Typically hedging is done on a rolling three-month basis but with some variation in frequency and approach. Typically a combination of instruments is used, including forwards, swaps and options. There is little evidence that the expected holding period affects the investor’s choice of hedging instrument or that investors believe that hedging real estate currency risk is different from other asset classes.

### Table 1: Hedging instruments

| Currency hedging instruments - 10 investors used financial instruments |
|-----------------------------|-------------------|---------|
| Instrument                  | No. of respondents | Percentage |
| Swaps                       | 7                 | 70%     |
| Forwards                    | 6                 | 60%     |
| Options                     | 5                 | 50%     |

**Simulation Analysis**

To examine the impact of different hedging strategies researchers Chatham Financial used a Monte Carlo simulation approach. The simulation uses assumptions on expected return and volatility for key variables, then simulates the possible paths for all the key variables.

We assume there are two types of investors with the following asset allocation:

1. US investor invested in US (40%), Europe (25%), UK (15%), Japan (4%), Australia (12%) and Switzerland (4%);
2. European investor invested in Europe (40%), US (25%), UK (15%), Japan (12%), Australia (12%) and Switzerland (12%).

Based on data from IPD, INREV and ANREV and our adjustments, we formed three scenarios for the real estate return: 1) Normal case; 2) Boom/Upside case with strong real estate returns; 3) Crash/Downside case with weak real estate returns.

The simulation analysis shows that for a USD investor, hedging typically improves returns and lowers risk. For a EUR investor, hedging is likely to reduce risk substantially but this tends to be at the cost of a slight reduction in returns. Generally it makes sense, from a risk adjusted return point of view, to be fully hedged for holding periods of 3 and 5 years and under all market environments, particularly when values are falling in a weak market environment. However, for a long-term investor with a 10-year holding period, a 50% hedging ratio is preferable to a 100% hedged position. These results suggest that investors (or the ultimate clients) should generally be using currency hedging to reduce risk and that hedging strategy should reflect the expected duration of exposure to particular currencies.
Conclusions

- Investors in Asia Pacific non-listed real estate vehicles typically apply sophisticated and systematic currency risk management strategies. This includes the use of wide range of instruments to hedge against a range of currencies.
- Investors do not want managers to take currency views. They are comfortable managing currency at a multi-asset level and so need managers to accurately report currency exposures to them.
- Most investors believe real estate currency hedging is not different from other asset classes and their choice of hedging instrument is not affected by the expected holding period.
- Our analysis on the impact of hedging indicates that hedging reduces risk and improves the risk-adjusted return.
- Currency hedging has a greater impact when the real estate market is weak and is less essential when the real estate market is strong.
- Currency hedging has a great impact for shorter-term investment and is less essential for longer-term investment.
- Whilst 100% hedging ratios are optimal in some conditions and for some domiciles of investor this is not always the case. Our analysis indicates that, for a 10-year investment horizon, a 50% hedging ratio is preferable to a 100% hedging ratio.
- Management of currency risk is recognized in the industry as being important in managing overall risk. There is also a recognition that currency hedging should generally be done at a more aggregated level which makes accurate reporting and transparency essential.

The following charts show the effect of hedging ratios on the coefficient of variation for investment with a 10-year holding period. For both USD and EUR investments, currency hedging reduces the coefficient of variation the most for downside real estate return case and the least for upside real estate return case regardless of the holding period. This suggests that currency risk hedging is needed most during a real estate downturn.

Figure 1 - USD investor with 10 years holding period

Figure 2 - EUR investor with 10 years holding period

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