

# Hedging your bets: How unlisted property can help guard against inflation

## Property Viewpoint

12 July 2010

- The Australian economy is well placed to benefit from economic growth in China in the medium term; however, this strong growth brings with it increasing inflation risks for consumers and investors.
- Investors can aim to protect themselves from the adverse effects of inflation by holding assets that outpace inflation and display a high correlation with it.
- Unlisted property has provided either a partial or solid hedge against inflation in the three distinct inflation regimes experienced in Australia during the past 30 years.
- An investor who incorporates an allocation of unlisted property into their portfolio is likely to have returns which have enhanced inflation protection relative to investors who do not.

### Why should investors be worried about inflation?

While the strength of the global recovery is unclear, Australia remains well placed in the medium-term to benefit from the strong growth coming from China that is expected to be a long-term phenomenon. As these longer term factors return to the fore, together with relatively low excess capacity in the domestic economy - especially in the labour market - there is an increasing risk that inflation will start to creep higher over the medium-term. Indeed, in the May 2010 Statement on Monetary Policy, the Reserve Bank of Australia (RBA) revised up its forecasts for both inflation and economic activity. Domestic price inflation, as measured by the Consumer Price Index (CPI), is expected to remain around 3% per annum, with economic growth accelerating to 4% per annum by the end of 2012.

Purchasing power for consumers and investors is eroded over time during sustained periods of high inflation. Furthermore, its impact is uneven across the economy and can be especially hard on retirees or anyone dependent on fixed incomes; as these payments do not fully adjust to rises in the price level. Consequently, investors should evaluate whether they are currently adequately protected or 'hedged' against inflation. What does this mean? Simply put: it is investing in assets which reduce or negate the adverse effects of inflation.

### How can asset classes offer protection against inflation?

The *why* part of inflation protection is straightforward, the difficulty arises with the *how* part, or in the implementation. Because of this we will consider two different but complementary methods to assess the inflation hedging properties of assets. These involve: CPI+ and co-movement or correlation<sup>1</sup> with inflation.

<sup>1</sup> Correlation is a statistical measure of the strength of the linear relationship between two variables and takes a value between -1 and +1. A correlation coefficient of +1 means the two variables are perfectly positively correlated; with movements in one matching movements in the other. A correlation coefficient of -1 means the two variables are perfectly negatively correlated; where movements in one are matched by opposite movements in the other. A correlation coefficient of 0 means there is no relation between the two variables.



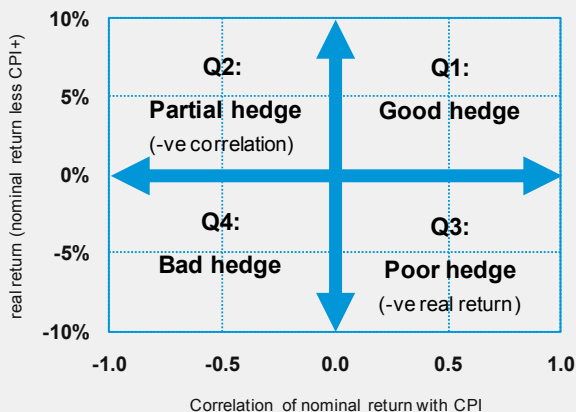
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The CPI+ criteria means that the overall total returns from an asset is in excess of price inflation, such that the real return is positive. Hence, the asset provides an investor with a return that outpaces inflation. The co-movement with inflation measure offers protection because an asset's return moves in line with price growth. By this, we mean that the returns from an asset is positively correlated with inflation, so if inflation starts to accelerate then this should translate into rising asset returns as well.

The strength of the protection provided can be measured by the correlation coefficient: the closer to +1.0 it is, the better the hedge it offers. This eventuates if the asset has some part of its return linked to price growth - such as earning for companies or rents for property. While outpacing inflation on its own is good, it is not enough to be considered a good inflation hedge. If an asset's return has a negative correlation with inflation (usually because the returns are more volatile than price growth) then there are likely to be periods where its real return will be negative, thereby mitigating its hedging ability as well as introducing greater uncertainty in relation to returns.

**Figure 1: Inflation hedging matrix**  
Real returns and correlation



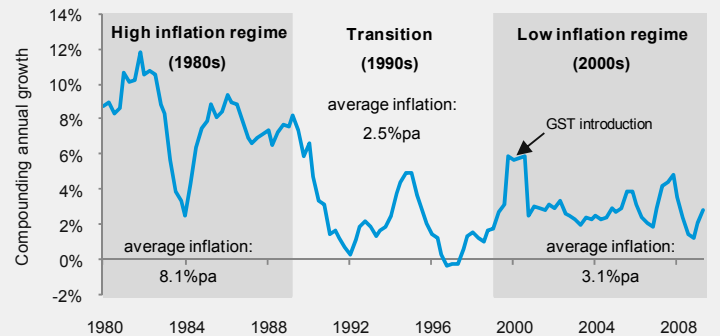
Source: CFS GAM Research

There are four different possible outcomes for the hedging performance for any particular asset based on these two criteria (Figure 1). An asset can be a good hedge (Quadrant 1) if it has a positive real return and is positively correlated with inflation. A partial hedge (Q2) results if the asset provided only positive real returns while having negative correlation. A poor hedge (Q3) arises when the asset's return has a positive correlation with inflation but its real returns are negative. Finally, a bad hedge (Q4) eventuates if the asset does not offer either a positive return or any link to movements in inflation.

**Historical hedging ability of unlisted property**

Using these two inflation hedging criteria we can analyse how unlisted property has performed during three distinct inflation periods in Australia during the past 30 years (Figure 2); the high inflation period of the 1980s, the transition period of the 1990s, and finally the relatively low and stable inflation period during the 2000s.

**Figure 2: Price inflation in Australia**  
CPI\* compounding annual growth rates to March 2010



\* Headline CPI

Source: ABS & CFS GAM Research

Table 1 highlights the average real total return for unlisted property (using IPD's Pooled Property Fund Index – PPF1) across the three different inflation regimes. Unlisted property provided the highest average real return (+8.9%) during the relatively high inflation period of the 1980s. This was followed by +6.3% on average during the 2000s and 0.9% on average during the transition period of the 1990s. The relatively weak returns for unlisted property during this period were driven by the commercial property market slump which took place in the late 1980s and early 1990s and resulted in large declines in capital values and hence total returns.

**Table 1: Unlisted property inflation hedging scorecard**  
Using average compounding returns

	real return	volatility	correlation	hedging score
1980s	8.9%	3.4%	-0.03	partial (Q2)
1990s	0.9%	8.6%	0.21	good (Q1)
2000s	6.3%	8.0%	0.28	good (Q1)

Source: ABS, IPD & CFS GAM Research

Besides the 1980s period, correlation between unlisted property returns and inflation has been fairly consistent, ranging between 0.2 and 0.3. Reasons for the positive relationship between inflation and unlisted property returns in each period stem from the fact that both the income and capital components of the return have connections to price inflation. On the income front, property rents are generally linked to movements in the CPI, thereby ensuring rents (and incomes) move in line with inflation. A property's value (the capital part) also tends to rise with CPI as it reflects the present value of future income flows, coupled with building redevelopments during a property's life which add to or enhance capital values.

The negative correlation between unlisted property and inflation during the 1980s is a result of a divergent movement in unlisted property returns and inflation. Towards the end of the decade, inflation was starting to trend lower while at the same time unlisted property returns were trending higher as capital flowed into the sector, thereby helping to push-up returns. For example, unlisted property returns reached a peak of 23.5% per annum in December 1988 while CPI was only 7.3% for the same period.

The solid outcome of both positive real returns and correlation with inflation for unlisted property during the 2000s period reflects the generally sound macroeconomic environment (both globally and domestically), characterised by a relatively low and stable interest rate and inflation environment, as well as growing investor appetite for the asset class, leading to greater capital inflow.

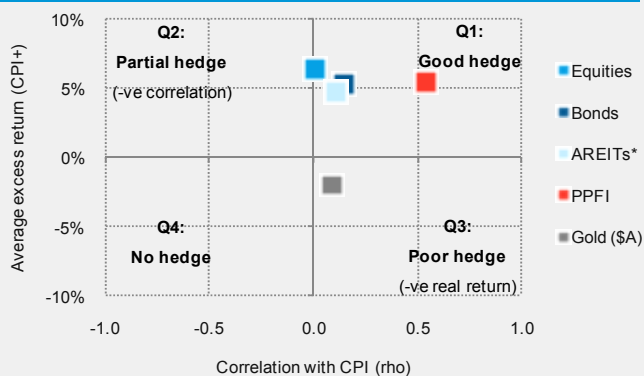
On the basis of these two inflation hedging criteria, unlisted property has provided either a partial hedge or a good hedge against inflation during these three different inflationary periods in the past 30 years. When compared to other asset classes<sup>2</sup> and using return data for the whole time period considered (Figure 3), unlisted property has performed well. It has provided the highest correlation with inflation over this period (0.54) and the second highest average real return (+5.4%) behind Australian equities (+6.3% on average).

periods. However, fluctuations in the Australian dollar can override these effects. One issue with unlisted property acting as a hedge against inflation, especially in the short term, is its illiquidity. Since it is not listed on an exchange, it can be hard for investors to realise their holdings in a short period of time. However, on a longer time horizon these limitations reduce slightly.

**What does it all mean for investors?**

While Australia has enjoyed a low and stable inflation period for the last decade or so, the medium term outlook is suggesting we are heading towards a period where there is a growing risk of relatively higher inflation than experienced during the early part of the 2000s. It stands to reason that investors should take this into consideration when formulating their investment decisions. In such an environment, an investor who incorporates an allocation of unlisted property into their portfolio is likely to achieve a return outcome which has enhanced inflation protection than an investor who does not.

**Figure 3: Real average returns & correlation with inflation**  
Based on average quarterly returns to March 2010



\* AREIT returns from December 1981 Source: ABS, IPD, IRESS, RBA and CFS GAM Research

A reason why listed property seems to lose these hedging abilities, and which is partially applicable to equities, relates to the fact that stock markets are fast moving and for shorter time periods will be driven more by market sentiment and company specific announcements rather than macroeconomic news announcements. Gold does show some positive link to domestic inflation, especially during the high and low inflation

<sup>2</sup> Assets selected for comparison include: equities (ASX300 accumulation index), fixed income (10 year nominal Commonwealth government bond total returns), AREITs (ASX300 All Property accumulation index) and Gold (in unhedged Australian dollars). Gold is used as a proxy measure for commodities. While not an exhaustive list, these tend to be the most 'traditional' asset classes with the longest return data series available for comparison.

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