



Yield Models

In Seed's multi-management process, monthly asset class valuations inform tactical asset allocation decisions, with yield models comparing bond income yield to equity earnings yield for relative value assessment. This approach has shown effective risk-adjusted returns, with tilting strategies consistently outperforming static portfolios.

In this article Cor Van Deventer - Seed Portfolio Manager, gives us insight into Yield Models.

Evaluating Asset Class Valuations and Tactical Allocation at Seed Investments

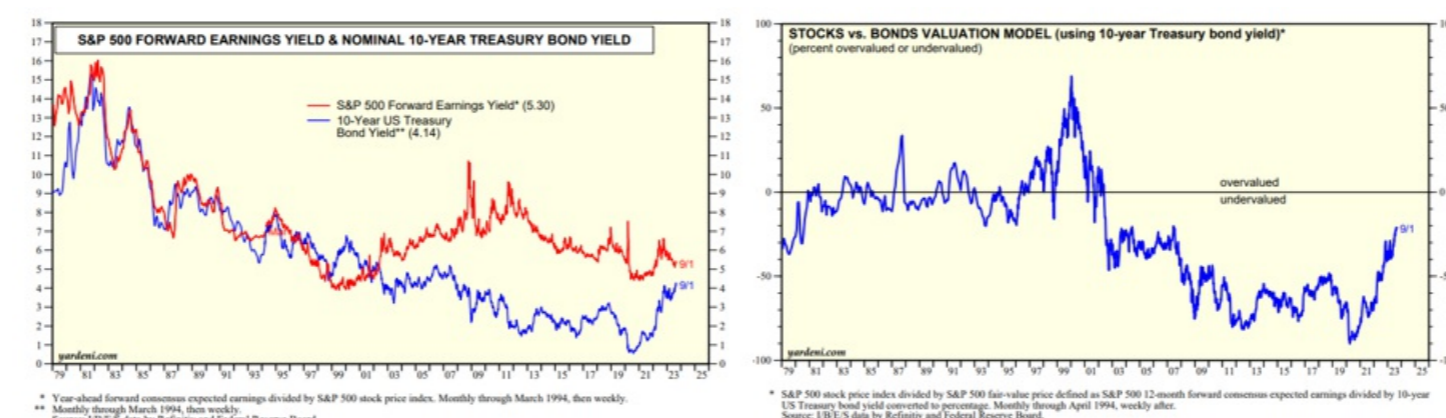
As part of Seed's multi management process, we perform monthly asset class valuations using our in-house quantitative models. The output of these models guides our tactical asset allocation decisions, where we under- or overweight certain asset classes in the short term, compared to our longer-term target weights.

Although we have established models in place for the main asset classes on both the local and global side, the Seed team also looks at some additional measures that either support or challenge our main models. Today, we will consider two yield models that compare the income yield on bonds to the earnings yield on equities to determine where the relative value lies.

The total return on bonds can be split into the yield component, or regular coupon, and a capital gain/loss over the investment period. Our regression models indicate that the coupon explains about 90% of rolling 5-year returns for SA bond investors, and is much more significant than any capital movements under normal market conditions. A high income yield means an attractive valuation and potentially higher future returns.

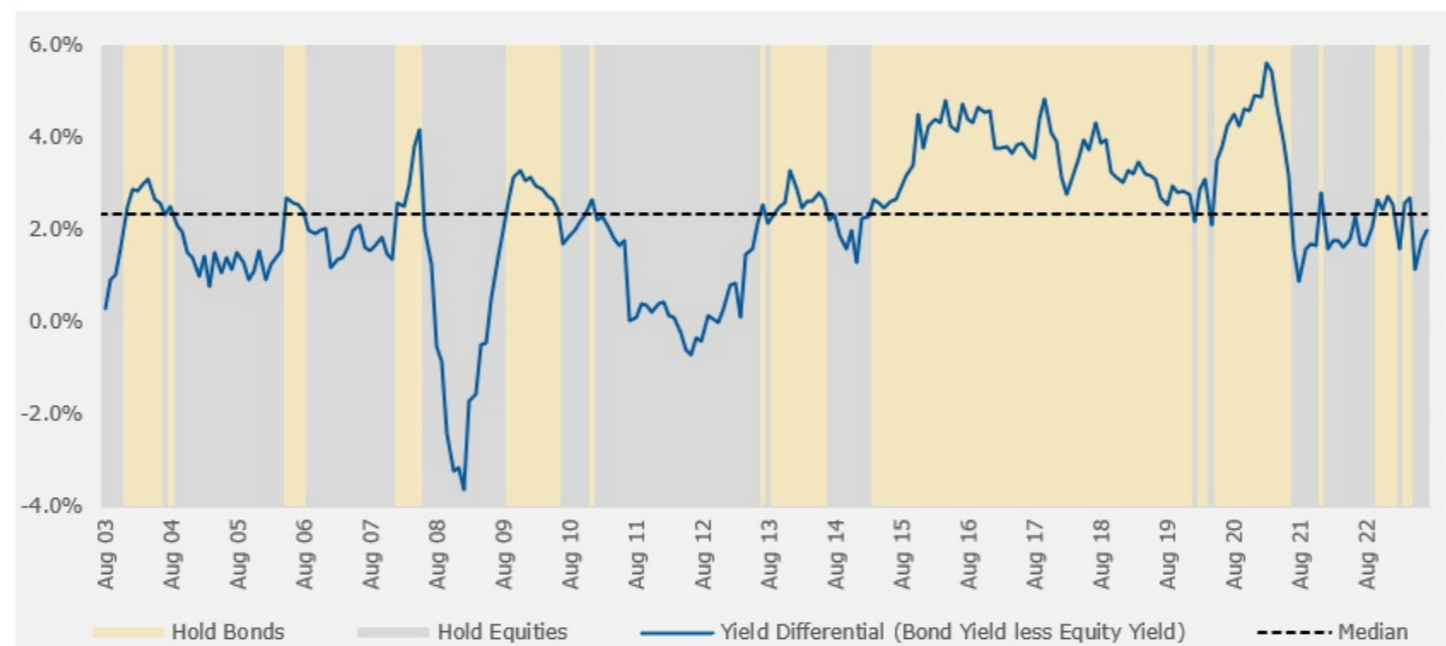
Likewise, when we look at equities, a high earnings yield (earnings per share divided by price per share) means the company is generating substantial earnings - and possibly earnings growth - given the level of its share price. Again, a high earnings yield means an attractive valuation and the prospect of higher returns.

A very well-known relative valuation model used on the global side is the so-called 'Fed Model', which compares the forward earnings yield on the S&P500 index of US stocks to the 10-year US bond yield. The prominent economist Dr Ed Yardeni is credited with developing the model in its current form in 1999, but inspired by a chart from a 1997 Fed report. Despite the name, the model is not used or endorsed by the US Fed.



The two charts above are straight from Yardeni's weekly update report, and indicate that the S&P has been undervalued since 2002 on this basis. At the moment, the S&P 500 is still showing relative value based on a forward Price/Earnings ratio of 18.9 and current bond yield at 4.14%.

On the local side, we model this same relationship using the earnings yield on the JSE All Share and the yield on the notional SA 10-year government bond. The chart below shows the yield differential - bond yield less equity yield - over the last 20 years, compared to the median of 2.34% over this period. It also illustrates the different holding periods, or when to employ tilts, for each of the asset classes.



To test this model's practical application, we looked at a few switching strategies between equities and bonds using the model's signals:

- A full conviction strategy of investing 100% into either equities or bonds.
- An 80%/20% tilt towards the asset class favoured by the model.
- A more moderate 60%/40% tilt to the preferred asset class.

The scatter plot below shows the 1-year forward returns and 1-year forward standard deviations for a range of buy-and-hold portfolios, as well as our three switching strategies. By looking at these forward measures, we can model the risk and return experience of today's asset allocation decision over the next year.



The chart shows that, as expected, bonds delivered a lower return at lower risk, while equities outperformed but at higher standard deviation. Bonds have achieved a higher Sharpe ratio over this period, in other words the unit of return per unit of risk taken on was slightly better. The tilting strategies all performed very well, with the high conviction strategy nearly matching equities in terms of return, but taking on only 80% of the risk. Likewise, the 80%/20% tilting strategy have outperformed the static 80% equities/20% bonds strategy on a risk-adjusted-return basis. All three tilting strategies have delivered higher Sharpe ratios than the range of buy-and-hold portfolios.

At Seed Investments, we recognise the benefits of diversifying across a broad range of asset classes, and we track their absolute and relative valuations monthly. We also take advantage of any short-term divergences in valuation, e.g. a sentiment-driven jump in bond yields, to adjust our asset allocations accordingly.



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If you have any further questions or require any guidance please don't hesitate to reach out to our team on investmentteam@seedinvestments.co.za.

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