



Research
Programme

Managing Currency Risk in International Real Estate Investment

APRIL 2018

SUMMARY REPORT

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Managing Currency Risk in International Real Estate Investment

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This Programme supports the IPF's wider goals of enhancing the understanding and efficiency of property as an investment. The initiative provides the UK property investment market with the ability to deliver substantial, objective and high-quality analysis on a structured basis. It encourages the whole industry to engage with other financial markets, the wider business community and government on a range of complementary issues.

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Managing Currency Risk in International Real Estate Investment

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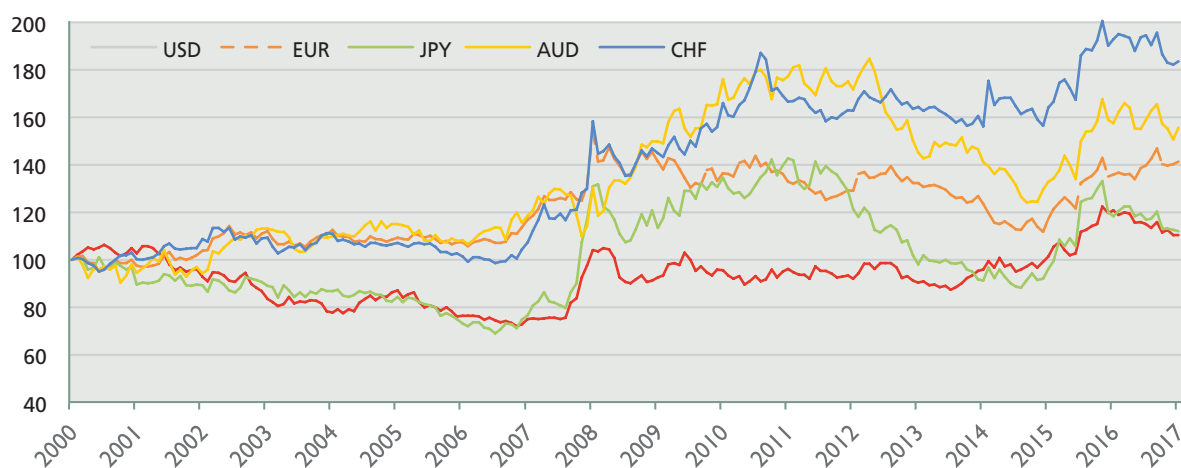
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Currency Risk Management in Real Estate Investment

Exchange rate fluctuations can lead to substantial changes in the domestic currency value of cashflows from international real estate investment. As Figure 1 makes clear, there have been major movements in currencies over both short-term periods and over the long term. This brings a considerable element of uncertainty – currencies do not simply follow the path suggested by interest rate differentials¹.

Figure 1: Currency Movements GBP to USD, Euro, JPY, AUD and CHF



This means that, for international investors, currency returns can dominate the underlying property returns in any given year or over several years. In 2016, for example, property returns in the UK and Japan were fairly similar (4% in the UK and 6% in Japan) in terms of their local currencies but the sharp fall in the Japanese Yen/UK Sterling (JPY/GBP) exchange rate meant that for unhedged Japanese investors returns from UK property were -16% in JPY terms. This substantial impact of currency on returns raises the issue of how the risk and return implications of currency are understood, integrated into decisions and managed in the real estate sector.

This study aims to analyse property market practice regarding currency risk management (hedging) strategy and implementation. The target audience of this research is industry practitioners in real estate investment. The research used a survey and follow up interviews to understand how decisions around hedging are made and where responsibility lies in evaluating and executing currency risk management strategies. This was complemented by a review of the literature on industry practice and a simulation exercise to explore the implications of different currency hedging approaches. These findings were brought together and discussed with industry practitioners to identify particular issues for different types of investor, different objectives and different markets.

¹Indeed, in the post-GFC period, with strong interventions by central banks, it could be argued that interest rate parity relationships have largely broken down.

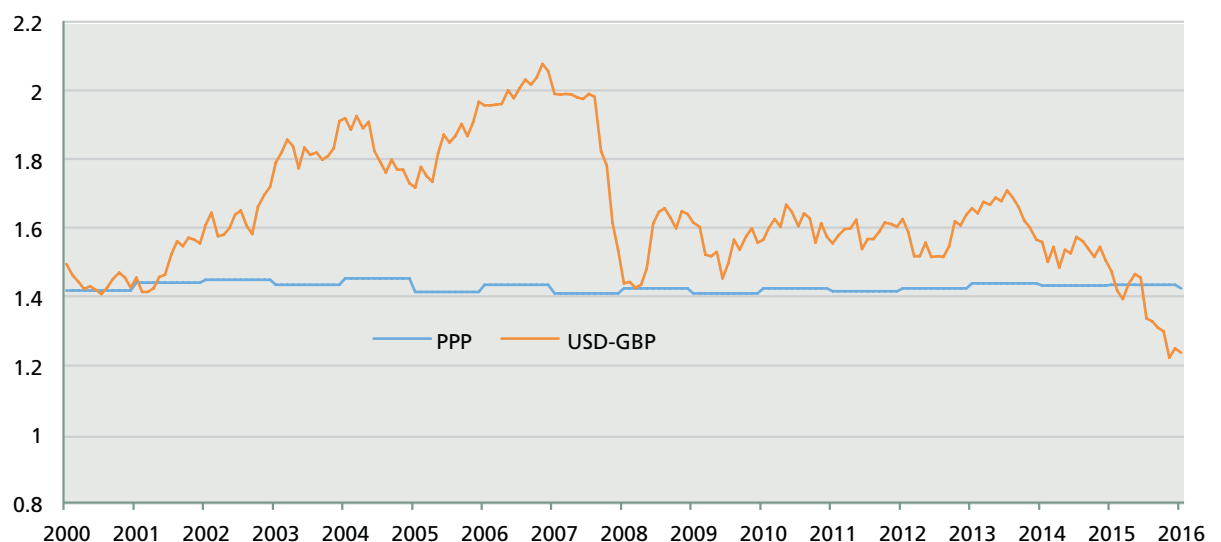
Key Concepts and Currency Risk Management Instruments

A range of influences affect exchange rates, including economic growth, the economic structure of economies, trading relationships, inflation, interest rates and capital markets and sentiment (expectations) about these drivers. There are a number of key theories that underpin expectations about currency and the pricing of instruments that can be used to manage currency risk (or speculate about currency movements), including:

- Purchasing Power Parity (PPP), which states that exchange rates should reflect the purchasing power across countries, i.e. that the price of goods will not diverge across countries – the law of one price.
- Uncovered Interest Rate Parity is the idea that investors are indifferent between the interest rates offered on riskless deposits across two countries – this is because the exchange rate movement is expected to offset any interest rate differential and assumes real interest rates are the same across countries.
- Covered Interest Rate Parity links forward exchange rates, the interest rate differential across two countries and the expected spot exchange rate. A forward is used to eliminate exchange rate risk and the difference between the spot (today's) exchange rate and the forward exchange rate reflects the nominal interest rate differential between the two currencies. In general, provided the deposits are riskless in the two countries and there are no other distortions, e.g. tax, then the evidence suggests covered interest parity generally holds. In freely traded markets, if this condition was not satisfied there would be a clear arbitrage opportunity.
- The Forward Rate as an unbiased estimator. This is the concept that the forward rate reflects unbiased expectations of the spot rate in the future. It should be noted that an unbiased expectation is not the same as an accurate expectation or forecast.

The technical literature has explored, at depth, the extent to which these parity relationships hold (with the consensus being that, at best, they hold in the long run). Small deviations from parity relationships can persist for long periods. This is illustrated below in Figure 2. The UK Sterling-US Dollar (GBP-USD) exchange rate has been at the rate implied by PPP a few times over the last 16 years but has deviated by a substantial amount and for substantial periods of time. Whilst it may have looked as if sterling might fall back to the PPP implied rate in 2004/5, the pound strengthened further until the financial crisis led to a sharp adjustment.

Figure 2: USD-GBP exchange rate and rate implied by Purchasing Power Parity



It is clear that currencies are volatile and unpredictable and this foreign exchange rate risk brings additional uncertainty to international investment returns. A successful foreign investment in the local currency could be a poor performing investment in domestic currency terms as a result of these unexpected currency movements.

This impact of currency movement can be disaggregated into:

- Transaction exposure – the sensitivity of the initial investment and periodic cash flows and the sale at the end of the period to movements in exchange rates.
- Translation exposure – the valuation impact of currency movements.
- Economic exposure – the sensitivity of the investment cashflows to currency movements.

A range of instruments exist to help investors reduce the additional uncertainty that currency brings into investment returns including:

- Currency Forwards – Contracts to buy or sell a currency at a future date. Over-the-counter (OTC) instruments, contractually binding but with no payments until the specified future date.
- Currency Futures – Exchange-traded standardised contracts to buy and sell a currency at a future date. As with forwards, there is a clear obligation to make payment.
- Currency Swaps – Contracts exchanging interest (and principal) in one currency for interest (and principal) in another currency.
- Options – Contracts giving the right (but not the obligation) to buy currency at a future date at a given rate.

In addition, using local leverage to reduce currency exposure can be thought of as helping to reduce the impact of currency movements. Some investors with global allocations and benchmarks may see currency movements as simply cancelling out or as a natural hedge.

Literature on Currency Risk Management

The literature on currency and currency risk management practice examines what companies and investors theoretically should do, and what they actually do to manage currency risk. The main insights from the literature on what businesses do with respect to currency risk management relevant to currency hedging by real estate investors are:

- Local financing (local leverage) is used to reduce currency exposure. Companies borrow locally to reduce the impact of currency movements on earnings, etc.
- Financial derivatives are used more extensively by those with tighter financial constraints and by those with more expertise in using derivatives. If companies are in a position to withstand short term volatility, they do less to manage currency risk.
- Truly global businesses with internationally diversified revenue (e.g. revenue) may see their international diversification as providing a natural hedge against currency fluctuations.
- There are currencies that are more expensive or difficult to hedge; these might be left unhedged rather than bearing the additional costs in these markets.

In reviewing the literature on theory and practice, and recommendations with respect to multi-asset investment portfolios, the main additional relevant findings are:

- Uncertainty of cashflows makes achieving a perfect hedge practically impossible.
- The optimal hedging ratio will often be less than one, e.g. it may be better to hedge 60% or 80% of the value of overseas investments than 100%.
- Industry practice and advice with respect to currency risk management varies widely, from full hedging, through currency overlay strategies (where a specialist currency manager is appointed to conduct hedging or vary hedging ratios over time depending on macroeconomic and financial market circumstances and manages the net exposure after balancing non-domestic assets and liabilities) and partial hedging to 'naked exposure' (i.e. no hedging) with the suggestion that it depends on the investor's objectives, location, risk tolerance and other factors – including their understanding of currency risk.

In the literature on currency risk management in a real estate context, the key insights include:

- Currency and currency risk management plays an important role in determining the overall contribution of international real estate portfolios to risk and return at a wider, mixed asset portfolio level.
- The instruments used and the approach adopted need to reflect the longer term uncertain nature of real estate values and cashflows.
- Hedging decisions should be influenced by costs and markets.
- The limited evidence on industry practice indicates a general tendency to hedge, with forwards the most common instrument.

Survey, Focus Group and Simulation Analysis Findings

During Q4 2017, around 200 institutional investors were approached to identify if they had non-domestic currency real estate investments and were sent a survey about their approach to currency risk management. Some 50 or so investors from around the world, reflecting a range in size, holding period and type of organisation, responded. This survey of market practice addressed the following questions:

Do investors use currency management to minimise risk or to improve returns of both?

The survey suggested that the focus was very much on minimising risk and the “noise” from currency movements. Respondents said this was not orientated to currencies that appeared over-valued and they did not take a view that currency management could boost returns. However, on further investigation through follow-up discussions and focus groups, it seems that currency management is sometimes used opportunistically to lock in gains from currency movements and, in some cases, hedging is skewed to countries where it is expected to improve returns.

What process do investors/fund manage use to determine currency risk management policy and is the approach tailored to market conditions or other considerations?

The vast majority of respondents have a policy and process that they claim does not change with respect to market conditions; however, there does appear to be some flexibility in terms of currencies that are hedged and with respect to what is done in terms of instruments to hedge currency exposure. There appears, in some cases, to be a difference in approach between those markets where significant depreciation of the currency is priced into currency markets and those markets where exchange rates are not expected to move substantially or appreciate.

Who manages currency risk and where does responsibility lie?

Normally, this appears to be seen either as a client responsibility by more specialist fund managers or as the responsibility of a centralised treasury/finance/currency team by multi-asset managers and clients. In a few cases, the decision was seen as a joint responsibility between the real estate fund manager and this central team but frequently the property team seem not to be actively involved in the decisions on management of currency risks. The responsibility was, typically, at a senior level in organisations – e.g. CFO or head of currency desk or treasury team. It was noted that currency hedging is an area where specialist expertise and advice was important to avoid incurring excessive charges.

What do investors hedge and which instruments do they use?

Investors typically hedge net asset value (NAV) at the asset level. A mix of instruments are utilised for currency hedging, with forwards the most common and used by every organisation surveyed that employed any currency hedging instrument. Both swaps and options were also used, as well as local leverage.

How do objectives, benchmarking, accounting policy, fund structures, cash flow, leverage and other factors influence approaches to currency risk management?

Surprisingly, currency hedging policy does not appear to be particularly affected by differing objectives, benchmarks, accounting policy, cash flow or fund structures. Leverage does affect currency hedging, in that industry practice is typically to borrow locally and then to hedge NAV exposure. It is not entirely clear whether use of local leverage is because managers/investors are capital constrained or whether it is intended to reduce currency exposure. We suspect, given the characteristics of the funds responding that have local borrowing, it is normally the former and that investments with a similar structure and risk profile in the domestic currency would also be levered. If it were the latter, i.e. local borrowing to reduce currency exposure, then this would lead to an increase in other risks (e.g. systematic market risk), which could offset the benefits of reduced currency risk and, indeed, increase the relative exposure of the equity element. Return targets and benchmarks may have led some managers to take a 100% capital hedged approach to currency whilst not appearing to influence currency instruments. This policy also typically appears to be insensitive to changes in target/benchmark.

Are hedging strategies affected by markets (developed/emerging) or other factors?

The cost and availability of hedging instruments does have an influence on whether currency is hedged and which instruments are used. Over half of the respondents to this question said it had an impact. Those that did not see this as significant were typically invested in developed markets, where costs are relatively low and the instruments are readily available and liquid. The number of respondents with significant investment in emerging or frontier markets was limited but the significantly higher costs of hedging currency risk in some countries was noted (e.g. Brazil was cited) with implications for whether exposure is hedged or not – with, in some cases, it being seen as prohibitively expensive. It also emerged that, when faced with significant adverse movements in currency priced into hedging instruments, e.g. currency depreciation, investors are sometimes faced with the choice of not investing in a particular market, as they cannot achieve their desired returns given the impact of currency hedging, or not seeking to reduce currency exposure in these circumstances, thus increasing potential volatility.

The focus groups and follow-up interviews gave more insight into what is happening in organisations with respect to currency risk management. They generally supported the survey findings that there are a range of approaches and policies, from those that see currency as outside the scope of the real estate team – either the responsibility of the client or the central treasury or asset allocation team – through to those that see currency as very much part of the property team's responsibilities. The instruments used varied, with forwards dominant but swaps and options also used, along with local leverage.

There was a view that in some cases leverage might be affected by currency – hence overall leverage would be higher in order to reduce currency risk. This would imply additional market risk. The focus groups supported the view that generally real estate investment managers are reluctant to be responsible for currency. These discussions also highlighted the asymmetry in policy and the management of risk – real estate fund managers are more likely to hedge currencies where interest rates are broadly similar or lower than the domestic currency but may not hedge currencies where interest rates are higher and where depreciation of the foreign currency is priced into foreign exchange contracts. Seemingly, managers are keen to take the additional returns from locking in currency appreciation where it is priced in (and reducing currency risk) but are less willing to reduce currency risk where returns are adversely affected by pricing into domestic currency terms. Hence, for UK or continental European investors, whilst they may hedge other European currencies, JPY or USD, they would be more reluctant to hedge currencies like the Australian dollar (AUD), Brazilian real or South African rand. In these cases, managers appear to see the additional currency risk as a “risk worth taking”. The implicit assumption appears to be that, against standard finance theory, interest rate differentials are a poor guide of currency movements and that returns are higher as a consequence.

A simulation analysis was undertaken to explore the impact of currency hedging on risk and return for an international real estate portfolio and compare swaps and forwards. Currency hedging helps to reduce the volatility of returns substantially, whilst having limited impact on returns. Whether swaps or forwards are the better instrument for hedging depends on market conditions, with swaps generally preferable in a normal market environment but forwards preferable in weak or strong markets. It is, of course, difficult to know what the market environment will be over the next few years!

Conclusions and Recommendations

This research has focused on what real estate investment managers do in terms of current practice.

Most managers and/or investors undertake currency risk management or, in the case of managers, report currency exposures to clients so that they can make their own decisions about whether and how to manage currency risk.

A range of sophisticated approaches are used to manage currency risk, including a range of hedging instruments (forwards, swaps and options).

There exist a range of approaches to currency, from those that take full responsibility for managing currency risk to those that see this risk as the responsibility of others (clients or a central team). *It is not surprising that there is a range of approaches to currency risk management but it is clearly important that the extent to which currency risk is managed or not is clearly understood by clients and managers alike.*

The research has highlighted that, whilst most managers indicate that foreign exchange instruments are employed to manage currency risk, there is variation in how these are used, with a significant bias away from managing currency risk where there is a 'cost' of doing so: for example, where the foreign currency is expected to depreciate relative to the domestic currency. In effect, this means that currency management is being used selectively to boost returns as much as managing risk. Given longer term evidence on how currencies move relative to interest rate differentials and economic growth, there is a logic to leaving currencies of faster growing, higher interest rate countries unhedged, particularly where transaction costs of hedging are high, but again there is a need for this risk to be clearly understood and recognised. Countries that are expected to depreciate typically do not do so smoothly and, hence, currency can have a substantial effect on the delivered returns. Complete hedging of currency risk is rare and managers should recognise that there normally remains an element of currency risk in portfolios. *There is a need to be clear about the circumstances where hedging of currency risk undertaken and where it is not.*

There were some concerns expressed that real estate fund managers do not understand the full costs of hedging or the impact of currency risk on portfolios. *There is a need to understand the costs of currency risk management.* A clear distinction between the transaction costs (the spread) for currency hedging instruments, the impact of the interest rate differential (embedded in forward pricing) and other costs might be helpful in integrating currency risk management into investment decisions. This also raises the issue of the need for more understanding of the wider portfolio implications of additional currency risk. Real estate fund managers need to ensure they work sufficiently closely with those making currency decisions and clients so that investment decisions reflect the wider portfolio impact.

In the implementation of hedging – e.g. the purchase of forwards, swaps or options – access to live market data and pricing is needed to ensure transaction costs are minimised. What is the most appropriate instrument will depend on a broad range of factors and *specialist expertise or advice is needed* (whether internal or external).

There was a suggestion leverage is sometimes higher than it would have otherwise been in order to reduce foreign exchange risk. This appears to simply amplify one set of risks (property market and property specific risks) to reduce another, currency risk.

Managing Currency Risk in International Real Estate Investment

Emerging markets bring particular currency issues because, over the long term, hedging currency risk of high interest rate and fast growing economies is normally likely to have a significant negative impact on returns whilst these currencies are more volatile and currency movements can have a particularly large impact on the delivered returns. In addition to the cost from the interest rate differential, with less developed foreign exchange markets, instruments to manage currency risk are more expensive and, in some cases, not available. Consequently, for emerging markets where foreign exchange markets are poorly developed, real estate investors have limited ability to manage currency risk. For emerging markets where hedging of currency risk is feasible, the hedging decision will need to reflect similar issues to those in developed markets.

There are no simple answers about what a real estate investor or manager should do with respect to currency risk management, given it depends upon the investor's objectives, their tolerance for different risks, their domicile, the outlook for specific markets, the costs involved in hedging risk and other factors. Best practice is, therefore, to have *a clear and transparent policy that sets out what is hedged and what is not, and why, and in what circumstances variation is allowed*. In addition, information on currency exposures and hedged positions should be gathered to enable risk to be measured *and the success of managing currency risk should also be monitored e.g. whether currency hedging undertaken has removed the impact of currency movements in line with expectations*.

For **managers**, they need to make clear what they intend to do with respect to currency hedging to investors and report in a timely manner both unhedged and hedged currency exposures to investors.

For **investors**, potential currency effects on returns and risk need to be integrated explicitly in the investment decision making process. Investors need to understand what managers will do with respect to currency and make sure it is aligned with their policy and that they will receive the necessary information to hedge currency exposures.

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