





Stephen Hart explains that inflation-

linked bonds have outperformed equities over the last 20 years and act as a good hedge against inflation.

You may be surprised to learn that long-term inflation-linked bonds (ILBs) with a 5.5 per cent real yield have outperformed equity returns over the last 20 years – at least in the majority of quarterly periods during the period between 1989 and 2011.

Corporate ILBs, which rank well above equities in the issuers' capital structure (and are, therefore, viewed as

significantly lower risk than equities), make an excellent addition to any portfolio and offer tangible protection against inflation.

Sydney Airport offers a 5.5 per cent real yield – that is, 5.5 per cent plus inflation (the consumer price index) – ILB delivering current returns of over 8 per cent. By way of contrast, very low risk, high quality credits like Commonwealth Bank of Australia (CBA) and RaboBank, offer 4 per cent real returns. While the Sydney Airport bonds are available in parcels below \$500,000, retail investors are unable to access smaller parcel sizes of the wholesale CBA and Rabobank bonds at this time. Nevertheless, these bonds represent useful examples of ILBs for the purposes of the analysis that follows.

Returns from corporate ILBs outpace equity returns. The following analysis summarises major asset class returns and risks alongside a theoretical corporate 20-year ILB, yielding firstly 5.5 per cent real, which is approximately in line with the current Sydney Airport ILB secondary

market yield. Secondly, a theoretical 4 per cent real corporate ILB return stream is considered, which is approximately in line with the current CBA and Rabobank ILB secondary market yield. After reviewing summary data, a simulation of the investment outcomes from the following three assets is presented:

- The ASX accumulation index;
- A 5.5 per cent corporate ILB; and
- A 4 per cent corporate ILB.

The results might suggest some correlation between inflation and equity returns, but this is coincidental. The ILB provides competitive returns and is linked to the driver of investor expenses (CPI) offering direct protection against inflation.

Asset returns

In reviewing the risk and return characteristics of the main Australian asset classes, the following indices were used:

- The UBS Composite Bond Index 0+ years (Comp), data starting from 30

Table 1 Indices analysed

	Comp 0+	ILB	ASX All ords	ASX Small cap	Estree Hybrid	10 yr Cwealth bond	Bank Bill	Theor 20 yr. Corp ILB 5.5% Real	Theor 20 yr. Corp ILB 4% Real
Start	30-Sep-89	31-Dec-98	30-Sep-89	31-Dec-90	31-Dec-99	30-Sep-89	30-Sep-89	30-Sep-89	30-Sep-89
End	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11
Ret (an.)	8.72%	6.41%	9.82%	10.62%	6.23%	9.76%	6.46%	10.89%	9.39%
Risk (an.)	4.13%	4.61%	13.52%	16.34%	6.45%	7.91%	0.82%	9.32%	9.32%
Ret/risk	2.11	1.39	0.73	0.65	0.97	1.23	7.90	1.17	1.01

Source: FIG, UBS, Estree, Bloomberg, ASX, SFE

Table 2 ILBs versus equities

Attribute	ASX 200 Accum.	5.50% Real Corporate	4.00% Real Corporate
Real Return	4.75%-5.00%	5.50%	4.00%
Position in a wind-up	Bottom ranking	Towards the top ranking	Towards the top ranking
Relationship to CPI	Only in the long term	Direct	Direct

Source: FIG Securities

“ ILBs have generated equity-like returns with a direct link to the driver of investor expenses: CPI. ”

September, 1989;

- The UBS Government Inflation Index 0+ yrs (ILB), data starting from 31 December, 1998;

- The UBS Corporate 7 yr plus index (UBS 7 yr + Corp), data starting 30 June, 1995;

- The UBS Bank Bill Index (Bank Bill), data starting from 30 September, 1989;

- The 10 Year Commonwealth Bond, par ten year bond using 10 year futures yield (10 yr CGL) from the SFE, data starting 30 September, 1989;

- The ASX All Ordinaries Accumulation (ASX All Ords), data starting from 30 September, 1989;

- The ASX Small Capitalisation Accumulation Index (ASX Small Cap), data starting from 31 December, 1992; and

- The Elstree Hybrid Index (Elstree Hybrid), data starting 31 December, 1999.

The indices analysed are shown in Table 1.

Return is calculated by using available CPI data as an indication of a theoretical bond yield, with an indicative real yield added, for a theoretical par 20-year bond. Risk is estimated by looking at the volatility of a major bank 10 year credit default swap (CDS) between 2007 and 2011, where the spread between 10 and 20 year CDS is typically fairly small. This volatility estimate is then applied over the entire data set, using a 20-year maturity. Also, investors should assume that the volatility of a theoretical ILB is less than the yield volatility of the nominal bond, as is seen in the Government ILB market. Specifically, we assume that the ILB yield volatility is two thirds of the nominal yield volatility. Therefore, the yield of the ILB moves less than the yield of the nominal. Given the fact that spreads have been volatile during the

2007 to 2011 period, the volatility estimate represents a conservative estimate of corporate ILB volatility, over the entire period.

Figure 1 shows how the theoretical 20-year corporate ILBs perform in contrast with the major asset classes.

Time series accumulation comparison

The data in figure 1 does not, however, demonstrate how return accumulates over time. Accordingly, it is possible to generate a simulation that looks at how \$100 would accumulate using three different assets:

- The ASX accumulation index;
- A theoretical 5.5 per cent corporate ILB; and
- A theoretical 4 per cent corporate ILB.

In this analysis we add the return from each asset class to the \$100 at the end of every quarter. In the case of the ASX Accumulation, we add the percentage change in the index value to the \$100 invested in 1989. For the ILBs we add both the CPI and the real yield for the quarter, along with taking into account the increase in the capital price that occurs with the ILB. While the enclosed graph does not incorporate the mark to market volatility of the 20-year ILB, it does give an indication of the final return outcome from ILBs and from equities. As shown in Figure 2, generally the 5.5 per cent and 4 per cent real yields from corporate ILBs are competitive, in terms of return, when compared to equities.

Specifically, there are many periods when, in terms of cumulative performance since 30 September 1989, the ILBs outperform equities. Specifically, the 5.5 per cent corporate ILB has a higher cumulative performance against quarterly equities for 56 per cent of the periods. On the other hand the 4 per

cent corporate ILB has a higher cumulative performance against equities in 22 per cent of the quarters since September 1989.

A comparison between the characteristics of ILBs and equities reveals the following, as shown in Table 2.

Conclusion

Investors have two misconceptions:

- Firstly, that equities offer a hedge against inflation when evidence suggests that inflation and equity returns are either slightly negatively correlated, or have a correlation very close to zero. The driver for equity growth is the forward perception of economic growth, when combined with perceptions of productivity growth; and

- Secondly, investors considering ILBs generally think that they will forfeit return when they invest in fixed income assets and ILBs in particular. Again, this is incorrect. A real return of 5.5 per cent, when accumulated, has generally beaten the ASX Accumulation 200 for most of the quarters since 1989, with equities generating roughly 4.75 per cent to 5 per cent real return over the period. The problem with expressing equity returns as real returns is that equities are not an inflation hedge.

Our conclusions represent good news for investors as ILBs have generated equity-like returns with a direct link to the driver of investor expenses: CPI. It is apparent, therefore, that ILBs provide not only protection against erosion of wealth caused by CPI increases, but also returns that are competitive in comparison with equities. In other words, without dragging down performance relative to equities, ILBs effectively solve the essential problem with saving: inflation.

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