



The Anti-Correlation Heresy -- Update

Timberland is still not correlated with stocks

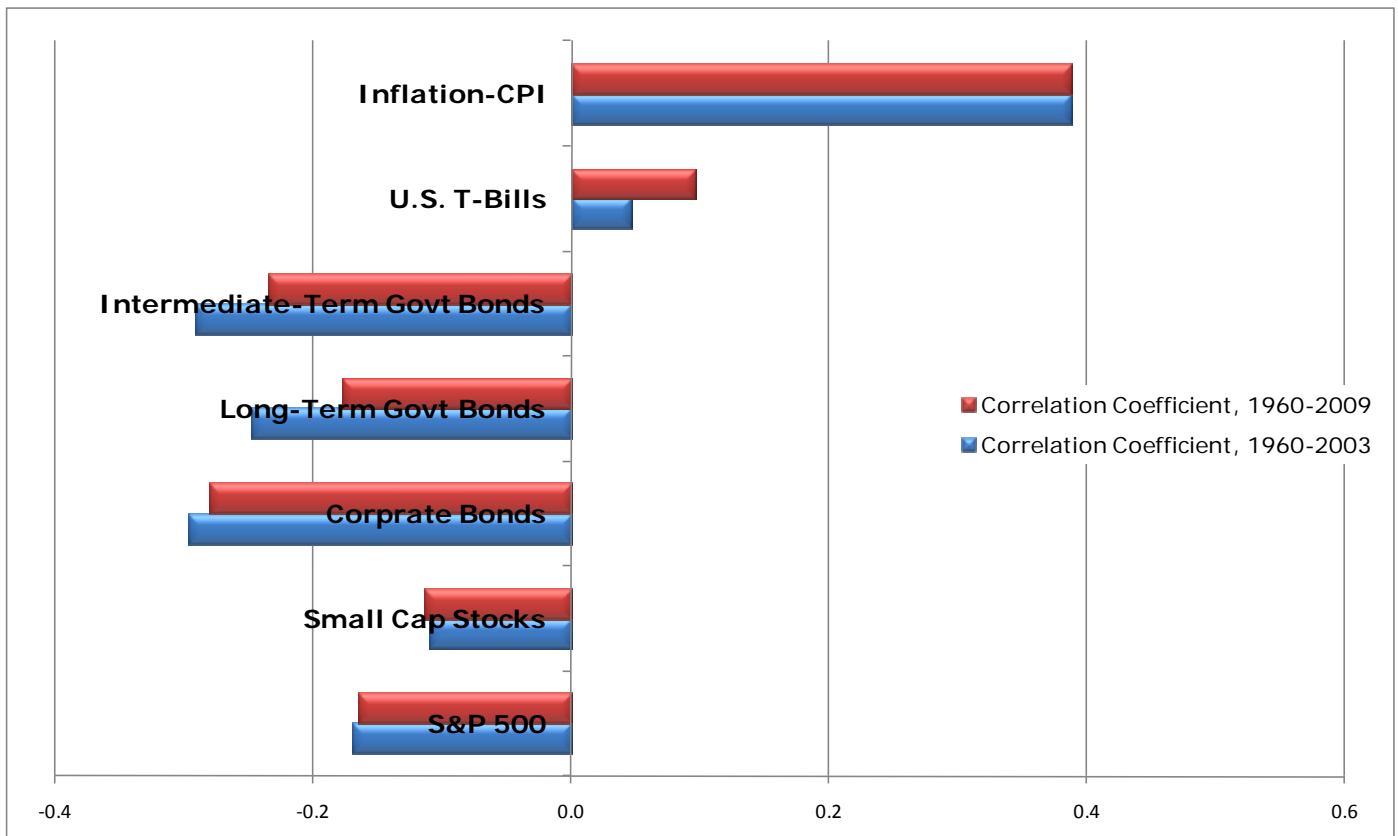
In *The Anti-Correlation Heresy* (Vol 1 No 4), we showed that timberland is not necessarily negatively correlated with financial assets. We have occasionally been asked to update this information and do so here.

Most of the published analyses use a long-term data series, and many of them show a negative correlation between most asset classes and timberland. Figure 1 shows a typical analysis of this type. It includes the returns through 2003 that were

available at the time *The Anti-Correlation Heresy* was published and updates the analysis through 2009. The timberland returns are based on the US NCREIF Timberland Index since 1987 and uses theoretical returns calculated using a timberland return model developed by John Wilson, widely known as the John Hancock Timber Index.

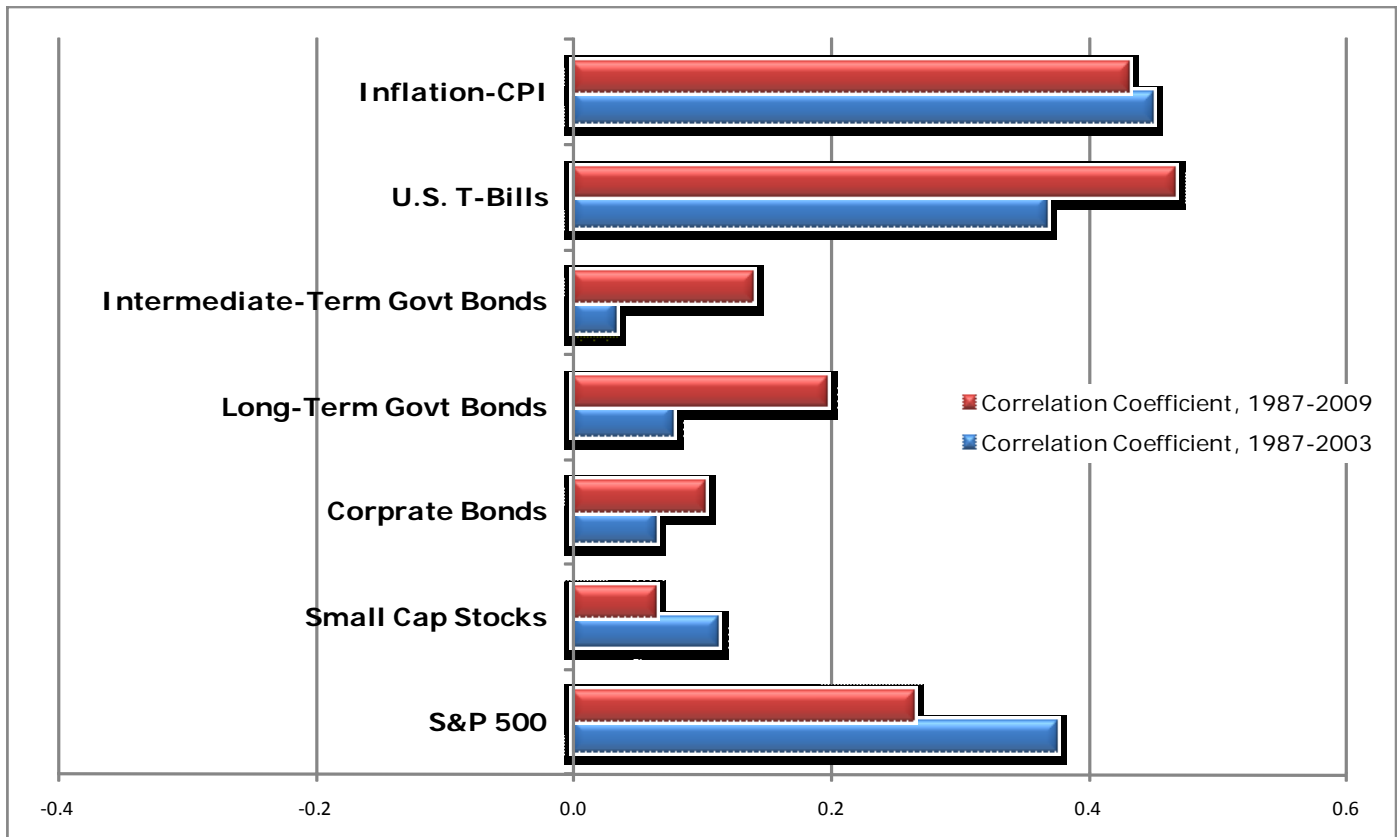
As we said six years ago, the conclusion that is often drawn from such a chart is that **timberland returns are negatively correlated with returns from stocks and bonds.**

Figure 1. Typical Correlation Chart, Timberland vs. Other Assets, 1960-2003



Sources: Ibbotson Associates, National Council of Real Estate Fiduciaries

Figure 2. Typical Correlation Chart, Timberland vs. Other Assets, 1987-2003



Sources: Ibbotson Associates, National Council of Real Estate Fiduciaries

However, the correlation shown in the chart is based on a particular analysis period, and a different time period can present a very different picture. For example, Figure 2 shows the same type of analysis for the periods 1987-2003 (the original analysis) and 1987-2009, which corresponds to the length of the NCREIF Timberland Index series.

Anyone looking at Figure 2 would conclude that timberland returns are *positively* correlated with returns from stocks and bonds.

So what is going on? **As we said six years ago, timberland is neither positively nor negatively correlated with most other assets—it is simply not correlated at all.**

Any appearance of correlation between timberland and most other asset classes is largely a result of the time period chosen for the analysis. Figure 3 shows how shows how the correlation coefficient between the S&P 500 and timberland has changed over time.

The red bar shows the correlation for 1960-2009 (from Figure 1) and the dark green bar shows the correlation for 1987-2009 (from Figure 2).

While there are institutional investors that have held timberland investments since the early 1980s, there are many who have held timberland for shorter periods of time (5-10 years) and a number of funds that have liquidated after a decade or so. The blue bars show the correlation for individual 10-year periods: 1960-1969, 1961-1970, etc., showing what such short-term investors might have found over their investment period.

Investors for every 10-year period ending before 1989 would have found a negative correlation. Anyone investing between 1980 and 1990 would have found a very low correlation between the two assets. Anyone investing since 1992 would have found a positive correlation over a ten year period.

Figure 3. Correlation Between Stocks and Timberland Over 10-Year Periods

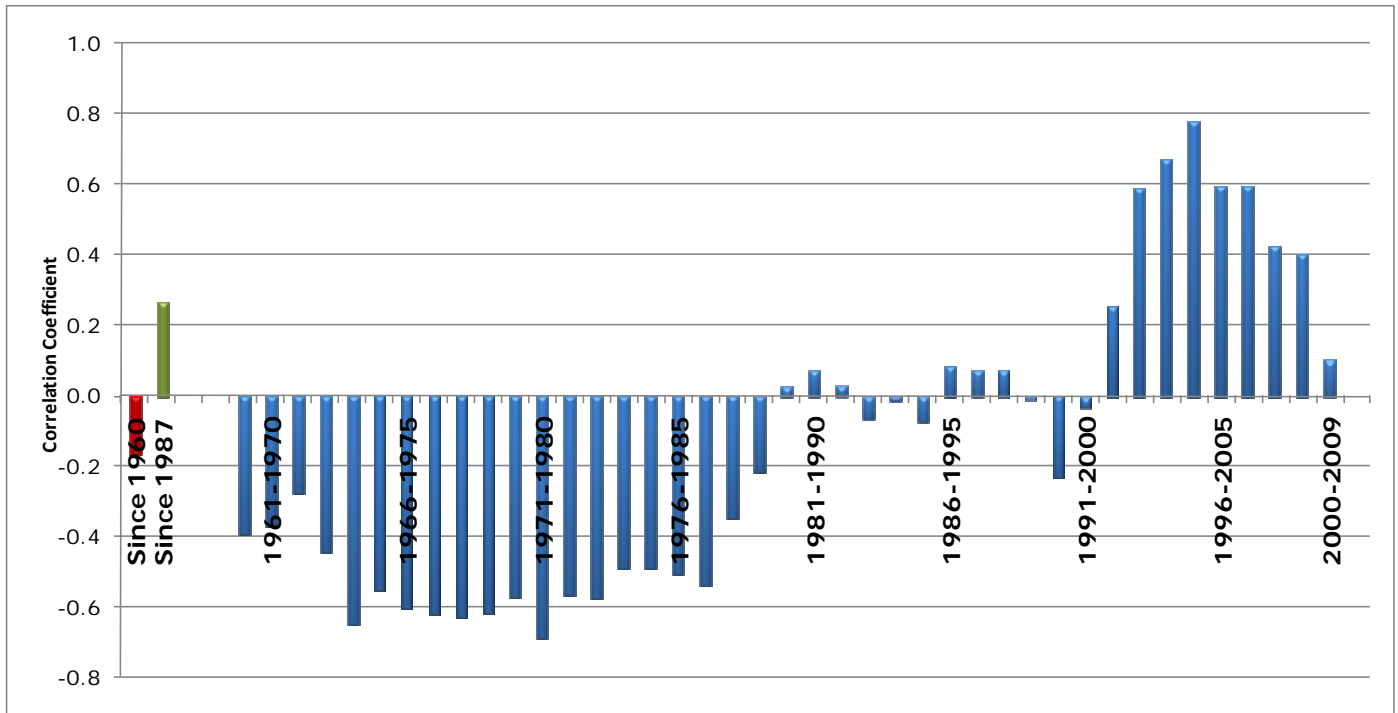
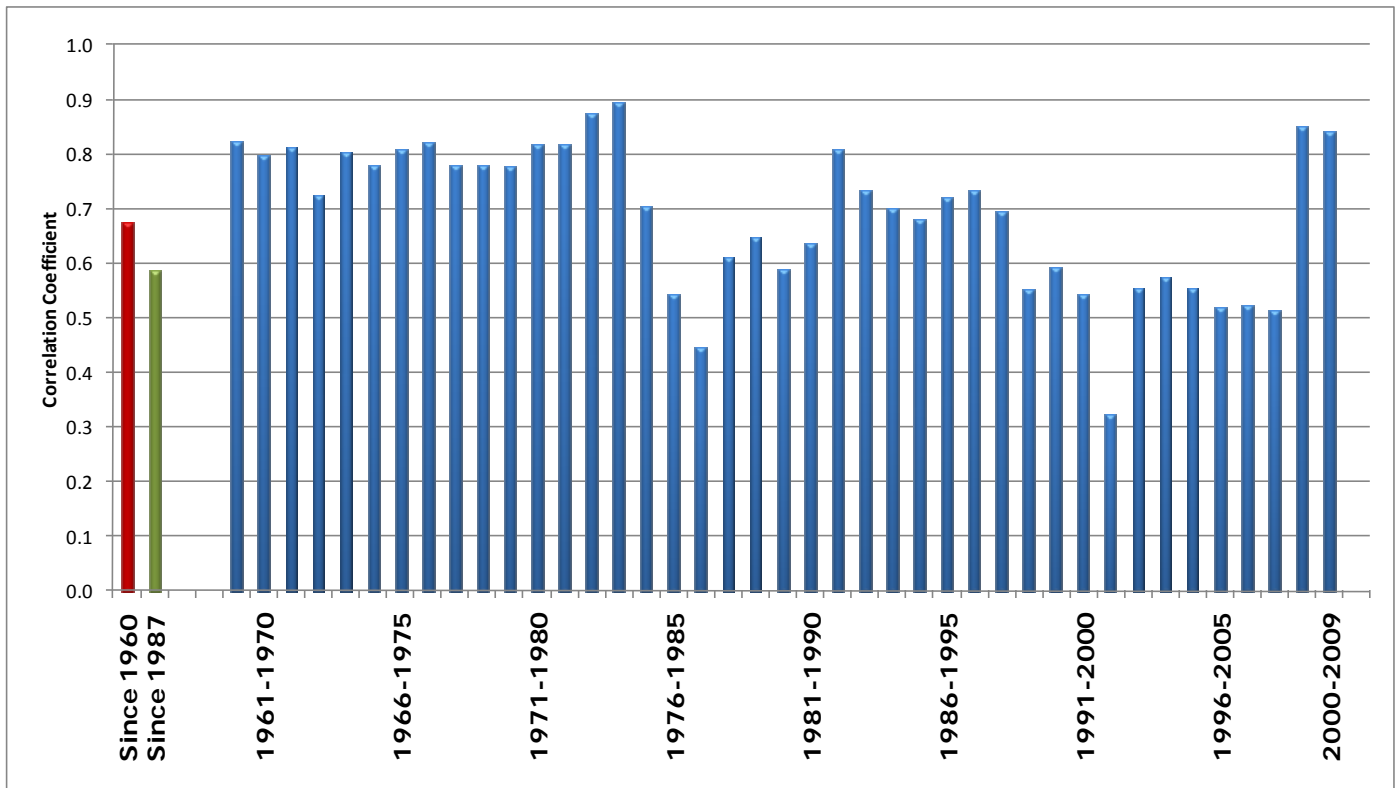


Figure 4. Correlation Between Large Cap Stocks and Small Cap Stocks Over 10-Year Periods



This apparent change correlation is not a given. Figure 4 shows the correlation between large and small cap stocks. Again, the red bar is for the period 1960-2009, the green bar is for the period 1987-2009 and the blue bars are 10-year investment periods. The chart shows very little change over time.

Figure 4 does not present any surprises. When there is a panic (or boom) on Wall Street, stocks of all kinds—growth, value, large cap, small cap, penny—are affected.

But there is no such connection between stocks and timberland. We buy toilet paper regardless of the value of our Kimberly-Clark stock.

Timberland and stocks both move in response to economic conditions. But stocks can move more quickly and many investor react to short-term economic changes. Timberland values are heavily dependent on timber values, and timber values do not usually respond to short-term economic changes.

Summary

- There are no changes to our original conclusion and summary:
- Correlation coefficients are widely used in investment analysis.
- Sometimes the correlation coefficient is misinterpreted.
- Timberland is *not* negatively correlated with stocks (or most other asset classes).
- But timberland is *not* positively correlated with stocks, either.
- ***Timberland is simply not correlated with stocks.***
- If you need an asset class that is always negatively correlated with stocks, timberland is not it.
- If you need an asset class that is not correlated with stocks, timberland may be it.

The last investment/analysis period in Figure 2 (2000-2009) shows the weakest correlation between timberland and stocks since 1991-2000. Are we due for a period of very low correlation?

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