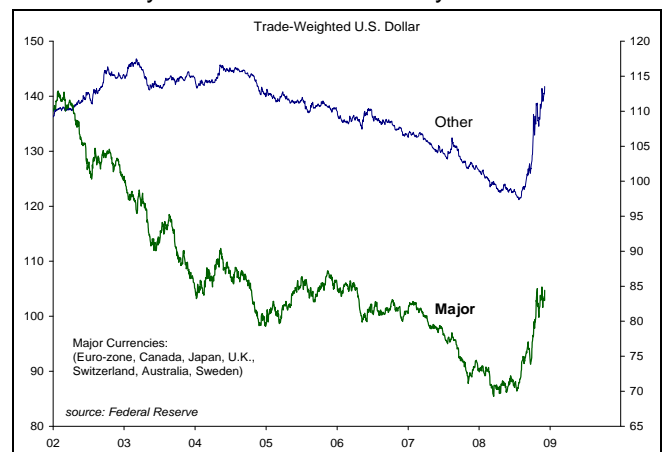


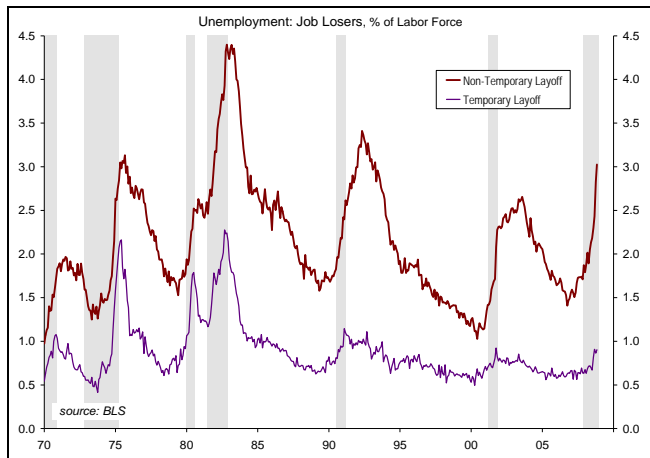
In the housing sector, the unwinding of the bubble is being overtaken by the impact of broader economic weakness (the loss of jobs and tighter credit). Hence, a bottom in residential construction still seems a way off (although the drag on GDP growth should wane).



The Consumer Price Index is falling as energy prices retreat. A deflationary spiral, where falling global output leads to falling prices which leads to weaker output and so on, is still seen as a very remote possibility, but the odds are certainly higher than they were earlier. The Fed has the means to counter deflation (Milton Friedman's proverbial "helicopter drop") if it comes to that.

The dollar has rebounded on a flight to quality (the belief that policymakers will be more active, and the recession less severe, in the U.S. than abroad). The dollar is likely to exhibit some volatility in the near term.





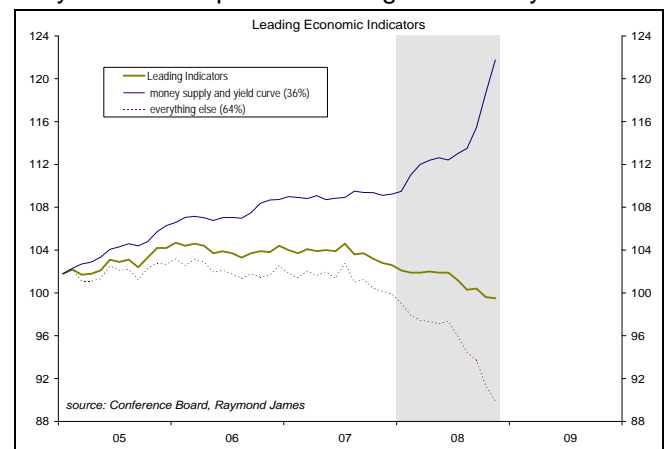
The National Bureau of Economic Research's Business Cycle Research has pegged December 2007 as the recession starting date. Each recession has its own causes and consequences, but all involve some restructuring of the economy – which takes time.

recession	months	GDP loss
Aug 1929 – Mar 1933	43	(a) 26.5%
May 1937 – Jun 1938	13	(b) 3.4%
Feb 1945 – Oct 1945	8	(c) 12.0%
Nov 1948 – Oct 1949	11	1.7%
Jul 1953 – May 1954	10	2.7%
Aug 1957 – Apr 1958	8	3.7%
Apr 1960 – Feb 1961	10	1.6%
Dec 1969 – Nov 1970	11	0.6%
Nov 1973 – Mar 1975	16	3.1%
Jan 1980 – Jul 1980	6	2.2%
Jul 1981 – Nov 1982	16	2.7%
Jul 1990 – Mar 1991	8	1.3%
Mar 2001 – Nov 2001	8	0.4%
Dec 2007- ?	12+	(d) 0.1%

(a) 1929-33, (b) 1937-38, (c) 1944-46, (d) 2Q08-3Q08

The current recession is expected to rival the 1973-75 and 1981-82 recessions in terms of both the length of the downturn and the depth of the contraction.

In the Great Depression, policymakers made all the wrong moves. Taxes were raised, the Fed hiked interest rates (to defend the gold standard), trade barriers were imposed, and the authorities sat back while thousands of banks failed. By historical standards, the Fed's rate cuts in late 2007 and early 2008 "stand out as exceptionally rapid and proactive," according to Fed Chairman Ben Bernanke. While the Troubled Asset Relief Program (TARP) has not done what it was supposed to do (that is, remove troubled assets from the financial system), funds were used more effectively to re-capitalize the banking system. The Fed has created a number of liquidity facilities over the last year and moved to shore up the markets for commercial paper, mortgage-backed securities, and asset-backed securities. Barack Obama's economic team and congressional leaders are working on a large stimulus package (public works, federal aid to the states, middle class tax cuts, etc.) that should be ready for the new president to sign in January.



There are very few clues to suggest how long and how severe the current recession will be. However, the two most consistent leading economic indicators, the money supply and the slope of the yield curve, are bullish. Policy efforts will help, but consumer saving habits and a recovery in the credit markets will be key.

	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	1Q09	2Q09	3Q09	4Q09	2007	2008	2009
GDP (↓ contributions)	4.8	-0.2	0.9	2.8	-0.5	-4.8	-1.8	-0.8	1.2	2.2	2.0	1.2	-1.1
consumer durables	0.2	0.0	-0.3	-0.2	-1.2	-1.7	-0.3	0.1	0.2	0.2	0.4	-0.3	-0.5
nondurables & services	1.3	0.6	0.9	1.1	-1.5	-1.1	0.3	0.6	1.0	1.3	1.6	0.5	0.1
bus. fixed investment	0.9	0.4	0.3	0.3	-0.2	-0.9	-1.2	-0.8	-0.2	0.1	0.5	0.3	-0.6
residential investment	-1.1	-1.3	-1.1	-0.5	-0.7	-0.4	-0.3	-0.2	0.0	0.1	-1.0	-0.9	-0.3
government	0.8	0.2	0.4	0.8	1.1	0.1	0.1	0.3	0.5	0.4	0.4	0.5	0.4
Domestic Final Sales	1.9	-0.1	0.1	1.5	-2.3	-4.2	-1.4	0.0	1.4	2.1	1.9	0.1	-1.1
exports	2.5	0.5	0.6	1.5	0.5	-1.3	-2.1	-1.6	-0.6	0.1	0.9	0.9	-1.0
imports	-0.5	0.4	0.1	1.4	0.6	1.2	1.5	0.6	0.0	-0.4	-0.4	0.5	0.8
Final Sales	4.0	0.8	0.9	4.8	-1.4	-4.3	-2.0	-1.1	0.8	1.8	2.4	1.5	-1.2
ch. in bus. inventories	0.7	-1.0	0.0	-1.5	0.9	-0.5	0.2	0.3	0.4	0.4	-0.4	-0.3	0.1
Unemployment, %	4.7	4.8	4.9	5.3	6.0	6.7	7.3	7.6	7.9	8.0	4.6	5.7	7.7
NF Payrolls, monthly, th.	71	80	-82	-71	-199	-410	-150	-130	-60	-20	91	-191	-90
Cons. Price Index (3 mo)	2.5	6.2	3.1	7.9	2.6	-12.3	1.5	2.1	2.2	2.3	4.1	0.3	2.0
excl. food & energy	2.5	2.6	2.0	2.5	2.7	0.6	1.8	2.0	2.0	2.1	2.4	2.0	2.0
PCE Price Index (q/q)	2.5	4.3	3.6	4.3	5.2	-5.1	-2.1	1.8	2.0	2.0	2.6	3.4	0.1
excl. food & energy	2.1	2.5	2.3	2.2	2.6	1.2	1.6	1.8	1.9	1.9	2.2	2.2	1.8
Fed Funds Rate, %	5.09	4.49	3.18	2.09	1.96	0.62	0.35	0.45	0.52	0.96	5.02	1.96	0.57
3-month T-Bill, (bond-eq.)	4.4	3.5	2.1	1.7	1.5	0.4	0.4	0.5	1.1	1.3	4.5	1.4	0.8
2-year Treasury Note	4.4	3.5	2.0	2.4	2.4	1.3	1.2	1.6	2.8	3.2	4.4	2.0	2.2
10-year Treasury Note	4.7	4.3	3.7	3.9	3.9	3.4	3.4	3.9	4.3	4.5	4.6	3.7	4.0