

INVESTMENT COMMENTARY

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3rd Quarter 2011

Index	Quarter	Year to Date	Trailing 1 Year	Trailing 3 Years	Trailing 5 Years	Trailing 10 Years
<u>Domestic Equity</u>						
S&P 500	-13.9	-8.7	1.1	1.2	-1.2	2.8
Russell 1000 (Large Cap)	-14.7	-9.3	0.9	1.6	-0.9	3.3
Russell MidCap	-18.9	-12.3	-0.9	4.0	0.6	7.5
Russell 2000 (Small Cap)	-21.9	-17.0	-3.5	-0.4	-1.0	6.1
<u>International Equity</u>						
MSCI World ex US (Developed)	-19.0	-15.2	-9.1	-0.9	-2.9	5.5
MSCI Emerging Markets	-22.6	-21.9	-16.2	6.3	4.9	16.1
<u>Real Estate</u>						
FTSE/Nareit All Equity REITs (public)	-15.1	-6.1	0.9	-2.0	-2.4	9.2
<u>Domestic Fixed Income</u>						
Barclays U.S. Aggregate	3.8	6.7	5.3	8.0	6.5	5.7
Barclays U.S. TIPS	4.5	10.6	9.9	8.1	7.1	7.2
Barclays Municipal	3.8	8.4	3.9	8.1	5.0	5.1
Barclays High Yield	-6.1	-1.4	1.8	13.8	7.1	8.8
Citigroup 3-Month T-Bill	0.0	0.0	0.1	0.1	1.5	1.9
<u>International Fixed Income</u>						
Citigroup Non-\$ World Gov't Bond	1.0	5.7	4.1	8.1	7.8	8.0
<u>Commodities</u>						
Dow Jones/UBS Commodity Index	-11.3	-13.6	0.0	-5.7	-1.1	6.0

The past few months have seen a continuation of equity market volatility, and unfortunately, some significant losses in these same markets. Fundamentally, the reasons for the market chaos continues to be debt problems around the world and slow economic growth. In 2008, the debt problems were with mortgage debt, while today it is with government debt. The weak economy cannot be entirely explained by high sovereign debt levels. Economies, especially in the U.S., depend on consumer spending to thrive. Consumer spending should not be affected by the level of government debt, at least in the short term. If taxes are raised or government expenses are cut, these actions could affect consumer spending, but neither of these have occurred to a great extent—yet.

It has become clear that consumer spending and much of the associated economic growth enjoyed during the past decade was driven by easy credit. That growth hid more serious problems in the economy, most notably the declining competitiveness of the U.S. worker in a rapidly changing global economy. Productivity gains and cheap foreign labor has held back U.S. wages, forcing consumers to borrow money to maintain their quality of life.

Credit availability came to a screeching halt in 2008. Those consumers who were dependent on credit were forced to curtail spending. In many cases, consumers who had the ability to continue spending chose not to spend, presumably waiting on economic and market clarity.

Despite the market recovery of 2009, 2010 and the first half of 2011, we remain in a global economic quagmire. Both investors and consumers are less confident in making financial decisions given the current economic landscape.

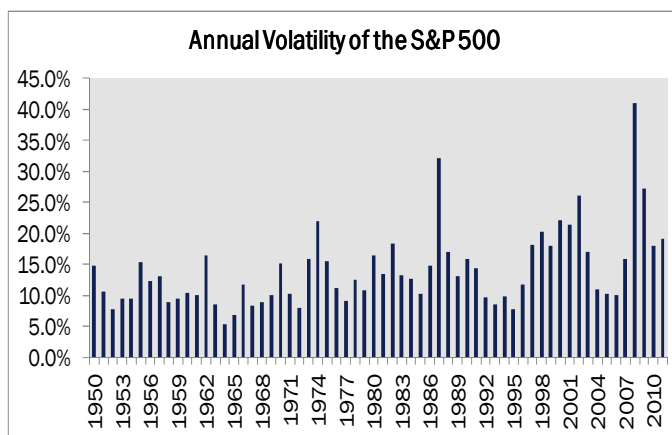
As noted earlier, the focus today is on the massive amount of government debt—both domestically and in Europe. We do not believe consumers are necessarily worried about the levels of debt as much as they are worried about the grand plan to reduce the debt. Most rational people have come to the realization that we the people will pay for this giant debt. The uncertainty is just a matter of who pays the most and how much it will cost.

Both higher taxes and decreased government spending reduce the amount of money in the economy that is available for current spending and both are likely to harm the economy in the short term. Longer term, it is wise to decrease the amount of our national debt, but that helps the economy of the future, at the expense of the economy today. Our economy is very fragile at this point and any negative sentiment of consumers could weaken the economy even further, possibly resulting in a “double dip” recession.

Investors are expressing their concern with economic uncertainty with an equal dose of uncertainty with respect to buying and selling equities.

We experience move ups in the market when investors see the makings of a solution and we give back when investors lose confidence. For the last several months, the “give backs” are unfortunately way ahead of the “move ups”. As we will see in the following paragraphs, this recent volatility may be above average, but it is not really new.

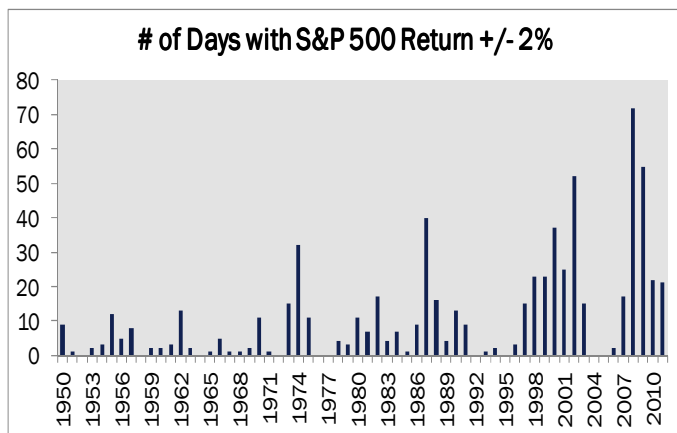
Ultimately, when investors look back over any time period, they are most interested in the final rate-of-return for that period. Along the way, however, we hear much about two related metrics, volatility and the magnitude of periodic returns. The term volatility generally refers to the “up one day, down the next” pattern that we have seen recently. 2011 will likely go down as being more volatile than average, although not nearly as volatile as 1987, the years between 1998 and 2002 or the 2008-2009 period.



Magnitude generally refers to how big these daily moves have been. Outside of a few outliers (1974 and 1987), there were not many years between 1950 and the technology bubble with more than 10 trading days where market moves exceeded 2% - up or down. Beginning in the late 1990s, large daily moves have become the “norm” for the markets, except for a few “quiet” years between 2004 and 2006 when we had a total of two days where market moves were greater than 2% (both positive).

If we assume that the final quarter of 2011 will resemble the preceding nine months, we might expect about 28 days where the S&P 500

moved by 2% or more. This compares to 22 days during 2010, 55 days in 2009 and an incredible 72 days in 2008. The chart below shows the number of 2% S&P swings since 1950.



What makes 2011 such a problem is not just the above average volatility and the size of the daily moves. It is the fact that 13 of the 21 big daily moves (2% or more) have been **down**. The returns of the S&P 500 this year have been marked by a series of small gains followed by large losses—a market that is emotionally draining on market participants. Investors tend to dismiss a series of small gains, but tend to remember large losses. As seasoned investors know, successful investing is not so much about earning huge returns. Rather, it is about avoiding large losses.

The investment challenge of all institutions is to earn a rate of return that is sufficient to support the institution's mission and to minimize the return variability as much as possible along the way. As most investors know, this is attempted through portfolio diversification, a technique that is conceptually simple, but often difficult to implement effectively.

In theory, an investor with no near-term cash needs and a long time horizon could tolerate more volatility as long as there is a high expected rate-of-return. In practice, most institutions do have near-term cash demands and are less willing to accept high levels of volatility irrespective of the long-term return potential. No institution wants to face withdrawing assets from their portfolio in a year like 2002 or 2008, when the portfolio has probably suffered great losses.

Having faced this situation twice in the past decade, many institutions have been rethinking their asset allocations and the effectiveness of their diversification strategies. Before delving more deeply into specifics, let's review some basic theoretical concepts and how we attempt to apply them. Expected **rate-of-return** is very straightforward where more is better than less, all else equal. **Standard deviation** is a statistic that captures the variability of periodic returns around an average and less is better than more, all else equal. Finally, **correlation** is how the return patterns of any two assets or strategies relate to one another over a given timeframe. Lower correlations offer better diversification—again, all else equal.

A correlation of +1 suggests that the two return streams move in lockstep with one another. Conversely, a correlation of -1 suggest that the two return streams move exactly counter to one another. A correlation of zero is a special case that suggests that the return patterns of the two asset classes have no relationship whatsoever.

A diversification example: Suppose you own \$100 of Asset A, which has an expected return of 8% and a standard deviation of 30%. The standard deviation is too much for you to tolerate, so you decided to diversify your investment by taking \$50 from Asset A and investing it in Asset B, which also has an expected return of 8% and standard deviation of 30%. Your new two asset portfolio still has an expected return of 8%, but the standard deviation is not the 30% as you might expect. The reason has to do with the correlation of Asset A with Asset B. Because the correlation of A and B is only 0.5, the standard deviation of the two asset portfolio is only 26%.

Although correlation receives a lot of attention in risk mitigation discussions, standard deviation actually has a more dramatic impact on reducing portfolio volatility. However, the reality of some assets like "cash" is that they have very low standard deviations, but too much in a portfolio will render the portfolio incapable of meeting the institution's required rate-of-return. The ideal investment has a high expected rate-of-return, low standard deviation, and a low correlation to other as-

sets in the portfolio. Unfortunately, it is unlikely that such an investment would exist in the public domain for long.

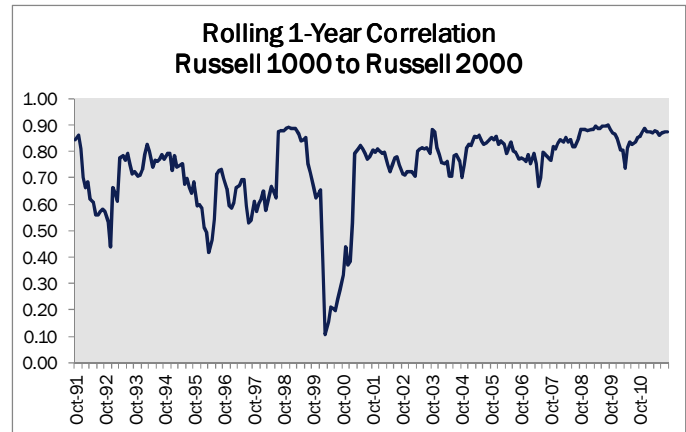
More typical diversification strategies have seen institutions craft portfolios of numerous different sub-components of the public equity markets—small-cap, mid-cap, large-cap, growth, value, and so forth. In addition to the above, strategies that are clearly not “public equities” were added, and while different, turned out to be susceptible to the same return drivers as the public equity component. Many investors learned somewhat painfully that a large team of investment managers, funds and partnerships does not necessarily yield a diversified portfolio.

The table below shows the 20-year rate-of-returns and standard deviations for large-cap stocks, small-cap stocks, international stocks, emerging market stocks, and domestic bonds.

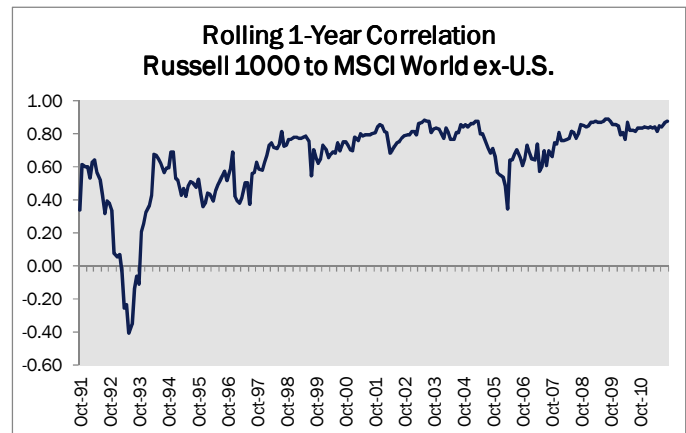
Index	20 Year Return	20 Year Standard Deviation
U.S. Large Cap	7.9%	15.2%
U.S. Small Cap	8.1%	19.5%
International - Developed	4.8%	16.8%
International - Emerging	8.8%	24.0%
Fixed Income (Bonds)	6.7%	3.8%

As readers can see, small-cap, international developed and emerging markets all had higher standard deviations than large-cap. Theory suggests that adding two risky assets can produce a less risky combination, but ONLY if the correlation of the pair is low enough.

The next few tables chart the rolling 1-year correlations of each of these assets to the Russell 1000 index.

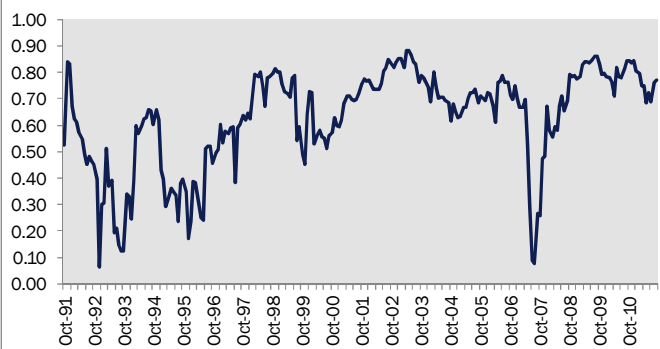


As you can see, outside of a short term drop during the height of the tech bubble, small cap stocks and large cap stocks have historically been highly correlated. There was probably some benefit to having both in a portfolio in the early 1990s, but they did not offer much diversification this past decade. When you combine the high correlation with its higher than large cap standard deviation, it is hard to argue that small caps offer much diversification benefits.



The story is similar for developed international equities. At times in the past, the correlation to U.S. large cap stocks was low, but it has been rising over the past 20 years. The correlation is not as high as U.S. small cap, but not low enough to offer great diversification benefits, especially when combined with its higher standard deviation.

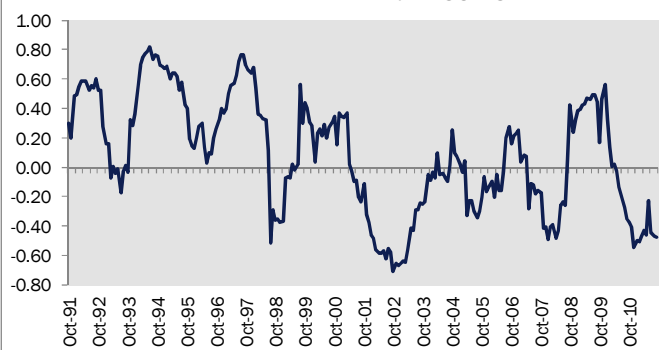
**Rolling 1-Year Correlation
Russell 1000 to MSCI Emerging Markets**



Emerging markets do not appear to be great diversifiers either. At one time, they had much lower correlations and offered better diversification benefits, but these diversification benefits have diminished in recent years.

Although these three equity asset classes may not diversify a portfolio very efficiently, we believe all deserve an allocation. While high, the correlations are not 1.0 so there is some slight benefit of having them in a portfolio. Also, we believe that small cap and emerging markets have the potential to outperform large caps over long time periods. These asset classes should be used primarily for return enhancement rather than diversification.

**Rolling 1-Year Correlation
Russell 1000 to Barclays Aggregate**



Fixed income is one of the best diversifiers to equities. Not only is its standard deviation much lower, it also has a very low correlation to equities. Even better, it often has a negative correlation in

negative equity markets. As we have discussed in the past, the problem with fixed income is its return potential. With rates near historic lows, it is hard to argue that bonds offer a great return potential.

For investors who are limited to traditional “long-only” public equity markets, fixed income is clearly the best diversifier. Other assets to consider could be REITs, MLPs, and commodities, but none of these are likely to be as good at mitigating equity market risk as bonds. The reality for most investors is that equity markets are volatile and investors seeking higher long term returns will need to be prepared for the volatility that comes with equity investing. The higher the allocation to bonds, the lower the expected return and volatility.

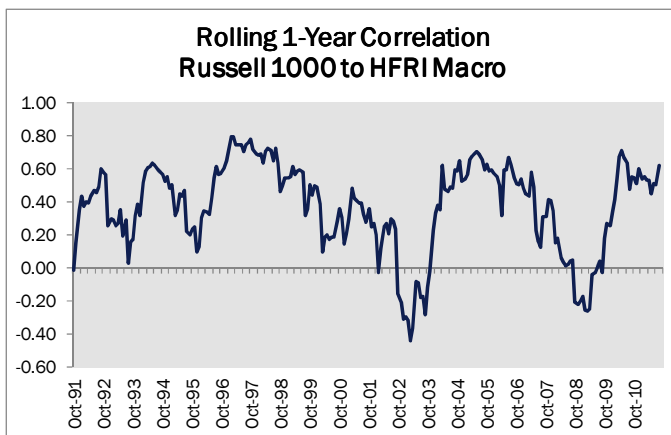
Investors who are not restricted to the more traditional equity and debt markets have a number of other asset classes and investment strategies to consider. These asset classes are most likely structured as partnerships and offer limited liquidity. Some of the most common are private equity investments in real estate, timber, oil & gas, and distressed investments. Others are hedge fund investments in strategies such as global macro, event driven, and commodity trading advisors (CTAs).

Private equity investments have historically shown lower volatility than public equity investments, but much of this lower volatility is an illusion based on the fact that these investments are not valued as frequently as public investments. Remember, traditional volatility measurements capture the variability in periodic “prices” and not the change in intrinsic value of the underlying entity. A given economic scenario should be expected to have a similar impact on a given company whether it is publicly traded or privately held. However, the public company that is traded on a stock exchange may see its price vary quite dramatically simply due to normal market forces. The price of the private concern is often held constant for many quarters or even years, necessarily resulting in a low variability of periodic prices. When standard deviation is used as a proxy for risk, illiquid investments can be interpreted as either low risk or risk mitigating. It is unlikely that

this is actually the case.

Private investments can be quite beneficial to portfolios that are otherwise dominated by public equities. It is important, however, to consider each private investment individually and understand the purpose of that investment. What is the intended impact of replacing one strategy with another? If we are really seeking diversification, the prospective investment needs to have return drivers that are dissimilar from the existing investments. Committees should understand that the illusion of lower volatility generally comes at the expense of liquidity. Some private investments are completely illiquid, while others have an income component which can make an investment of this type more desirable. In short, we generally prefer to focus on the long-term return expectations of private investments over the strategy's potential to reduce portfolio volatility.

There are many types of hedging strategies, but global macro, event driven, and CTAs have historically had the lowest correlation to the equity markets.



The correlation between large cap equities and the HFRI Macro hedge fund index over the past 20 years is 0.33. As the chart above shows, the correlations are unstable, much like bonds, and very different from the other equity asset classes. The instability of the macro and bond correlations tells us that these investments are different than large cap equities. Sometimes these investments have similar returns to equities, but sometimes they do not. Like bonds, the macro index has ex-

perienced negative correlation in negative equity markets, a very desirable characteristic.

In Summary . . .

Although we may enjoy periods where financial markets recover, we believe that investors, and the public in general, should expect and prepare for tepid economic growth. This will be particularly apparent in the debt laden developed economies where both the uncertainty as to what the solution will be AND the solution itself will have negative economic impacts. That is correct—there is no painless way to pay off a \$14 trillion debt—and that is just the ever growing deficit in the United States.

Market volatility, complete with large daily moves will likely continue as investors attempt to interpret every news flash. Great care needs to be taken when constructing portfolios, even those with perpetual time horizons. Contemporary asset deployment strategies need to be replaced with portfolio structures that have multiple return drivers—not just variations of one. Consideration needs to be given to more opportunistic strategies when and where the appropriate talent can be accessed.

Just because many economies around the world are suffering and financial markets seem to be more challenging does not mean that we can not be successful. It simply means that we need to work a little harder and perhaps be a little more creative as we negotiate these trying times.

Larry Thompson & Associates has provided independent and unbiased consulting services to foundations and endowments, pension funds and private families for almost 19 years. The firm has particular expertise in asset allocation and alternative investment strategies. For more information, please contact Alan Bergin, CFA at aber-gin@larrythompson.net or by telephone at 214-752-5430.