



Inflation and Timberland in the UK

Timberland Returns

A few issues back, we addressed timberland returns and inflation. We found that the NCREIF Timberland Index is strongly correlated with inflation in the United States. But what about investors from, or timberland investments in, other countries? That is difficult to analyze because there are few published sources of timberland returns. At the time, we wrote that the NCREIF Timberland Index was the only published source of timberland returns in the world. We got a quick response from a reader who pointed us to the IPD UK Timberland Index (www.ipd.com).

Figure 1 compares the two indices. There are some important differences between them:

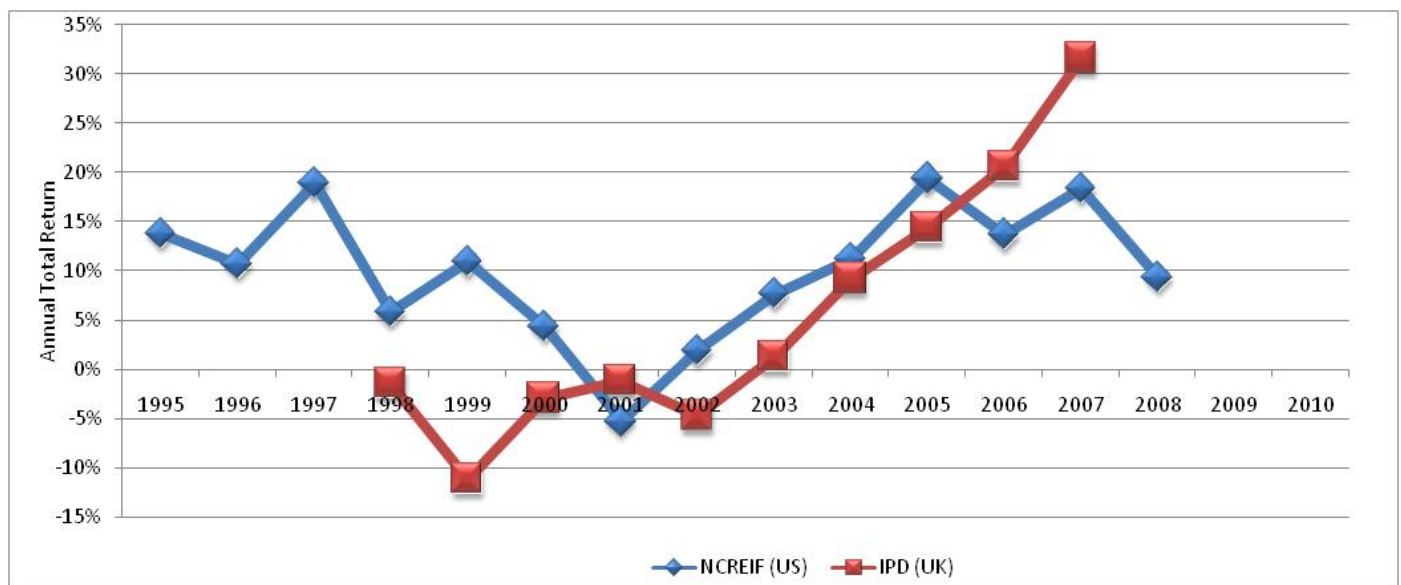
- The IPD index is based largely on Sitka spruce plantations in the United

Kingdom while the NCREIF index is based on different species groups in different regions of the US.

- The IPD index represents a much smaller asset base than the NCREIF index. The value of the timberland in the IPD index is 1-2% of the value of the timberland in the NCREIF index (depending on the exchange rate).
- The IPD represents much smaller properties than the NCREIF index
- Finally, the IPD UK Timberland Index only reports returns for 10 years.

In some ways, comparing the two indices is like comparing a large cap stock index with a small cap stock index. Keeping that in mind, the two indices are strongly correlated: the correlation coefficient is 0.69 for the period 1998 through 2007.

Figure 1. Timberland Returns in the United Kingdom and the United States



Source: National Council of Real Estate Investment Fiduciaries, IPD

Inflation

Figure 2 compares the inflation in the two countries from 1980 through 2008.

The two series are very strongly correlated between 1980 and 2008, but the correlation coefficient decreases as we move towards the current date.

Table 1. Correlation Coefficients for United Kingdom and United States for Various Time Periods

Analysis Period	Correlation Coefficient
1980-2008	0.9439
1990-2008	0.7921
1998-2008	0.5589
1998-2007	0.2827

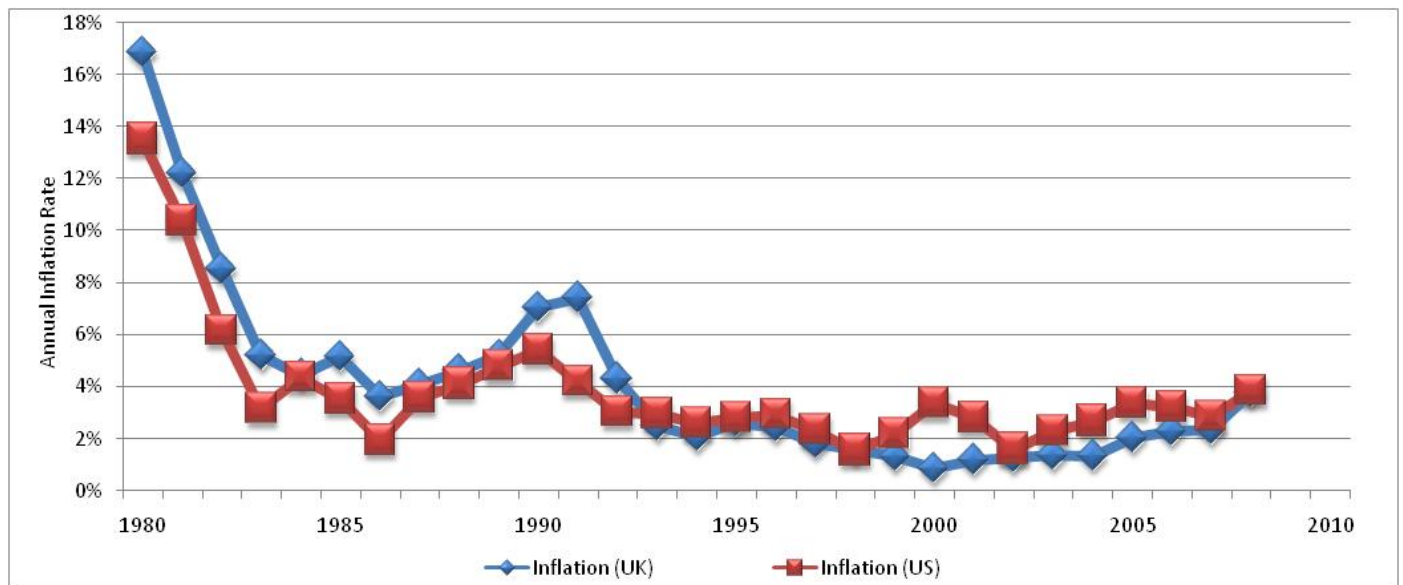
Note how quickly the correlation coefficient can change when we use relatively few data points. The last period in Table 1 (1998-2007) corresponds to the time period for which we have timberland returns for the United Kingdom, and the loss of the

2008 inflation rates from the correlation calculation has a very large impact on the result. If we were to look at the data for only 1998-2007, we might conclude that inflation in the two countries is not very strongly correlated. But the addition of a single year (2008) nearly doubles the correlation coefficient.

So timberland returns in the two countries are strongly correlated (0.69) for the period 1998-2007, but inflation in the two countries is not strongly correlated for the same period (0.28).

Figure 3 compares the IPD timberland returns with inflation in the United Kingdom. The correlation coefficient for United Kingdom timberland returns and inflation for the period 1988 through 2007 is 0.87. It is only 0.37 for the same period in the United States, about the same as for the period 1960 through 2007.

Figure 2. Inflation in the United Kingdom and United States

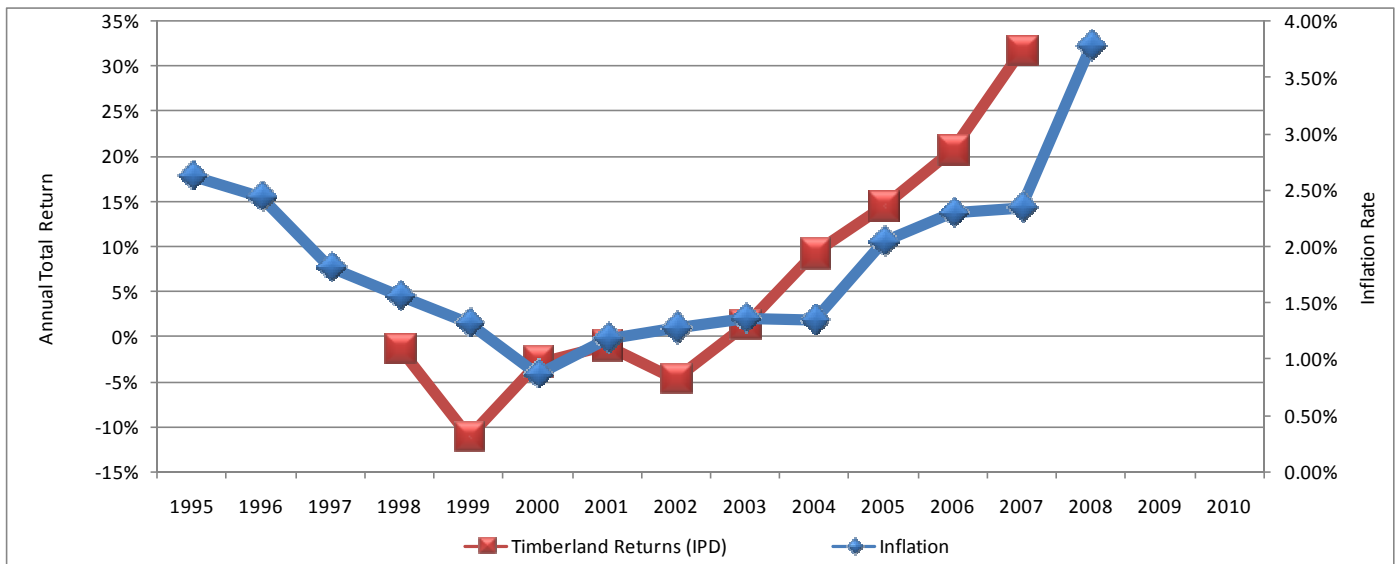


Source: IMF, EuroStat, US Department of Commerce

Keeping in mind that we are working with relatively short time series and that correlation coefficients calculated from such short series can change significantly with the addition of a single year, it appears that timberland returns are highly correlated with inflation in the United Kingdom. As in our analysis of the US, if we

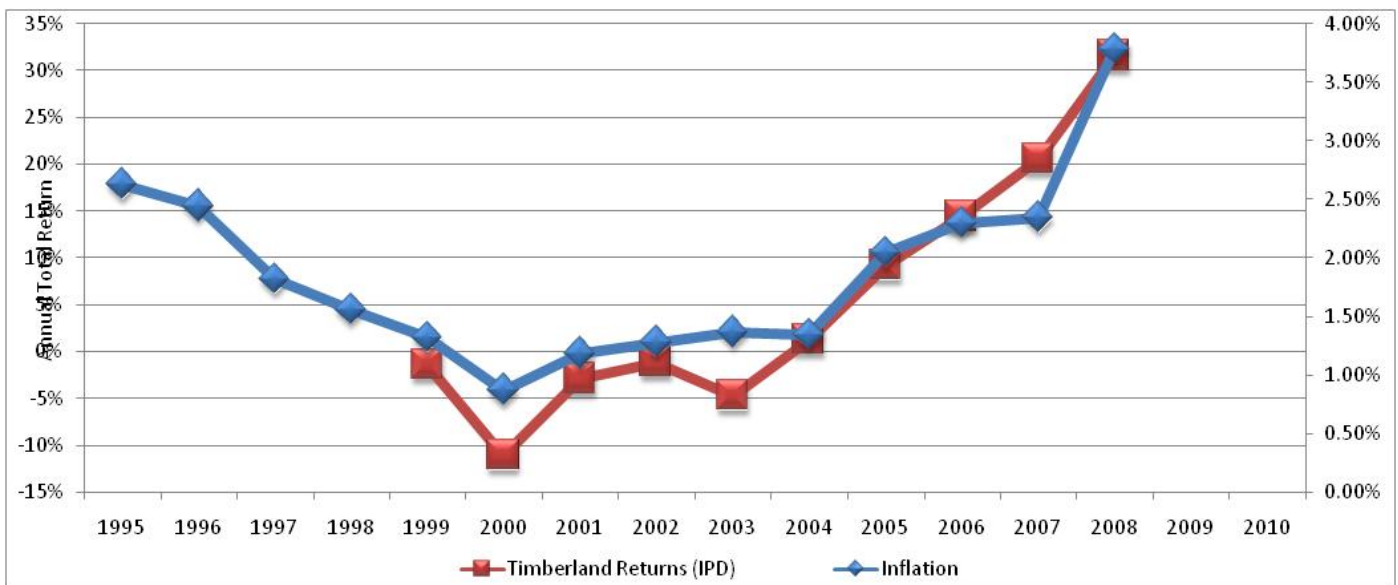
lag timberland returns (Figure 4) the correlation increases (to 0.97). But we are reluctant to suggest that this relatively small component of the UK economy drives inflation.

Figure 3. Inflation and Timberland Returns in the United Kingdom



Source: IMF, EuroStat, IPD

Figure 4. Inflation and Lagged Timberland Returns in the United Kingdom



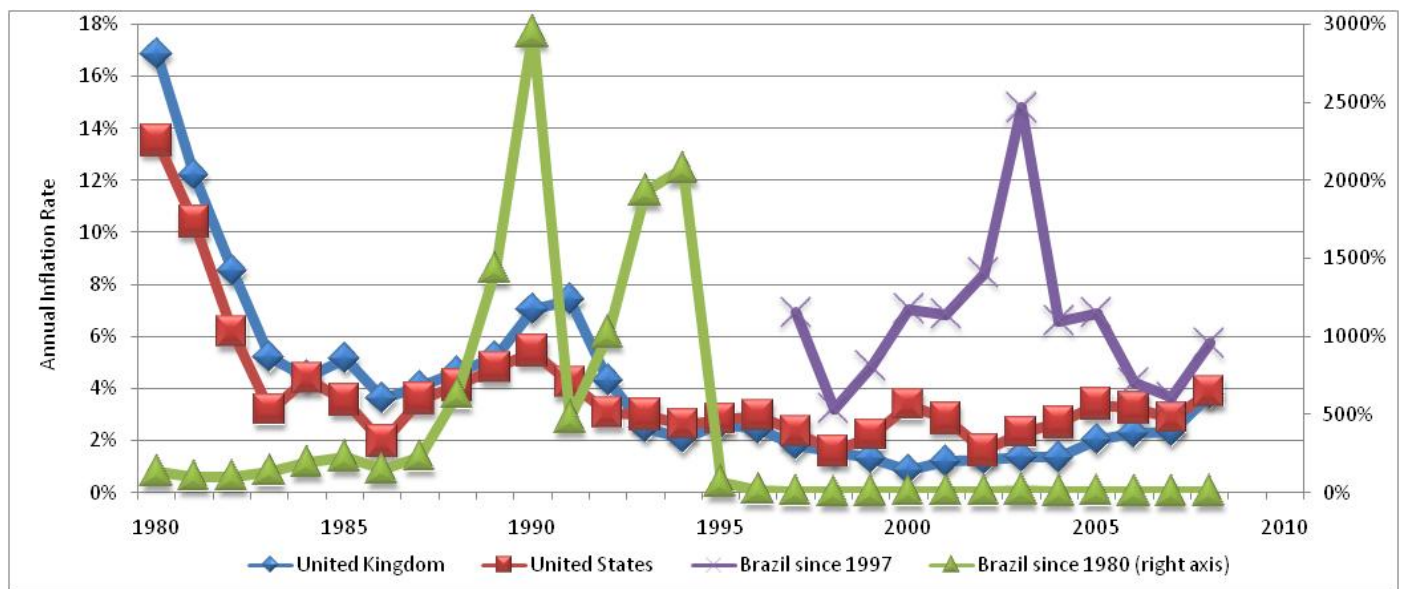
Source: IMF, EuroStat, IPD

Inflation Elsewhere

In part because their inflation rates and timberland returns are positively correlated, investors in the United Kingdom and the United States can use timberland investments to keep up with inflation in either country. Changes in the exchange rate between the pound and dollar will cause some adjustment as returns are repatriated, but our analysis (not shown) found that the difference is not great when going in either direction.

But inflation is not always positively correlated around the world (Figure 5). For example, inflation in Brazil has been negatively correlated with inflation in the UK (-0.40) over the life of the IPD UK Timberland Index. So investors in Brazil might not have found UK timberland to be an effective hedge against inflation in Brazil. (It is possible that the movement of the real against the pound might have compensated for the difference in inflation behavior)

Figure 5. Inflation in the United Kingdom, United States and Brazil



Source: IMF

Up-Coming Events

I am scheduled for two speaking engagements in the near-future:

Yale School of Forestry & Environmental Studies' Executive Education in Forestry Program

New Haven, CT, USA

March 29 -April 3, 2009: Executives Learning About Forestry

April 19 - 24, 2008: Foresters Becoming Executives
http://research.yale.edu/gisf/exec_course.htm

I will be helping Lloyd Irland and Deborah Spalding lead a discussion on timberland investment.

The Timberland Asset: Stable Investments for Turbulent Times

Lake Oconee, GA, USA

March 18-20, 2009

<http://www.ugatimberlandinvestment.com/>

I will be presenting on a topic to be named later.

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