

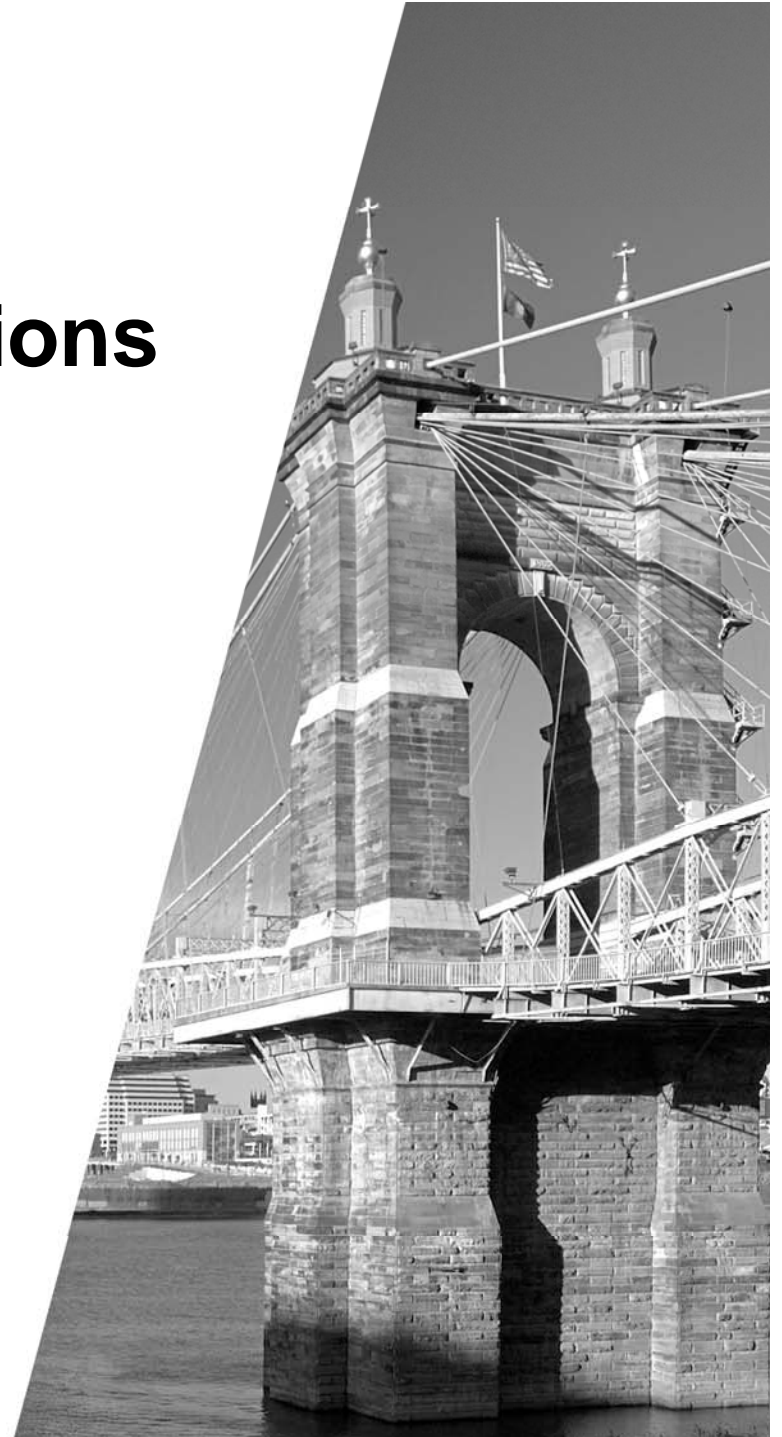
# Review of Past 14 Recessions

January 2009



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# Where are We Now?



- The National Bureau of Economic Research (NBER) stated that a U.S. recession officially began in December 2007 and economists expect it will likely linger well into 2009.
- The recessions of November 1973 to March 1975 and July 1981 to November 1982 both lasted 16 months, with only the Great Depression (August 1929 to March 1933) lasting longer, at 43 months.
- Since the S&P 500 Index peaked on October 9, 2007 at 1565, stocks declined by 50.7% to their trough of 752 on November 20, 2008; from November 20, 2008 through December 31, 2008, the S&P gained 20.5%.
- Bonds and cash outperformed equities since the beginning of this recession.
  - As in past recessions, investors will anticipate the next expansions and stocks may rebound.
  - The NBER will not officially announce the end of the recession until well into the next expansion.

# “Official” Definition of Recession



- According to the National Bureau of Economic Research (NBER), the “official” definition of a recession is “a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income, and wholesale-retail trade. A recession begins just after the economy reaches a peak of activity and ends as the economy reaches a trough. Between trough and peak, the economy is in an expansion.”
- The Business Cycle Dating Committee at NBER typically declares a recession anywhere from 6 to 18 months after it has begun. The Committee waits long enough so that the existence of a recession is not at all in doubt and seeks to find the date of the peak in economic activity. The Committee is acutely aware of revisions in data and waits until they can assign an accurate date to the peak.
- A more common definition of a recession and one frequently used in the media is a decrease in real Gross Domestic Product (GDP) that lasts for at least two quarters.
  - While the NBER determined a recession officially began in December 2007, there has yet to be two consecutive quarters of negative GDP (4<sup>th</sup> quarter 2007, -0.2%; 1<sup>st</sup> quarter 2008, 0.9%; 2<sup>nd</sup> quarter 2008, 2.8%; 3<sup>rd</sup> quarter 2008, -0.5%); economists widely anticipate that GDP growth will be negative in the fourth quarter of 2008, which will confirm the two consecutive quarter definition.

# Recessions – 1926 to 2001



## Last 14 Recessions and Cumulative Returns for Cash, Bonds, and Stocks

	Time (in Months)	Cash Proxy 90-Day T-Bill* Cumulative Return	Bond Proxy BCAG** Cumulative Return	Equity Proxy S&P 500 Cumulative Return
October 1926 to November 1927	13	3.8%	6.1%	37.1%
August 1929 to March 1933	43	6.6%	19.4%	-74.5%
May 1937 to June 1938	13	0.3%	7.8%	-24.2%
February 1945 to October 1945	8	0.3%	1.4%	27.7%
November 1948 to October 1949	11	1.0%	2.7%	4.1%
July 1953 to May 1954	10	1.2%	5.7%	27.6%
August 1957 to April 1958	8	1.9%	10.9%	-6.5%
April 1960 to February 1961	10	2.3%	6.5%	18.4%
December 1969 to November 1970	11	6.8%	14.0%	-3.5%
November 1973 to March 1975	16	11.1%	8.3%	-17.9%
January 1980 to July 1980	6	6.6%	0.9%	16.1%
July 1981 to November 1982	16	18.0%	37.9%	14.7%
July 1990 to March 1991	8	5.2%	8.9%	7.6%
March 2001 to November 2001	8	2.5%	6.4%	-7.2%

Average # of Months	13			
Annualized Returns		4.1%	8.4%	-3.9%
Annualized Returns (w/o Great Depression 8/29 to 3/33)		4.7%	9.5%	5.9%

\* Pre-1960 Returns from 30-Day U.S. T-Bill (Ibbotson)

\*\* Pre-1976 Returns from U.S. Intermediate Treasury Bond (Ibbotson)

**From December 2007 through December 2008, bonds returned 5.4, cash gained 1.7%, and equities declined 37.4%**

# Recessions – 1926 to 2001



- **Return comparisons:**
  - **Bonds outperformed stocks and cash in 7 of last 14 recessions**
  - **Stocks outperformed cash and bonds in 6 of last 14 recessions**
  - **Cash outperformed stocks and bonds in 1 of last 14 recessions**
- **On an annualized return basis including the Great Depression:**
  - **Bonds returned 8.4%, outperforming cash and stocks**
  - **Cash returned 4.1%, outperforming stocks**
  - **Stocks declined 3.9%**
- **On an annualized return basis excluding the Great Depression:**
  - **Bonds returned 9.5%, outperforming cash and stocks**
  - **Stocks returned 5.9%, outperforming cash**
  - **Cash returned 4.7%**

# Performance One Year After Recessions



## Returns for Cash, Bonds, and Stocks One Year Following Recession

	Cash Proxy 90-Day T-Bill* <u>One Year After</u>	Bond Proxy BCAG** <u>One Year After</u>	Equity Proxy S&P 500 <u>One Year After</u>
October 1926 to November 1927	3.7%	1.4%	46.9%
August 1929 to March 1933	0.4%	4.8%	92.0%
May 1937 to June 1938	0.0%	4.9%	-1.9%
February 1945 to October 1945	0.4%	1.1%	-7.3%
November 1948 to October 1949	1.2%	0.6%	31.5%
July 1953 to May 1954	1.0%	0.5%	35.9%
August 1957 to April 1958	1.8%	-4.0%	37.3%
April 1960 to February 1961	2.5%	2.7%	13.6%
December 1969 to November 1970	4.5%	8.1%	11.2%
November 1973 to March 1975	5.7%	8.6%	28.3%
January 1980 to July 1980	14.4%	-5.0%	12.9%
July 1981 to November 1982	8.8%	10.3%	25.4%
July 1990 to March 1991	5.0%	11.4%	11.1%
March 2001 to November 2001	1.6%	7.3%	-16.5%
<b>Annualized Returns</b>	<b>3.6%</b>	<b>3.8%</b>	<b>20.4%</b>
<b>Annualized Returns (w/o Great Depression 8/29 to 3/33)</b>	<b>3.9%</b>	<b>3.7%</b>	<b>15.5%</b>

\* Pre-1960 Returns from 30-Day U.S. T-Bill (Ibbotson)

\*\* Pre-1976 Returns from U.S. Intermediate Treasury Bond (Ibbotson)

- **One Year After Recessions - Stocks outperformed bonds and cash in 9 of the 14 periods, with double-digit gains in 11 of the 14 periods**
- **Average stock outperformance vs. bonds one year after the recession is larger than the average underperformance during the recession**

# Average Duration of Recessions



- According to NBER, the last 14 recessions averaged just more than one year (12.9 months); the current recession is nearly 14 months old.
- The duration of the Great Depression from August 1929 to March 1933 (43 months) skews the average duration of the typical recession (few would argue that the Great Depression was a typical recession).
- The current recession may prove to be deeper and more severe than any recession since the Great Depression.
- The median recession of 10.5 months provides a more accurate assessment of the duration for a typical recession, suggesting that the current recession is already atypical.

	<b>Contraction Peak to Trough # of Months</b>
<b>October 1926 to November 1927</b>	13
<b>August 1929 to March 1933</b>	43
<b>May 1937 to June 1938</b>	13
<b>February 1945 to October 1945</b>	8
<b>November 1948 to October 1949</b>	11
<b>July 1953 to May 1954</b>	10
<b>August 1957 to April 1958</b>	8
<b>April 1960 to February 1961</b>	10
<b>December 1969 to November 1970</b>	11
<b>November 1973 to March 1975</b>	16
<b>January 1980 to July 1980</b>	6
<b>July 1981 to November 1982</b>	16
<b>July 1990 to March 1991</b>	8
<b>March 2001 to November 2001</b>	8
<b>Average # of Months</b>	<b>12.9</b>
<b>Median # of Months</b>	<b>10.5</b>

# Average Duration of Expansions



- Using the same data from the NBER, the typical expansion averaged more than four years (53.4 months) in duration.
- The median duration of expansions during this time period was three and one half years (42 months), as 4 of the 14 expansions were exceptionally long in duration (more than 80 months), which increased the average.

	<b>Expansion Previous Trough to This Peak # of Months</b>
October 1926 to November 1927	27
August 1929 to March 1933	21
May 1937 to June 1938	50
February 1945 to October 1945	80
November 1948 to October 1949	37
July 1953 to May 1954	45
August 1957 to April 1958	39
April 1960 to February 1961	24
December 1969 to November 1970	106
November 1973 to March 1975	36
January 1980 to July 1980	58
July 1981 to November 1982	12
July 1990 to March 1991	92
March 2001 to November 2001	120
Average # of Months	<b>53.4</b>
Median # of Months	<b>42.0</b>

# Key Takeaways



- From October 1926 through December 2008, the U.S. economy was in an expansionary environment 81% of the time and in contraction 19% of the time, with the average expansion averaging more than four years and the average recession lasting one year.
- The most recent expansion that ended in November 2007 was 73 months (6 years) in duration, which suggested that from a historical perspective, a recession was overdue, as only four expansionary periods persisted for more than 73 months.
- Of the 14 recessions studied, on an annualized average return basis, bonds outperformed cash and stocks.
- If an investor could accurately predict the beginning and end of a recessionary period and tactically move from stocks to bonds, this would not necessarily give the investor an advantage, as stocks outperformed bonds and cash in 6 of the 14 periods, nearly half the time.

# Conclusion



- The study of the last 14 recessions demonstrated that stocks outperformed in 6 of the 14 contractions, suggesting that at some point during the recession, investors anticipated the next expansion and stocks rallied.
- On average, stocks significantly outperformed bonds one year after the recession and this outperformance was larger than the underperformance of stocks vs. bonds during the recession.
- Investors may be inclined to overweight bonds versus stocks in anticipation of further stock declines, but bond yields are historically low (10-year Treasury yielding 2.2%) and much of the fear of a lengthy recession may already be priced into bond and stock prices.

# Disclosures



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