Does your bond allocation have an unintended bias?

As one of the oldest asset classes around, **fixed income has long played a cornerstone role** in diversified portfolios.

Generally, the safest bonds available in Australia are issued by the Commonwealth and State governments. Investors buy these bonds for a variety of reasons including the regular income that these bonds pay and the security of Australian government issued bonds. Investors also buy bonds for the diversification benefits that they offer, that is, bonds tend to increase in value when other more risky assets are doing poorly, and vice versa.

Most government bonds issued in Australia are nominal bonds. Nominal bonds pay a set coupon, determined at the time of issue to the investor. Part of this fixed rate of return reflects the underlying real return to the investor, as compensation for the use of their capital, while the remainder compensates the investor for the expected impact of inflation. Both the underlying real return and the compensation for inflation are “locked in” at the start of the investment.

An allocation to nominal bonds benefits if either interest rates or inflation expectations fall below the level expected when they were purchased. Therefore, it stands to reason that holding a portfolio of purely nominal bonds contains an **embedded bias** towards lower inflation or even deflation.

It is important that investors ensure their **fixed income allocations are consistent with their underlying investment views**. For investors with a neutral view on inflation–that is, those who expect inflation to remain around current levels–it does not make sense for 100% of their government bond allocation to be held in nominal bonds. What alternatives are there for investors who prefer the security of government bonds?

Inflation Linked Bonds remove inflation uncertainty

Inflation linked bonds are government bonds issued by the Australian Commonwealth and States, and enjoy the same extremely high quality status as other Commonwealth and State Government bonds. The main difference between nominal and inflation linked bonds is that nominal bonds pay a fixed rate (and therefore a fixed compensation for inflation) whereas for inflation linked bonds the compensation for inflation varies in line with whatever actual inflation turns out to be. The measure used for inflation compensation in Australia is the headline Consumer Price Index (CPI).

When inflation figures are released over time throughout the life of the bond, the inflation indexation feature will ensure that the inflation compensation delivered to the investor is in line with actual inflation outcomes. This avoids the risk of a shortfall present when investing in nominal bonds should actual inflation turn out to be higher than the fixed inflation compensation locked in at the start of the investment. The indexation feature of inflation linked bonds is a key advantage as it provides certainty of return for the investor by ensuring that future returns will not be eaten away by unexpected inflation.

Inflation linked bonds issued by the government provide investors with protection from two of the main risks a bondholder faces: inflation (purchasing power) risk and credit risk. Inflation linked bonds are ideal for investors close to retirement age, investors with future obligations likely to increase in line with inflation (such as education) or as a hedge in a diversified portfolio as protection against unexpected increases in inflation and interest rates. They also provide an effective hedge for institutions such as insurance companies and pension funds that have inflation-linked liabilities.

Return scenarios for nominal v inflation linked bonds

With nominal bonds, the rate includes a component to compensate for expected inflation, and a component of real return. Say you buy a 10 year CGS paying a yield of 3.00%. An example of that return with varying inflation levels is shown below. You can see that under a lower inflation rate scenario, the real return (after inflation) from the nominal bond will increase, and vice versa.

Nominal Bonds		
Nominal Rate*	Actual Inflation	Real return
3.00%	2.00%	1.00%
3.00%	2.50%	0.50%
3.00%	2.80%	0.20%
3.00%	3.00%	0.00%

Inflation linked Bonds		
Real Return*	Actual Inflation	Total return
0.50%	2.00%	2.50%
0.50%	2.50%	3.00%
0.50%	2.80%	3.30%
0.50%	3.00%	3.50%

*Known up front, Assumes there are only changes in CPI, and no change in interest rates.

In contrast, while an inflation linked bond can still return a range of outcomes, the impact on inflation has no impact on the real return generated.

What Would an Inflation-Neutral Allocation Look Like?

Investors in nominal fixed income allocations often prefer shorter maturity bonds over longer maturity ones, simply because of the greater uncertainty around inflation. In the case of inflation linked bonds however, much of the risk surrounding longer maturity bonds is removed by virtue of the indexation feature. Therefore investors can own inflation linked bonds of 10 or even 15 year maturities, with more certainty than nominal bonds of 5 years or less.

One consequence of this investor preference is that the inflation linked bond market tends to have a longer average maturity than the nominal government bond market, even for bonds issued by the Commonwealth or the States. Because the longer maturity means that the compensation for capital and inflation is “locked in” for longer, these bonds have a greater sensitivity to changes in market interest rates. Therefore, when comparing a nominal fixed income allocation to one including inflation linked bonds, one must be careful to compare like with like, and consider bonds with similar maturities and similar sensitivities to market rates.

One means of achieving this is simply to allocate between sectors based on equivalent maturity indexes. To illustrate, the current UBS Composite Bond index for Australia has sensitivity to interest rates of 3 years. To obtain a comparable sensitivity from inflation linked bonds, an appropriate comparison would be the UBS Government Inflation 0-5 Years index, which also has a sensitivity to interest rates of 3 years.

From an allocation perspective, a fixed income allocation of 100% UBS Composite would represent a strong embedded bias towards deflation, rather than inflation. This is because nominal fixed income allocations perform strongly when inflation falls. A more balanced approach to a fixed income allocation would be to allocate 50% to the UBS Composite and 50% to the UBS Government Inflation 0-5 Years index. This would still deliver the same sensitivity to interest rates of 3 years, but with an entirely neutral embedded bias with respect to inflation. Except in circumstances where the investor *intends* to take a strong view on deflation or inflation, and has strong confidence in this view, in most cases the more balanced 50/50 allocation avoids any unintended biases to inflation either higher or lower than expectations.

Those investors seeking to introduce an **intended bias** to their portfolios–perhaps to incorporate their own view on increasing inflation risks–can then tweak these allocations accordingly, to include more and/or less inflation linked bonds and nominal bonds as appropriate.