

# Going global with bonds: Unlocking diversification through global fixed income

- Allocating to global bond markets broadens the opportunity set beyond domestic fixed income, providing exposure to a wider range of securities, issuers, markets, economic cycles and inflation environments. Theory tells us this broader opportunity set offers diversification, and can reduce portfolio volatility, without necessarily lowering expected returns.
- Across five major markets – the United States, Canada, the United Kingdom, the euro area and Australia – we find empirical evidence that supports the theory, with one critical qualifier: currency exposure should be hedged back to the investor's home currency. Left unmanaged, currency movements can dominate bond returns and materially increase volatility, potentially undermining the stabilising role that fixed income is expected to play in investor portfolios.
- While the diversification benefits of hedged global bonds are clear, the appropriate strategic allocation split between domestic and international fixed income markets is investor-specific and should depend on factors such as the desire to mitigate risk, the cost of implementation and any tax incentives.

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## Why look beyond domestic fixed income?

When investors allocate a greater share of their fixed income portfolio to global bonds<sup>1</sup>, they open the door to a broader and more diverse universe – spanning a wider range of securities, issuers, markets, economic cycles and inflation environments. Relative to a purely domestic bond allocation, this broader universe can improve diversification and help reduce overall portfolio risk.

At first glance, investing beyond one's domestic bond market might seem to introduce new risks. This instinct is understandable: familiarity brings comfort – especially in fixed income, which is typically expected to play a stabilising role in a portfolio. Yet when the drivers of bond returns vary across global markets, combining them in a single portfolio can reduce volatility, without necessarily lowering expected returns<sup>2</sup>.

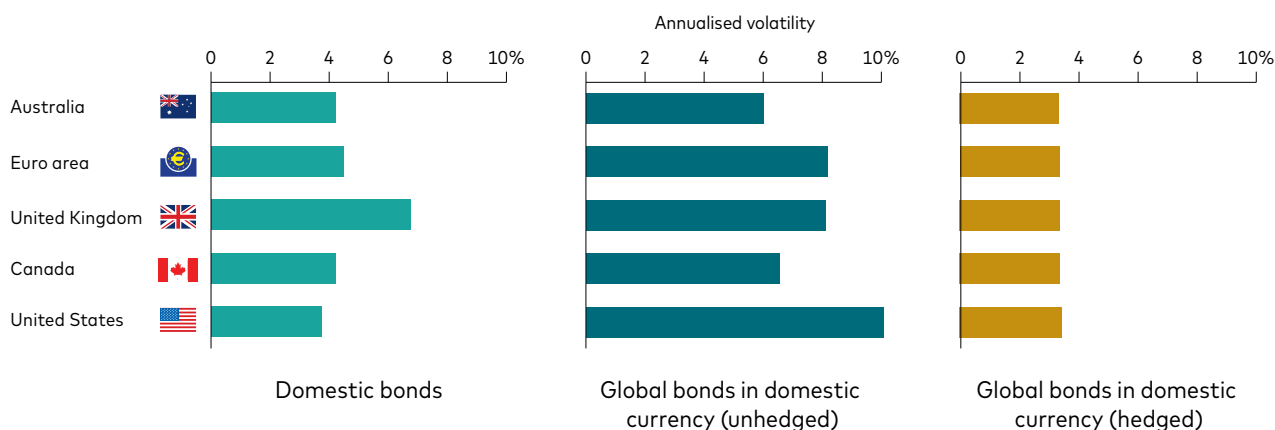
The intuition is straightforward. While any individual market or issuer may experience bouts of higher volatility, a portfolio that diversifies bond holdings across multiple markets benefits

from imperfect correlations through time – when one market “zigs”, another one “zags” – helping to smooth the investment journey.

Crucially, the diversification benefits depend on how currency exposure is managed. As shown in **Figure 1**, over the past two decades, a globally diversified bond portfolio has exhibited lower volatility than domestic bond markets – when currency risk is hedged back to the investor's domestic currency. Unhedged currency movements can add substantial volatility, undermining the risk-reducing role that bonds are typically expected to play in a portfolio.

In this paper, we examine the benefits of allocating to currency-hedged global bonds from the perspective of investors in the United States, Canada, the United Kingdom, the euro area and Australia. We place the global investment-grade bond universe in context, assess its diversification benefits and explore how risk-based factors and implementation costs may influence the appropriate size of a hedged global bond allocation.

**FIGURE 1.**  
**Global bonds exhibit lower volatility when currency risk is managed**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025. For the indices used, see appendix.

**Sources:** Vanguard calculations, using data from Bloomberg.

- Throughout this paper, global bonds refer to the global investment-grade fixed income universe represented by the Bloomberg Global Aggregate Index. We also refer to domestic bonds, defined as the investment-grade fixed income universe denominated in the investor's home currency and represented by the relevant country-level Bloomberg Aggregate Index. Finally, a reference to international bonds denotes the global investment-grade fixed income universe excluding securities from the investor's domestic market, represented by the Bloomberg Global Aggregate Index excluding bonds denominated in the investor's home currency. Conceptually, the global bond universe can be viewed as the combination of domestic and international bonds. We may also distinguish between local currency (the currency in which the bond is issued) versus domestic currency (the home currency of the investor).
- Or, put in more technical terms: expanding one's investment opportunity set can result in an upward shift to the forward-looking efficient frontier, allowing one to achieve better risk-adjusted return outcomes.

## The breadth of the global fixed income landscape

**Figure 2** illustrates the size and composition of the global investment-grade fixed income market across several key dimensions: currency of issuance, sector, maturity and credit quality. Together, these dimensions highlight the extensiveness of the global opportunity set available to investors who look beyond their domestic bond market.

Regardless of an investor's home market, a purely domestic bond allocation forgoes a substantial portion of the global bond universe. Even the United States, the largest single country bond market, represents less than half of the global opportunity set.

The composition of the global bond market further reinforces the diversification potential. Global fixed income encompasses a wide range of sectors, spans the yield curve from short-dated to long-dated maturities, and includes varying credit qualities, combining exposures with different sensitivities to growth, inflation and interest rates.

Taken together, these characteristics illustrate why global fixed income can enhance diversification. By reducing reliance on the risk factors of any single market, it can help deliver more stable outcomes than a portfolio concentrated solely in domestic bonds.

**FIGURE 2.**  
**The size and composition of the global investment-grade bond market**



**Notes:** Data are for the Bloomberg Global Aggregate Bond Index, as at 31 December 2025. Credit ratings based on Bloomberg's ratings field, which reflects the midpoint rating of Moody's, S&P and Fitch rating agencies.

**Sources:** Vanguard calculations, using data from Bloomberg.

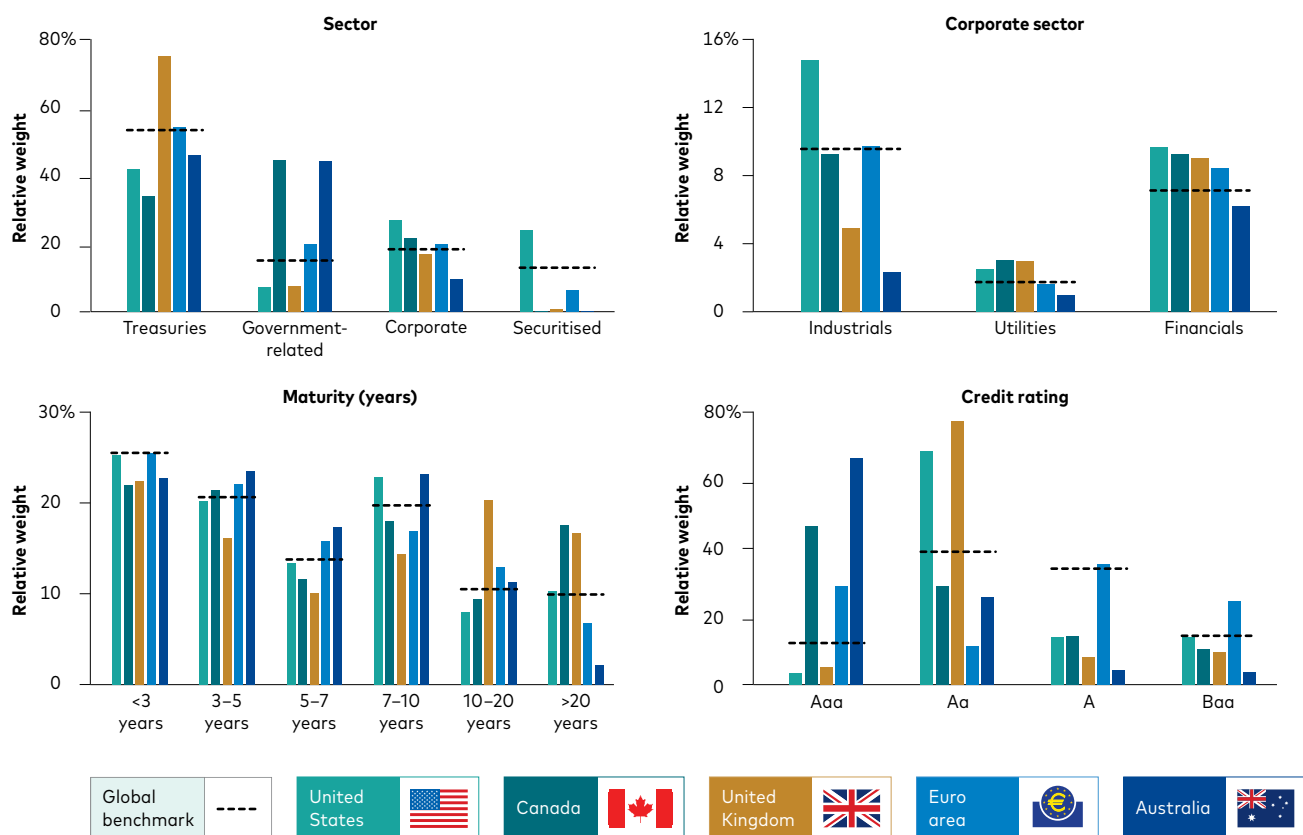
## How does global fixed income improve diversification?

### Reducing exposure to domestic market risk factors

The aggregate global bond market provides a useful reference point for understanding how domestic bond markets differ in their underlying

risk exposures. **Figure 3** compares each domestic market in our analysis with the global investment-grade bond universe, highlighting meaningful differences in sector composition, maturity profile and credit quality which can influence portfolio outcomes over time.

**FIGURE 3.**  
**Structural differences between domestic and global bond markets**



**Notes:** Data are for the Bloomberg Global Aggregate Bond Index, as at 31 December 2025. Relative weight represents the proportion of the given sector, corporate sector, maturity band or credit rating in the domestic-currency Bloomberg Aggregate Bond Index minus its proportion in the Bloomberg Global Aggregate Bond Index. Credit ratings based on Bloomberg's rating field, which reflects the midpoint rating of Moody's, S&P and Fitch rating agencies.

**Sources:** Vanguard calculations, using data from Bloomberg.

For example, an overweight to the US bond market implies relatively greater exposure to industrials and financials than a global benchmark. Similarly, the Canadian bond market is characterised by a relatively large allocation to government-related provincial bonds and a smaller allocation to central government debt, while the UK market has greater exposure to duration risk driven by its longer-dated maturity

profile. Comparable structural tilts exist across other markets, sectors, maturities and credit qualities.

A global fixed income allocation helps reduce concentration by spreading exposure across a broader range of markets and issuers. While individual overseas markets may appear riskier in isolation, combining them within a diversified portfolio can reduce dependence on any single

market and lowers the likelihood that portfolio outcomes are dominated by idiosyncratic economic or market developments.

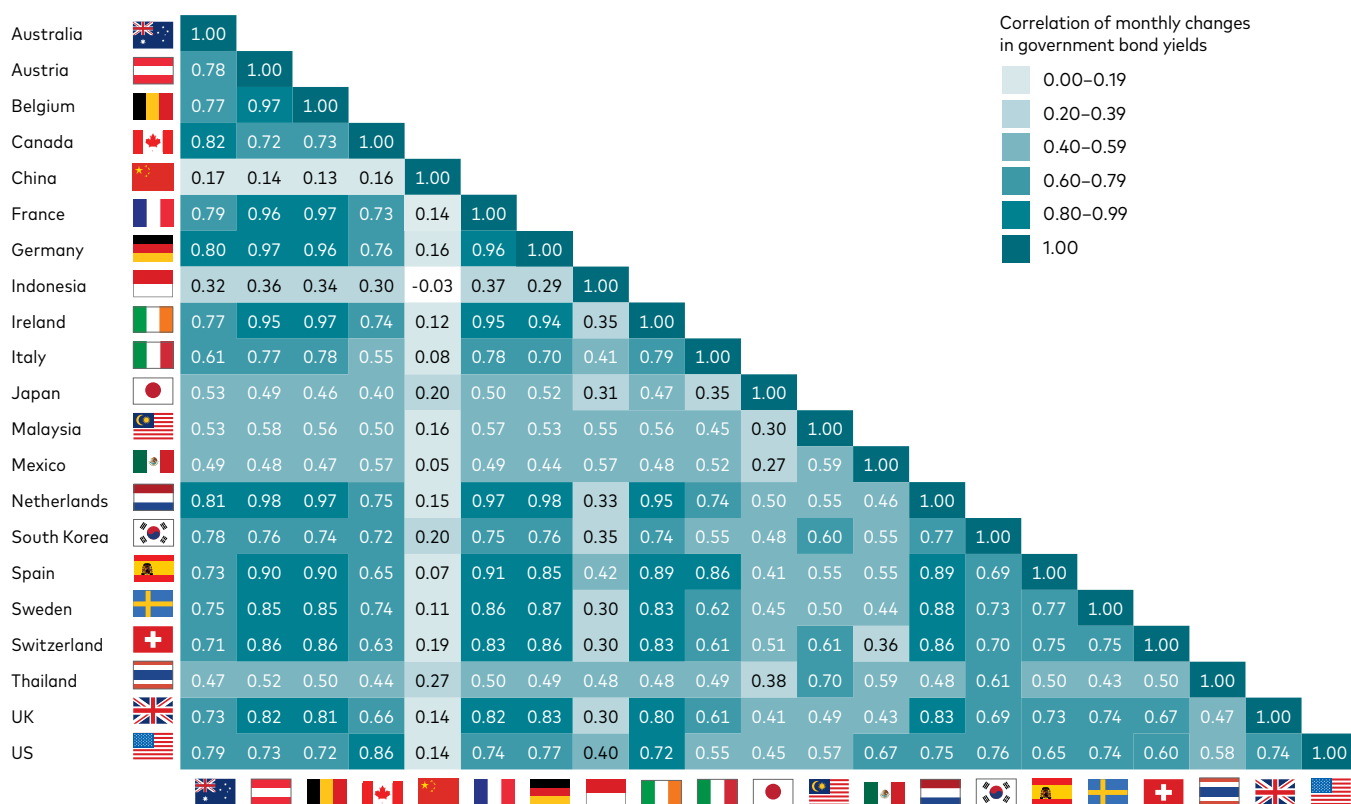
### Interest rate diversification across global bond markets

Beyond the differences in sector composition, credit quality and maturity profiles, global bonds also provide diversification through exposure to multiple interest rate and inflation environments. Differences in economic conditions, monetary

policy frameworks and business cycles across countries mean that interest rate dynamics can vary meaningfully from one market to another.

While credit risk premiums can influence returns in certain segments of the bond market, the diversification effect illustrated in **Figure 4** relates primarily to interest rate risk. Government bond yields across markets have historically exhibited imperfect correlations, reflecting differences in inflation trends, yield curve dynamics and monetary policy responses across countries.

**FIGURE 4.**  
**Imperfect correlations in government bond yields across markets**



**Notes:** Data are for the 10-year period ending 31 December 2025. The grid displays the correlations between month-on-month changes in 10-year government bond yields for a selection of countries. Shading applied according to the magnitude of the correlation as noted in the legend.

**Sources:** Vanguard calculations, using data from Bloomberg.

These correlations reflect how interest rates can rise in one market while remaining stable or falling in another. When combined within a global bond portfolio, such offsetting movements reduce sensitivity to interest rate changes in any single market. As a result, a globally diversified

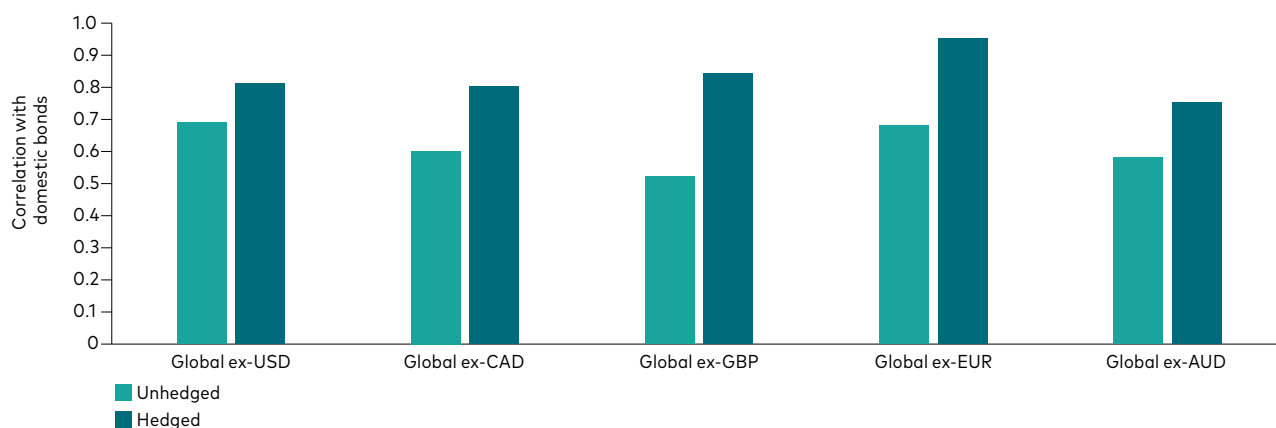
bond portfolio is typically less sensitive to rate movements than its weighted average duration alone might suggest, reflecting how interest rate exposure is spread across multiple yield curves and policy regimes rather than being concentrated in one domestic market.

## Why does currency management matter in global fixed income?

Before turning to the mechanics of currency exposure, it is useful to consider how international bonds interact with domestic bonds at the aggregate level. As shown in **Figure 5**, domestic and international bond returns have historically

exhibited moderate-to-high correlations, particularly when currency exposure is hedged. Nevertheless, these correlations do not eliminate the diversification benefits of hedged global bonds, which arise through improved volatility, downside protection and other risk outcomes at the portfolio level, as we discuss next.

**FIGURE 5.**  
**Correlations between domestic and international bond returns**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025. For the indices used, see appendix.

**Sources:** Vanguard calculations, using data from Bloomberg.

## How currency exposure affects global bond returns

Unlike investing in domestic bonds, investing in global bonds introduces exposure to two distinct return streams: the return from the underlying bonds and the return from movements in the associated currencies. Put simply, both interest and principal payments of any foreign-currency-denominated bond must be translated back into the investor's home currency. This creates an additional source of return variability driven by movements in the exchange rates.

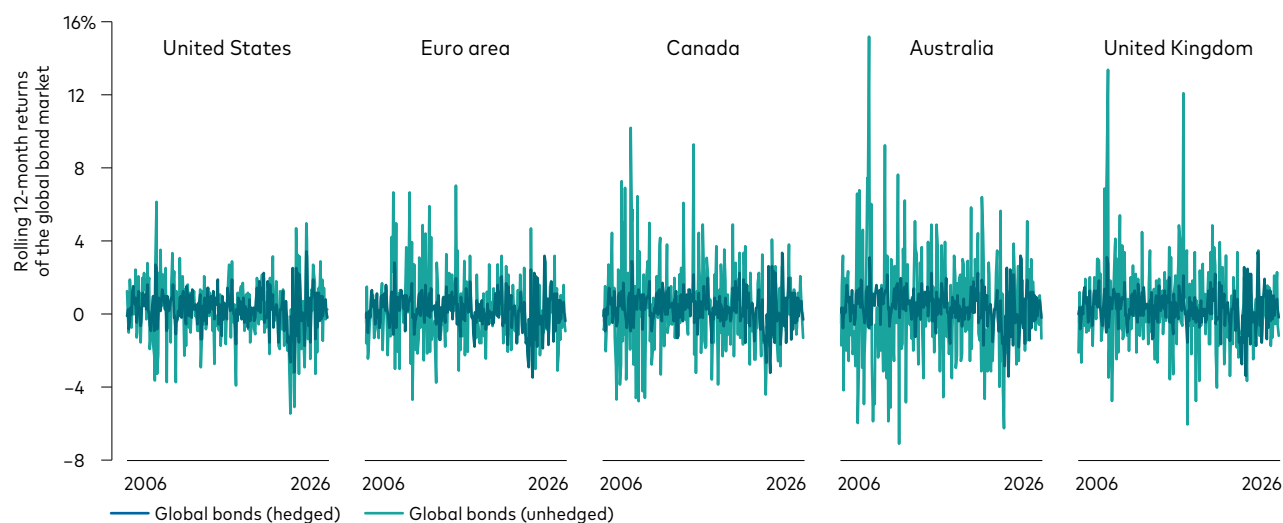
For example, when a UK investor purchases a US Treasury bond, their return depends not only on US interest rates but also on movements in the exchange rate between the US dollar and the British pound. As a result, currency fluctuations can materially influence both the level and volatility of returns from global bonds, even when the underlying securities are high quality and investment-grade.

This distinction is important because currency risk can behave very differently from the interest rate and credit risks that typically drive bond returns (for a more in-depth look at currency risk, see Baynes and Aliaga-Díaz, 2026). While bonds are typically held in portfolios to provide stability and diversification, currency movements can introduce more volatile return patterns.

## Currency returns and long-term outcomes

Currency movements can be highly volatile over short horizons, and empirical research finds they are only weakly connected to underlying macroeconomic fundamentals (Rossi, 2013). As a result, currencies can drift far from their fair values for extended periods, introducing substantial short-term variability that is driven more by transitory market forces than by enduring economic trends. This effect is evident in **Figure 6**, where unhedged global bond returns display a much wider range of outcomes than their hedged counterparts.

**FIGURE 6.**  
**Currency effects on global bond return volatility**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025, for the indices used, see appendix.

**Source:** Bloomberg.

With unhedged global bonds, total returns reflect both the underlying local currency bond performance as well as an additional currency return, which has often been volatile and notoriously difficult to predict. Hedging global bonds removes this currency return component and replaces it with a forward-rate-driven hedge return<sup>3</sup> component linked to short-term interest rate differentials. This hedge return tends to fluctuate around zero over time, making hedged global bond returns more closely aligned with the returns of the underlying local currency bond market<sup>4</sup>. By contrast, unhedged global bond returns carry an extra layer of currency-driven ups and downs that can increase volatility without systematically improving long-term outcomes.

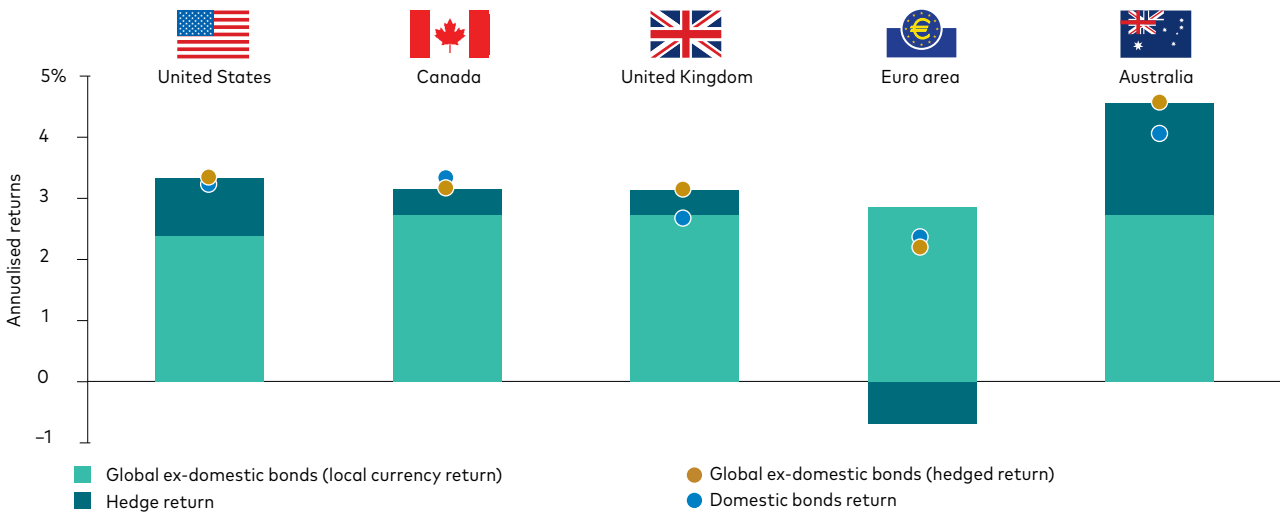
A related consideration is the choice between domestic and global fixed income exposure. As shown in **Figure 7**, when currency risk is hedged, global bond portfolios have historically delivered returns comparable to those available in domestic bond markets. In other words, investors have not had to give up expected returns to access a broader global opportunity set.

**3** In this paper, 'hedge return' refers to the component of return attributable to the hedging instrument only. 'Hedged return' refers to the return on an investment once the effect of the hedge has been incorporated.

**4** Short-term interest rate differentials determine forward pricing but do not guarantee a persistent hedge return. When FX forwards (used to implement the hedge) are rolled, mark-to-market adjustments can offset much of the carry implied by the differential, so the realised hedge return has typically fluctuated around zero over long horizons. Typically, it requires rate differentials to remain unusually wide for many years for the cumulative hedge return to become material.

**FIGURE 7.**

**Long-term return difference between domestic and hedged international bonds**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025. For the indices used, see appendix. Global ex-domestic bonds (local currency returns) represent the market-capitalisation-weighted returns of a representative sample of the largest seven countries in the Bloomberg Global Aggregate Index, covering 95% of the index, excluding the relevant domestic country. Returns are measured in each country's local currency, excluding currency translation effects. The hedge return reflects the difference between the currency-hedged return of the Bloomberg Global ex-domestic Aggregate Index and its local currency return, capturing the impact of the FX-hedging overlay.

**Sources:** Vanguard calculations, using data from Bloomberg.

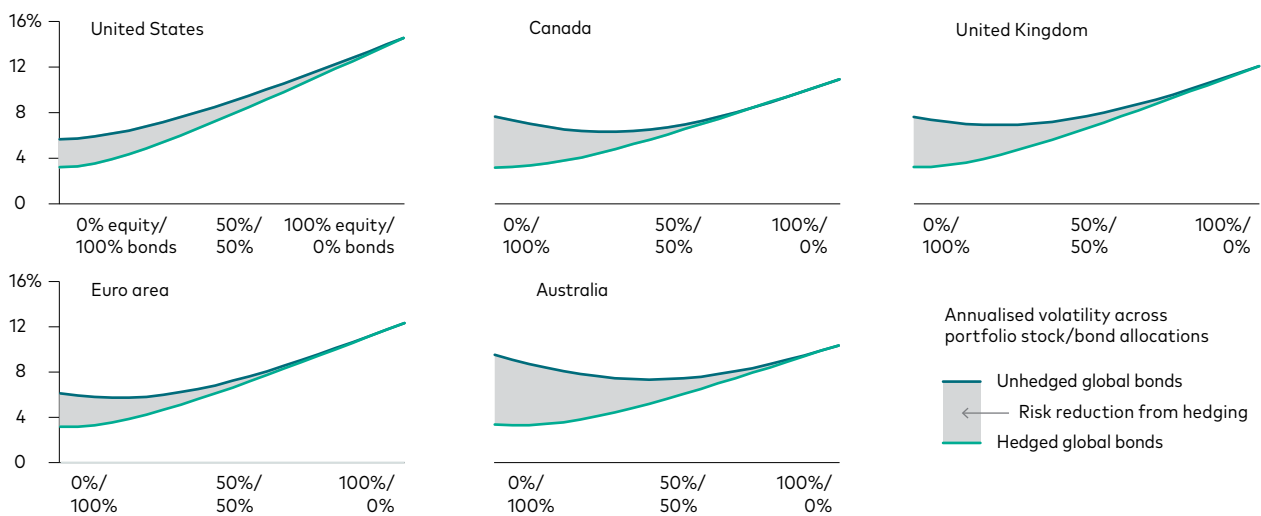
**Currency returns in a portfolio context**

The impact of currency risk remains when global bonds are considered as part of a broader portfolio. As shown in **Figure 8**, from a portfolio

perspective, choosing to hedge global bonds has led to lower portfolio volatility across a range of asset allocation mixes, allowing global fixed income to better play its intended stabilising role.

**FIGURE 8.**

**Portfolio volatility of hedged and unhedged global bonds**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025. For the indices used, see appendix.

**Source:** Bloomberg.

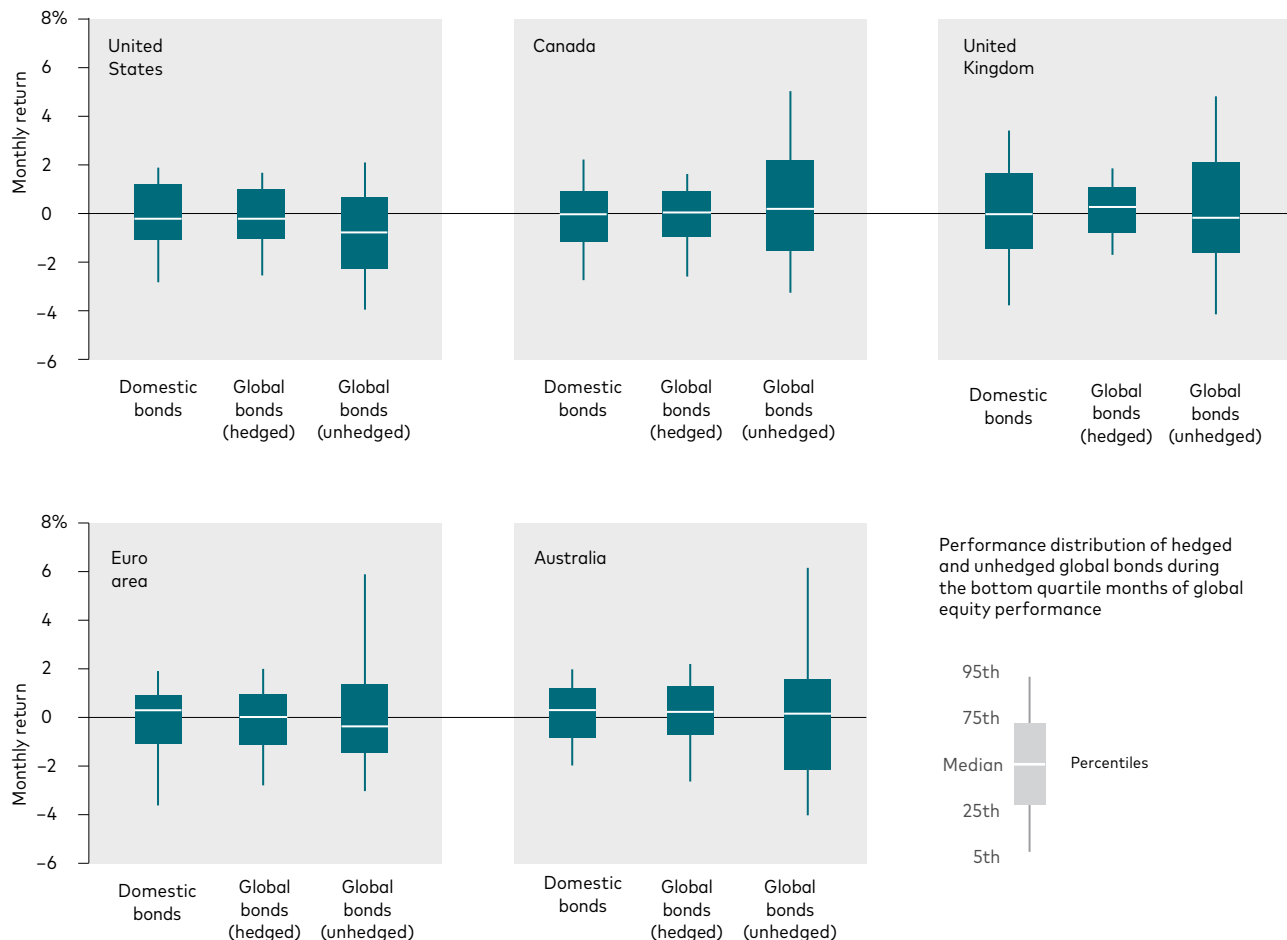
These results highlight that currency risk is not merely an ancillary consideration but a key determinant of whether global bonds behave like high quality fixed income or like a more volatile asset class.

### Global bonds, currency returns and downside protection

While average portfolio volatility is a good indicator of the diversifying properties of hedged global bonds, it is during equity market downturns that investors typically desire the protection bonds offer. When equities are falling, fixed income is often relied upon to provide stability and diversification, making the behaviour of global bonds during such periods especially important.

**Figure 9** examines the performance of unhedged global bonds, hedged global bonds and domestic bond markets during the bottom quartile (the worst-performing 25%) of monthly global equity returns. The results show that hedged global bonds have historically delivered a more predictable (narrower) range of outcomes and, in many cases, stronger counterbalancing behaviour than domestic bond markets. By contrast, unhedged global bonds exhibited a much wider dispersion of outcomes, with currency exposure often weakening the defensive characteristics investors typically expect from bonds during periods of equity market stress.

**FIGURE 9.**  
**Equity downside protection of global and domestic bonds**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025. For the indices used, see appendix.

**Source:** Bloomberg.

## When would leaving currency unhedged make sense?

At this point, it's reasonable to ask: What level of extra return from currency exposure would an investor need to make leaving the currency unhedged worthwhile?

To isolate the currency-hedging decision within fixed income, **Figure 10** focuses on a 100% global bond allocation. This allows us to assess how much additional return unhedged global bonds would have needed to achieve the same risk-adjusted performance as hedged global bonds, without the confounding influence of equity risk.

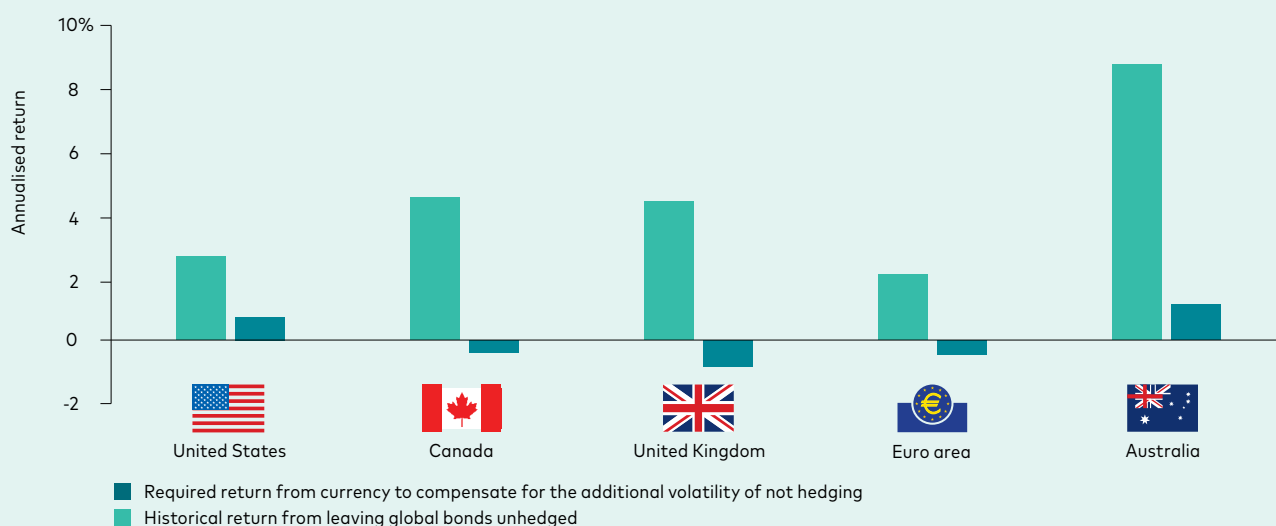
The results show that, across markets, the required return uplift is positive and substantial. In other words, unhedged global bonds would have needed to deliver meaningfully higher returns to compensate investors for the additional volatility introduced by currency exposure. Even over long horizons, the required

excess return has been large relative to what has historically been realised from currency movements.

In balanced portfolios that include equities, the required return uplift would be smaller, as equity risk dominates overall portfolio volatility. However, the underlying trade-off remains – currency exposure increases risk without reliably improving risk-adjusted returns in fixed income. Importantly, because some currency return is already captured through the hedging process via interest rate differentials, any additional return required to justify leaving bonds unhedged would need to come from persistent and unexpected currency movements.

Taken together, these results suggest that while tactical currency views may be appropriate for some investors, the strategic case for leaving currency exposure unhedged in global bond allocations is difficult to justify on a risk-adjusted basis.

**FIGURE 10.**  
**Required versus realised currency appreciation to equalise risk-adjusted returns from not hedging**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025. For the indices used, see appendix. This figure shows the required annualised excess return that unhedged global bonds would have needed to match the risk-adjusted return of currency-hedged global bonds, compared with the actual excess return from leaving currency exposure unhedged.

**Source:** Bloomberg.

## The implementation of hedged global bonds in a portfolio

### Do the costs of hedging matter?

The primary ongoing cost of hedging foreign currency exposure arises from transaction costs associated with rolling FX forward contracts, most notably from bid-ask spreads (for a more detailed discussion on the costs of hedging see Baynes and Aliaga-Díaz, 2026). For liquid currency pairs, these spreads dominate the mechanical costs of maintaining a systematic hedge, as other implementation costs – such as brokerage fees and operational expenses – are typically small.

Evidence suggests these costs have declined meaningfully over time. Using more than two decades of data, Aliyev et al. (2024) documented a steady reduction in average FX bid-ask spreads since the 1990s, albeit with temporary increases during periods of market stress. For investors with access to efficient implementation vehicles,

the long-run cost of hedging has been steadily declining and has generally been modest relative to the potential benefits of hedging.

### How should investors size a hedged global bond allocation?

While a fully market-proportional global bond allocation offers the broadest diversification in theory, many investors maintain a degree of overweight to their domestic bond market in practice (called a home bias), often reflecting behavioural, regulatory, tax-incentivised or implementation considerations.

Although there is no single 'optimal' allocation, **Figure 11** outlines some key factors that can support either a larger or smaller allocation to hedged global bonds. These include the degree of concentration in domestic bond markets, access to low-cost implementation, tax benefits and investor-specific constraints such as liability-management objectives.

**FIGURE 11.**  
**Key considerations when sizing a global bond allocation**

<b>Risk-based factors</b>		
Desire to reduce domestic-market-specific risk factors	Low	High
Concentration of domestic market by sector or issuer	Low	High
Potential for risk reduction by investing globally	Low	High
<b>Total cost of implementation</b>		
Ease of access to low-cost hedged global investment vehicles	Low	High
Tax incentives for domestic investments	Advantages	Disadvantages
Domestic market transaction costs	Low	High
Domestic market liquidity	High	Low
<b>Other investor-specific factors</b>		
Liability management objectives tied to domestic markets	Significant	Limited
Regulatory limitations towards foreign investments	Significant	Limited
	↓	↓
	<b>Smaller global allocation</b>	<b>Larger global allocation</b>

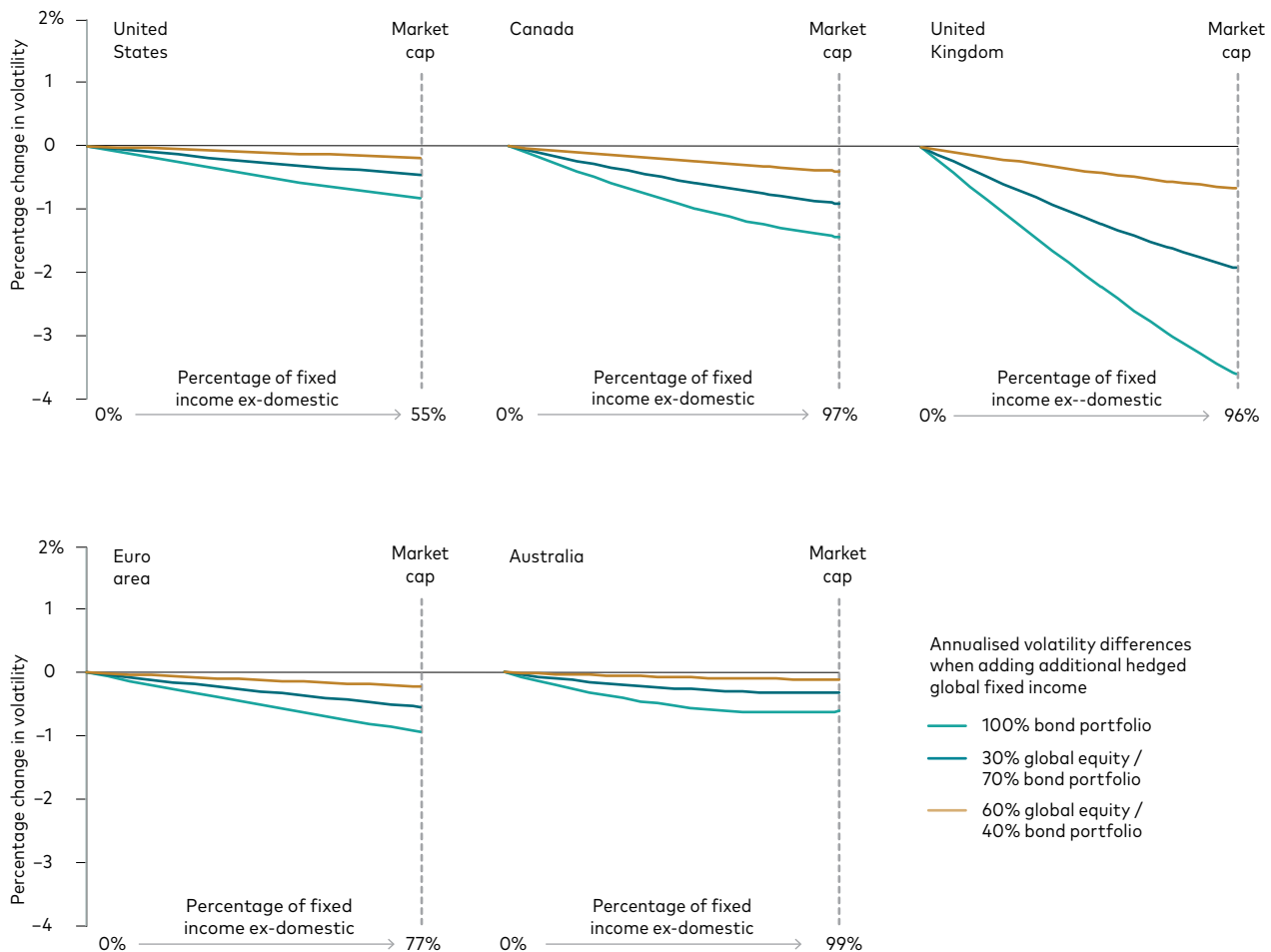
Source: Vanguard.

## The portfolio risk reduction from increasing your global bond exposure

Across all domestic markets analysed, increasing exposure to hedged global bonds has historically reduced overall portfolio volatility. While the magnitude of the benefit diminishes as allocations approach market-capitalisation weights, a rule of thumb emerges: greater global diversification in fixed income has been associated with lower portfolio risk.

Figure 12 illustrates this effect across three portfolios: a 100% bond portfolio, a 30% global equity/70% bond portfolio and a 60% global equity/40% bond portfolio. In each case, adding hedged global bonds reduced volatility relative to portfolios concentrated solely in domestic bonds; with the impact most pronounced in portfolios with higher fixed income allocations, where bonds play a larger role in overall portfolio risk.

**FIGURE 12.**  
**Portfolio volatility after increasing international bond exposure**



**Notes:** Data are monthly returns for the 20-year period ending 31 December 2025. For the indices used, see appendix.

**Source:** Vanguard.

Although the absolute reductions in volatility appear modest, they are meaningful in relative terms, given the low overall volatility of investment-grade bonds. From a portfolio construction perspective, these results highlight that hedged global bonds have historically

offered diversification and lower risk without altering the fundamental role of fixed income within the portfolio.

## Conclusion

Across the markets included in our analysis, allocating to global bonds has expanded the fixed income opportunity set and historically enhanced diversification without necessarily reducing expected returns. However, global bond investing also introduces currency exposure, which can materially alter portfolio risk and return characteristics if left unmanaged.

Our findings show that managing currency exposure is critical to realising the diversification benefits of global fixed income. When currency risk is hedged, global bonds have historically exhibited lower volatility, more consistent downside protection and behaviour more closely aligned with the traditional role of high-quality bonds in diversified portfolios.

When sizing an allocation to hedged global bonds, investors should consider practical and behavioural factors such as the desire to reduce market-specific risk, the potential for volatility reduction and total implementation costs. While a fully market-proportional allocation offers the broadest diversification, meaningful benefits can be achieved while maintaining some level of home bias.

Overall, our analysis suggests that investors across the markets we examined should consider incorporating hedged global bonds as part of a diversified portfolio, broadening their opportunity set while preserving the stabilising characteristics expected from fixed income.

## References

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Baynes, Lucas, and Roger Aliaga-Díaz, 2026. *The FX Dimension: Evaluating the currency hedging decision in global multi-asset portfolios.*

Rossi, Barbara. 2013. *Exchange Rate Predictability.* Journal of Economic Literature 51(4): 1063–1119.

## Appendix

### Return data sources

For the purposes of this paper, global bond returns are represented by the Bloomberg Global Aggregate Bond Index. Global ex-domestic bond returns are represented by the Bloomberg Global Aggregate ex-domestic Indices, which exclude bonds denominated in the investor's home currency (USD, CAD, GBP, EUR or AUD).

Domestic bond returns are represented by the relevant country-level Bloomberg Aggregate Bond Indices for the United States, Canada, the United Kingdom, the euro area and Australia. Global equity returns are represented by the MSCI World Index.

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