Why Stock Asset Class Persistence Works

DIVERGENCE/CONVERGENCE

When people ask the question, how's the stock market doing today? The answer is which stock market? One of the most common misconceptions about stock asset classes is that they are all the same. We suspect that people believe this to be the case because stock markets are closely correlated on a day-to-day basis so people's minds are conditioned to think that all indices perform similarly. They can't assimilate long term **divergence**. Yet upon inspection, stock asset classes behave uniquely.

What we actually observe is that over a period of time, such as 12 months, we can see significant drift or divergence of performance between stock asset classes. This drift or divergence is the primary reason why **Stock Asset Class Persistence** works. The second part of the equation is what we call convergence or what statisticians call reversion to the mean. It's not as important as divergence but plays an important role nevertheless. Convergence means that over longer periods of time, such as a decade or longer, we can observe that stock asset classes perform about the same. The persistent investor takes advantage of this divergence/convergence cycle to actively outperform the passive buy and hold investor or the rebalancing investor. This divergence/convergence cycle transpires over multiple time frames.

Table 1 uses annual asset class return data like in our paper entitled ***The Half Life of Stock Asset Class Persistence***. If you look at the last column in the table entitled Divergence it shows the difference between the best performing of the 4 stock asset classes in any one year and the worst performing asset class in the same year. For example, we can see that in 1986 the top performing stock asset class was **EAFE** with a 69.94% annual return. We can also see that in that same year the worst performing stock asset class was The Russell 2000 Blend with a 5.68% annual return. So if someone asked the question how did the stock market do in 1986, the only answer that makes sense is which stock market? One stock asset class made 64.26% more than the other.

Table 1 goes on to show that over a 30-year period this divergence averages 24.09% per year.

TABLE 1. THE DIVERGENCE AND CONVERGENCE OF STOCK ASSET CLASSES

DATE	S&P 500	EAFE	RUSSELL 2000 VALUE	RUSSELL 2000 BLEND	DIVERGENCE
12/31/1979	18.61%	6.18%	35.38%	43.09%	36.91%
12/31/1980	32.45%	24.43%	25.39%	38.58%	14.15%
12/31/1981	-4.93%	-1.03%	14.85%	2.03%	19.78%
12/31/1982	21.55%	-0.86%	28.52%	24.95%	29.38%
12/31/1983	22.56%	24.61%	38.64%	29.13%	16.08%
12/31/1984	6.27%	7.86%	2.27%	-7.30%	15.16%
12/31/1985	31.73%	56.72%	31.01%	31.05%	25.71%
12/31/1986	18.66%	69.94%	7.41%	5.68%	64.26%
12/31/1987	5.25%	24.93%	-7.11%	-8.77%	33.70%
12/31/1988	16.56%	28.59%	29.47%	24.89%	12.91%
12/31/1989	31.63%	10.80%	12.43%	16.24%	20.83%
12/31/1990	-3.11%	-23.20%	-21.77%	-19.51%	20.09%
12/31/1991	30.40%	12.50%	41.70%	46.05%	33.55%
12/31/1992	7.61%	-11.85%	29.14%	18.41%	40.99%
12/31/1993	10.06%	32.94%	23.84%	18.91%	22.88%
12/31/1994	1.31%	8.06%	-1.55%	-1.82%	9.88%
12/31/1995	37.53%	11.55%	25.75%	28.44%	25.98%
12/31/1996	22.94%	6.36%	21.37%	16.49%	16.58%
12/31/1997	33.35%	2.06%	31.78%	22.36%	31.29%
12/31/1998	28.58%	20.33%	-6.45%	-2.55%	35.03%
12/31/1999	21.04%	27.30%	-1.49%	21.26%	28.79%
12/31/2000	-9.10%	-13.96%	22.83%	-3.02%	36.79%
12/31/2001	-11.88%	-21.21%	14.03%	2.49%	35.24%
12/31/2002	-22.09%	-15.66%	-11.43%	-20.48%	10.66%
12/31/2003	28.67%	39.17%	46.03%	47.25%	18.58%
12/31/2004	10.87%	20.70%	22.25%	18.33%	11.38%
12/31/2005	4.91%	14.01%	4.71%	4.55%	9.46%
12/31/2006	15.78%	26.86%	23.48%	18.37%	11.08%
12/31/2007	5.49%	11.63%	-9.78%	-1.57%	21.41%
12/31/2008	-36.99%	-43.10%	-28.93%	-33.79%	14.17%
Average	**12.52%**	**11.89%**	**14.79%**	**12.66%**	**24.09%**

If you look at the last row in the table it shows just how little divergence is observed after long periods of time such as the 30 years in this example. We can see that over this 30- year period of time Small Cap Value was the best performing stock asset class with a 14.79% average annual return. The worst performer was EAFE with an 11.89% average annual return.

This small 2.90% difference is what we call convergence or reversion to the mean. This 2.90% difference is significantly reduced when you calculate the compounded annual growth rate instead of the arithmetic average as we have. The combination of divergence over short periods of time and convergence over longer periods of time is the reason why **stock asset class persistence** has worked in the past and should continue to work in the future.

We have another paper entitled ***Will Stock Asset Classes Continue to Diverge and Converge***? History has shown that stock asset classes have diverged and converged since man started measuring stock asset classes. This shouldn't be a surprise since after all it is the reason why man created different indices—-to see how they diverged. We also see this same divergence and to a lesser degree convergence with individual stocks that have similar long term rates of return and in every country we've analyzed. Nevertheless, before someone were to implement a persistence style as part or all of their portfolio they must be assured that there is overwhelming evidence that it will continue to work as an investment approach. The above referenced paper explains why we are convinced that persistence will continue to outperform over every other style of investing we've analyzed and provides our insight as to why the underlying premise is valid.

This paper has only one purpose and it is to show that markets diverge over short periods of time and then converge over long periods of time. Since this is true, and we learned in the paper ***Stock Asset Class Persistence*** that as an investment technique, persistence outperforms a Buy and Hold strategy, then we must be able to observe other, longer periods of divergence such as 24 months or 36 months where persistence does not outperform the Buy and Hold strategy. Our paper entitled ***The Half Life of Stock Asset Class Persistence*** verifies that the success of investing in last period's leader depends on picking the correct time frame to measure divergence and that we can observe a diminished persistence effect as we extend the time frame under which we measure divergence.