PERSI

September 23, 2011

In the words of Yogi Berra, it's déjà vu all over again. Recent market volatility has the country feeling a bit like it did just a few years ago. By now, however, we understand market declines are a natural part of investing. As all eyes focus on the U.S. economy, and as levels of stress and anxiety rise and fall with the market, PERSI will remain disciplined. We know from experience, sticking with an investment plan that has served us well over the years is a sound strategy. PERSI does long-term planning (20-30 years), and expects there will always be ups and downs. Since the 1980s, there have been multiple market downturns; yet each time, the market bounced back. We've learned that winning sometimes means losing less, so PERSI's goal is to lose less when the market falls, and gain or hold on when it rises. At the August Retirement Board meeting, it was noted every dollar invested in PERSI (since 1993 when tracking began) is now worth $4.26…which is a nice return on investment by anyone's standards. (Compare this to the value of a dollar invested over the same time in U.S. stocks - $3.76, hedge funds and U.S bonds - $3.24, and EAFE [Europe, Australia and Southeast Asia] - $3.02.)

It took only a few events to trigger the recent turmoil: 1) the weeks of political jockeying before the debt ceiling was finally raised; 2) the Standard & Poor's downgrade of the credit rating of U.S. government bonds for the first time in the country's history sparking fears about a double-dip recession; and 3) the realization that in a global economy, the growing Eurozone debt crisis does affect the U.S. markets. These events contributed to the "flash crash" (aka waterfall event) that plunged the Dow by 513 points on August 4th (its worst day since December 2008), and it's been a roller coaster ride ever since. While no one can predict when an economic downturn will occur, or how long it will last, with few exceptions since 1982 the declines have been relatively brief.

Naturally during these ever-changing times, lawmakers and members alike start to wonder about PERSI's unfunded liability and what that debt means. It's actually simple to explain: pension debt is similar to mortgage debt. Fortunately for homeowners, mortgages don't have to be paid off all at once…and fortunately for pension plans, benefits are never due all at once. Like mortgage payments, retirement payments are paid over a period of time. As homeowners, we make monthly payments to our lender; similarly, PERSI makes monthly payments to its retirees. Remember, the value of a plan's benefit promises and assets changes constantly. Because the funds we manage belong to our members, we are keenly aware of our responsibility to make good decisions and maintain an adequate funding level sufficient to meet our obligations now and in the future.

No one really knows what lies ahead, but I continue to have faith economic growth will resume soon. It may take more time than we'd like, but over the last several decades the U.S. and global economies have endured many crises and have shown their resilience. Along with PERSI's Investment Officer Bob Maynard and the Retirement Board, I will continue to monitor the economic news and provide you with additional perspectives about the impact market events might have on PERSI. In the meantime, enclosed is a perspective from Michael J. O'Leary, Executive Vice President of Callan Associates, relating to PERSI's approach to long-term investing and his thoughts on investing in general.

Best regards,
Don Drum
Executive Director
Enc.

Thoughts on Recent Market Weakness
Prepared For PERSI
September 4, 2011

Overview

We at Callan Associates share PERSI's belief in long-term investing and strategic asset allocation. PERSI has achieved very attractive and sustainable long-term investment results by thoughtfully implementing a well-diversified low cost investment program. PERSI makes extensive use of passive (index) strategies in highly efficient market sectors while seeking opportunities to add value to general market returns in those sectors, which historically have offered greater opportunities for active managers to add value (for example, emerging markets and small cap equities). The System also has added value through a disciplined rebalancing program that has enabled the System to capitalize on periods of extreme market volatility. This has been accomplished by trimming equity exposure during periods of extraordinary market strength and then adding to equities when stock prices have fallen resulting in total equity allocations below long-term targeted levels.

Now is always the most difficult time to invest

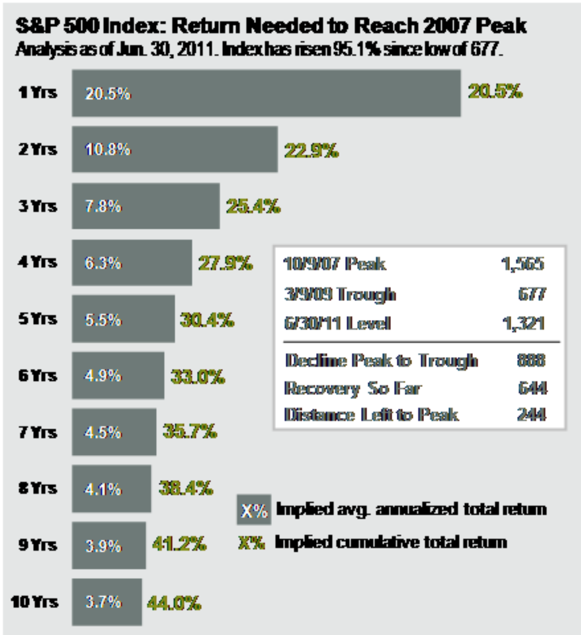
Having worked as an investment professional for more than 40 years, I have often heard other professionals opine that "now is a very difficult time to invest and perhaps we should sit on the sidelines and wait for greater clarity". While ultimately the growth of stock values is dependent on the growth of corporate profits, stocks are much more volatile than profits. The levels of interest rates, price to earnings ratios and dividend yields all are critically important. Naturally, stock prices are also influenced by investor expectations, the rate of inflation and price to book value measures.

Our assessment is that stocks are modestly valued. While we do not claim to have superior expertise in economic forecasting, we, like the majority of economic forecasters, expect the world economy to continue to recover from the most severe recession in the post World War II era. As has been the case in prior recessions that had significant financial stress, this recovery has been and is expected to be characterized by modest growth. We need only look to the housing sector (traditionally a very important contributor in the initial stages of recovery) to see one of the factors contributing to slow growth.

In the graphs that follow, we attempt to demonstrate that stocks are not expensive and that they are inexpensive when contrasted with the returns available from investment grade bonds. Several of the graphs are reproduced from JP Morgan's Guide to Markets. The data generally is as of the end of June. In both July and August stocks declined in value and interest rates (particularly the yield on Government bonds) fell so the relative appeal of stocks increased.

The graph and table below compare the 2007-2009 market decline to prior modern bear markets.

Equities



Bear Market Cycles vs. Subsequent Bull Runs

Market Peak	Market Low	Bear Market Return	Length of Decline	Bull Run	Length of Run	Yrs to Reach Old Peak
5/29/46	5/19/47	-28.6%	12	257.6%	122	3.1 yrs
7/15/57	10/22/57	-20.7%	3	86.4%	50	0.9 yrs
12/12/61	6/26/62	-28.0%	6	79.8%	44	1.2 yrs
2/9/66	10/7/66	-22.2%	8	48.0%	26	0.6 yrs
11/29/68	5/26/70	-36.1%	18	74.2%	31	1.8 yrs
1/5/73	10/3/74	-48.4%	21	125.6%	74	5.8 yrs
11/28/80	8/12/82	-27.1%	20	228.8%	60	0.2 yrs
8/25/87	12/4/87	-33.5%	3	582.1%	148	1.6 yrs
3/24/00	10/9/02	-49.1%	31	101.5%	60	4.6 yrs
10/9/07	3/9/09	-56.8%	17	95.1%	28*	
Average:		-35.0%	14 mo's	176.0%	68 mo's	2.2 yrs

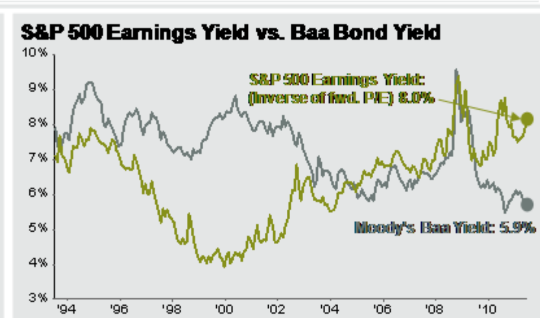
Source: Standard & Poor's, FactSet, J.P. Morgan Asset Management.
(Left) Data assume 2.0% annualized dividend yield. Implied values reflect the average geometric total returns required for the S&P 500 to reach its 10/9/07 peak of 1,565 over each stated time period. Chart is for illustrative purposes only. Past performance does not guarantee future results.
(Right) A bear market is defined as a peak-to-trough decline in the S&P 500 Index (price only) of 20% or more. The bull run data reflect the market expansion from the bear market low to the subsequent market peak. All returns are S&P 500 Index returns and do not include dividends. *Current bull run from 3/9/09 through 6/30/11. Data are as of 6/30/11.

The next graph depicts several important valuation measures.

Equities

S&P 500 Index: Valuation Measures

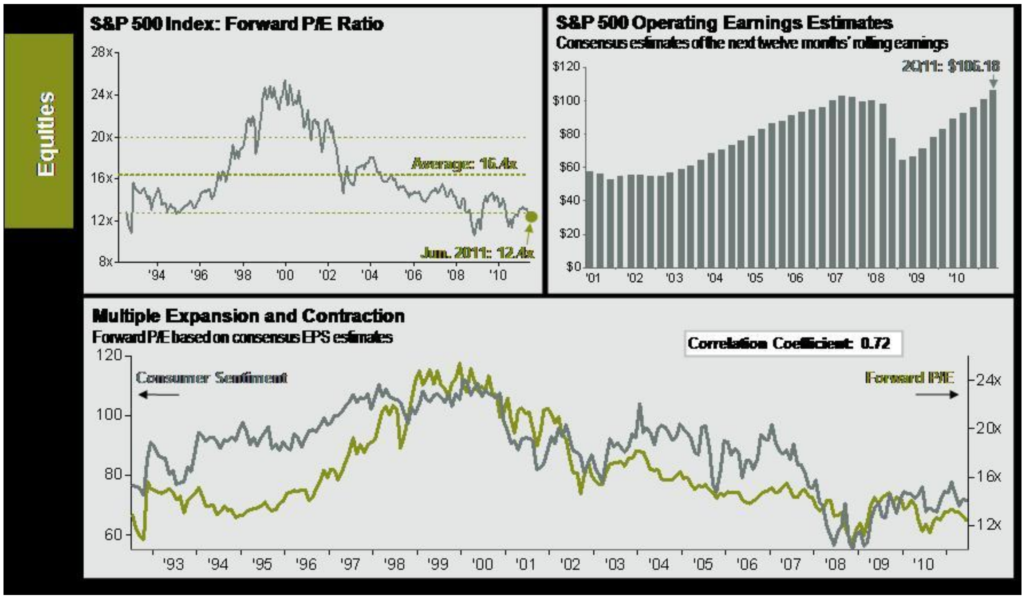
Valuation Measure	Description	Latest	1-year ago	Historical Averages: 3-year avg.	5-year avg.	10-year avg.	15-year avg.
P/E	Price to Earnings	12.4x	11.5x	12.9x	13.5x	15.2x	17.1x
P/B	Price to Book	2.3	1.9	2.1	2.4	2.6	3.1
P/CF	Price to Cash Flow	8.5	7.6	8.2	9.0	10.4	11.2
P/S	Price to Sales	1.2	1.0	1.1	1.2	1.3	1.5
PEG	Price/Earnings to Growth	0.9	0.4	0.9	1.1	1.2	1.2
Div. Yield	Dividend Yield	2.1%	2.3%	2.3%	2.2%	2.0%	1.9%



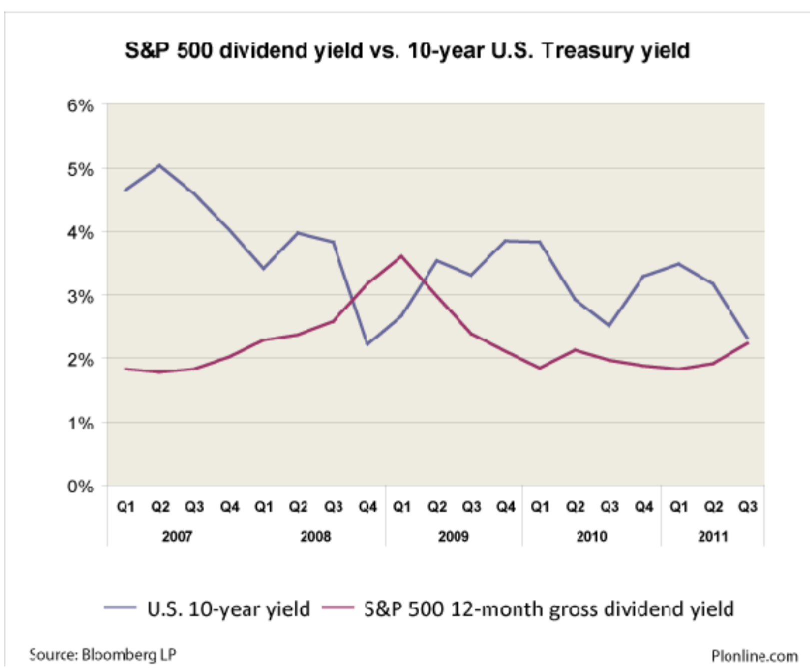
Source: (Top) Standard & Poor's, FactSet, J.P. Morgan Asset Management.
Price to Earnings is price divided by consensus analyst estimates of earnings per share for the next twelve months. Price to Book is price divided by book value per share. Data post-1992 include intangibles and are provided by Standard & Poor's. Price to Cash Flow is price divided by consensus analyst estimates of cash flow per share for the next twelve months. Price to Sales is calculated as price divided by consensus analyst estimates of sales per share for the next twelve months. PEG Ratio is calculated as NTM P/E divided by NTM earnings growth. Dividend Yield is calculated as consensus analyst estimates of dividends for the next twelve months divided by price. All consensus analyst estimates are provided by FactSet. (Bottom left) Q-Ratio based on data from the Federal Reserve, table B.102. *2Q11 is an estimate provided by J.P. Morgan Asset Management as of 6/30/11. (Bottom right) Standard & Poor's, Moody's, FactSet, J.P. Morgan Asset Management.

Data are as of 6/30/11.

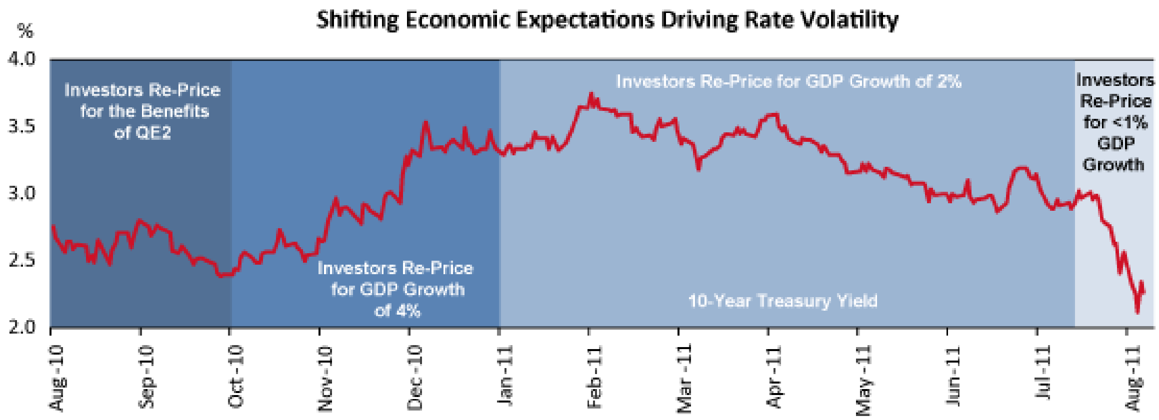
The following graph demonstrates that based on projected earnings, stocks appeared reasonably valued at the end of June. While we believe that recent economic softness will result in some reduction in projected earnings, stocks have declined more rapidly so they have become even less expensive.



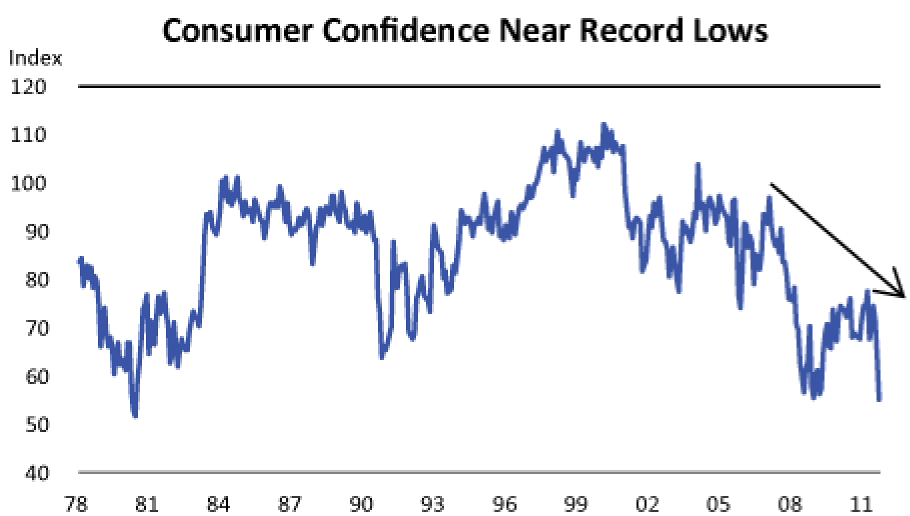
The graph below shows the S&P 500 dividend yield in mid August. The graph is from Bloomberg and P&I Investments.



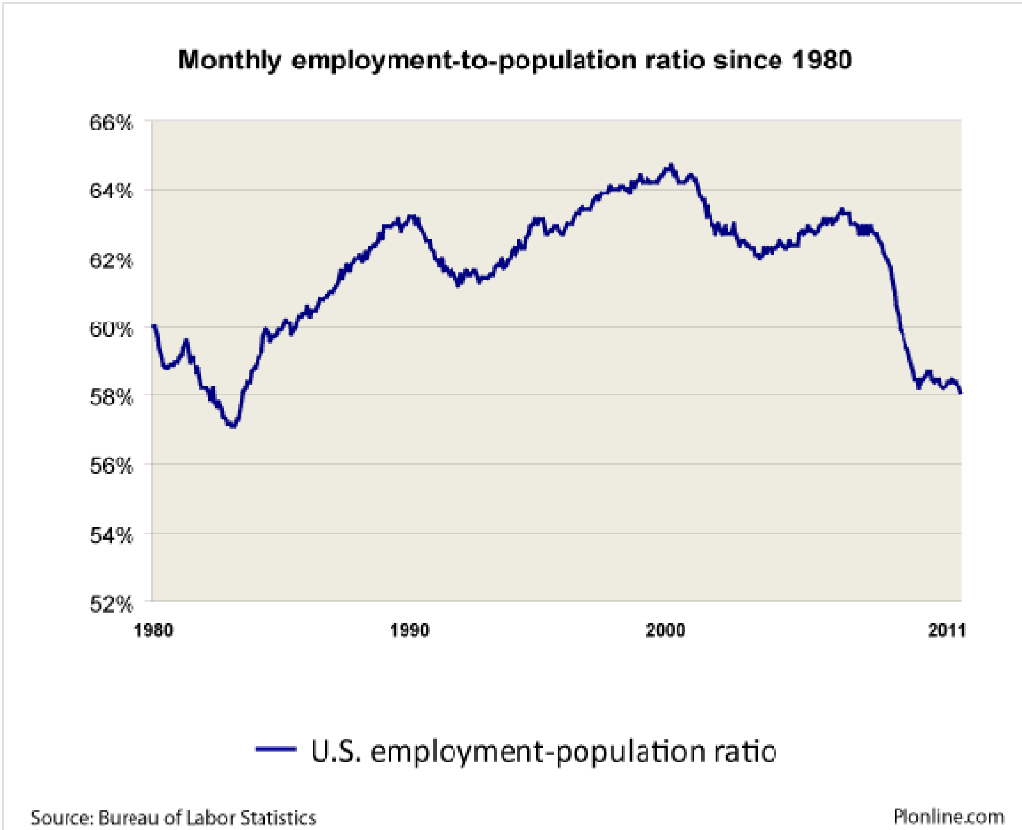
During the June quarter, financial concerns, particularly with regard to European bank exposure to the weaker Euro entities (PIIGS) resurfaced. At the same time, the consequences of the Japanese earthquake grew and the disappointing pace of growth continued domestically. Subsequently, the debate over the increase in the Federal debt limit and the possible credit downgrade of US Government debt affected both investor and consumer confidence. Obviously, the slowdown in already weak employment growth added to the list of concerns. The graphs below help put this is context.



Sources: Bloomberg and BBH Analysis



Sources: Bloomberg and BBH Analysis

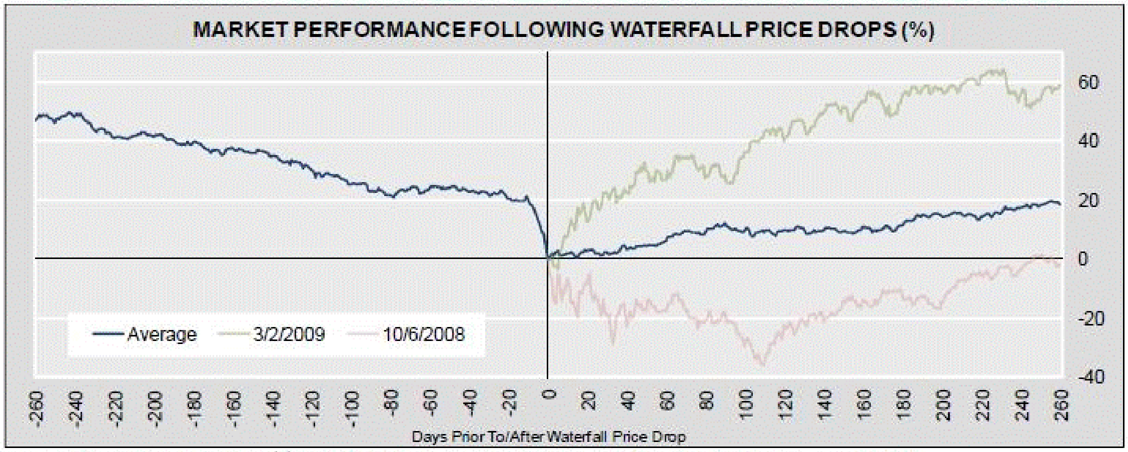


So, where are we and what should we expect?

We readily acknowledge that economic growth has slowed and that Euro related problems are troublesome. We, however, are encouraged by continued strong absolute growth in major emerging economies. We also believe that the US economy will continue to grow over the next 12-18 months, albeit at a modest rate. Global corporations including major entities in the US are very flush with cash. Fixed income securities are producing negative "real returns", which means there current yield is less than inflation. Thus we believe there is strong incentive to "invest" in producing assets (capital investments). We expect profit growth to slow but still remain positive. Against this backdrop, we have institutional and retail investors nervous and fearful of another meltdown.

Fortunately, history demonstrates that emotionally driven sharp market drops often are short lived. The graph on the following page was reproduced from a Northern Trust presentation. It considers the average advance after a "waterfall" decline. The periods considered included sharp equity market declines that have occurred since 1928 and the subsequent recoveries.

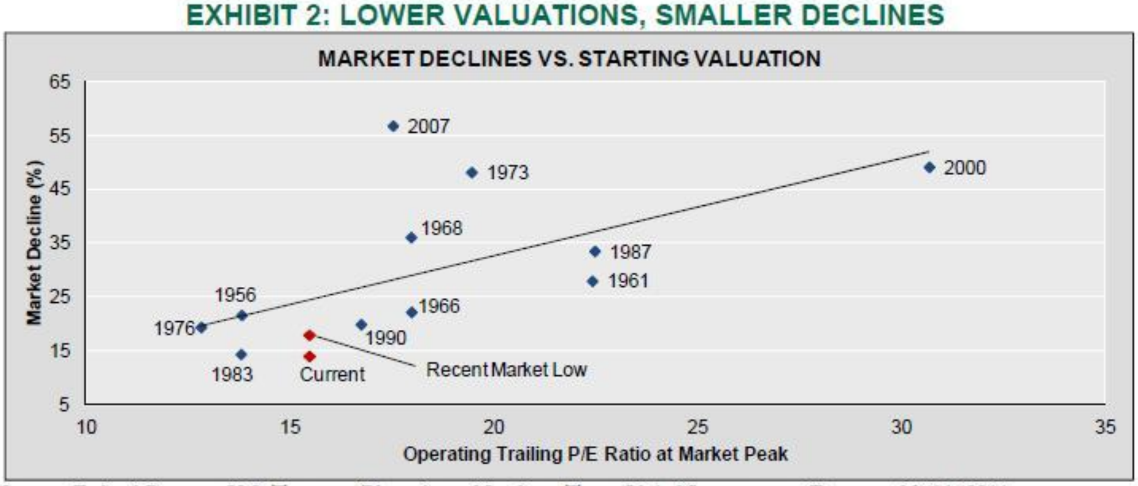
EXHIBIT 1: MARKETS USUALLY REBOUND AFTER WATERFALL DECLINES



Source: Bloomberg, Northern Trust Global Investments. Observation period: 1/1/1928 – 8/11/2011.
Chart Concept: Ned Davis Research.

The final graph below demonstrates the importance of reasonable valuation providing meaningful protection from very severe declines. This graph also was provided by Northern Trust.

EXHIBIT 2: LOWER VALUATIONS, SMALLER DECLINES



Source: Federal Reserve, U.S. Treasury, Bloomberg, Northern Trust Global Investments. Data as of 8/11/2011.
Chart Concept: BCA Research. Current is as of 8/11/2011; "Recent Market Low" is as of 8/8/2011.

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