Currency hedging

Executive Summary

Purpose:

The Pension Fund Committee ("the Committee") of the London Borough of Barnet Pension Fund ("the Fund") has asked for an update and advice on the level of currency hedging with relation to the Fund's assets denominated in overseas currencies.

The Committee should remain aware that there has been a heightened level of volatility in the value of sterling ever since the 'Brexit' referendum and which continues to this day, and any adjustment to the level of currency hedging needs to be to be carefully considered in this context.

Input sought/action requested:

The Committee are asked to **CONSIDER** and **APPROVE** the level of currency hedging to be employed by the Fund.

Questions/Issues:

1. Why has the Fund got exposure to overseas currencies?
2. What is the strategic rationale for currency hedging that exposure?
3. What level of currency hedging is employed by the Fund relative to its equity investments, and relative to its assets overall?
4. Given either the gains we have seen from being exposed to overseas currencies, or the current risks in the uncertain political/market climate, should we change the current level of hedging? If so, over what timeframe should this be carried out?

Background:

The Pension Fund Committee ("the Committee") of the London Borough of Barnet Pension Fund ("the Fund") has asked for an update and advice on the level of currency hedging with relation to the Fund's assets denominated in overseas currencies.

This request was prompted following a discussion at the July 2019 Committee meeting relating to the volatility in the value of sterling, and ongoing uncertainty surrounding the UK's exit from the EU. This paper provides background and information on the level of currency hedging employed by the Fund currently and considers whether the risk implicit in the unhedged currency exposure should be reduced. Following discussion of this paper, the Committee should consider and agree whether they are comfortable with the current level of currency hedging and the actions required going forward.

Conclusions:

Currency risk can be material and can be managed at low cost. In recent years, the Fund has invested in a number of new alternatives mandates that have involved exposure to overseas currencies. This is in addition to the exposure to overseas currencies via the longstanding equity mandate with LGIM, which operates with a 50% hedge on overseas currency exposure.

At a whole Fund level, we believe it is reasonable to target a strategic level of currency hedging of c.50%, which would then imply that we attempt to hedge, directly or indirectly, the overseas currency exposure of the alternatives mandates in addition to the existing currency hedging relating to equities. In terms of implementation, however, we would caution against attempting to implement this further hedging in advance of the UK's planned exit from the European Union on 31 October 2019, due to the high level of currency volatility. If the Committee are in agreement to an increase in the level of currency hedging at a whole Fund level, we would advise that this is implemented in a phased approach over a 6-12-month period in order to acknowledge the heightened level of currency volatility.

Should the Committee agree with our recommendations, the next step would be to consider an implementation plan for applying this additional currency hedging.

Reliance and Limitations:

This paper is addressed to the Officers and Pension Fund Committee of the London Borough of Barnet Pension Fund and should not be disclosed to any other third parties without our prior written permission and then only in full. We accept no liability to third parties unless expressly accepted in writing.

Please note the value of investments, and income from them, may fall as well as rise. This includes but is not limited to equities, government or corporate bonds, derivatives and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets.

Exchange rates may also affect the value of investments. As a result, an investor may not get back the full amount of originally invested. Past performance is not necessarily a guide to future performance.

1 Introduction

Background

The Fund has exposure to foreign currencies through a number of assets held in overseas markets, and therefore is exposed to the risk of exchange rate movements when these are converted back to sterling. Foreign exchange markets can be very volatile in the short and medium term. In general, this volatility is not expected to be a long term strategic source of growth and therefore is a risk with no expected long-term benefit. The risk is therefore considered 'inefficient'.

If currency is therefore a risk with no expected long-term return attached it would seem sensible to reduce this exposure if it can be achieved at low cost through currency hedging.

As part of the Fund's Investment Strategy Statement, the following statement is made regarding the Fund's approach to the management of currency risk:

> *Currency risk: The strategic asset allocation adopted by the Committee provides for an overseas allocation to enhance diversification via exposure to different economies. Such investments are, however, subject to fluctuations in exchange rates with an associated impact on performance. As such, the Committee has opted to hedge 50% of the Fund's currency risk (based on overseas exposure of the passive global equity allocation). This is considered to strike a suitable balance between dampening the volatility associated with currency fluctuations and the cost associated with currency hedging.*

Current currency risk exposures

The Fund is exposed to overseas currencies through a number of its investments, however, most of the exposure stems from the equity portfolio. Using figures as provided by the Fund's Officers, at 31 March 2019, the Fund's equity investments, totalling c.£453m, are split between four passively managed equity funds managed by Legal & General Investment Management ('LGIM') and are split as follows:

- £14m: LGIM UK Equity Index
- £220m: LGIM RAFI Developed Equity Index (GBP currency hedged)
- £199m: LGIM World ex UK Equity Index (no currency hedging)
- £20m: LGIM Emerging Market Equity Index (no currency hedging)

In practice, considering the Fund's existing *non-UK* equity investments as listed above, we estimate that c.£220m of the Fund's equity investments are not exposed to currency risk (equating to a hedging level of 50% - in line with the statement contained in the Investment Strategy Statement). This leaves equity investments totalling **c.£219m** exposed to currency risk.

Beyond the Fund's equity investments, there are a number of other alternative mandates that give some further exposure to currency risk, with the total currency risk exposure amounting to **c.£143m** in relation to the following mandates:

- The diversified growth fund mandates with Schroders and Newton. These currency exposures can be considered 'active' positions, as adopted by Schroders and Newton in their management of their portfolios and we would not seek to hedge these indirectly. It is also worth noting that in the medium-term these mandates are due to be liquidated.
- The alternative credit mandates with Partners Group (direct lending), Barings (multi-asset credit), and M&G (asset-backed securities).

- The infrastructure mandate with IFM.

When combining the currency risk exposure of the equity, diversified growth, credit and infrastructure investments, this leads to a total exposure to currency risk of **c.£362m**, which equates to c.32% of the Fund's assets.

It should be noted that the figure of £362m relates to assets denominated in overseas currencies and are referred to as 'primary' currency exposures. This is in contrast to 'secondary' currency exposures, which relate to a number of other factors, such as, for example:

- A company may be listed on the UK equity index, and therefore have shares denominated in sterling, however, it may derive its corporate revenues from multiple overseas currencies and so would be impacted by movements in sterling.
- A company may be listed on the UK equity index, but report and pay dividends in overseas currencies, or have costs that are denominated in other currencies, and therefore would be impacted by movements in sterling.

As these 'secondary' exposures are difficult to determine, and change over time, we do not consider these any further in this paper.

2 Strategic considerations

Rationale and historic performance of currency hedging

Foreign exchange markets can be very volatile in the short and medium term and some of this volatility (or 'currency risk') can be reduced at low cost through currency hedging. Currency risk is a risk that is not expected to be compensated for by additional returns over the long term and therefore, some investors (including the Fund) choose to hedge their overseas currency exposure, in full or in part. The inclusion of currency hedging can smooth the effects of currency movements in the short term for a risk that is not expected to be beneficial over the long term. In terms of relative importance, currency risk ranks below both strategic (i.e. the split between equity, bonds, credit and alternative mandates) and structure (i.e. diversification) risk, which typically are of more material impact.

Based on empirical returns, we have assessed the impact of hedging currency on the overall risk of a global equity portfolio in the long-run for a UK investor, with a number of observations:

- For UK investors, currency hedging has generally reduced the return volatility of a global equity portfolio by circa 10- 20%, although to some extent this depends on the degree of UK and non-UK equity exposure within a portfolio and the time period assessed.

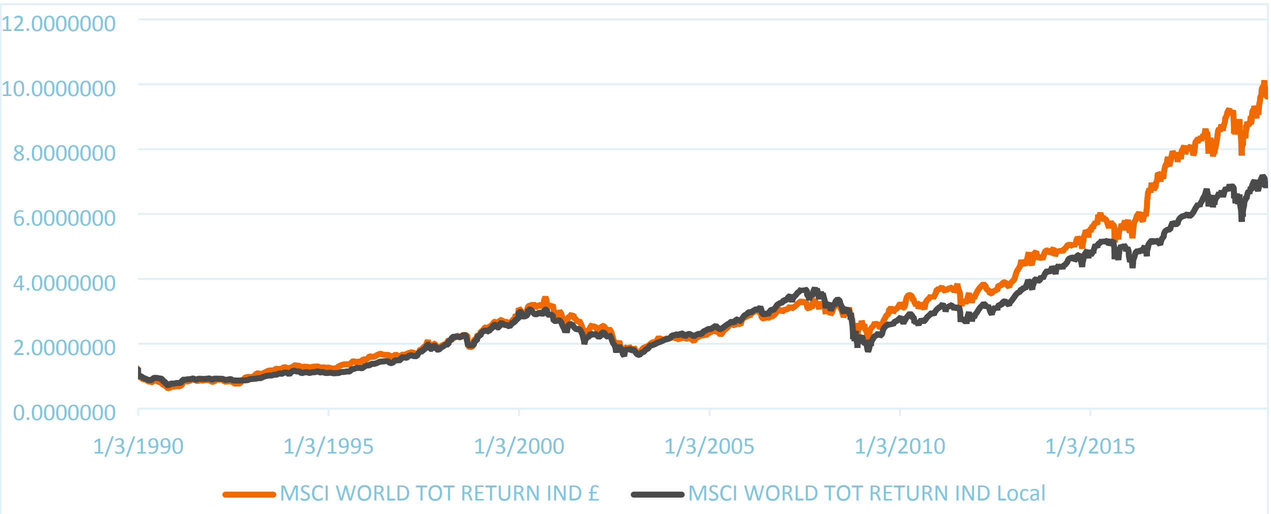
- As the level of currency hedging in an equity portfolio increases, the incremental reduction in volatility decreases, with limited benefits observable of hedging above a c.50%-75% level – at this level, or above, it would appear that retaining an amount of currency risk has acted to diversify some level of the equity risk.

Impact on performance

The chart below shows the returns of a global equity index with no currency hedging (orange line) versus the return of a currency hedged global equity index (black line), since 1990. We would caution reading too much into an individual time period, although this broadly coincides with the introduction of the new monetary policy regime that followed Bank of England independence. Two key observations are that:

- For the vast majority of the period and up until 2015-16, the performance difference between an unhedged and a hedged global equity index was limited. This is consistent with a common view that, when considered over the long-run, currency movements largely even out.

- Since 2016, as the value of sterling has depreciated since the Brexit referendum, the unhedged global equity index (orange line) has outperformed materially.



However, even if you subscribe to a more general view that currency risk will ‘wash out’ over time, we believe the actual outcome to an investor is more nuanced than this. The chart also shows that short-term performance deviations (such as 2016-19) can be very significant which can be important since:

- Benchmark and manager allocations change over time (e.g. rebalancing or strategic reductions in equity allocation), which in effect crystallises relative currency performance.
- Pension schemes that require asset sales to also meet benefit payments may also crystallise short term currency volatility.
- The sterling level at which you commence any hedge matters.

Overall conclusion – strategic approach to hedging

Based on the above we would draw the following conclusions:

- Currency is a risk with no long term expected benefit. We would therefore recommend some degree of hedging if this can be achieved at reasonable cost.
- The most beneficial level of currency hedging to be targeted depends on time period, impact on diversification and level of exposure to overseas currencies. However, this is very difficult to assess prospectively. We therefore believe that a 50% currency hedge is a sensible compromise that brings much of the benefit, whilst managing cost and diversification impact. This level has been supported in the past by empirical studies.
- In the past, pension funds have tended to focus on the hedge level within the equity mandate. This is a reflection that the main source of currency exposure has traditionally arisen from this source. This has changed more recently as pension schemes have increasingly diversified and we therefore believe it is now more sensible to assess currency exposure at a total fund level.

The rationale for hedging and outcomes also depend on the starting level of sterling and we discuss this more in the next section.

3 Taking account of current market conditions

Background

In the previous section, we discussed that a reasonable long term neutral position would be 50% currency hedging at a total Fund level.

The next question is then, based on current valuations, recent performance and outlook, is there a strong rationale for being at a level different from our neutral position?

This can include thinking such as:

- Has being exposed to overseas assets been a driver of positive return and should we crystallise that position to 'lock in' gains?
- What impact will further hedging have on overall portfolio risk (as opposed to equity risk in isolation)?
- Is there a strong view that sterling is undervalued and will bounce back in the medium term?

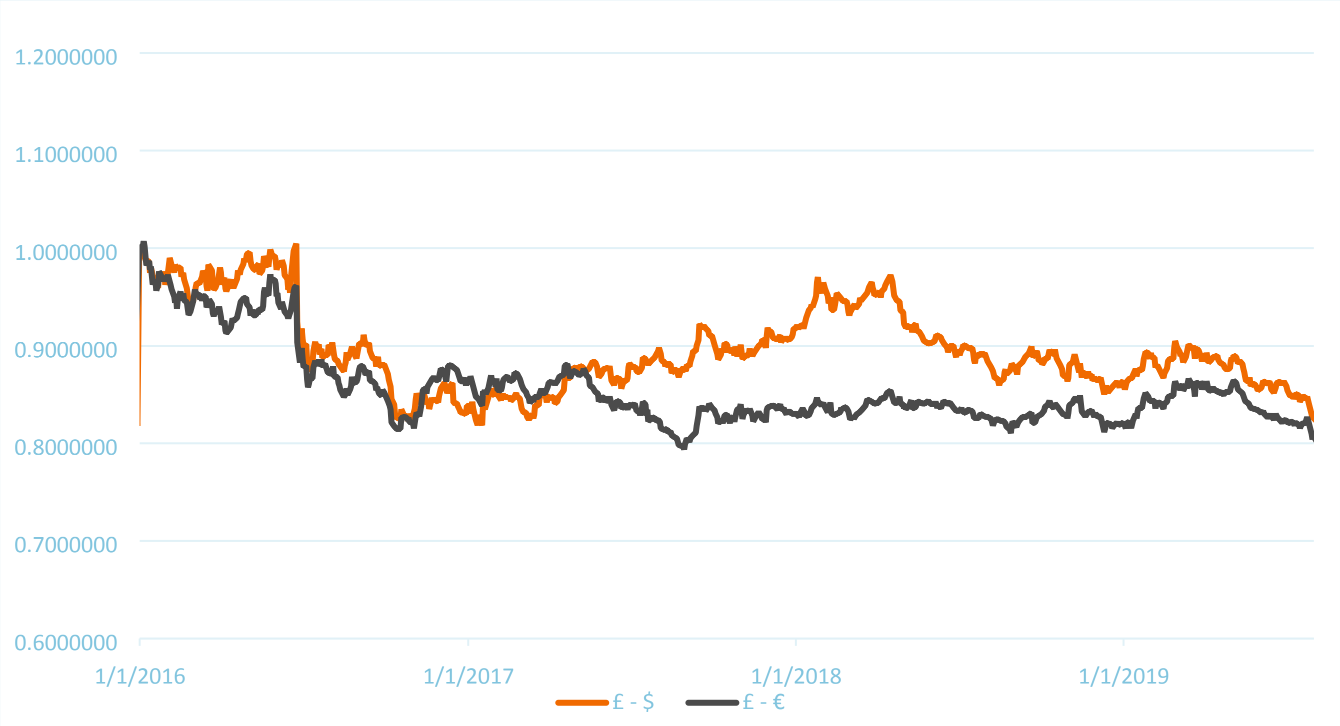
We discuss this further below.

Brexit and the fluctuations in the value of sterling

Since the Brexit referendum in mid-2016 the value of sterling, on a trade-weighted basis, has fallen significantly. As such, this depreciation in sterling will have been of benefit to the Fund (all else equal) given a proportion of its investments are denominated in overseas currencies.

With the continued uncertainty surrounding Brexit, any announcement relating to Brexit has had a significant impact on sterling. Over the last six months, the value of sterling relative to other major currencies has acted as a good gauge as to the general market sentiment towards Brexit. Any development indicating a closer relationship to the EU has yielded a boost to sterling and anything that signalled the potential for a “hard” or “no-deal” Brexit has caused the value of sterling to fall. Therefore, there may be some risk benefit of maintaining an overseas currency exposure in a bad Brexit outcome as this would probably lead to a significant weakness in UK assets and sterling (although a significant proportion of this may now be priced in).

The chart below shows the movement in the USD/GBP (orange line) and EUR/GBP (black line) exchange rate between 1 January 2016 and 31 July 2019, showing the c.20% depreciation in sterling relative to USD and EUR over this period.



Strategic versus tactical considerations

Returning to our original questions:

Particularly given the depreciation in sterling in recent years, and the benefit that this has caused to returns on unhedged overseas assets for UK investors, there is a question about whether any tactical views should be overlaid, such as a potential increase in the level of currency hedging in order to lock-in gains associated with sterling depreciation.

We are wary of employing a tactical approach of any sort, however, as currencies are volatile and difficult to predict over any given time horizon and can deviate significantly from any assessment of 'fair value'. As such we believe that any discussion regarding the potential increase in currency hedging should be predicated on strategic, rather than tactical considerations.

- Has being exposed to overseas assets been a driver of positive return and should we crystallise that position to 'lock in' gains?

Clearly, being exposed to EUR and USD has been of benefit over the past couple of years (it is more nuanced in smaller currencies). In a less uncertain period where risks to other parts of the portfolio were not so great, we might suggest crystallising this. However, we believe the wider portfolio impact needs to be considered (as discussed below).

- What impact will further hedging have on overall portfolio risk (as opposed to equity risk in isolation)?

As the Fund is only c38% hedged to overseas currency risk, we might expect a marginal reduction in long term risk from further hedging. However, the short-term impact of further hedging is very uncertain given the risk of the fallout from the prospect of a 'no deal' Brexit.

In the following table we have attempted to quantify some of the risks of different Brexit scenarios. These should not be taken as predictions as they depend on daily market moves and are subjective but give a feel for what might be considered a sensible possible outcome.

	Current Consensus	Soft Brexit		No Deal		Ongoing Uncertainty	
	3 years (p.a.)	Immediate	3 years (p.a.)	Immediate	3 years (p.a.)	Immediate	3 years (p.a.)
3 year UK GDP	1.3%		1.8%		0.0%		-0.2%
3 year RPI inflation	3.0%		3.0%		3.5%		2.5%
		Change relative to current consensus					
£ to global basket		+5%		-11%		-2% p.a.	
UK equity		0%		+5%		-2% over three years	
Unhedged Global equity		-4.5%		+10%		+5.5% over three years	
Base rates		-		-0.5%		-0.25%	
Gilt yields		+0.25%		-0.5%		-0.5% over three years	
ILG yields		+0.35%		-0.9%		-	
UK IG corporate yld spreads		-		+0.5%		+0.5% over three years	
UK property		-		-7%		-12% over three years	

As can be seen, a 'no deal' Brexit could lead to further significant weakening of sterling which may offset some level of funding impact from gilt yields in valuations (although this might be small).

- Is there a strong view that sterling is undervalued and will bounce back in the medium term?

This appears a very binary consideration to us. In the medium term, there is a huge amount of uncertainty, based on political rather than fundamental valuation outcomes, and we would be wary of taking tactical views over such a horizon.

4 Recommendation and next steps

Recommendation and next steps

In recent years, the Fund has invested in a number of new mandates, including those with Barings, Partners Group, M&G and IFM, which has gradually increased the degree of currency risk (in £-terms). As such, it is reasonable at this time to consider whether the Committee remain happy in relation to the degree of currency risk to which the Fund is exposed. Historically, the Fund has focussed on currency hedging with respect to its overseas equity mandates. However, due to the evolution of the Fund's strategy and the increased level of investment in mandates (e.g. credit, infrastructure) that give currency risk exposure, we believe it would be prudent to consider currency hedging in the context of this higher level of exposure across the Fund.

At a whole Fund level, we believe it is reasonable to target a strategic level of currency hedging of c.50%, which would then imply that we attempt to hedge, directly or indirectly, the overseas currency exposure of the alternatives mandates in addition to the existing currency hedging relating to equities. In terms of implementation, however, we would caution against attempting to implement this further hedging in advance of the UK's planned exit from the European Union on 31 October 2019, due to the high level of currency volatility and that it may be driven by political decisions rather than fundamentals.

If the Committee are in agreement to an increase in the level of currency hedging at a whole Fund level, we would advise that this is implemented in a phased approach over a 6-12-month period in order to acknowledge the heightened level of currency volatility. Should the Committee agree with our recommendations, the next step would be to consider an implementation plan for applying this additional currency hedging, which may involve hedging a greater proportion of the equity portfolio and/or considering currency-hedged share classes for the alternative mandates, if available.

The Committee should remain aware that there has been a heightened level of volatility in the value of sterling ever since the Brexit referendum and which continues to this day, and any adjustment to the level of currency hedging needs to be to be carefully considered in this context.

We look forward to discussing this paper with you at the Committee meeting on 9 September 2019.

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Appendix

Risk warnings

Please note the value of investments, and income from them, may fall as well as rise. This includes but is not limited to equities, government or corporate bonds, derivatives and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets. Exchange rates may also affect the value of investments. As a result, an investor may not get back the full amount of the original investment. Past performance is not necessarily a guide to future performance.

Modelling methodology

The model takes a simplified approach to modelling a scheme's liabilities; we assume that the liability dynamics can be proxied by a suitably weighted portfolio of long and medium dated index-linked and fixed-interest gilts. Making this simplifying assumption for the schemes liabilities we then estimate the scheme's adjusted assets and liabilities for each scenario using the assumed returns as set out above.

The analysis shown is referred to as a "scenario test" analysis and it examines the impact of 3 possible scenarios As with any scenario analysis, the scenarios tested are not exhaustive in terms of the possible (actual) outcomes that may occur in future and over the specified time period. Changing the time period considered or the variables that are flexed in the scenario analysis could produce materially different results. The purpose of the analysis is therefore to inform a discussion about possible outcomes (not certain outcomes) nor the likelihood of these possible outcomes or the time frame over which they may occur.