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ACTIVE CURRENCY MANAGEMENT FOR LONG-TERM INVESTORS

Gordon S. Brown

"It is a riddle, wrapped in a mystery, inside an enigma".
Sir Winston Churchill

Churchill's well-known words describing Russia applies equally well to the topic of currency management. Among the various spheres of investing there is perhaps none more unpredictable or volatile than the behaviour of foreign exchange (FX).

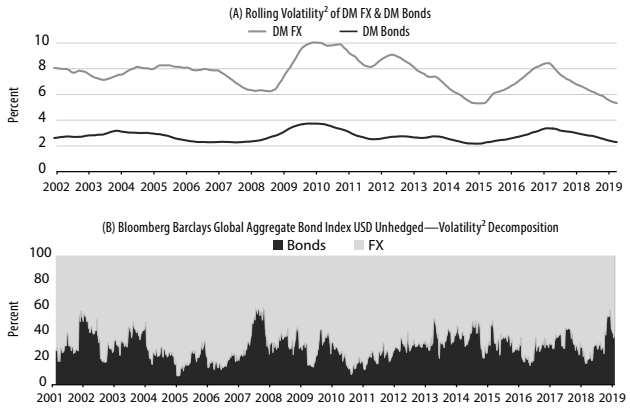
This paper describes Western Asset's approach to active currency management within fixed-income portfolios, which is based on three key tenets:

- currency risk should not dominate fixed-income risk in a bond portfolio
- currencies can provide strong diversification benefits in addition to adding value
- there is no 'right way' to determine currency drivers; a pragmatic and flexible approach is key.

Why currency risk shouldn't dominate in bond portfolios

A key feature of currencies is their relatively high levels of volatility, both outright and relative to bond market volatility. In Figure 1, the first chart illustrates that on average developed market (DM) currency[1] volatility[2] has been more than 2.5 times that of DM bond volatility. The second chart also illustrates the same point by decomposing the volatility of an unhedged global aggregate bond index, which highlights that approximately two-thirds of the volatility comes from currency risk. The same relationship holds for emerging market (EM) currency

Figure 1. DM currency and rate volatility



Source: ICE, FTSE 29 March 2019; Bloomberg Barclays 1 February 2019.

The quote

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volatility relative to EM bond volatility although the ratio is closer to 1.5 times. As shown in Figure 2, the average level of both DM and EM FX volatility is higher than their respective bond markets over all time periods. A further observation is that over all time periods EM FX volatility is higher than DM FX volatility.

Figure 2. Average bond market volatility[2] levels

Average Volatility	1-Year	3-Year	5-Year	10-Year
DM FX	4.3%	5.5%	6.9%	7.0%
EM FX	6.7%	7.2%	8.3%	8.1%
DM Bonds	2.1%	2.4%	2.8%	2.6%
EM Bonds	4.4%	3.6%	4.8%	5.5%

Source: Western Asset, Bloomberg, ICE, FTSE, JP Morgan, 29 March 2019.

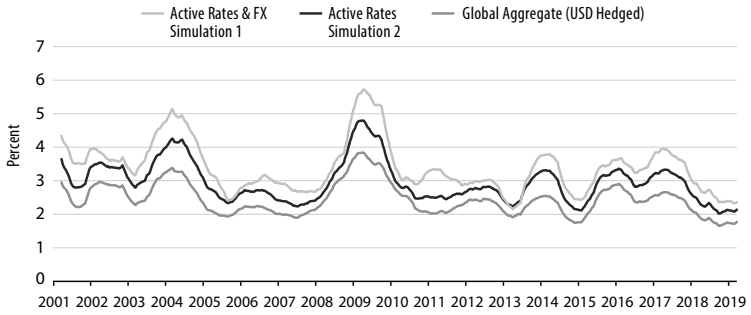
In the context of constructing a fixed-income portfolio, the main consideration around currency market volatility being significantly higher than bond market volatility is straightforward: in taking unhedged bond positions, the associated currency volatility dominates the interest rate volatility from the underlying bond.

Therefore, the starting point for constructing a fixed-income portfolio is that investors should consider bond and currency decisions separately. Put differently, bond positions should be evaluated on a fully-hedged basis (i.e. with the currency risk removed from the bond position) with separate consideration given to the currency exposure within the portfolio. We believe our approach of making currency decisions independent of our views on underlying bonds ensures that portfolios are never dominated by currency risk.

To illustrate the impact of active currency positions on portfolio risk consider the following two simulations which use historical data (Figure 3).

- Simulation 1: 10% active DM + 10% active EM exposure in unhedged bonds (i.e. bond risk plus FX risk)
- Simulation 2: 10% active DM + 10% active EM exposure in hedged bonds (i.e. bond risk only).

Figure 3. Volatility[2] of simulated portfolios and the global aggregate bond index



Source: Western Asset, Bloomberg, ICE, Bloomberg Barclays, FTSE, JP Morgan, 29 March 2019.

This analysis shows that the impact on volatility from introducing unhedged bond risk exceeds that of introducing hedged bond risk, with the difference in the two active risk (tracking error) numbers attributable purely to active currency exposure.

At Western Asset we strongly believe that 'bond portfolios should behave like bond portfolios'. During our long history of managing global bonds, we have constructed portfolios such that risk and return are determined primarily by 'top-down' macro factors of duration, yield curve, country and sector. Active currency management does play an important role both as a source of performance and diversification, but should never dominate. Active currency positions in Western Asset's Global Aggregate strategy have on average accounted for 21% of returns (since its inception in 2002[3]), which is consistent with our long-term target for currencies contributing 20% of the risk and return in global bond strategies.

Return and diversification benefits of currencies

In addition to being a valuable source of returns for fixed-income portfolios, currencies can also provide useful diversification benefits. One implication of this is that the composition of active currency 'overlay' positions taken in a fixed-income portfolio would be different from a standalone currency mandate. In other words, while we look to take currency positions that are consistent with our long-term, value approach, the exact composition and sizing of currency positions will reflect broader risk and diversification considerations, and be tailored for specific portfolios.

Western Asset's Risk Team ran various correlations between DM and EM FX and DM and EM bonds and their analysis highlighted the following:

Correlations move around considerably, particularly around periods of market stress.

Figure 4 illustrates the correlation between DM bonds and EM FX. Historically the long-term correlation has generally been negative, albeit with the correlation rising in recent years. This relationship is logical as typically in times of EM stress there is a 'flight to quality' and safe haven assets such as US Treasuries (USTs) benefit. However, one period that stands out is the 2013 taper tantrum—when Federal Reserve (Fed) Chair Ben Bernanke announced that the Fed would start to scale down its asset purchases—where the correlation between these two asset classes rose from -0.6 to +0.8 in a very short period. During this period EM FX, which had previously showed a negative correlation to DM bonds, experienced tremendous stress and depreciated sharply in reaction to higher UST yields based on the view that the Fed was about to commence hiking interest rates.

Currencies can offer significant diversification benefits, particularly in times of market stress.

Figure 5 highlights that the long-term correlation be-

tween DM FX and EM bonds has been in the range of -0.1 to 0.4 historically, suggesting that there are diversification benefits to pairing active DM FX positions against EM bond exposures. This makes intuitive sense. For example, in 2015 EM bonds came under significant pressure amid global growth concerns and weak energy prices and EM local yields rose sharply. Reflecting these factors, DM currencies that are sensitive to global growth and commodity prices, such as the Australian dollar and the Canadian dollar, fell sharply. Underweight positions in these currencies acted as effective 'risk-off' hedges against the weakness in EM bonds.

Similarly, during the eurozone debt crisis (2009-12) holding a short euro currency position was an effective 'risk-off' hedge against episodes of significant spread widening in peripheral European bonds, in particular Italy.

A pragmatic and flexible approach to assessing currency valuations

In line with Western Asset's investment philosophy, we believe that over the long run, currency valuations are ultimately determined by macroeconomic fundamentals, specifically:

- interest rate differentials
- inflation differentials
- growth differentials.

So our starting point is to focus on measures such as real effective exchange rates (REER) and purchasing power parity (PPP) as an 'anchor' for long-term currency valuations. But over time currency valuations can diverge, often significantly and for prolonged periods, from fundamentals driven by a range of other factors including (but not limited to):

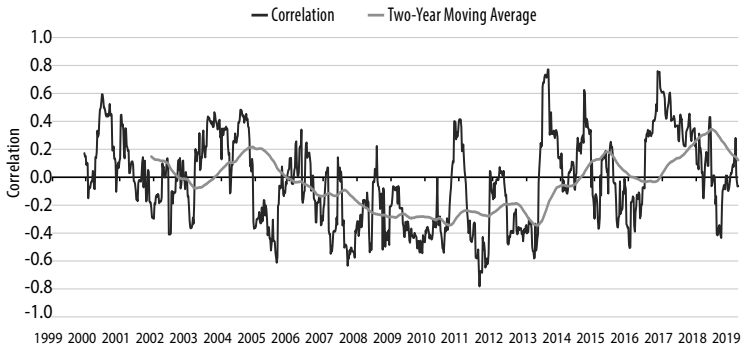
- portfolio flows; central bank balance sheet dynamics; investor positioning; risk sentiment; geopolitics; commodity prices; thematic factors.

To illustrate why we believe a flexible approach to determining the key drivers of currency valuations is appropriate, Figure 6 highlights that from 2011-17 forward interest rate differentials were a major determination of euro weakness versus the US dollar. Western Asset's global portfolios retained an underweight in the euro throughout that period (Figure 7). However, this relationship broke down at the start of 2017 and the euro started appreciating sharply despite interest rate differentials pointing to further weakness.

Having held an underweight to the euro in global portfolios for the best part of a decade we started to build an overweight position in early 2017 as we turned more optimistic on eurozone growth. We expected that improved sentiment toward the region would attract stronger capital flows and help strengthen the currency from an undervalued level.

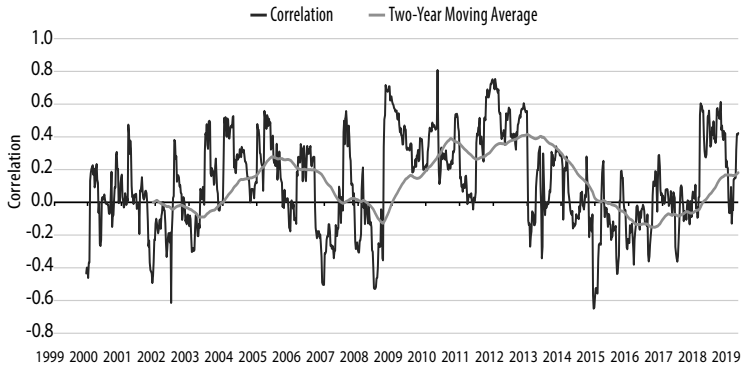
To complement our fundamental analysis we also try to incorporate quantitative measures for certain currency pairs where we believe they can help with assessing 'fair value'. For example, our valuation framework for

Figure 4. Rolling correlation[4] of DM bonds and EM FX



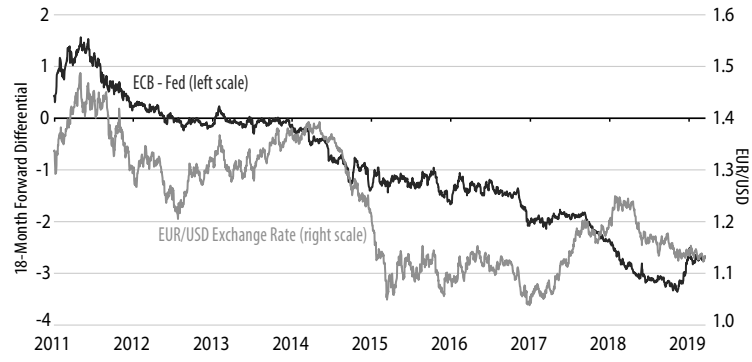
Source: Western Asset, Bloomberg, FTSE, 29 March 2019.

Figure 5. Rolling correlation[4] of DM FX and EM bonds



Source: ICE, JP Morgan, 29 March 2019.

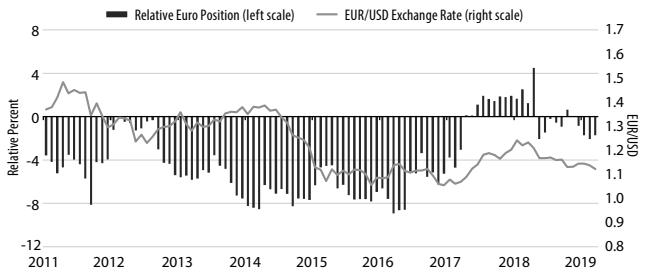
Figure 6. 18-month forward interest rate differential vs EUR/USD FX



Source: Bloomberg, Western Asset, 29 March 2019.

the Swedish krona (Figure 8) incorporates interest rate differentials, growth and equity market factors and currently highlights that the krona is 'undervalued' based on these factors. This then provides a signal for the Investment Team to engage in further research on the underlying macro factors and helps us determine if there is an investment opportunity or whether the mis-valuation is justified.

Figure 7. Currency strategy



Source: Bloomberg, Western Asset, 29 March 2019.

Figure 8. Swedish krona valuations

Source: Western Asset, Bloomberg, 9 January 2019.

In summary

Western Asset's approach to active currency management within fixed-income portfolios seeks to ensure that currency risk does not dominate fixed-income risk. We strongly believe that 'bond portfolios should behave like bond portfolios'.

Currencies can provide strong diversification benefits while serving as a valuable source of return. Throughout our long history of managing global bond strategies, approximately one-fifth of our excess returns have come from active currency management.

Over the long-term, exchange rates are ultimately determined by macroeconomic fundamentals but they can diverge significantly and for extended periods of time. This necessitates adopting a flexible approach to determining the key drivers of exchange rates and incorporating additional factors to be considered alongside fundamental analysis. **FS**

Notes

1. *Developed market currency (DM FX) is measured using a trade-weighted basket of DM currencies against the USD.*
2. *Volatility calculated using weekly data and an exponentially weighted moving average with a 7-week half-life.*
3. *Represented by Western Asset's Global Core Full Discretion Composite.*
4. *Correlation calculated using weekly data and an exponentially weighted moving average with a 7-week half-life.*