

How Well Do We Understand Ratios and Spreads?

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Investors are seldom content with a single number to convey the information they seek. We are attached to double-numbers like ratios or spreads. We are especially partial to percentages, such as dividend yields, alphas, and rates of change, but ratios come in other forms such as P/Es, Sharpe ratios, debt/equity ratios, and ratios where GDP is the denominator. Investors are also reluctant to make objective judgments about corporate bond yields without reference to the spreads between corporates and the yield on government bonds of similar maturity.

The trouble with this affection for double-numbers is the way our focus on the ratio or the spread obscures the double-number character of these measures. I shall cite just two examples, but they are sufficiently revealing to support the broad generality.

We hear a lot these days about the extraordinarily low household savings rate. Consumers are reportedly on a reckless spending spree. Yet if we plot real per capita personal consumption expenditures on a trendline calculated from 1954 to the present, current spending is a bit *below* that trendline. A trend calculated from 1990 to the present shows spending only 40 basis points above trend compared with a standard error of 1.6%. So where is that notorious spending spree?

In fact there is none. Saving is the difference between income and spending. The savings rate is low not because spending has gone through the roof, but because household incomes have grown unusually slowly. The problem viewed from that perspective is entirely different from the headline stories of consumers as spendthrifts.

Now consider the recent extraordinary narrowing of spreads between lower-grade corporate bond yields and Treasury bond yields. According to the conventional view of this matter, investors are too dismissive of the risks in low-grade bonds.

But the spread is a double-number; it measures a *relative* perception, not an absolute perception of risk. The spread would measure the absolute perception of risk in corporate bonds only on the assumption that Treasury paper is

riskless. How valid is such an assumption? All sovereign paper is money-good because the printing press is always available, but no sovereign paper is riskless in terms of real purchasing power. Higher inflation—a traditional escape for overindebted governments—would cut into the real yield on Treasuries but would tend to improve the credit quality of lower-grade bonds.

If we regress the spread between ten-year Treasuries and Baa bond yields against changes in industrial capacity utilization, we will find a close correlation, which makes sense. Then, if we plot the fitted value for Baa yields from the regression against the actual Baa yields, we will see that the actual values will lie above the fitted values when the federal budget deficit as a percentage of nominal GDP is small or in surplus, while the actual Baa yields will fall below the fitted values when the deficit is large or rising—which describes the present situation. In other words, all other things equal, the spread between Baas and Treasuries is likely to be narrower when the government is deeply in the red than when the fiscal position looks sounder.

The relationship is not perfect, but it fits at the crucial moments. In 1985, for example, the Baa yields were higher than predicted by the model as the Gramm-Rudman bill was under discussion and then passed, but when the deficit started growing again anyway, the disillusionment is readily visible in the way the actual yield fell below the fitted yield in 1989, to remain there until the big surpluses appeared in the late 1990s.

At that point, the relationship abruptly reversed itself until just recently. I would therefore argue that the current compression of some 160 basis points in Treasury-Baa spreads since the end of 2002 has at least as much to do with rising perceptions as to the risk of Treasury securities over the next ten years as it does with the improvement in business activity or decline in risk aversion over the past two years.

Ratios and spreads measure relatives, not absolutes. We would do well to focus on both elements of these relationships, not just on the one that hits the headlines.