



## U.S. ECONOMIC & INTEREST RATE OUTLOOK

### Tough Economic Times Ahead *and* They Are Priced In

October 29, 2008

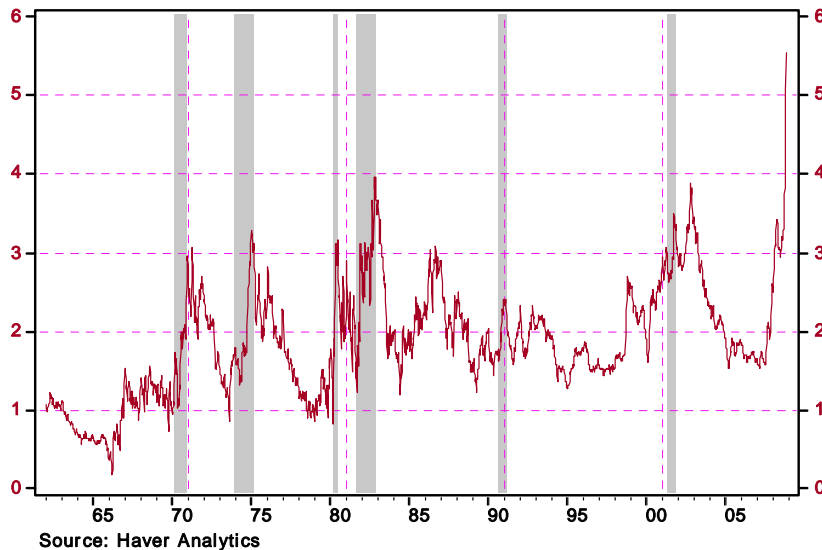
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Make no mistake about it; there are tough economic times ahead. The credit markets seem to have priced in, if not the worst case, then at least a very realistic case. Consider Chart 1 in which we have plotted the spread between the yield on a Baa corporate bond and the yield on a 10-year Treasury security. The wider the positive spread, the greater the default risk assumed by the market. In the week ended October 24, this spread shot up to a record high 5.55 percentage points. The previous record high for this series, which began in January 1962, was 3.96 percentage points reached in the week ended November 5, 1982. You may recall that the early 1980s were tough economic times with two economic recessions occurring in the first two years of the decade.

Chart 1  
Yield Spread: Corporate Baa minus Treasury 10-Yr.  
percentage points



When the economists at the National Bureau of Economic Research get around to it, we think they will date the beginning of the current recession as either the fourth quarter of last year or the first quarter of this year. This is what the Federal Reserve Bank of Chicago's National Activity Index (NAI) suggests. This is a weighted index of 85 economic variables that appears to be an excellent *coincident* indicator. Historically, when the 3-month moving average or quarterly average of the NAI has dropped below minus 0.70, a recession has occurred (see Chart 2). The series starts in 1967. In its history, this minus 0.70 rule for the NAI has given only one false recession signal – the fourth quarter of 1991. Chart 3 shows that the quarterly average of the NAI slipped marginally below minus 0.70 (minus 0.76, to be exact) in the fourth quarter of 2007.



Chart 2  
FRB Chicago National Activity Index

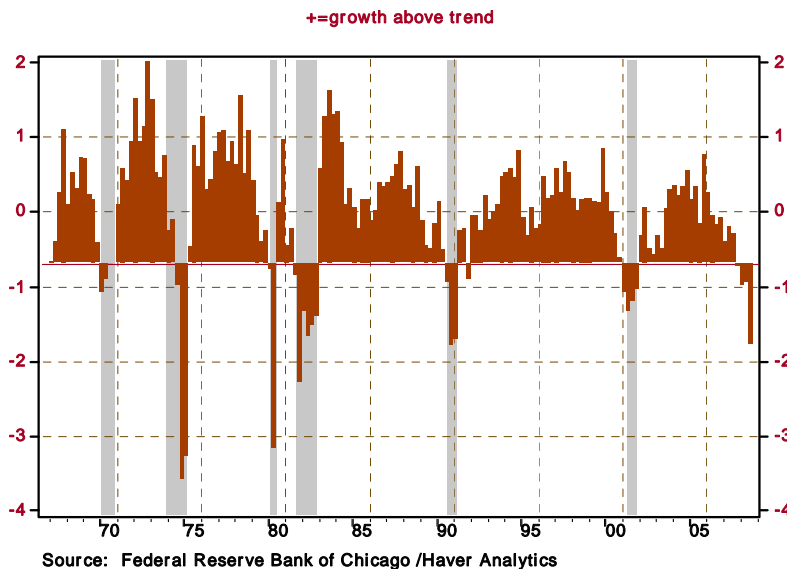
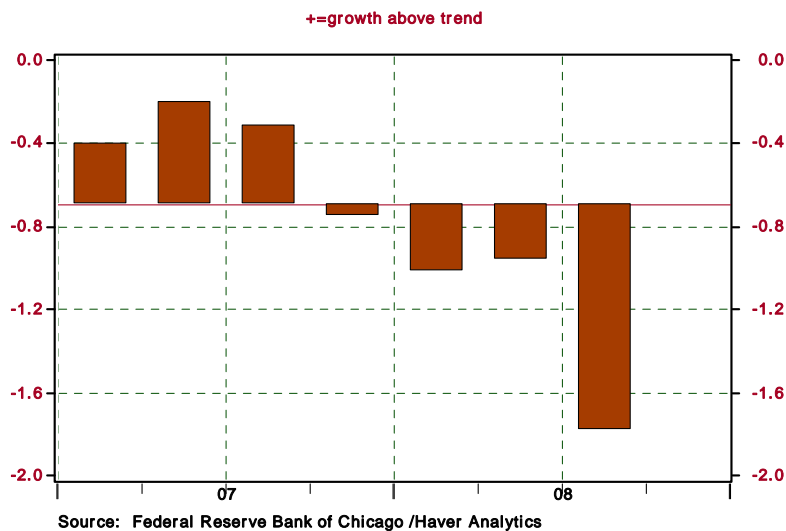


Chart 3  
FRB Chicago National Activity Index

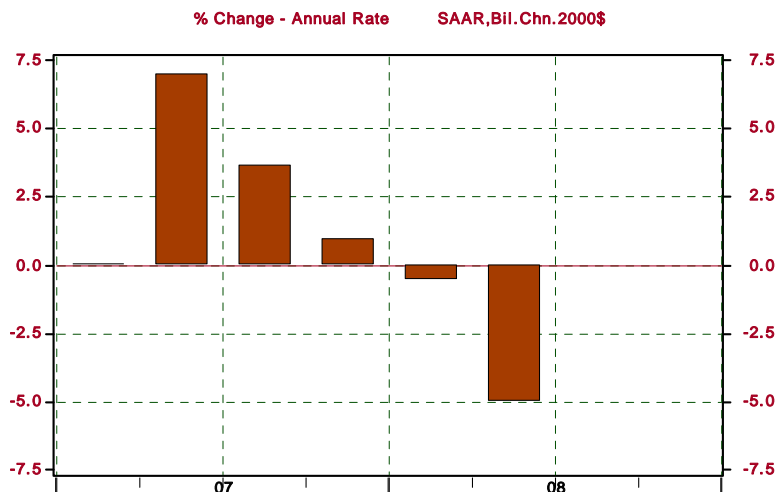


The housing bust precipitated the current recession. Contrary to conventional wisdom, problems in the housing sector were not contained there. The next sector to go down was business equipment spending, which began contracting in the first quarter of this year (see Chart 4). Now that real consumer spending is about to contract, we expect more sizeable declines in real business equipment expenditures in the coming quarters.

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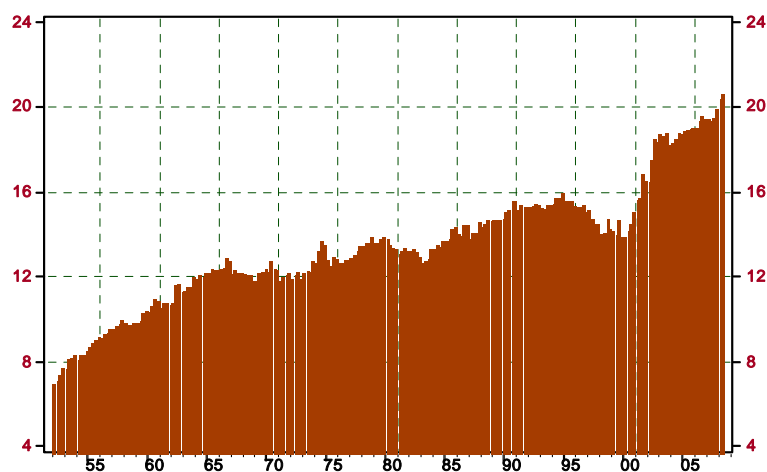
Chart 4  
Real Private Nonresidential Investment: Equipment & Software



Source: Bureau of Economic Analysis /Haver Analytics

Speaking of consumer spending, the tax rebates earlier in the year prevented mall traffic from collapsing. But that round of fiscal stimulus is over and reality has set in. Household balance sheets are in their worst shape in the post-World War II era. Chart 5 shows that household leverage – total household liabilities as a percent of the market value of total household assets – hit a record high of almost 21% in the second quarter of this year, the latest data available. In the past few quarters, this household leverage ratio has moved up primarily because the denominator, the market value of household assets, was falling. But starting in the second quarter of 2003 through the third quarter of 2007, *both* the market value of household assets *and* the value of household liabilities grew rapidly.

Chart 5  
Households: Total Liabilities as % of Market Value of Total Assets

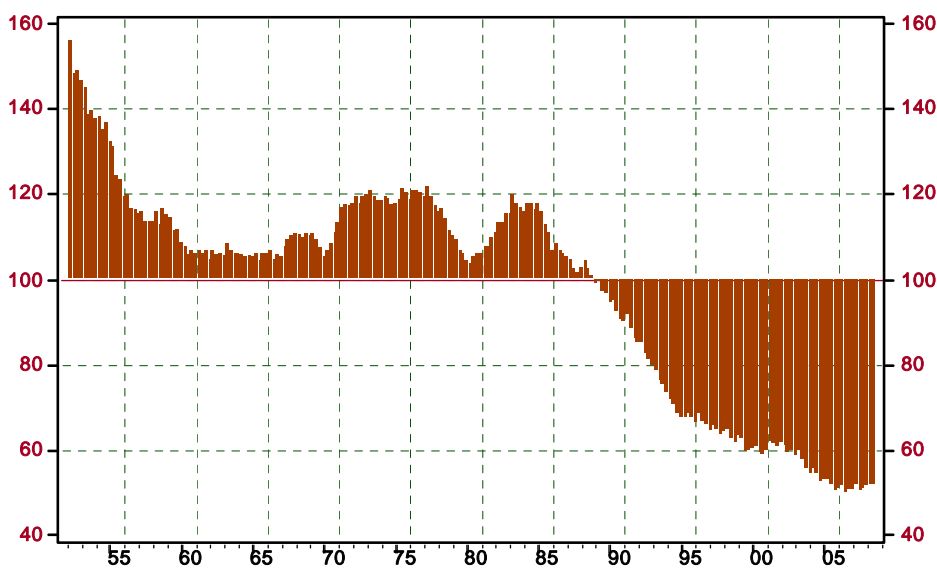


Source: Haver Analytics

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At the same time that household leverage has climbed to a record high, household liquidity is plumbing a near-record low. We define liquidity as the amount of household bank/thrift deposits and money fund shares – assets redeemable at *par* within a short period of time – as a percent of total household liabilities. The history of this household liquidity measure is shown in Chart 6. Notice that from the first quarter of 1952 through the third quarter of 1988, households *consistently* held deposits and money fund shares *in excess* of their total liabilities. Thereafter, their liabilities *consistently exceeded* their deposits and money fund holdings. As of the second quarter of this year, household deposits and money fund holdings were equal to only about 51% of their total liabilities. So, household balance sheets are highly leveraged and very illiquid. This is a very negative combination for consumer spending at a time when the value of their assets is falling and the unemployment rate is rising rapidly.

Chart 6  
Households: Deposits and Money Funds as % of Total Liabilities



Source: Haver Analytics

The sharp rise in residential real estate values in the recent housing boom along with low mortgage interest rates and low mortgage refinancing transactions costs induced households to extract hundreds of billions of dollars of equity from their homes. In the heyday of the housing boom, households were extracting equity from their abodes in amounts equal to 6% or more of their after-tax incomes (see Chart 7). This massive mortgage equity withdrawal directly or indirectly enabled households to step up their consumer spending to a record-high post-World War II ratio of their after-tax income – almost 96% in 2005 (see Chart 8)

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Chart 7  
**Active Mortgage Equity Withdrawal / Disposable Personal Income**  
 %

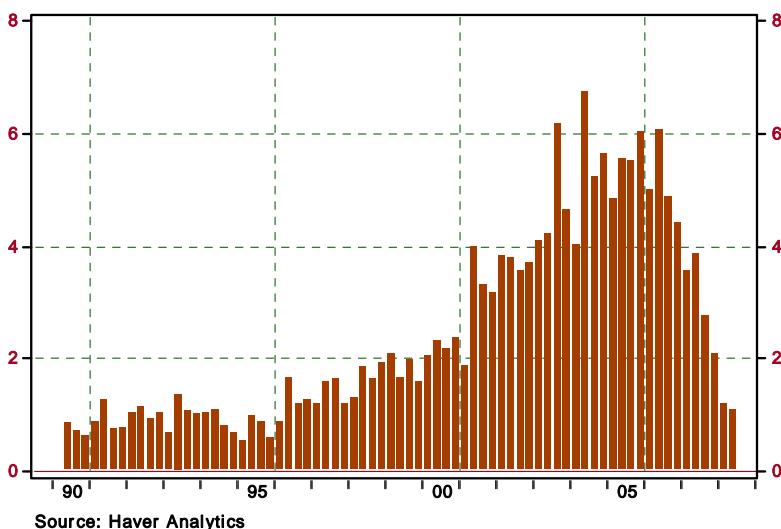
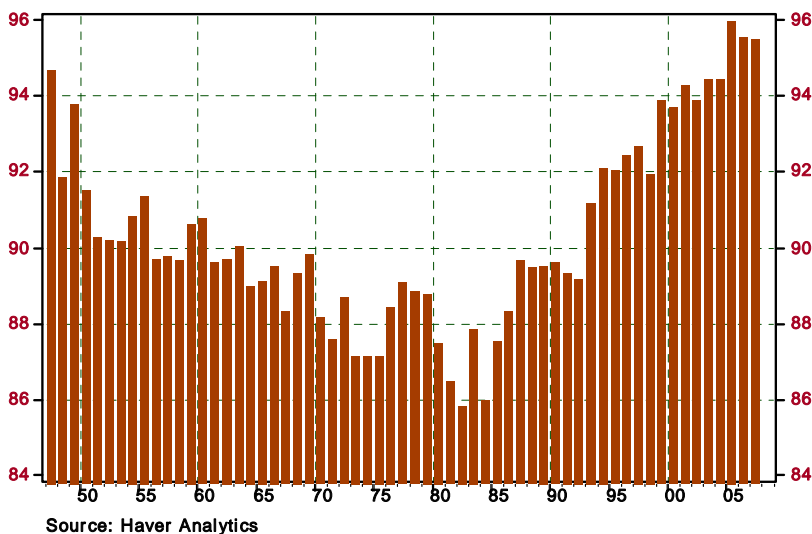


Chart 8  
**Nominal Consumer Spending as % of Disposable Personal Income**

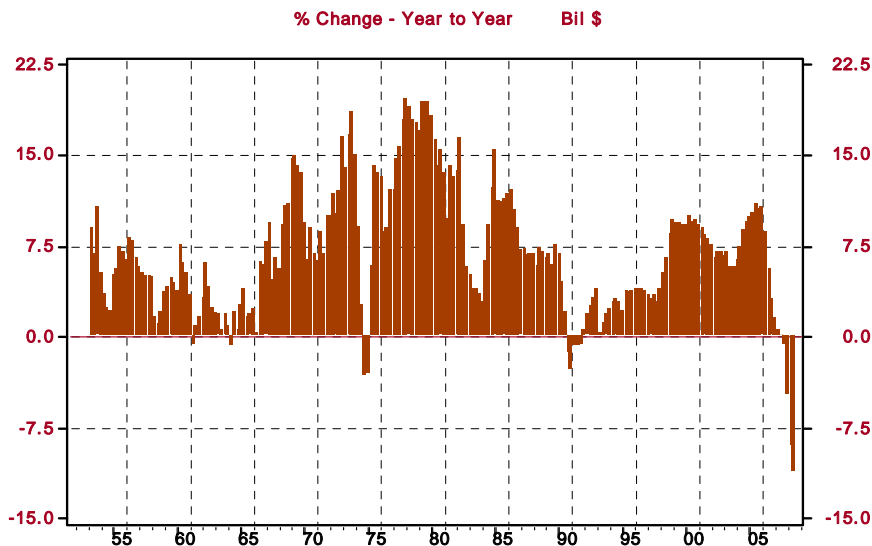


But alas, home equity is *falling* at a record rate (see Chart 9) and it is more difficult to qualify for mortgage financing. This along with the rising unemployment rate is expected to result in the largest protracted contraction in real personal consumption expenditures in the post-World War II era. Chart 10 shows that in this period, there have been only two years in which the

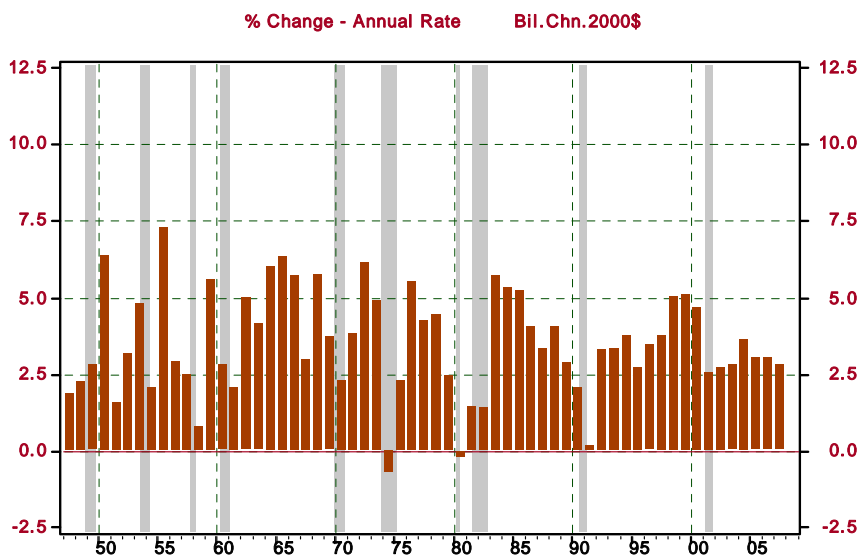
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annual average of real personal consumption expenditures contracted – 1974 (minus 0.76%) and 1980 (minus 0.27%). We are forecasting a contraction of 1.4% in real personal consumption expenditures on an annual average basis in 2009.

**Chart 9**  
**Households & Nonprofit Organizations: Owners Equity in Real Estate**



**Chart 10**  
**Real Personal Consumption Expenditures**



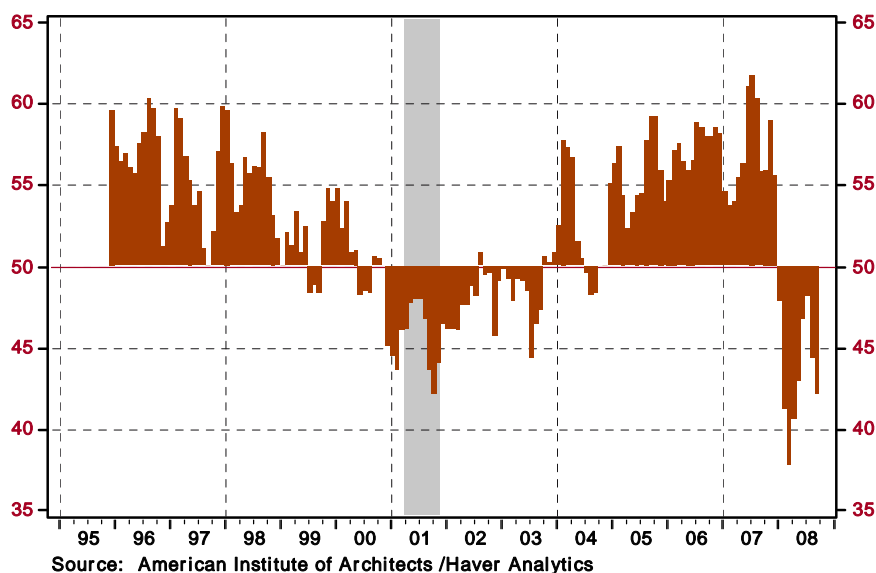
Source: Bureau of Economic Analysis /Haver Analytics

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For the past three years, state and local government expenditures have represented approximately 11% of real GDP. According to the Rockefeller Institute of Government, growth in real state and local tax revenues is slowing, with real sales tax revenues contracting. The Institute reports that real state and local income tax revenues are relatively strong because of 2007 income growth. With income slowing in 2008, state and local income tax revenues are expected to slow markedly in the second half of this year. Budget and hiring cuts, which already have started, will accelerate in the quarters ahead.

With the unemployment rate increasing and with consumer spending in retreat, office and retail mall vacancy rates are on the rise. With discretionary household spending being especially hard hit, there is unlikely to be many groundbreaking ceremonies for new hotels either. This will lead to a contraction in real nonresidential construction expenditures next year. A leading indicator of this is the billings that architectural firms are registering right now. Chart 11 tells the sad story.

Chart 11  
**Architectural Billings Idx: Comm/Ind Sector, 3-Mo Moving Avg**  
 SA,+50=Increase



Real exports grew at an annual rate of 6.7% in the first half of this year. With real economic activity now contracting in the bulk of the developed world and with real economic activity slowing in the developing world, U.S. export growth is destined to slow in the quarters ahead.

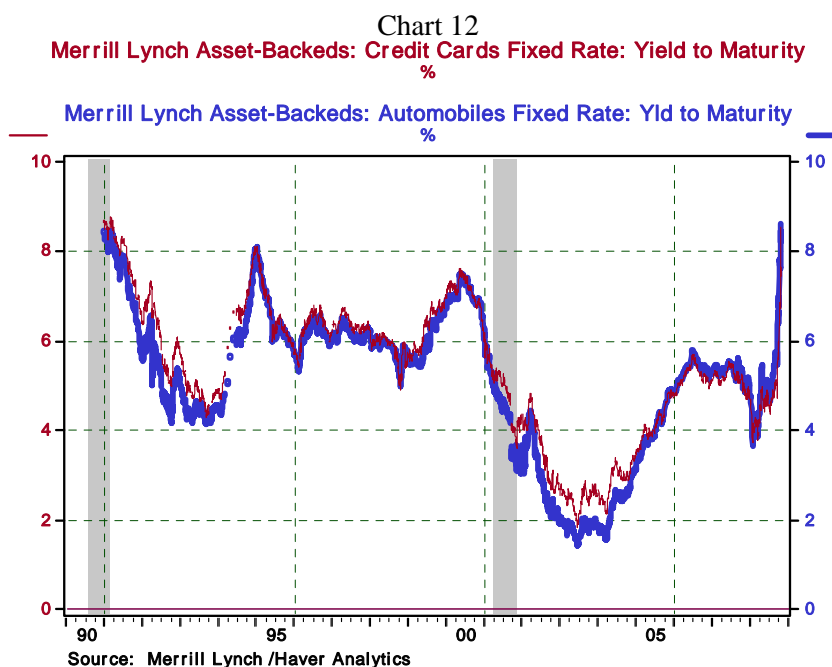
That does not leave any sectors other than the federal government to contribute much to stronger aggregate demand growth. Congress is making noises about holding a lame-duck session right after the November election in order to draft some fiscal stimulus legislation. We have not incorporated this into our 2009 real GDP forecast.

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So long as there are central banks that have no limits on the amount of credit they can create, there will always be a threat of accelerating price increases for goods and services. But over the next year, the threat of higher consumer price inflation is minimal. Rather, we see a sharp deceleration in the rate of increase in consumer prices. The sharp decline in commodity prices in recent months is a symptom of the global economic recession that has taken hold. Their prices are not falling because new reserves of them have been discovered. Rather, the demand curves for commodities are shifting back, which is resulting in lower prices. Given our forecast of contracting real GDP for the five consecutive quarters ended the third quarter of 2009, real aggregate demand will be falling short of real aggregate supply, hence, our forecast of decelerating CPI inflation. Although we have never subscribed to labor cost-push inflation, even if we did, this would not be an issue in the current environment. Given our forecast of the unemployment rate rising from its current level of 6.1% to 7.8% by the fourth quarter of 2009, we doubt that labor will be in a position to negotiate significant wage increases.

The principal reason we are expecting a long recession and a muted recovery is because of the evaporation of capital in the financial system due to credit losses. Although the housing market bust caused the first wave of losses, now that the recession has set in with a vengeance, more normal credit losses are emerging. With the rising unemployment rate, households are falling behind on their credit card and auto loan payments. In recent weeks, as the seriousness of the economic recession has been recognized, the debt markets have begun to price in these new credit problems, as shown in Chart 12. With the realization that the economy has entered a severe recession, corporate profits will be depressed longer and by more than previously thought. Therefore, the risk of corporate bond defaults has risen. As a result, high-yield debt is living up to its name (see Chart 13). Problems are arising in the large bank-syndicated loan market (see Chart 14). And the already rising delinquency rate for commercial real estate loans (see Chart 15) will rise further as vacancy rates escalate.



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Chart 13  
**Merrill Lynch High Yield Corporate Master II: Yield to Maturity**

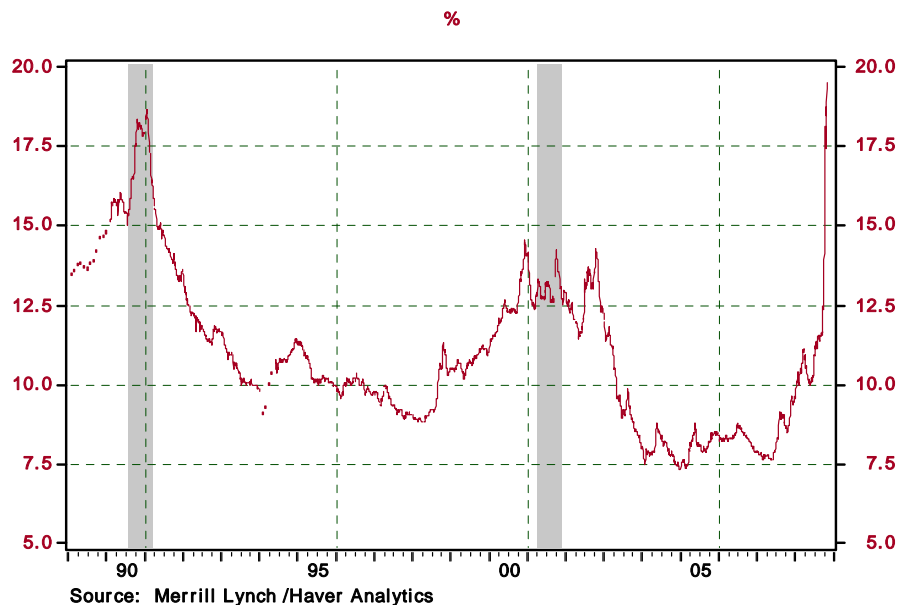
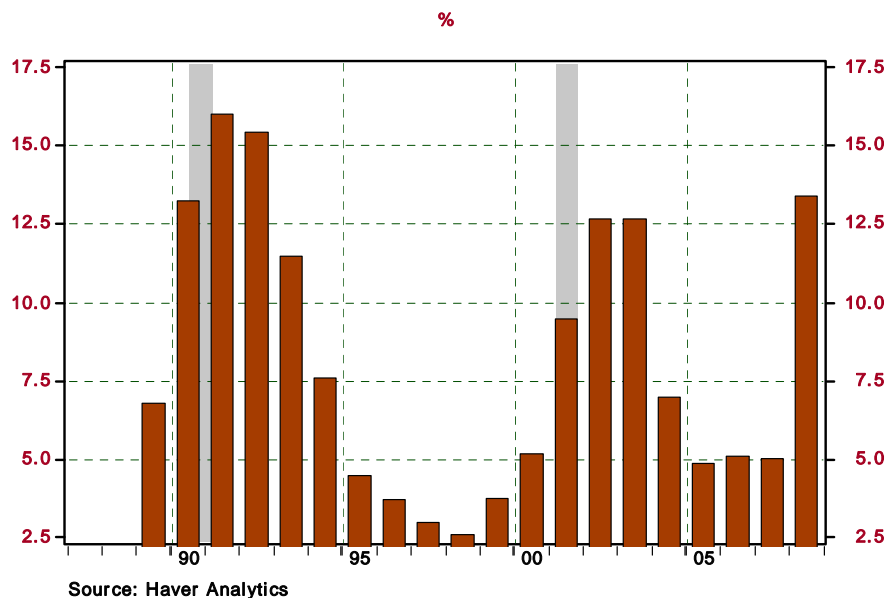
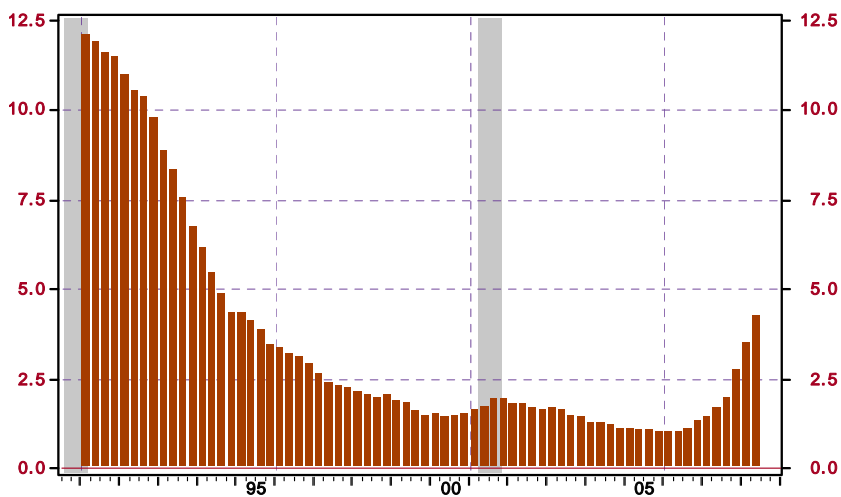


Chart 14  
**Large Syndicated Loans: Total Committed / Total Adversely Rated**



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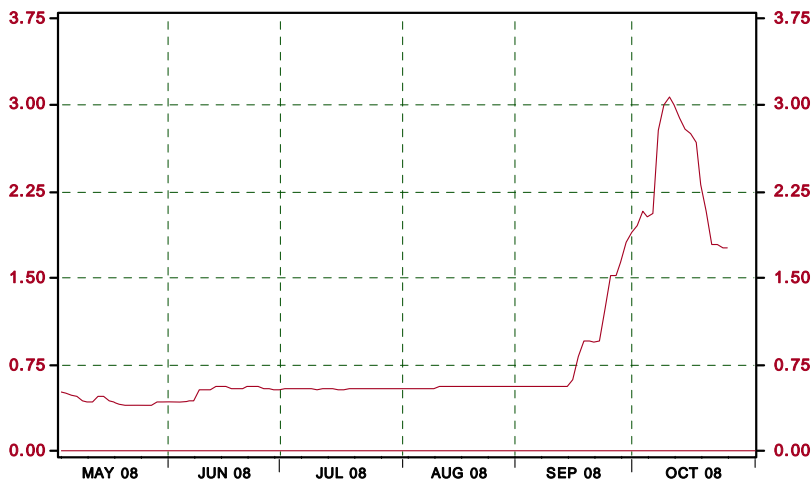
Chart 15  
**Loan Delinquency Rate: Commercial Real Estate Loans: All Comml Banks**  
 SA,%



Source: Federal Reserve Board /Haver Analytics

There has been much made of the recent unwillingness of banks to lend to one another on a term basis. This has been reflected in the wide spread between 3-month LIBOR and the level of the Fed's discount rate. Banks can borrow for up to 90 days from the Fed's discount window. Moreover, the Fed is not averse to a bank borrowing from the discount window and lending the funds in the interbank market. So, the sharp widening in this spread reflects the perception of significant counterparty risk among banks. As Chart 16 shows, this spread has begun to narrow in recent days, but remains unusually wide.

Chart 16  
**Interest Rate Spread: 3-Mo. LIBOR minus Fed Discount Rate**  
 percentage points



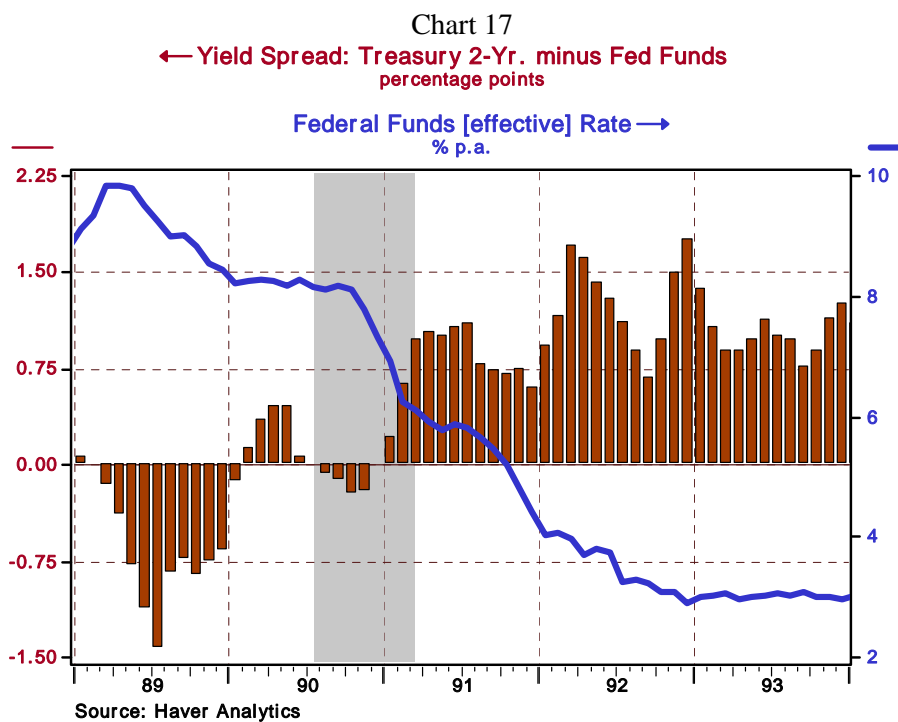
Source: Haver Analytics

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Bank A's unwillingness to lend to Bank B is not a major economic problem so long as the Fed is willing to lend to Bank B, which, in most cases, it is. The major economic problem arises if Bank A is unwilling to lend to Joe, the wannabe plumbing contractor, who has a decent credit record. The reason Bank A might be rationing credit availability to good credit risks is that Bank A does not have the capital to support more lending. The Treasury is helping to remedy this capital inadequacy by investing in financial institutions by purchasing newly-issued preferred stock.

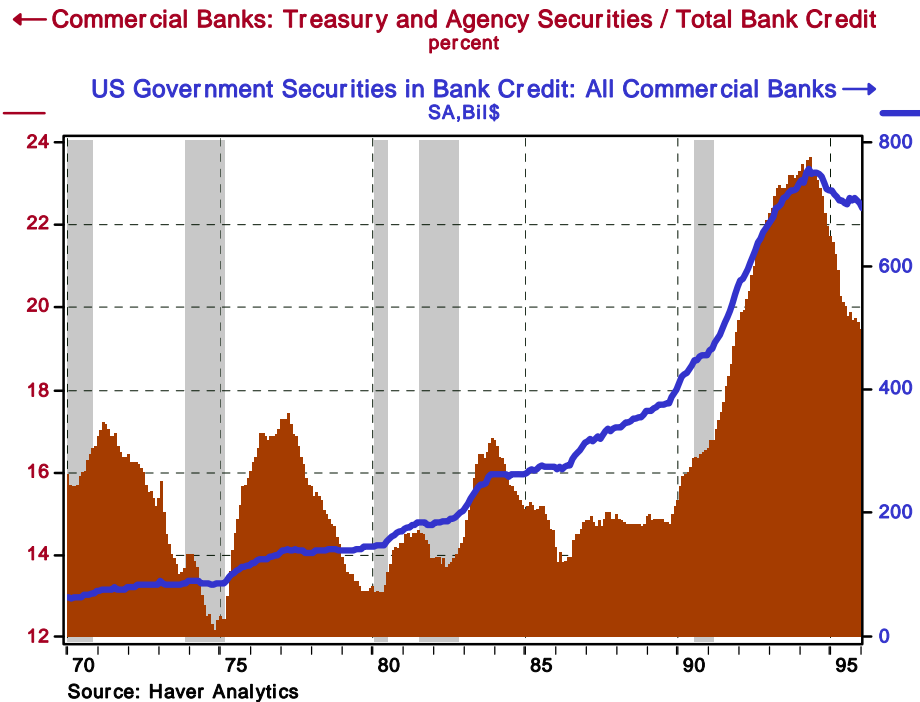
The Federal Reserve can help remedy the capital inadequacy problem by promoting a steeper Treasury yield curve through further reductions in the federal funds rate. Banks can lend to the Treasury without incurring a risk-based charge to their capital because Treasury securities have no credit risk associated with them. The only limit on the amount of Treasury securities a bank can own is its overall regulatory leverage ratio – some maximum ratio of earning assets to net worth. By purchasing large amounts of Treasury securities yielding more than their overnight funding costs, banks can increase their profits and, thereby, increase their capital to the point that they can begin lending more to the private sector.

This is what occurred in the early 1990s after banks had suffered large losses due to commercial real estate loans gone sour. Chart 17 shows that the yield spread between Treasury 2-year securities and the federal funds rate widened as the Fed reduced its target funds rate. Chart 18 shows that commercial banks loaded up, both in absolute and relative terms, on Treasury and government agency securities from 1990 through 1993 to earn the generous rate spread over the federal funds rate and thereby recapitalize themselves.



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Chart 18



This financial sector recapitalization process takes time – years. Early in the process, growth in credit to the private sector will be slow. As a result, the current recession is likely to be drawn out and the recovery could be muted. But, as we said at the outset, a lot of what is expected to transpire already is priced into the credit markets.

*\*Paul Kasriel is the recipient of the Lawrence R. Klein Award for Blue Chip Forecasting Accuracy*

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**THE NORTHERN TRUST COMPANY  
ECONOMIC RESEARCH DEPARTMENT  
October/November 2008  
SELECTED BUSINESS INDICATORS**

**Table 1 US GDP, Inflation, and Unemployment Rate**

|  | 2007   |        | 2008   |        |        |        | 2009   |        |        |        | Q4 to Q4 Change |       |       | Annual Change |         |         |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------|-------|-------|---------------|---------|---------|
|  | 07:3a  | 07:4a  | 08:1a  | 08:2a  | 08:3f  | 08:4f  | 09:1f  | 09:2f  | 09:3f  | 09:4f  | 2007a           | 2008f | 2009f | 2007a         | 2008f   | 2009f   |
| <b>REAL GROSS DOMESTIC PRODUCT</b><br>(% change from prior quarter ) | 4.8    | -0.2   | 0.9    | 2.8    | -0.7   | -2.5   | -3.0   | -1.8   | -0.3   | 2.0    | 2.3             | 0.1   | -0.8  | 2.0           | 1.3     | -1.4    |
| <b>CONSUMPTION EXPENDITURES</b>                                      | 2.0    | 1.0    | 0.9    | 1.2    | -2.5   | -2.5   | -2.0   | -1.5   | -0.5   | 2.0    | 2.2             | -0.7  | -0.5  | 2.8           | 0.5     | -1.4    |
| <b>BUSINESS INVESTMENT</b>   | 8.7    | 3.4    | 2.4    | 2.5    | -4.9   | -7.5   | -10.5  | -9.7   | -6.2   | -0.7   | 6.4             | -2.0  | -6.9  | 4.9           | 2.2     | -7.2    |
| <b>RESIDENTIAL INVESTMENT</b>  | -20.6  | -27.0  | -25.1  | -13.3  | -12.0  | -10.0  | -5.0   | -2.0   | 0.0    | 5.0    | -19.0           | -15.3 | -0.6  | -17.9         | -19.6   | -5.7    |
| <b>CHANGE IN INVENTORIES ('00 dtrs, bill)</b>                        | 16.0   | -8.1   | -10.2  | -50.6  | -17.7  | -12.7  | -19.3  | -14.3  | -4.3   | 2.7    |                 |       |       | -2.5*         | -22.8*  | -8.8*   |
| <b>GOVERNMENT</b>  | 3.8    | 0.8    | 1.9    | 3.9    | 1.2    | -0.4   | 0.4    | 0.7    | 1.7    | 1.5    | 2.4             | 1.6   | 1.1   | 2.1           | 2.2     | 0.8     |
| <b>NET EXPORTS ('00 dtrs, bill.)</b>                                 | -511.8 | -484.5 | -462.0 | -381.3 | -348.9 | -334.3 | -339.9 | -341.3 | -343.9 | -346.0 |                 |       |       | -546.5*       | -381.6* | -342.8* |
| <b>FINAL SALES</b>   | 4.0    | 0.8    | 0.9    | 4.4    | -1.8   | -2.7   | -2.8   | -2.0   | -0.7   | 1.8    | 2.5             | 0.2   | -0.9  | 2.4           | 1.5     | -1.5    |
| <b>NOMINAL GROSS DOMESTIC PRODUCT</b>                                | 6.4    | 2.3    | 3.5    | 4.1    | 2.7    | -2.2   | -2.3   | -0.4   | 1.4    | 3.9    | 4.9             | 2.0   | 0.6   | 4.8           | 3.5     | -0.1    |
| <b>GDP DEFLATOR - IMPLICIT (% change)</b>                            | 1.5    | 2.5    | 2.6    | 1.1    | 3.4    | 0.3    | 0.7    | 1.4    | 1.7    | 1.9    | 2.6             | 1.9   | 1.4   | 2.7           | 2.1     | 1.3     |
| <b>CPI (% Change, 1982-84 = 100)</b>                                 | 2.8    | 5.0    | 4.3    | 5.0    | 6.7    | 0.6    | 1.0    | 1.7    | 2.0    | 2.2    | 4.0             | 4.2   | 1.7   | 2.9           | 4.5     | 2.2     |
| <b>CIVILIAN UNEMPLOYMENT RATE (avg.)</b>                             | 4.7    | 4.8    | 4.9    | 5.3    | 6.0    | 6.5    | 7.0    | 7.4    | 7.7    | 7.8    | 4.6*            | 5.7*  | 7.5*  |               |         |         |

a=actual  
f=forecast  
\*=annual average

**Table 2 Outlook for Interest Rates**

**TABLE 2 Outlook for Interest Rates**

| <b>SPECIFIC INTEREST RATES</b> | <b>Quarterly Average</b> |       |       |       |       |       |       |       |       |       | <b>Annual Average</b> |       |       |
|--------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------|-------|-------|
|                                | 07:3a                    | 07:4a | 08:1a | 08:2a | 08:3a | 08:4f | 09:1f | 09:2f | 09:3f | 09:4f | 2007a                 | 2008f | 2009f |
| <b>Federal Funds</b>           | 5.07                     | 4.50  | 3.18  | 2.09  | 1.94  | 1.30  | 1.00  | 1.00  | 1.05  | 1.45  | 5.02                  | 2.13  | 1.13  |
| <b>3-mo. LIBOR</b>             | 5.45                     | 5.03  | 3.26  | 2.75  | 2.91  | 3.30  | 1.75  | 1.25  | 1.25  | 1.60  | 5.30                  | 3.06  | 1.46  |
| <b>2-yr. Treasury Note</b>     | 4.38                     | 3.48  | 2.02  | 2.42  | 2.36  | 1.50  | 1.35  | 1.35  | 1.50  | 1.95  | 4.36                  | 2.07  | 1.54  |
| <b>10-yr. Treasury Note</b>    | 4.73                     | 4.26  | 3.66  | 3.89  | 3.86  | 3.60  | 3.40  | 3.35  | 3.45  | 3.65  | 4.63                  | 3.75  | 3.46  |

a = actual  
f = forecast

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