

WILL BONDS PROTECT YOU IN THE FUTURE?

For more than two decades, investors have put faith in the value of the traditional 60:40 portfolio¹. This portfolio structure was designed to protect investors throughout investment cycles while still providing an acceptable risk-weighted return. Yet of late there has been discussion that this portfolio structure will prove materially less robust as a diversification tool. The argument put simply is this.

“For the past 40 years interest rates have fallen from highs in the late teens to next to zero. This has provided a capital gain tailwind for Fixed Income investments as their value increases as market interest rates fall. Looking to the future, we expect a rising interest rate environment, exacerbated by the resilience of inflation and as such as interest rates rise, both equities and bonds will fall in value hence negating the diversification effect.”

This has actually been seen in markets recently. Yields on the US 10-year bonds have jumped from 1.5% to 2.5% since the start of 2022. At the same time, we have seen marked corrections in equity markets driven by the fear of interest rates and inflation.

But is it really that simple? In this, the first of two articles, we look at the contributors to bond-equity correlation and consider how the impacting factors may affect this correlation in the future. In a follow-up article, we will then consider whether the use of Alternative Investments as a replacement to Bonds may actually present a superior diversification tool.

The history of the correlation of equities and bonds.

Imperfect correlation of asset returns is a fundamental and well understood assumption used in portfolio theory and has been the basis for the construction of diversified investment portfolios. It is a commonly held belief that there is a low to negative correlation between bond and equity prices. As such, when one goes up the other goes down, thus reducing portfolio volatility.

And from the mid-1990s this correlation between equity and bond prices has been low to negative. However, as the graph below shows, this relationship is far from the rule. For significant periods in the past 100 years there has been a strong positive correlation between the two. Also relevant is that over the period covered by the graph, correlation fluctuates between -0.86 - +0.93, and readers will also note that the periods of positive and negative correlation appear to persist for significant periods of time with four major cycles in the past 100 years.

Graph 1.
History of the Bond-equity Correlation (5 Yearly rolling correlation)



Source: CFA Institute, Datastream, Schroeders

Note: Depicts the relationship between US large cap equities and 10 yr US Treasuries

So, what causes this change in correlation and what relationship do we believe will exist moving forward.

Dispelling the Myth

The simplest myth to dispel is that it is not just the direction of interest rates that determine the relationship between equity and bond prices. Graph 2 below highlights that interest rates reached their peak in Australia and the US between the end of 1981 and mid-1982. Yet the correlation between bond and equity prices remained positive for over a decade before turning negative in the mid to late 1990's. Further, the period of greatest positive correlation (exceeding 0.80 in the early 1990s) occurred during a period of materially declining interest rates.

Graph 2.
US and AU 10 yr rates



Source: RBA, Federal Reserve, CTE Analysis

In the last period of rising interest rates from 1955 through 1981ⁱⁱ, equities and bonds were negatively correlated through to the mid sixties.

So, what is the truth?

In a simplistic sense, under a present value model, the return correlation between equities and bonds should be positive not negativeⁱⁱⁱ as they both represent the discounted value of future cash flows. Thus, rising interest rates should lead to lower values and conversely lower interest rates to higher values for both asset classes. However, the dividend stream that is discounted for equities is different to the principal and coupon stream that flows to bondholders.

At a more detailed level; of analysis, the consensus is that over the medium to long term the correlation relationship between equities and bonds is affected by:

1. Heavy influencers
 - a. Economic shocks, inflation and interest rates in particular^{iv};
 - b. Uncertainty, as measured by volatility, about shocks and expected inflation and interest rates^v;
 - c. The interaction between corporate earnings and interest rates - if earnings growth moves in greater than interest rates, then equities and bonds should have a negative correlation.
2. Lighter influencers

- a. the bond term premium^{vi} has become increasingly sensitive to uncertainty about growth implying that the same degree of uncertainty about real activity led to stronger positive correlations as bond yields became more sensitive to the outlook for growth^{vii};
- b. The pronounced effect of the equity risk premium on the equity discount rate in an ultra-low interest rate environment^{viii}.

These longer-term influencers then need to be overlaid against a short-term “flight to safety” effect whereby bond-equity price correlation becomes significantly negative during equity market drawdowns^{ix}.

So, when interest rates and inflation are low, certainty about economic factors is high and the potential for shock is low, correlation tends low to negative, and vice versa.

Equity and bond prices have been generally negatively correlated since around the late 1990s, marking an unusually prolonged period of high negative correlation. One reason for this has been the magnitude and persistence of the global financial crisis, which saw correlations become strongly negative in response to an increase in uncertainty about the economic outlook (Flight to Safety), which is consistent with other major downturns.

The prognosis for the future

Using Graph 2 and the findings from the analysis, it appears that the reversal points in the long-term trend occur, where there is a combination or one or more of the following events.

1. A major economic or geopolitical shock;
2. Material shift in the economic outlook or uncertainty about the economic outlook;
3. Material shift in the level of inflation or interest rates and expectation about these factors;
4. Material shift in the interaction between corporate earnings and interest rates;
5. The pronounced effect of the equity risk premium on the equity discount rate;

It is very dangerous to attempt to predict the future especially when it comes to macroeconomic factors. But one can attempt to assess direction and trend. The past 10 years with the contribution of the GFC and the COVID-19 crisis has delivered more than a decade of ultra-low interest rates and inflation, and the combination of these factors has likely had the pronounced effect of the equity risk premium on the equity discount rate, mentioned in point 5 above.

Looking forward we can only anticipate higher inflation and interest rates, but the key question is will the world’s central banks be able to land a jumbo jet on a 5-cent piece and perfectly manage the interest rate environment to prevent excess inflation?

We see the probability of this as low heavily affected by:

- The magnitude of injected liquidity into the global economy in this recent economic crisis^x;
- Past performance by Central Banks at times like these;
- The added risk that we are dealing major supply chain shock delivered by COVID-19 and what appears to be an evolving new world order of deglobalisation.

In summary, we see substantial risk of a return to high positive correlation for bonds and equities in the near term, assuming that it has not already arrived, and as such consider the diversification value of the 60/40 portfolio as redundant.

So how does an investor achieve diversification without bonds? At CTE, we have used Alternative investments as a superior diversification option for our investors for 10 years. How we approach that market and access appropriate risk-weighted alternative investment opportunities will be the topic of our next paper.

ⁱ Comprising 60% equities and 40% bonds,

ⁱⁱ As measured by the US Fed Funds rate.

ⁱⁱⁱ Schiller and Beltratti (1993)

-
- iv *GDP growth and Unemployment new also found to have an effect; Johnson, Naik et al (2013)*
- v *Li (2002), Andersson, Krylova and Vahamaa (2004)*
- vi *This is the premium in rate one receives for investing over a longer term*
- vii *Dick et al (2013)*
- viii *Duarte and Rosa (2013)*
- ix *This negative correlation, may reflect the possibility that uncertainty in earnings expectations raised the equity risk premium, thereby lowering equity prices, while reducing the term premium on bonds and hence pushing correlations upwards. Rankin and Idil (2014)*
- x *The quantum of stimulus injected into the global economy in response to COVID-19 exceeds the sum of the stimulus from the past four economic crises including the GFC.*