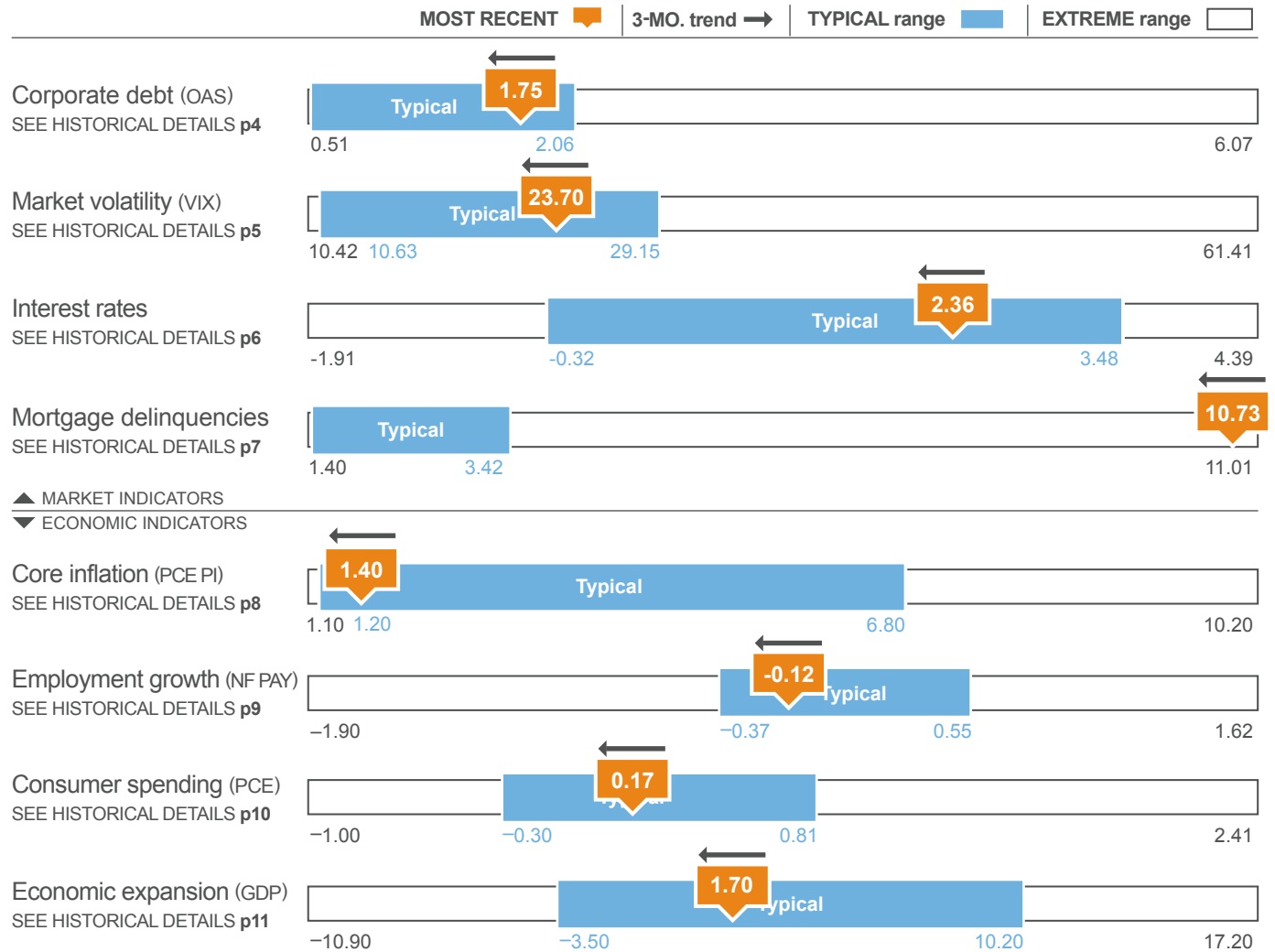


# Economic indicators dashboard

## Summary of current state

Market indicators — Corporate debt remains in its typical range and **the market doesn't appear to expect interest rates to rise**. VIX remained in its long-term typical range. Overall, the U.S. equity markets rose in September, with the Russell 3000® Index returning 9.44% for the month.

Economic indicators — These backward-looking indicators are **all within their typical ranges**. **The job market growth rate remains slightly negative**. Core inflation remains low and consumer spending growth is lower than previous months this year. The GDP number for 2Q10 was revised upward to 1.7%.



This dashboard is intended as a tool to set context and perspective when evaluating the current state of the economy.

### FOR EACH INDICATOR, THE HORIZONTAL BAR SHOWS FOUR THINGS.

- A BLUE COLOR BAND** represents the typical range for this indicator. 90% of the historical values for the indicator fall in this range
- AN ORANGE MARKER** shows the most recent value — the closer the marker is to the blue bar, the closer it is to historically typical conditions.
- A WHITE AREA** outside of the blue band which shows the range of more extreme conditions.
- AN ARROW** shows the most recent three-month trend indicating if it is moving toward or away from the typical range.

# Frequently Asked Questions

## What does the dashboard tell me?

- **It tells you if the economy is returning to more typical behavior.** The dashboard is a snapshot of current conditions in the market relative to their typical-long term ranges.

## Can I use the dashboard as a forecasting tool?

- **No. The dashboard is not a predictive or market timing tool.** The dashboard is intended as a tool to set context and perspective when evaluating the current state of the economy. It is not meant to serve as a direct prediction regarding the future performance of any economic or financial market. It is not intended to predict or guarantee future investment performance of any sort.

## What defines typical?

- The dashboard definition of “typical range” is **the range in which 90% of historical observations are most tightly clustered.** This range is calculated annually, for each indicator, by analyzing all of the possible continuous ranges containing 90% of historical values and then determining which one of those ranges has the least variation from the mean.
- The typical ranges are based on historical data. Since each data point reports data at a different time, each typical range is calculated independently using data through the end of the previous year. Revised ranges are usually published during the first quarter of the year, whenever an indicator reports data for a new year, or whenever there are revisions to historical data.

## How should I interpret the chart?

- In simple terms, **the chart shows you the relationship of the most recent value to the typical historical range for each of the indicators.**
- If the most recent value lies inside the blue band, that indicates more typical behavior for that indicator. If it lies outside, that points to extreme behavior.
- The arrow on the current value shows you if the recent three-month trend is moving toward or away from the typical range.
- The entire range of historical values is represented by the grey bar with the lowest recorded value shown on the left side and the highest recorded value on the right. Values are percentages for all indicators, except VIX, which is quoted in percentage points per annum.

## Why are these indicators important?

- In order **to monitor the current health of the economy and its trend**, we believe it’s important to keep an eye on both the broad economy as well as key indicators in the market. Given the improving state of the economy, the fiscal stimulus and the Fed’s quantitative easing policy, **we have made the following changes to the Dashboard:**
- **Added Core inflation**—A lagging economic indicator that uses the core Personal Consumption Expenditures Price Index to measure average annualized price increases for American consumers
  - **Added Interest rates**—A leading market indicator that measures the spread between 3 month Treasury bill yields and 10 year Treasury note yields
  - **Removed the TED Spread**, though we may continue to mention it in our “Summary of current state”
- The other indicators remain the same:
  - OAS—A market indicator representing corporate credit
  - VIX—A leading market indicator of equity market volatility and investor sentiment
  - Mortgage delinquencies—A key measure of the housing market
  - NF PAY, PCE and GDP—Providing broad context for the overall state of the economy

CONTINUED

## Frequently Asked Questions (continued)

### How often is the dashboard updated?

- The dashboard is **updated on the 22nd of every month**, using data from FactSet and Bloomberg.
- Each indicator reports month-end data with the exception of GDP and Mortgage Delinquencies, which report quarterly.
- While some of the indicators may be measured daily, we choose to include only the monthly/quarterly numbers, as they are better indicators of the overall economic trend.
- With each update revisions to the historical data may occur.

### How can I use the dashboard?

- You can use the dashboard to see how the current economy, based on these indicators, compares to more historically typical conditions and to see which direction the market seems to be moving.
- If the top four indicators—the market indicators—are moving toward the typical range, conditions may be improving. Market indicators can provide guidance about what's to come, though they are less accurate than economic indicators.
- The bottom four indicators—the economic indicators—generally tell us what's already happened, and often follow the trend of the market indicators by several quarters. The importance of economic indicators are their ability to confirm that a pattern is occurring or is about to occur.
- Even if the market indicators are moving toward typical, the economic indicators may still be moving away. Historically, the economic indicators have followed the market indicators in coming months.

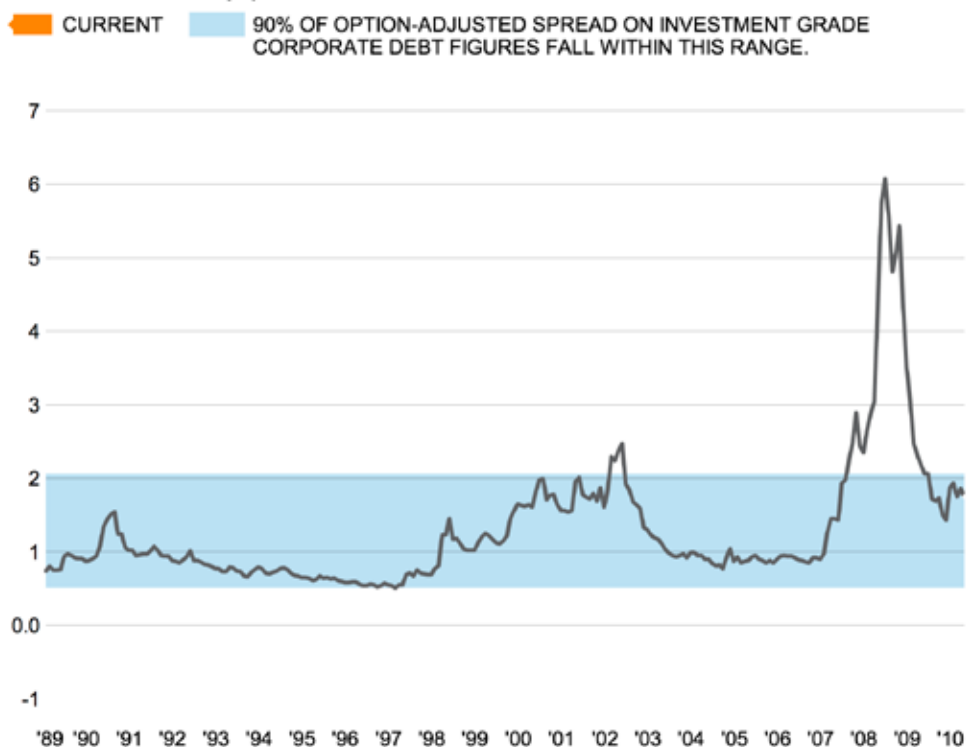
### Why did you rename the Dashboard?

- Initially Russell launched this dashboard to help plot the progress of economic recovery, but we believe **the dashboard can provide valuable ongoing context and perspective** as the economy gains momentum. As such, the dashboard will continue to be a component of our monthly commentary as we move from recovery to growth.
- Based on feedback from visitors to the site, **we've modified the name to *Economic Indicators Dashboard* to better reflect its ongoing purpose.**

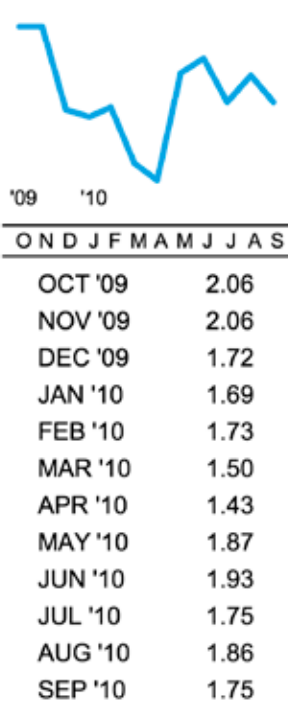
# Corporate Debt (OAS)

## MARKET INDICATOR

MONTHLY VALUES (%): JUNE '89 – SEPTEMBER '10



### 12 MONTH TREND



### What is it?

- An OAS (Option-Adjusted Spread) is a **measurement tool for evaluating yield differences between** similar-maturity fixed-income products with different embedded options.
- The OAS we're using measures the difference between interest rates for similar-maturity investment-grade corporate bonds and treasury bonds.

### Why is it important?

- The OAS on investment grade corporate debt is **viewed as a gauge of credit spreads.**

### How do we interpret it?

- A higher OAS implies greater anticipated default risk and therefore a higher risk premium.
- A lower OAS implies a greater availability of credit and more operational flexibility.

### Typical historical range

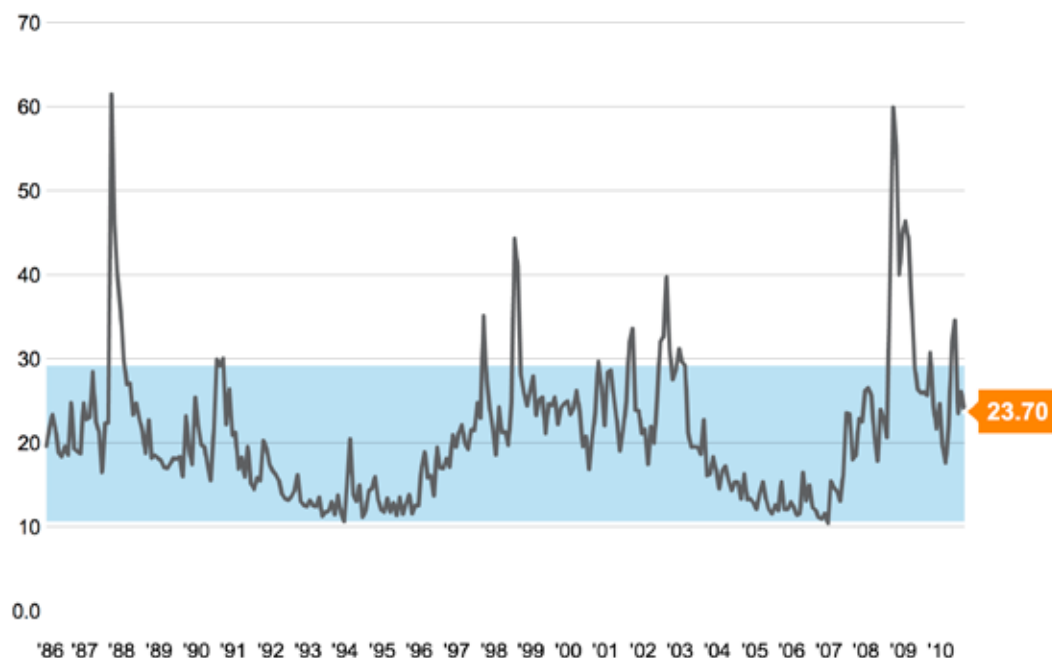
- As of December 2009, 90% of month-end OAS values ranged from **0.51% to 2.06%**.

# Market Volatility (VIX)

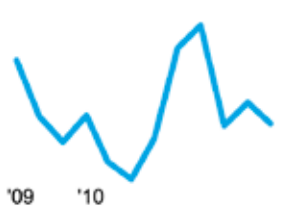
## MARKET INDICATOR

MONTHLY VALUES: JANUARY '86 – SEPTEMBER '10

 CURRENT  90% OF CBOE VIX FIGURES FALL WITHIN THIS RANGE.



12 MONTH TREND



	O	N	D	J	F	M	A	M	J	J	A	S
OCT '09												30.69
NOV '09												24.51
DEC '09												21.68
JAN '10												24.62
FEB '10												19.50
MAR '10												17.59
APR '10												22.05
MAY '10												32.07
JUN '10												34.54
JUL '10												23.50
AUG '10												26.05
SEP '10												23.70

### What is it?

- The CBOE VIX (Chicago Board Options Exchange Volatility Index) **measures annualized implied volatility** as conveyed by S&P 500 stock index option prices and is quoted in percentage points per annum. For instance, a VIX value of 15 represents an annualized implied volatility of 15% over the next 30 day period.

### Why is it important?

- The VIX measures implied volatility, which is a **barometer of investor sentiment and market risk**.

### How do we interpret it?

- **An increasing VIX represents an increase in investor uncertainty** about the near-term direction of the market.
- A decreasing VIX suggests the opposite.

### Typical historical range

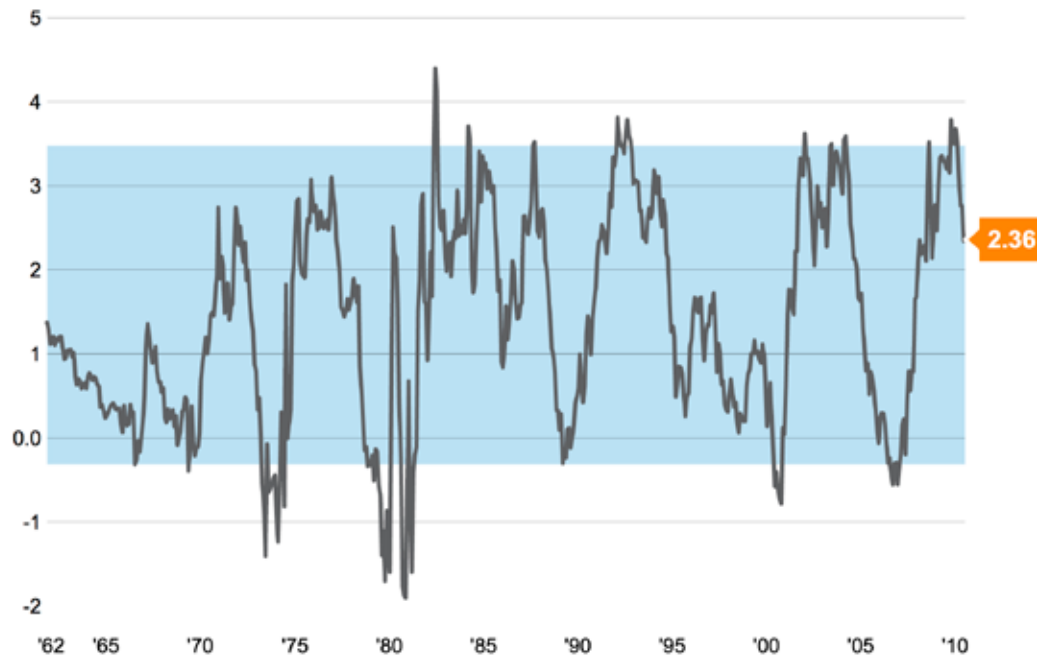
- As of December 2009, 90% of the values of the VIX ranged from **10.63 to 29.15**.

# Interest Rates

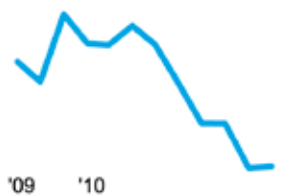
## MARKET INDICATOR

MONTHLY VALUES: JANUARY '62 – SEPTEMBER '10

 CURRENT  90% OF INTEREST RATES FIGURES FALL WITHIN THIS RANGE.



### 12 MONTH TREND



	O	N	D	J	F	M	A	M	J	J	A	S
OCT '09												3.34
NOV '09												3.15
DEC '09												3.78
JAN '10												3.51
FEB '10												3.50
MAR '10												3.68
APR '10												3.50
MAY '10												3.13
JUN '10												2.76
JUL '10												2.76
AUG '10												2.34
SEP '10												2.36

### What is it?

- The spread between 3 month Treasury bill yields and 10 year Treasury note yields **measures the market's outlook for future interest rates.**

### Why is it important?

- The Interest rates indicator was added during the September 15, 2009 update, because we believe it **provides a simple, market-based view of the economy.**
- A "normal," or upward-sloping yield curve, can imply that investors expect the economy to grow and inflation to eat into asset returns. They thus demand a higher yield for long-term Treasuries.
- A "flat" or "inverted" yield curve has often been an indicator of coming recessions, but not always. For example, reduced inflation expectations could cause the yield curve to flatten.

### How do we interpret it?

- An increase in the yield curve spread generally indicates that investors expect interest rates to increase.
- A decrease in the spread usually means the opposite.

### Typical historical range

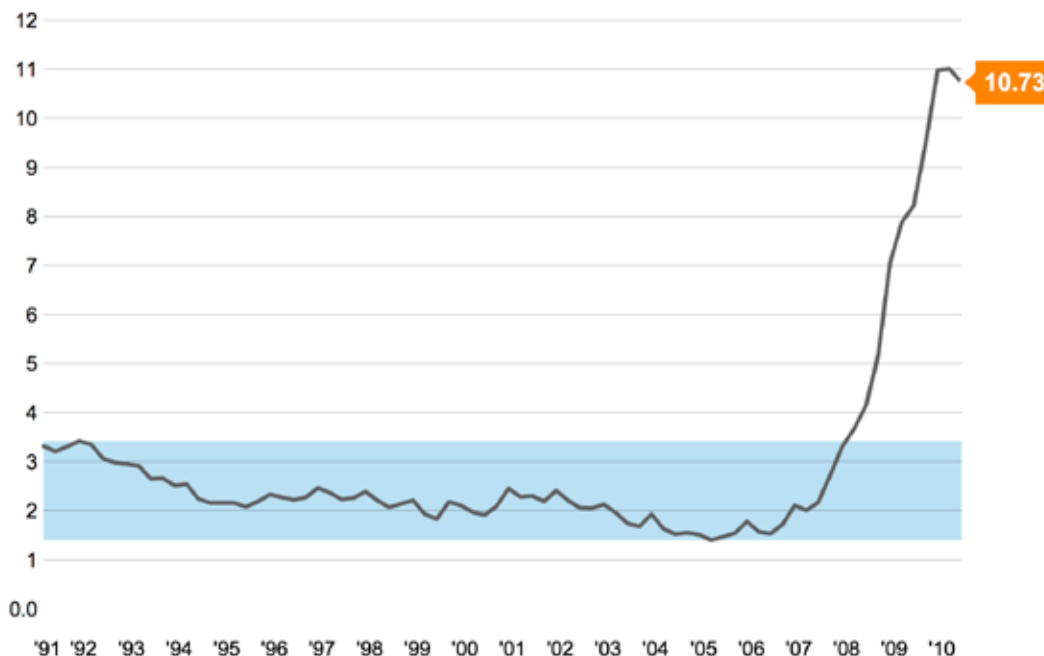
- As of December 2009, 90% of month-end readings for the yield curve spread have ranged from **-0.32% to +3.48%.**

# Mortgage Delinquencies

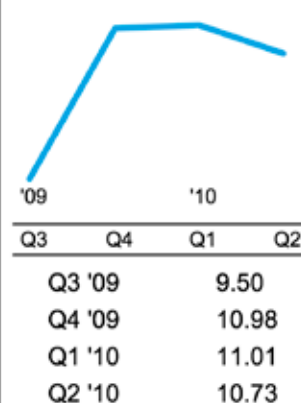
## MARKET INDICATOR

QUARTERLY VALUES (%): MARCH '91 – JUNE '10

**CURRENT** 90% OF RESIDENTIAL MORTGAGE DELINQUENCIES FIGURES FALL WITHIN THIS RANGE.



QUARTERLY TREND



### What is it?

- Residential Mortgage Delinquencies **measure delinquency percentages for residential real estate loans** secured by one- to four-family properties. It includes home-equity lines of credit.
- Delinquent loans represent those loans that are past due 30 days or more and are still accruing interest, as well as loans in non-accrual status.

### Why is it important?

- We believe a **higher than average mortgage delinquency rate is a key factor in the continuing housing crisis** and also as it relates to the broader economy.

### How do we interpret it?

- Rising delinquency rates are an **after-the-fact reflection of challenging economic climates**.
- Since mortgage payments are less discretionary than general consumer expenditures, increases in this indicator are more likely to occur during times of economic difficulty.

### Typical historical range

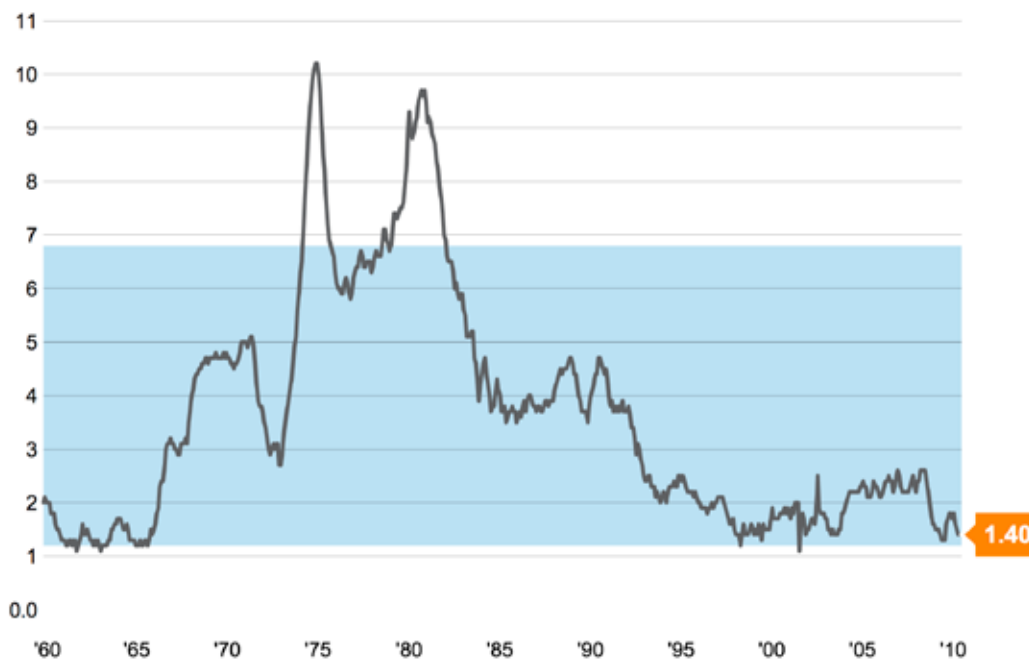
- As of December 2009, 90% of observations for the mortgage delinquency rates fall between **1.40% and 3.42%**.

# Core Inflation (PCE PI)

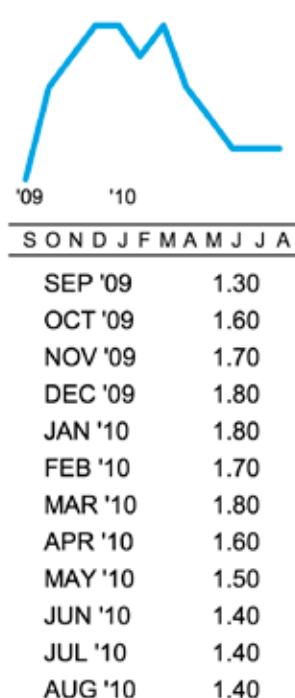
## ECONOMIC INDICATOR

MONTHLY VALUES: JANUARY '60 – AUGUST '10

**CURRENT** 90% OF CORE INFLATION FIGURES FALL WITHIN THIS RANGE.



12 MONTH TREND



### What is it?

- The core Personal Consumption Expenditures Price Index (PCE PI) measures the average price increase for American consumers on an annualized basis. It excludes food and energy prices, which tend to be volatile from month-to-month. It also allows for consumer substitution of more expensive goods for cheaper goods, which the Consumer Price Index (CPI) does not. **It is the preferred lagging inflation measure of the Federal Reserve.**

### Why is it important?

- Core inflation was added during the September 15, 2009 update, because we believe it is a key economic issue, especially when coming out of a recession.
- The core PCE PI indicates how prices have changed from month-to-month.
- A change in inflation **indicates a change in ability to consume and in the real return to investments.**
- High inflation can have a detrimental impact on investment.
- Deflation (<0%) can cause spending to dry up.
- This metric bears watching as the Federal Reserve infuses money into the economy.

### How do we interpret it?

- An increase in the inflation rate generally indicates that the rate of price increases has picked up.
- A decrease in the inflation rate means the rate of price increases has slowed down.

### Typical historical range

- As of December 2009, 90% of month-end readings for the core PCE PI change have ranged from 1.2% to 6.8%.

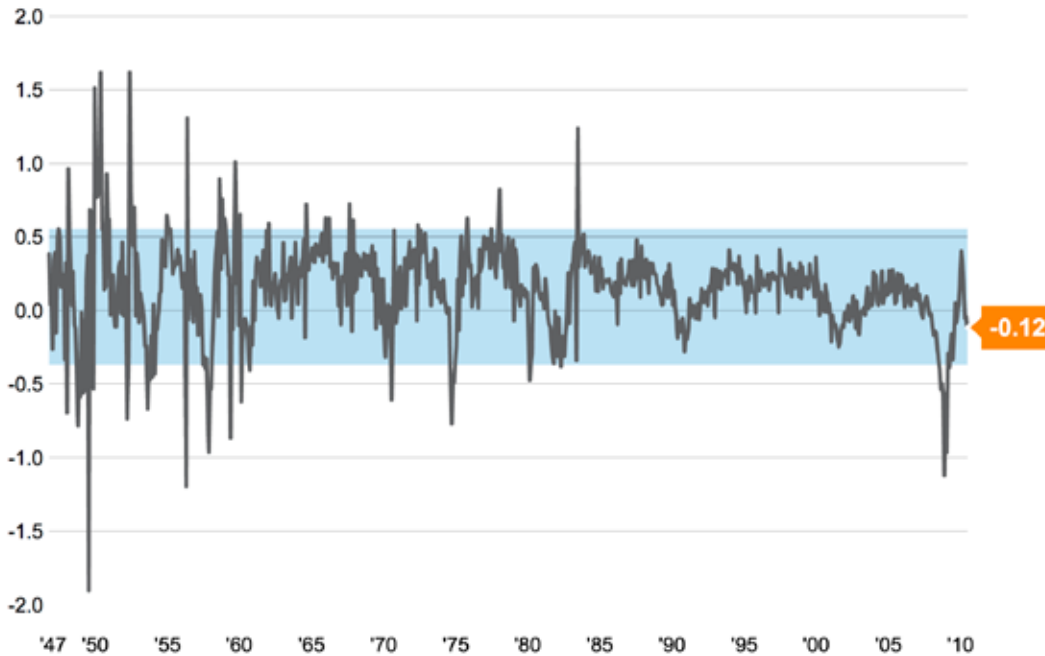
The source of our data is Bloomberg.

# Employment Growth (NF PAY)

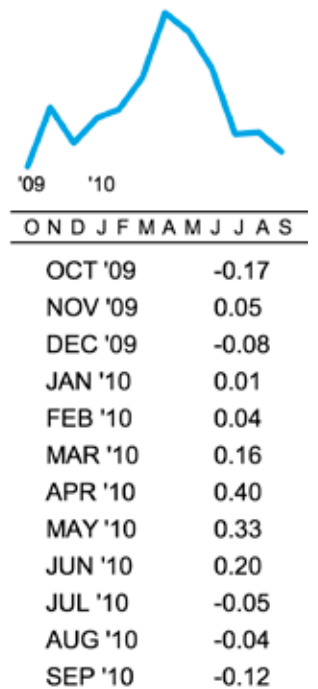
ECONOMIC INDICATOR

MONTHLY GROWTH (%): JANUARY '47 – SEPTEMBER '10

**CURRENT** 90% OF NON-FARM PAYROLL FIGURES FALL WITHIN THIS RANGE.



12 MONTH TREND



## What is it?

- The NF PAY (Non-Farm Payroll) **measures the number of jobs added** or lost in the economy over the previous month, not including jobs related to the farming industry due to its seasonal hiring.

## Why is it important?

- **Employment rates help determine the current state of the economy and predict future levels of economic activity.**

## How do we interpret it?

- Among other things, like a higher savings rate, an increase in employment may fuel purchases of goods and services, which is a positive factor for overall economic growth.
- A decrease in employment suggests the opposite.

## Typical historical range

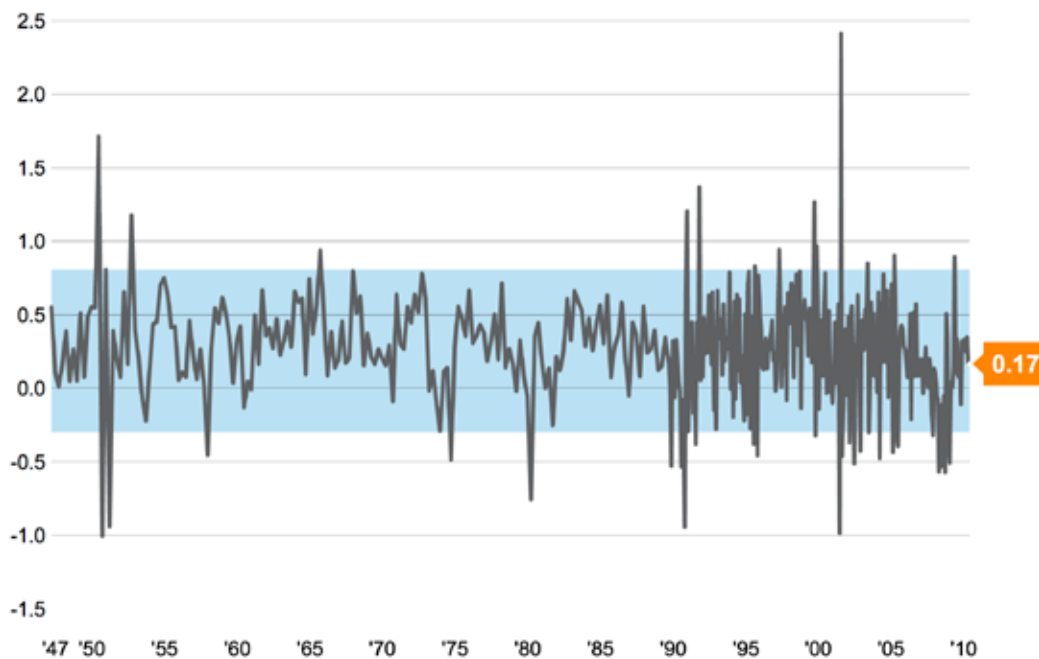
- As of December 2009, 90% of NF PAY values have ranged from **-0.37% to +0.55%**.

# Consumer Spending (PCE)

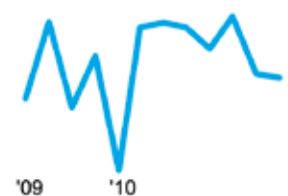
ECONOMIC INDICATOR

QUARTERLY/MONTHLY GROWTH (%): JUNE '47 – AUGUST '10

**CURRENT** 90% OF REAL PERSONAL CONSUMPTION EXPENDITURE FIGURES FALL WITHIN THIS RANGE.



12 MONTH TREND



	S	O	N	D	J	F	M	A	M	J	J	A
SEP '09												0.10
OCT '09												0.33
NOV '09												0.08
DEC '09												0.23
JAN '10												-0.11
FEB '10												0.31
MAR '10												0.33
APR '10												0.31
MAY '10												0.25
JUN '10												0.35
JUL '10												0.18
AUG '10												0.17

## What is it?

- The PCE (Personal Consumption Expenditures) **measures the value of goods and services purchased by individual consumers, families and the nonprofit institutions serving them.**
- It consists mostly of new goods and services purchased by individuals from businesses. It excludes purchases of residential structures by individuals and buildings or equipment used by nonprofit institutions serving individuals.
- It's defined in real, inflation-adjusted terms.

## Why is it important?

- Consumer spending is the biggest component of our gross domestic product, making it a key metric to follow.

## How do we interpret it?

- The PCE is indicative of the general consumption by individuals and their willingness to spend.
- Sharply declining or **negative values indicate reduced consumption** and are likely to correspond to times of economic stress.

## Typical historical range

- As of December 2009, 90% of PCE growth rates have ranged from **-0.30% to +0.81%**.
- From June 30, 1947 through December 31, 1989, PCE was measured quarterly. Since then it has been measured monthly. The graph above reflects this shift.

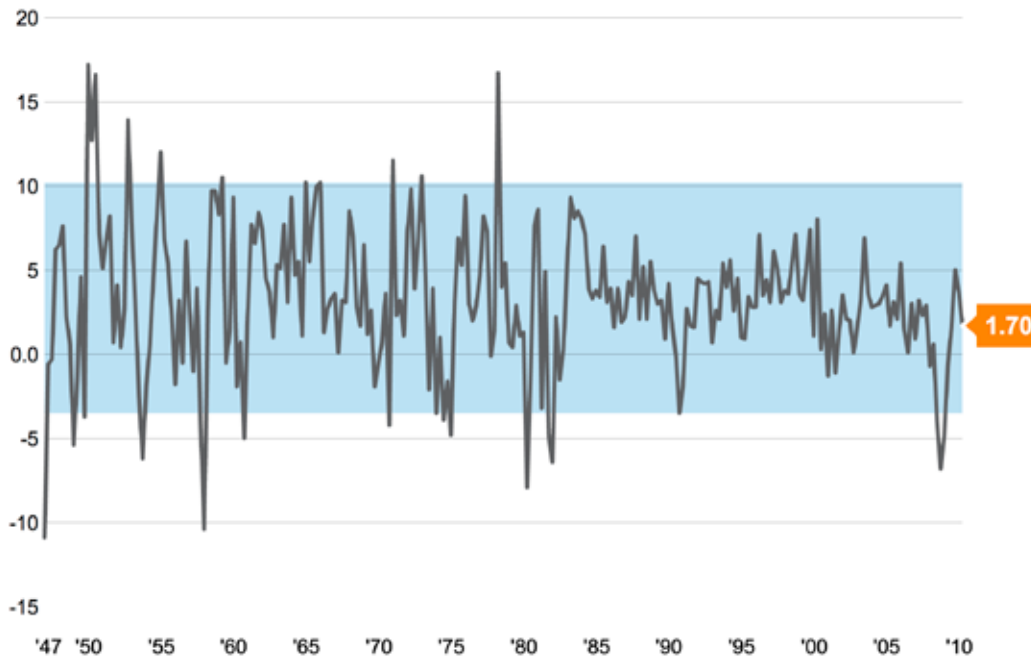
The source of our data is FactSet.

# Economic Expansion (GDP)

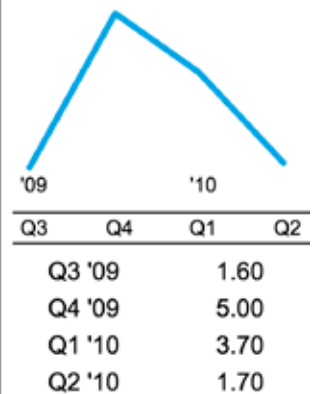
## ECONOMIC INDICATOR

QUARTERLY GROWTH (%): MARCH '47 – JUNE '10

■ CURRENT ■ 90% OF GDP REAL FIGURES FALL WITHIN THIS RANGE.



QUARTERLY TREND



### What is it?

- The GDP (Gross Domestic Product) measures the total market value of a nation's output of goods and services during a specific time period. It is usually measured on a quarterly basis.
- Current GDP is based on the current prices of the period being measured. **Nominal GDP growth** refers to GDP growth in nominal prices (unadjusted for price changes). **Real GDP growth** refers to GDP growth adjusted for price changes.
- Calculating Real GDP growth allows economists to determine if production increased or decreased, regardless of changes in the purchasing power of the currency.

### Why is it important?

- This is the most widely-used measure of the overall economic activity and is **viewed as a gauge of a country's fundamental economic health**.

### How do we interpret it?

- **A positive Real GDP number reflects a growing economy**; a negative GDP number reflects a declining economy.
- **Two consecutive quarters of GDP decline is generally associated with recession**.

### Typical historical range

- As of December 2009, 90% of the U.S. GDP growth rates have ranged from **-3.50% to +10.20%**.

---

Data stated is historical and not a guarantee of future results.

Russell Investments or its affiliates make no representations regarding the data that results dependent upon such information and hereby disclaim all warranties related to information and results are dependent hereon, including but not limited to warranties of merchantability or fitness for any particular purpose.

Data displayed in the Economic Indicators Dashboard are reflective of current data as provided by the data sources including any revisions to previous data. These revisions may change historic data points and historic ranges for some or all indicators. These changes are usually due to seasonal adjustments to previously supplied data.

The information, analyses and opinions set forth herein are intended to serve as general information only and should not be relied upon by any individual or entity as advice or recommendations specific to that individual entity. It is not intended to constitute legal, tax, securities, or investment advice, nor an opinion regarding the appropriateness of any investment, nor a solicitation of any type. Anyone using this material should consult with their own attorney, accountant, financial or tax or consultants on whom they rely for investment advice specific to their own circumstances.

This analysis is not meant to serve as a direct prediction regarding the future performance of any economic or financial market. Similarly, they are in no way intended to predict or guarantee future investment performance of any sort. Other economic or financial market indicators not considered in this analysis may produce different results.

This analysis represents an economic analysis utilizing varying analytical data. It is not representative of a projection of the stock market, or of any specific investment.

The Russell 3000® Index measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market.

Indexes shown are economic indicators and are for comparative purposes only. They are not meant to represent any actual investment. Indexes are unmanaged and cannot be invested in directly.

This is not an offer, solicitation or recommendation to purchase any security or the services of any organization.

Please remember that all investment markets carry some level of risk, including the potential loss of principal invested. They do not typically grow at an even rate of return and may experience negative returns.

Diversification and strategic asset allocation do not assure profit or protect against loss in declining markets.

No investment strategy can guarantee a profit or protect against a loss in a declining market.

Russell Investment Group, a Washington USA corporation, operates through subsidiaries worldwide, including Russell Investments, and is a subsidiary of The Northwestern Mutual Life Insurance Company.

The Russell logo is a trademark and service mark of Russell Investments.

Copyright © Russell Investments 2010. All rights reserved. This material is proprietary and may not be reproduced, transferred, or distributed in any form without prior written permission from Russell Investments. It is delivered on an "as is" basis without warranty.

**Russell Financial Services, Inc., member FINRA ([www.finra.org](http://www.finra.org)), part of Russell Investments.**

First used February 2009. Revised October 2010.

RFS 4298