

Payden & Rygel

US Outlook: Searching for Light At the End of the Tunnel

April 2009



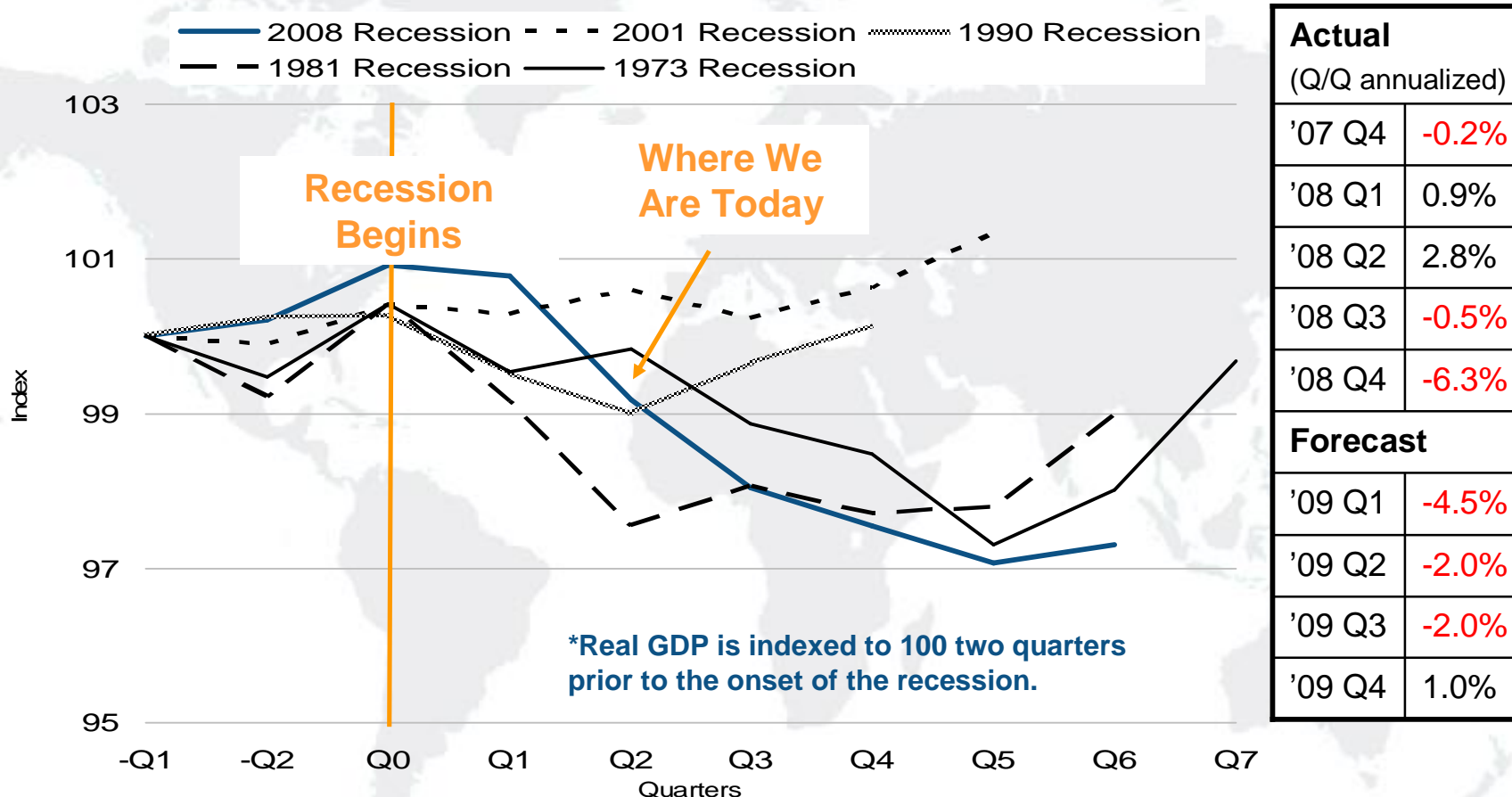
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I Putting Things Into Perspective

Where Does the 2008-09 Recession Fall?

2008-2009 Recession Forecast Compared to Prior Recessions



Sources: Commerce Department, Payden & Rygel Estimates

Since World War II, the average peak to trough decline in real gross domestic product during a recession has been on the order of 1.9%. The last two recessions in 1990 and 2001 were much milder with declines of 1.3% and 0.2%, respectively. This time around, we are forecasting a peak to trough decline in real GDP of 3.8%, making this the most severe recession during the post-war era.

A Recession Is Quite Different Than a Depression

The Great Depression vs. The Average Recession vs. The 2008-2009 Recession

	The Great Depression (1930s)	Average Recession (Post-War)	2008 Recession Forecast / Actual
Real GDP (peak to trough)	-30%	-1.9%	-3.8%
Rise in the Unemployment Rate	+21.6 (Peak rate 25%)	+3.2	+5.1 (Peak rate 9.5%)
Length	42 months	11 months	21 months beginning Dec '07
S&P 500 Stock Index (peak to trough)	-86%	-20%	-50% Oct'07 to Mar'09
Money Supply (M2)	-30% Gold Standard	+6.3%	+10.2% Mar '08 to Mar '09

Source: Department of Labor, Standard and Poor's, Bernanke (2000), Payden estimates

There are a lot of things that are different between today and the Great Depression of the 1930s. First, and foremost, is the policy response of the Fed and the nature of the financial system generally. Back then, the money supply was backed by gold. Thus, the availability of gold in the banking system limited the supply of credit. When bank runs began occurring, people withdrew their gold and credit availability contracted by 30%. The Fed could do nothing to accommodate the contraction because supply of gold set a limit. Bank failures continued, there were more withdrawals of gold and credit contracted in a vicious cycle.

A light gray world map is centered in the background of the slide. Two thin horizontal lines cross the map, one above and one below the main title.

II Leading Economic Indicators

What Are Leading Economic Indicators?

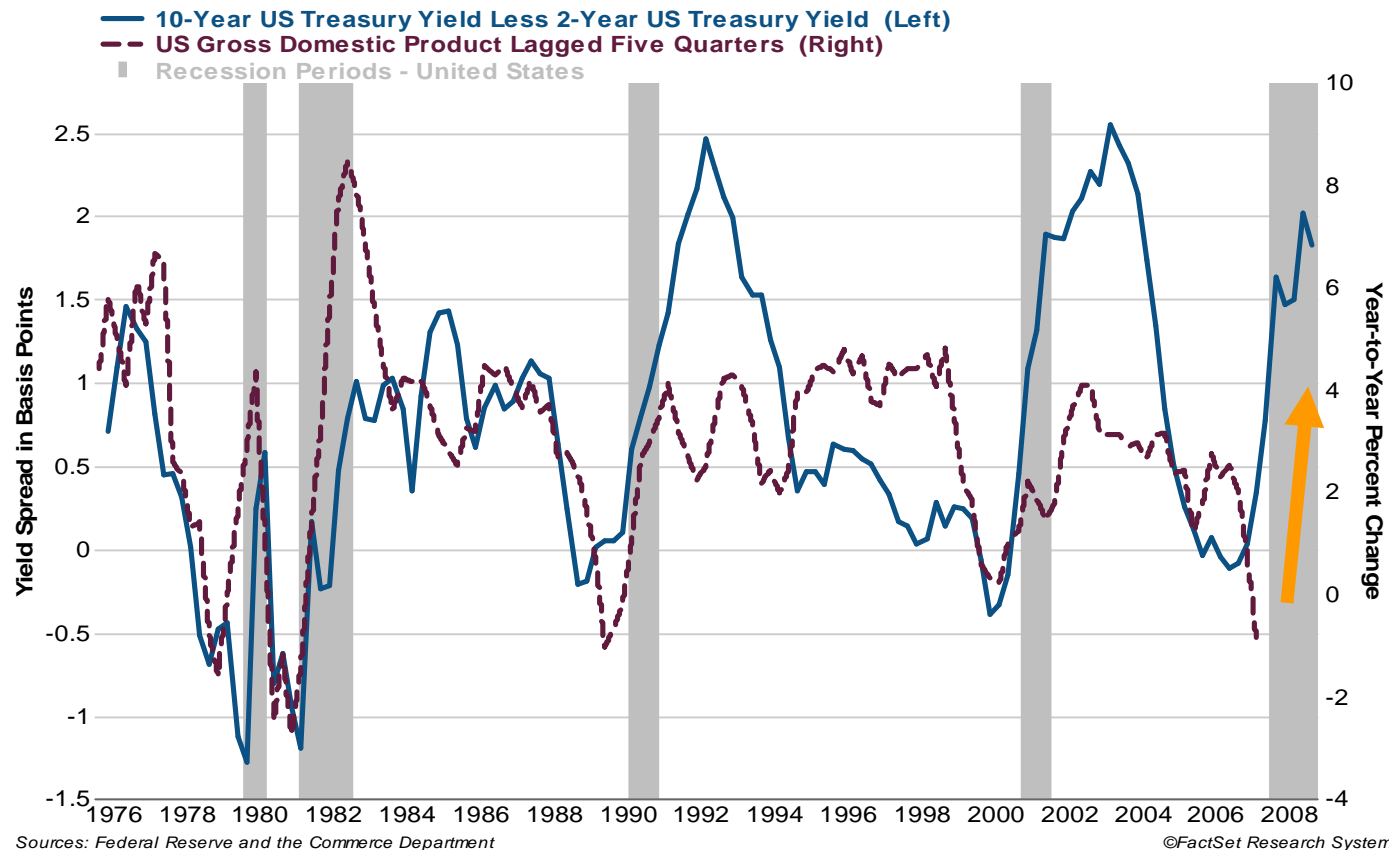
Leading Economic Indicators are economic and financial market variables that have a proven track record of changing direction ahead of shifts in the overall economy.

Two main categories:

- **Real variables** are reflective of actual economic activity whether it involves production, employment, income or sales.
- **Financial variables** are reflective of stock or bond market performance and monetary aggregates.

The Yield Curve Is One of the Most Reliable Leading Indicators

10-Year US Treasury Yield Less 2-Year Treasury Yield and US Real GDP



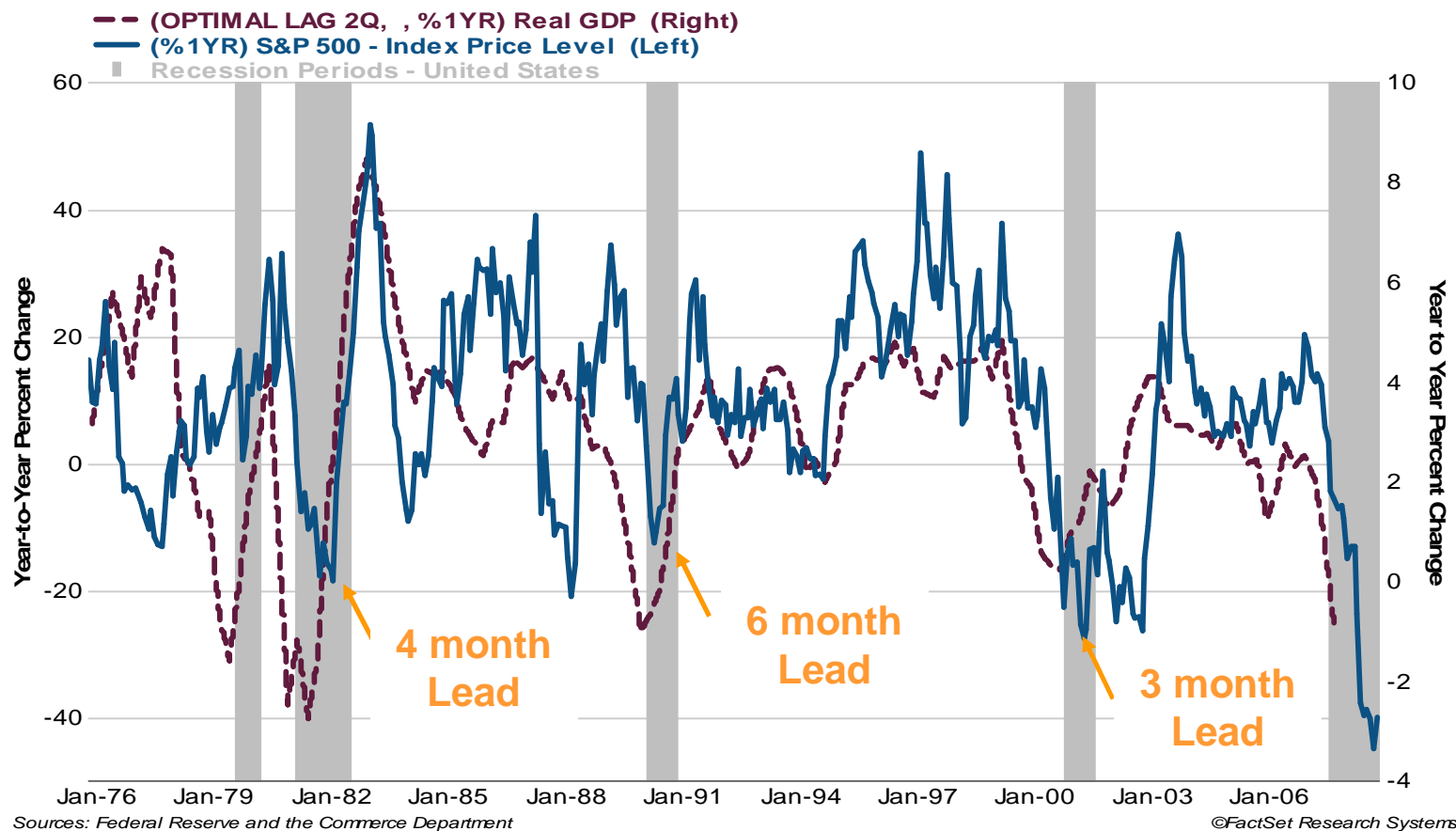
Academic research suggests that the spread between long- and short-term Treasury yields, also known as the yield curve, is the best leading indicator of economic activity. The yield curve was inverted from Q1 2006 until Q2 2007 signaling that the US economy was headed for recession. Subsequently, the curve steepened as the Federal Reserve reduced short term interest rates. Today, the curve is pointing toward a recovery by the Q3 2009.

Academic Research...

- 1) Estrella, Arturo, and Frederic S. Mishkin. 1996. "The Yield Curve as a Predictor of U.S. Recessions." Federal Reserve Bank of New York Current Issues in Economics and Finance 2, no. 7 (June).**
- 2) Harvey, Campbell R. 1988. "The Real Term Structure and Consumption Growth." Journal of Financial Economics 22, no. 2 (December): 305-33.**
- 3) Higgins, Thomas D. "The Term Structure and Recessions: An International Comparison." Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Department of Economics at Fordham University. New York. November 2001.**

Stock Prices Give Off Too Many False Signals

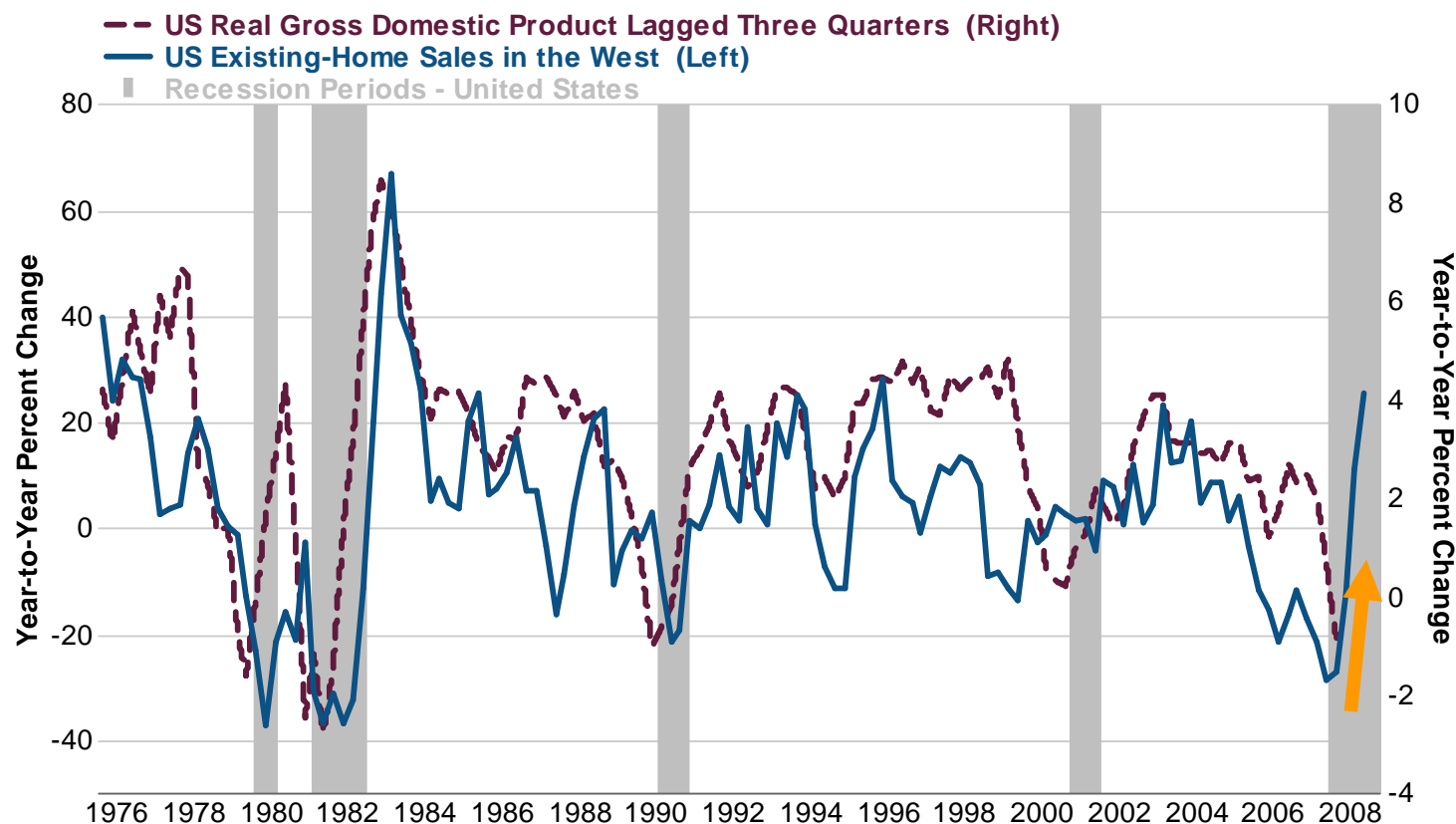
S&P 500 Stock Price Index and US Real GDP



Contrary to popular belief, stock prices are not a reliable leading indicator. Indeed, Nobel Prize winning economist Paul Samuelson once quipped, "Stock prices have forecast nine of the last five recessions." While they do have a better track record of predicting economic upturns, the volatile nature of stock prices suggests that it is premature to call bottom at the present time.

US Existing Home Sales Are Pointing to an Economic Recovery

US Existing Home Sales in the West and US Real Gross Domestic Product Lagged Three Quarters

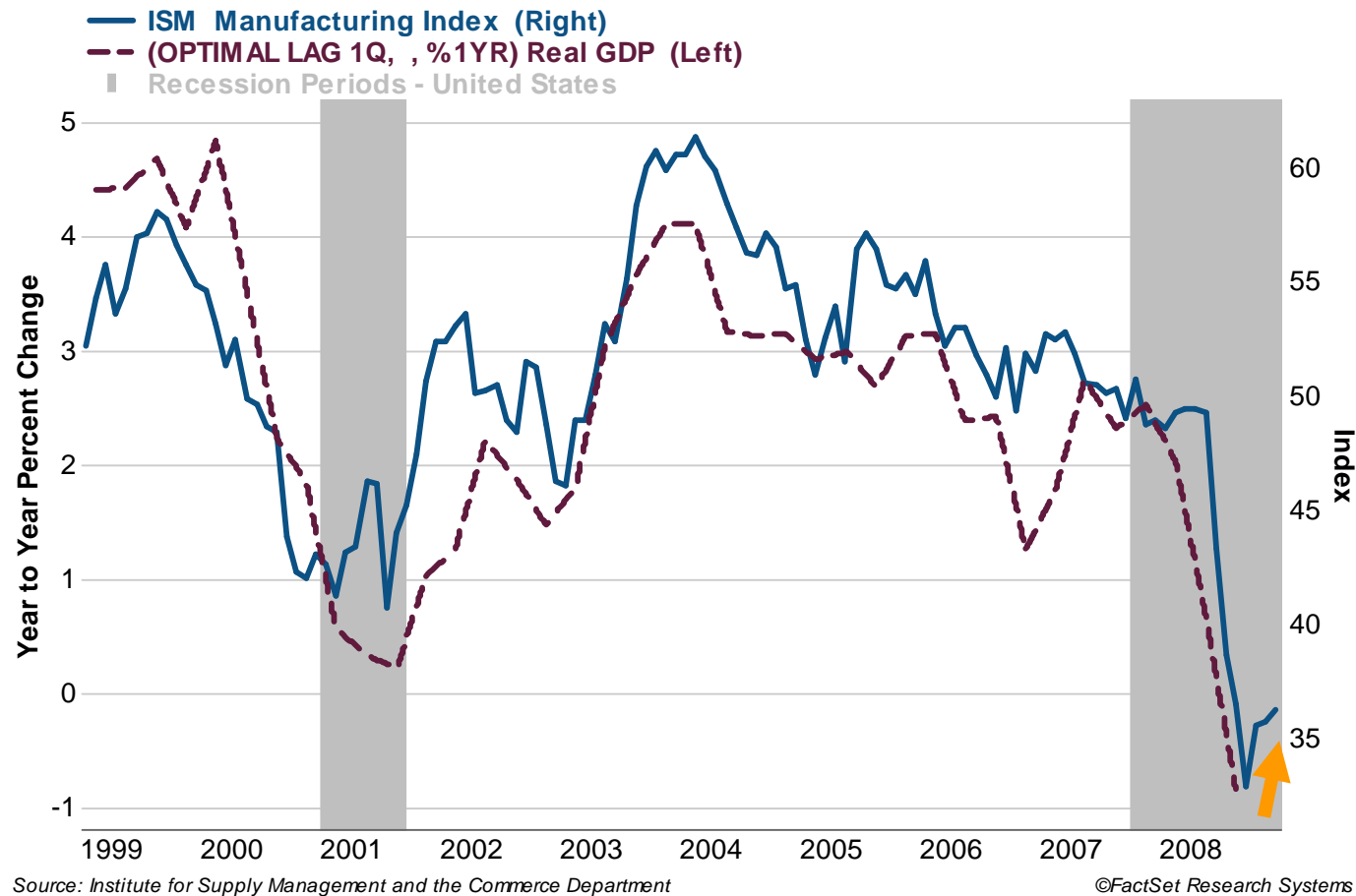


Sources: National Association of Realtors and the Commerce Department

Home sales tend to be a good leading indicator, particularly in credit crunches, because the housing sector is where individuals tend to be most highly leveraged. Consequently, housing is more sensitive to increases or reductions in borrowing costs. The housing market typically bottoms in a three stage process. Sales (a measure of demand) bottom first, followed by housing starts or supply three to six months later, and home prices maybe a year or two after that.

The Manufacturing Sector May Be Bottoming Out

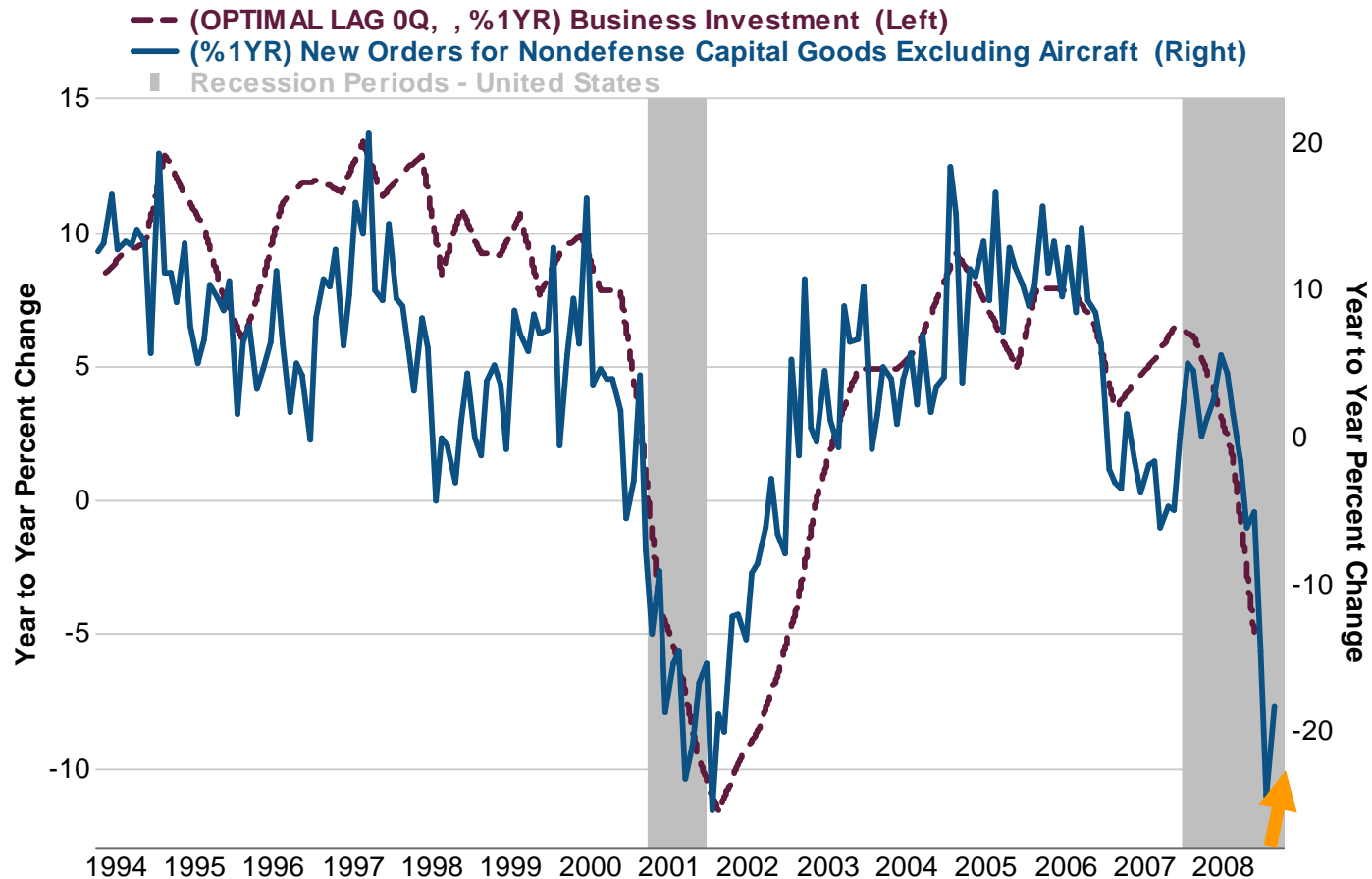
The ISM Manufacturing Index and US Real Gross Domestic Product Lagged Two Quarters



The ISM manufacturing index has an 80% correlation with real GDP when lagged by one quarter. This strong relationship means that it is an important short term leading indicator of the US economy. Although the index is still below the 50-level that separates expansion from contraction, the rate of contraction is slowing. This pattern typically occurs before a trough in the economy.

Business Investment Remains a Primary Concern

New Order for Nondefense Capital Goods Ex Aircraft and US Real Gross Domestic Product



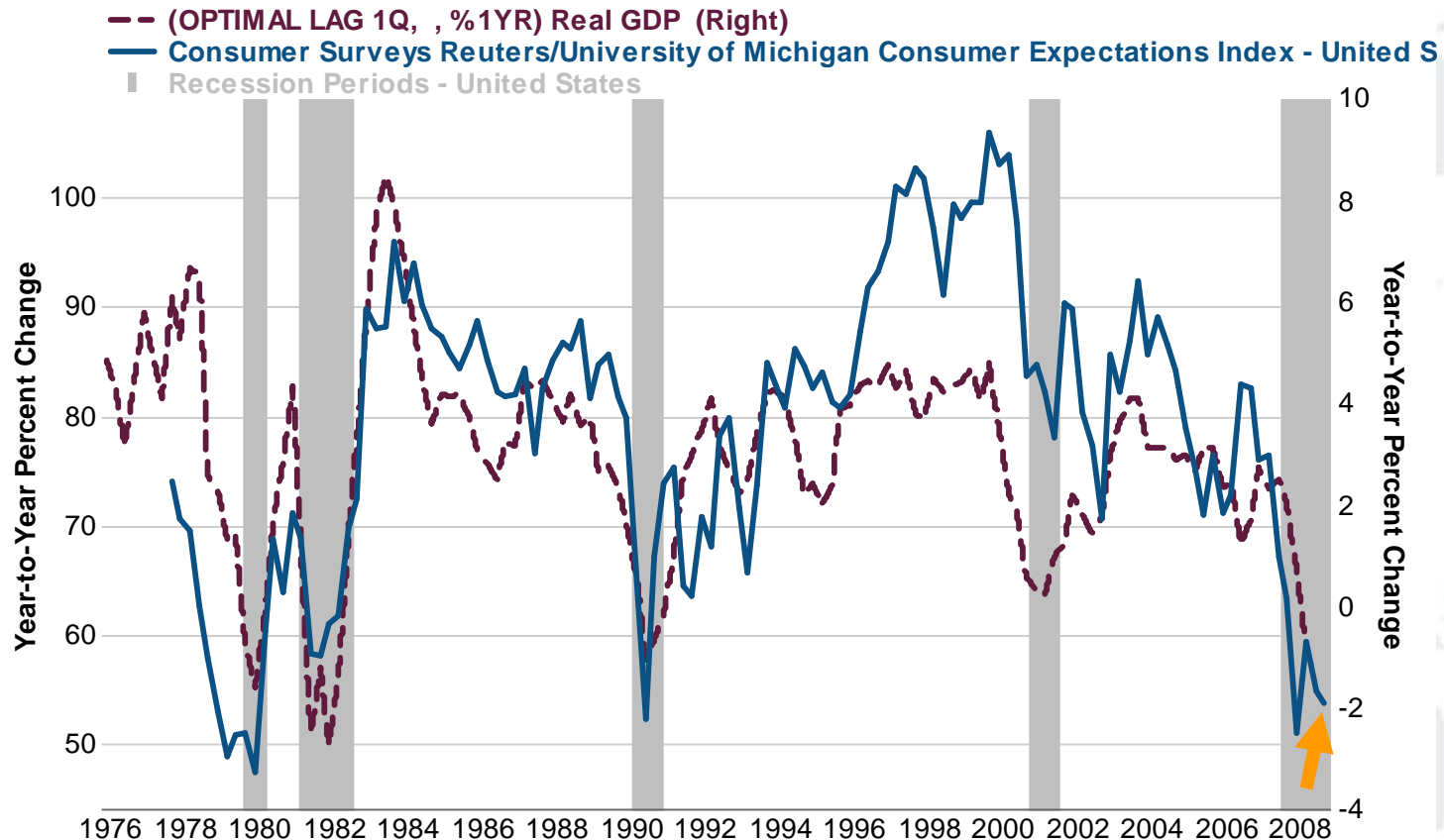
Sources: Census Department and the Commerce Department

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The collapse of consumer demand has caused businesses to aggressively cut back on new investment. New orders for non-defense capital goods excluding aircraft are considered an important indicator of future business investment, but their lead time is very short. Recently, the rate of decline in the series has begun to slow.

Consumer Expectations Remain Low, But They Are Stabilizing

Consumer Expectations Six-Months Hence and US Real Gross Domestic Product







Sources: The University of Michigan and the Commerce Department

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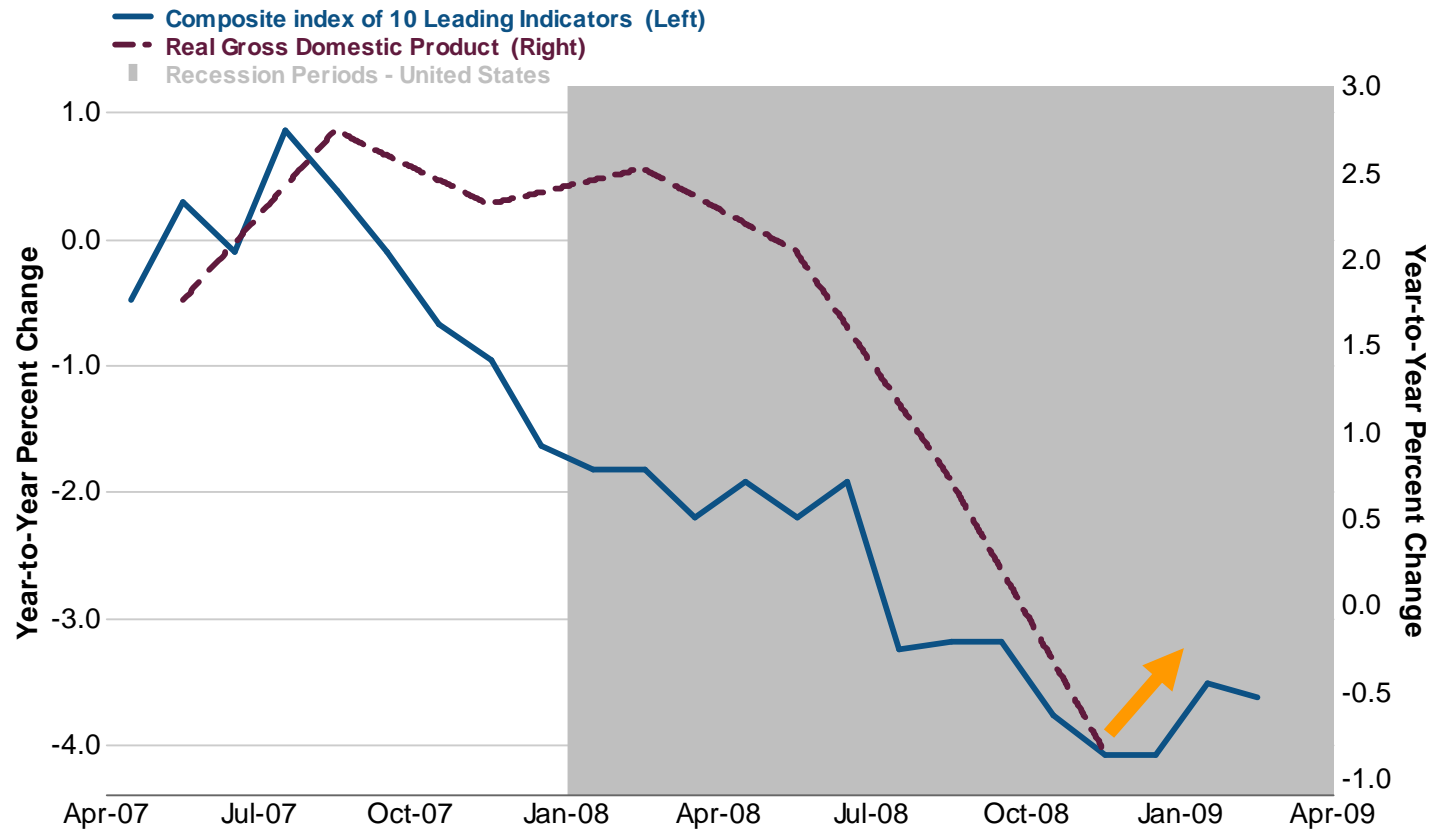
Although consumer confidence remains at very low levels, it appears to have stabilized over the past six months. It is looking increasingly likely that consumer spending may even turn positive in the first half of this year.

Leading Economic Indicators Score Card

	Lead Time (months)	Reliability	Current Signal	Second Half Recovery?
Financial Indicators				
Yield Curve	12 to 24	High	Positive	
M2	12 to 24	Low	Positive	
Stock Prices	3 to 6	Medium	Positive	Premature
Real Indicators				
Existing Home Sales	6 to 9	High	Positive	
ISM Manufacturing Index	3 to 6	High	Positive	
Consumer Expectations	3 to 6	Low	Positive	Premature
New Orders for Durable Goods	1 to 3	High	Positive	Premature
Average Weekly Hours	1 to 3	High	Negative	Premature
Unemployment Insurance Claims	1 to 3	Medium	Negative	Premature

Is the US Economy Approaching a Turning Point?

Composite of 10 Leading Economic Indicators



Sources: The Conference Board and the Commerce Department

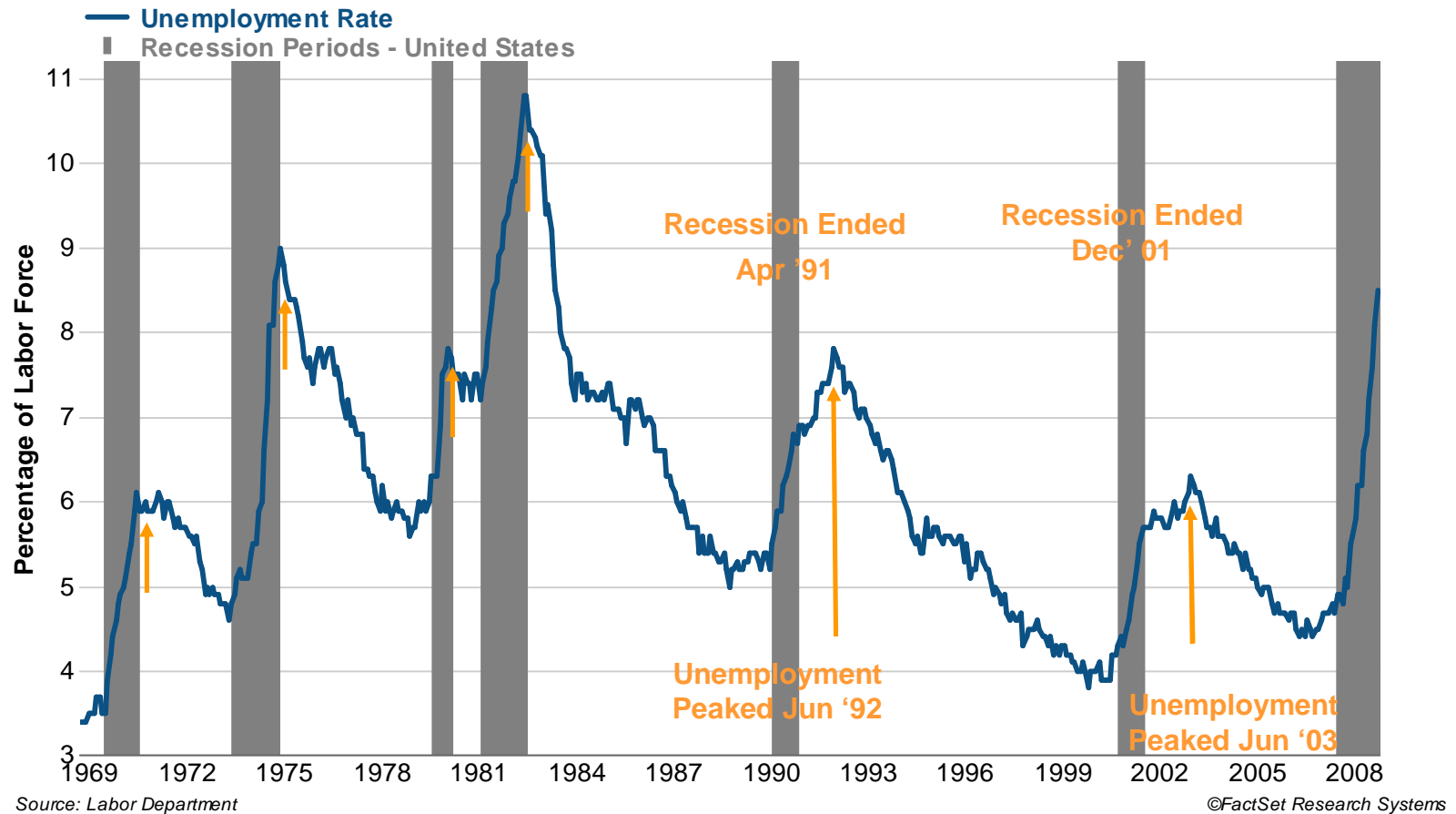
The Conference Board's Leading Economic Index (LEI) has led turning points in the economy by an average of 7 months over the past 40 years. The range of lead times has varied from as long as 12 months in the 1960 recovery to as little as two months in the 1991 recovery. Although the LEI has improved in the last three months, it is premature to call a bottom yet.



**III Stop Looking in the Review Mirror:
Lagging Economic Indicators**

Unemployment Is a Lagging Indicator: It Won't Bottom Until the Recession Is Over

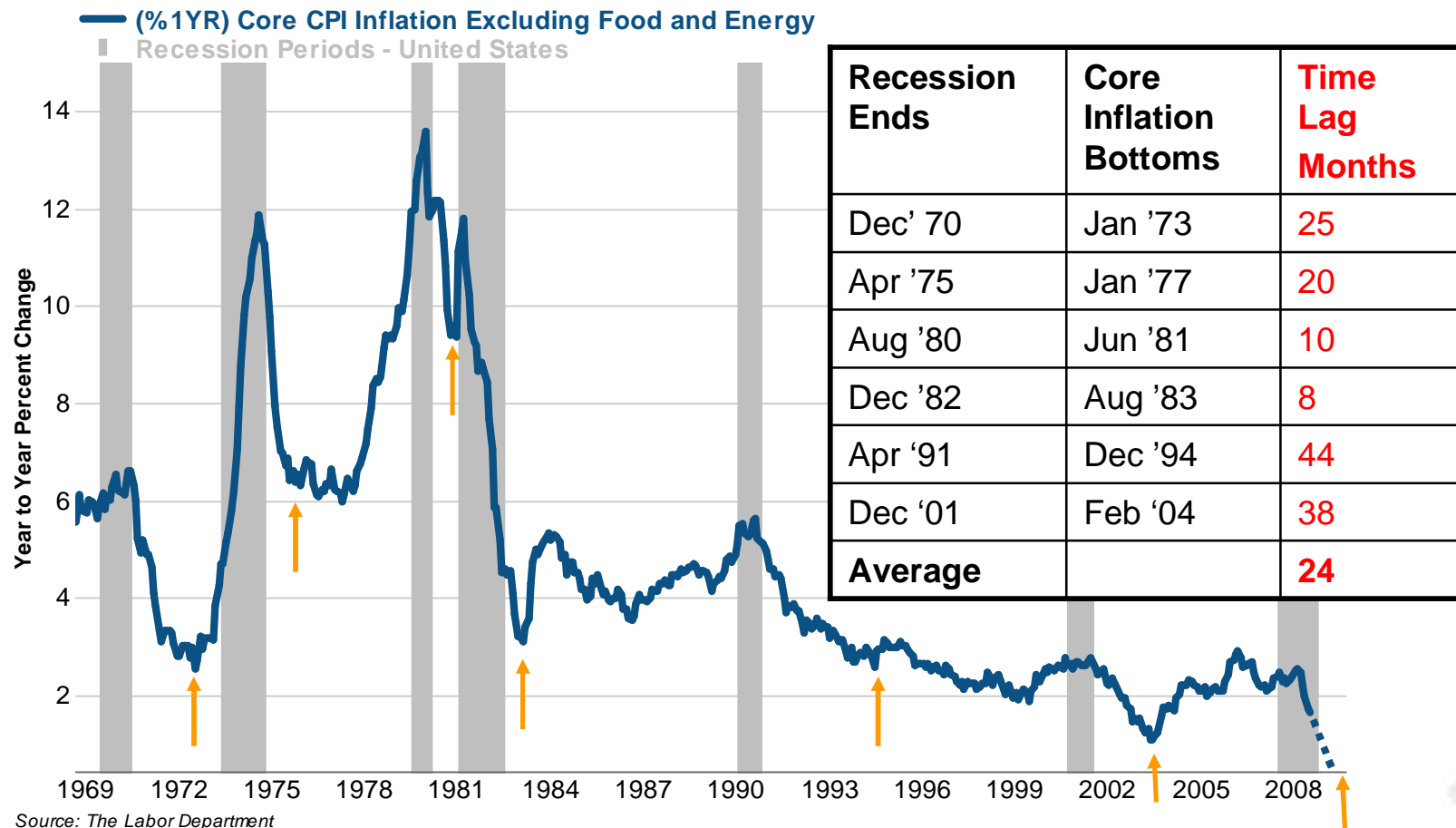
Unemployment Rate as a Percent of the Labor Force



The unemployment rate typically peaks after a recession ends. During the last two recessions, the unemployment rate peaked more than one year after the recession ended.

Inflation Trails the Economic Cycle By One to Two Years

Core Consumer Price Index (Excludes Food and Energy)



Inflation is what economists refer to as a lagging indicator, meaning that it changes direction well after shifts in the overall economy. Headline CPI inflation has historically only bottomed a year after the US economy, while core inflation (which excludes food and energy) takes an average of two years to trough.

Factors Shaping Inflation Outlook: Short-Term Versus Long-Term

Short-Term (1 to 5 years)

1) Commodity Prices

- Declining commodity prices will impact headline inflation for 3 to 6 months until base effect fades.

2) Output Gap

- Output gap, the difference between actual US GDP and potential GDP, will exert downward pressure on inflation over the next 3 to 5 years.

Long-Term (5 years to 30 years)

1) US Debt Issuance

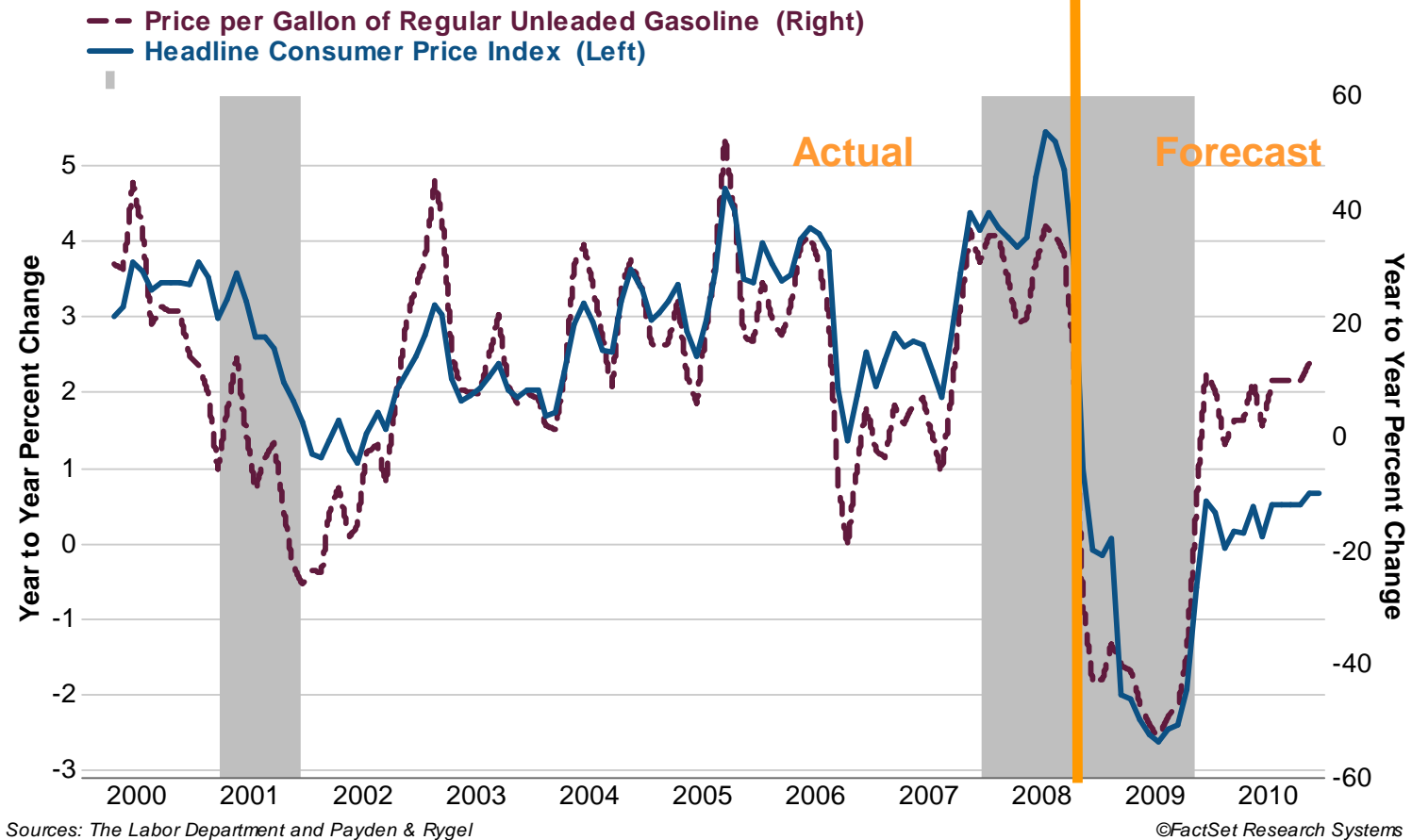
- The US debt to GDP ratio is growing as the government increases Treasury issuance to finance its bank bailout and fiscal stimulus package.

2) Fed Printing Money

- The Federal Reserve is printing money to purchase private and public debt, thereby monetizing the debt.

A Period of Deflation Is Likely

The Headline Consumer Price Index and Regular Unleaded Gasoline



Our forecast is for a temporary period of deflation to take hold in mid-2009 due to the decline in commodity prices and the widening output gap. Deflationary pressures will gradually recede in 2010 and 2011 as fiscal and monetary policy gain traction and aggregate demand starts to stabilize. Beyond that, concerns about inflation may reemerge due to excessive government debt issuance and easy money.

The Biggest Risk Is Removing Policy Stimulus Too Soon

Japan in the 1990s

1997 Tax Hike

- In 1997, the Japanese Parliament hiked its consumption tax just as the economy was emerging from recession because it was concerned that growing budget deficits would fuel future inflation.

Deflation Ensues

- Ironically, not only did they wind up stalling a nascent recovery in the Japanese economy, they pushed the country into deflation.

US in the 1930s

1937 Tax Hike

- After abandoning the gold standard, US GDP growth rose at a double digit pace between 1934 and 1937. However, a self-sustaining recovery had not fully taken hold. Nevertheless, taxes were increased with the establishment of the Social Security Program in 1937.

Reserve Requirement

To add insult to injury, the Federal Reserve doubled its reserve requirements that year, fearing a return of inflation. The result was a deep recession over the next two years.

US Economic Outlook

Economic Growth

The US economy officially slipped into recession in December 2007. Real GDP shrank at an annual rate of 6.3% in Q4 2008 as consumers retrenched in the face of reduced credit availability, rising unemployment, and steep declines in US stock prices.

Forecast: The US economy is expected to contract through the third quarter of 2009 making this the deepest and longest recession since the early 1970s. A gradual recovery is expected to take hold by the end of this year as the drag from the housing and consumer sectors begin to fade.

Inflation

The year-to-year change in the headline consumer price index (CPI) collapsed to 0.2% in February. Core inflation, which excludes food and energy prices, declined to 1.8% during the month.

Forecast: The dramatic deterioration in the US economic outlook and sharp declines in global commodity prices could cause headline CPI inflation to turn negative on a year-to-year basis in 2009. Concerns about a broad based deflation will persist throughout much of this year.

Interest Rates

US policymakers have taken extraordinary measures to prop up the US economy and financial markets. The Fed has effectively adopted a Zero Interest Rate Policy (ZIRP) and is pursuing a quantitative easing in which it purchases agency mortgages and US Treasuries.

Forecast: We expect the Fed to maintain the ZIRP through 2009. The Fed is also likely to expand its balance sheet as it struggles to prevent a broad based deflation from taking hold. The Fed's balance sheet amounted to 6% of GDP last August, but the quantitative easing will push that to more than 20% of GDP by the middle of this year.