An Increasingly Correlated World?

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One of the more common complaints we hear from other investment managers is the transformation of the stock market from a once fertile ground for distinguishing winners from losers to a new era where stocks move in concert reacting to global macro factors rather than the relative success or failure of individual companies. The underlying explanations vary but generally focus on either the monolith of central bank rate policy, the rise of ETF's, the scourge of HFT or some other investing boogeyman. This trend, if true, does have significant implications for managers, their clients and the investing public in general so we decided to examine these relationships in more detail.

We first examined the trends in correlations among stocks by measuring daily behavior using the average correlation for stock returns in the Russell 1000 universe to the universe return itself over a 250- day rolling period.

Exhibit #1 below displays the time-series of the resulting analysis

Exhibit #1: Rolling 250 Day Average Correlations for Russell 1000 Companies

Through the lens of daily returns, the evidence is pretty clear that stocks have much higher correlations over the last 10 years than at any point in time going back to the early 1980's. Prior to 2000, the average correlation was below 40% but has now been nearly 60% since 2007. The previous peak in correlations was in the period surrounding Black Friday in October of 1987 which is consistent with the notion that stocks tend to have high co-movement in periods of market stress.

We also examined the correlation of returns within individual sectors in Exhibit #2 to see if there were any particular areas that have strongly contributed to the increased pattern of correlations. Nearly all sectors have exhibited increases with Industrials, Health Care and Utilities being the most pronounced. Interestingly, Energy companies are the only sector with declining correlations relative to the 2000's although that trend has reversed somewhat coincident with the decline in oil prices

Exhibit #2	2000's	2010's	2010's - 2000's
Russell 1000 Universe	**49%**	**58%**	**9%**
Industrials	56%	68%	12%
Health Care	48%	59%	11%
Utilities	67%	77%	10%
Consumer Staples	49%	57%	8%
Financials	62%	68%	6%
Consumer Discretionary	53%	58%	4%
Materials	63%	67%	4%
Telecom Services	56%	59%	3%
Information Technology	59%	61%	3%
Energy	78%	71%	-7%

Now that we've established that the narrative surrounding a more correlated world for stock returns is fairly clear when analyzing daily returns, let's look at whether this conclusion holds up when we switch the observation to monthly returns using the same 12-month window.

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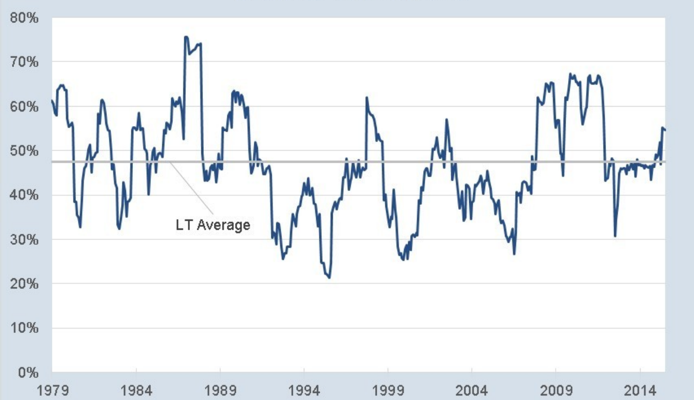
What we see in the monthly analysis in exhibit #3 indicates a starkly different pattern for the most part and even drives towards a far different conclusion, specifically that there isn't a very strong case to be made for a distinct trend in the return relationships among stocks over the past several years. The elevated correlations following 2008 are certainly pronounced but not in any unusual way given the backdrop of the prolonged fallout from the near global collapse in financial markets in 2008.

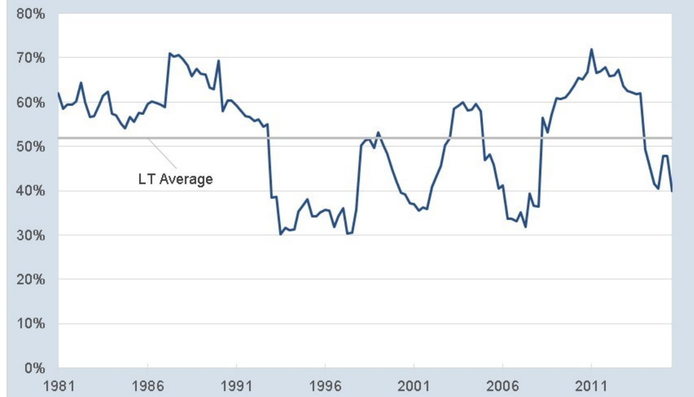
Exhibit #3: Rolling 12 Month Average Correlations for Russell 1000 Companies



We also looked at quarterly return correlations as demonstrated in exhibit #4 which further highlights the stark difference in evaluating short-term returns versus long-term. In fact, our most recent observation in May 2016 suggests that correlations among U.S. large cap companies is below the long-term average.

While the aftermath of the global financial crisis has clearly changed the investment game on several dimensions, we

Exhibit #4: Rolling 12 Quarter Average Correlations for Russell 1000 Companies



fail to see clear evidence that the structural underpinnings of the market have shifted in such a way that completely supports the idea that globally connected markets, HFT, ETF, FED, ECB, etc, have impaired equity investors ability to achieve a discrete reward for putting capital at risk, at least to the extent that your investment horizon is measured in months rather than days. We admit that this is a fairly simple analysis to answer a complex question but it's often true in today's world that people quickly adopt answers that satisfy their preconceived notions without digging below the surface.