Vanguard

Global bond beta unpacked

Investment case, index selection and implementation

Designed for portfolio constructors, this publication is part of a series that aims to provide analysis and insights on targeted index and ETF exposures that can be used as building blocks for portfolios.

The enduring investment case for global bond beta

For many investors, global bond beta forms the quiet core of a well-constructed portfolio. As an asset class whose purpose is to bring stability, diversification and defensiveness when it is needed most, this foundational role grows ever more important as uncertainty persists.

At a time when macroeconomic uncertainty has become a seemingly permanent feature of the investing landscape, high-quality global fixed income continues to offer an important anchor. Rising or falling inflation, tightening or loosening monetary policy, shifting geopolitical dynamics – each of these variables can dominate headlines for months or years at a time. Yet the long-run role of bond beta is compelling:

1. Contribute to portfolio stability across market cycles
2. Provide essential portfolio diversification
3. Support a diversified income stream over time

The stabilising effect is even stronger when viewed globally. Economic cycles rarely move in sync: growth, inflation and policy paths all diverge across regions. By investing globally rather than relying on a single market, investors gain exposure to a wider set of environments. These differing cycles can help smooth volatility, as weakness in one region is often offset by strength in another.

Global bonds offer a combination of long-term stability, income and diversification – attributes that tend to become most valuable in late-cycle or volatile markets.

Contribute to portfolio stability across market cycles

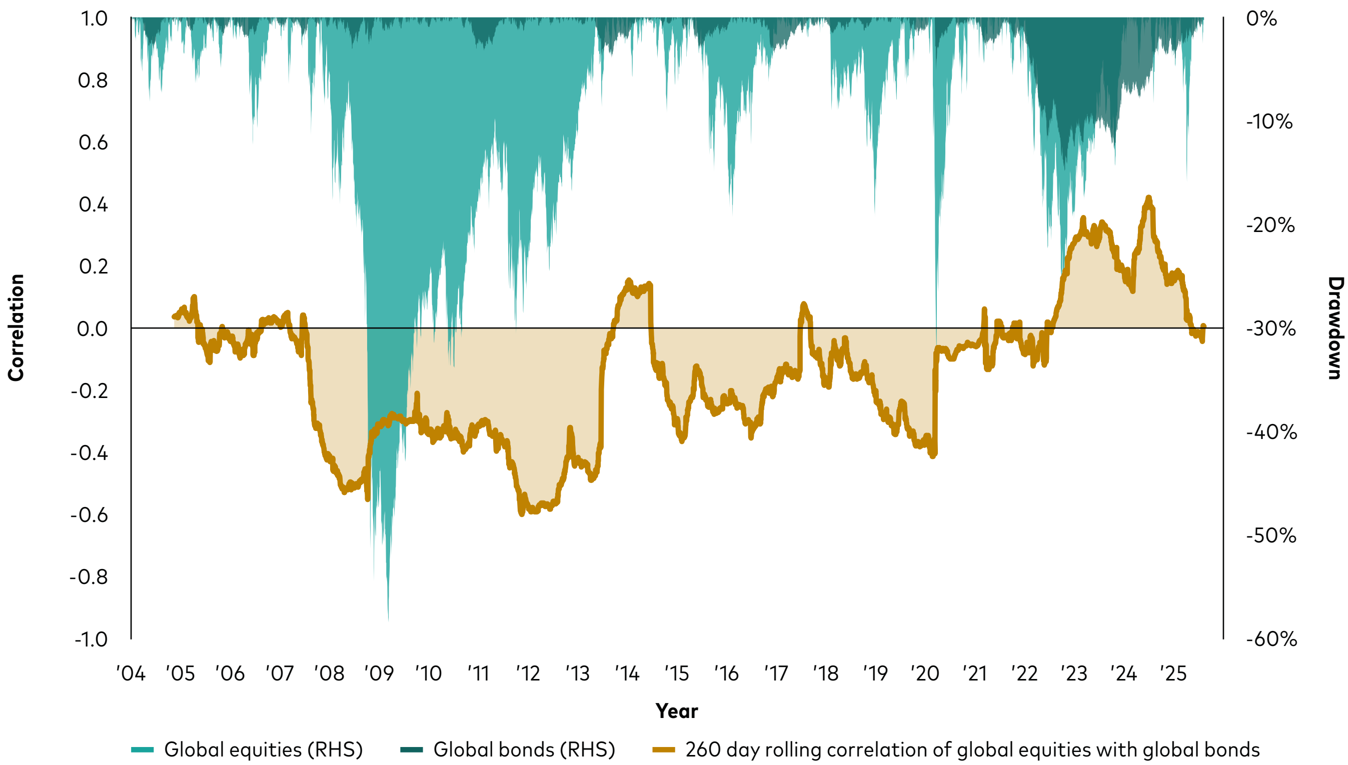
Global bonds act as a stabiliser during periods of market stress, particularly when currency-hedged. Because interest-rate cycles diverge across regions, global bonds respond differently to shifts in growth expectations or risk sentiment. When yields fall in one major market, that movement can cushion weakness elsewhere. This multi-country exposure reduces reliance on any single policy regime and has historically helped soften portfolio drawdowns.

Bonds also help mitigate risk when combined with equities. As the chart below shows, global bonds have maintained low or negative correlations with equities and have delivered steady or positive returns during major sell-offs, from the global financial crisis to Covid-19 and recent inflation shocks. Their ability to hold value reflects not only a lower duration exposure but also the market's breadth across issuers, sectors and geographies.

In short, global bonds have historically acted as a counterbalance in many market environments.

Global bonds dampen and diversify equity-related risk

Correlation and drawdown of global bonds vs. global equities



Past performance is not a reliable indicator for future results.

Source: Bloomberg, Vanguard. Data from 31 Dec 2003 to 31 Dec 2025. Global bonds = Bloomberg Global-Aggregate Total Return Index Hedged USD, global equities = MSCI ACWI Net Total Return Index. Index performance and correlations are based on USD total returns.

Provide essential portfolio diversification

Global bond beta brings balance by diversifying away from the risks embedded in equities and more concentrated domestic fixed-income exposures. With a market value of more than US $74 trillion spanning a wide range of sovereign and sector exposures, global bonds dilute idiosyncratic risks tied to individual countries, credit events or local inflation shocks[1].

By spreading the exposure across regions with different policy paths and growth drivers, global bonds help smooth portfolio volatility. Their typically low—and often negative—correlation with equities during stressed environments supports more stable outcomes for multi-asset portfolios. Incorporating global bonds ensures investors are not anchored to the fortunes of a single debt market, providing a structural source of diversification and long-term stability.

1 **Source:** Bloomberg, as at 31 March 2026.

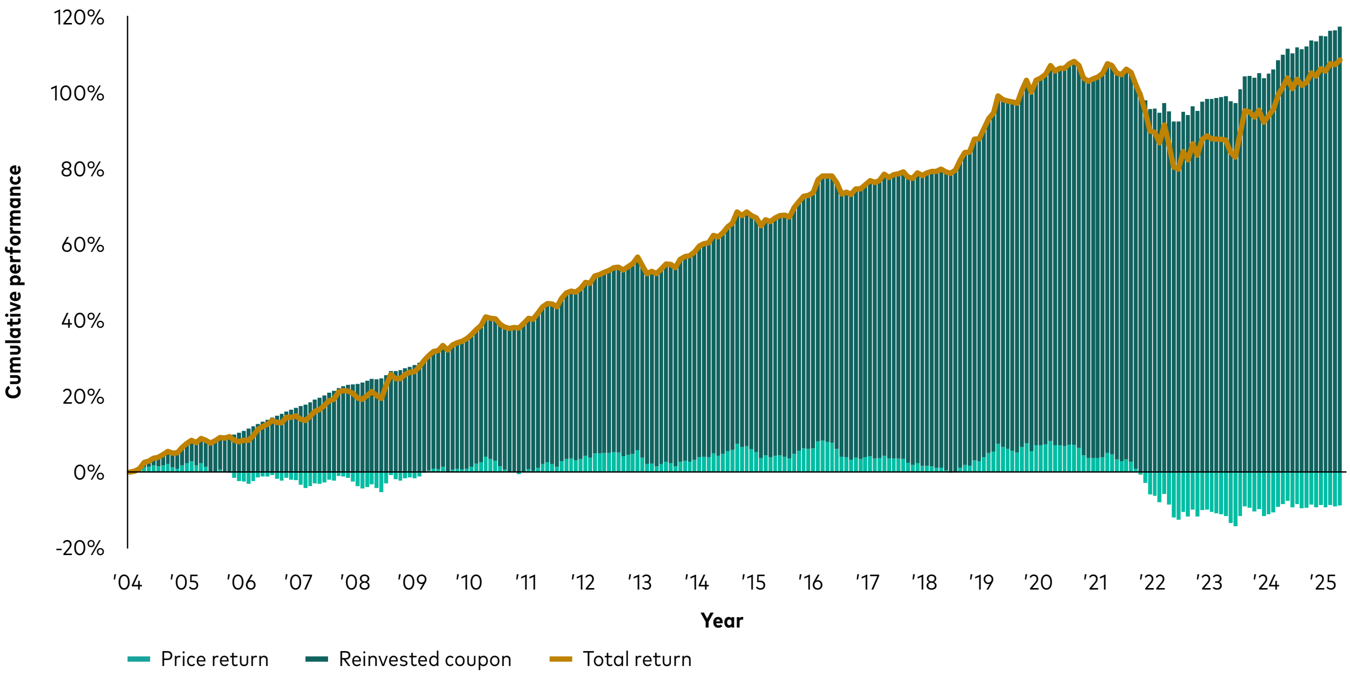
Deliver a durable income stream

Today, global bonds offer a steady and diversified source of income. With thousands of issuers across sovereigns, agencies, investment-grade corporates and securitised sectors, income is drawn from markets that are not driven by the same economic or policy cycle. This dispersion helps prevent income reliance on any single country.

A global allocation also broadens the opportunity set for yield. Regions move through different inflation regimes, policy cycles and term-structure dynamics, creating varied income characteristics. Accessing these differences in combination allows investors to capture pockets of higher yield while maintaining investment-grade quality. Over time, this income component has accounted for a significant share of total fixed-income returns and remains a consistent contributor to portfolio resilience.

Compounded contribution of income and price to total return

Global bond total return contributions (USD net total returns)



Past performance is not a reliable indicator of future returns. It is not possible to invest directly in an index.
Source: Bloomberg. Data from 31 May 2004 to 31 March 2026. Global bonds = Bloomberg Global Aggregate Bond Index, hedged USD net total returns.

The importance of currency hedging

Currency movements can have a larger impact on global bond returns than the underlying bonds themselves. Left unhedged, foreign-exchange fluctuations can introduce significant volatility and obscure the characteristics that make fixed income attractive. For example, a stable bond return in local-currency terms can appear volatile once translated into another currency.

This is why systematic currency hedging is vital for global bond investors. Hedging suppresses FX-driven volatility and restores the risk-controlled properties of investment-grade fixed income. Empirical evidence suggests that currency hedging has historically reduced volatility relative to unhedged global bond exposures (see table on next page), though outcomes may vary.

Volatility of hedged vs. unhedged global bonds

Standard deviation during past periods of market stress

		All weather	US rising rates	GFC	US rising rates	Covid-19 crash	US rising rates
		31 May 2004 - 31 Mar 2026	31 May 2004 - 31 Jul 2006	31 Oct 2007 - 17 May 2013	30 Nov 2015 - 31 Jan 2019	12 Feb 2020 - 24 Aug 2020	28 Feb 2022 - 31 Aug 2023
Fixed income	Global inflation linked	8.22%	6.42%	8.62%	6.72%	17.92%	13.19%
	Global high yield	7.77%	3.78%	10.65%	4.64%	23.56%	9.36%
	Global government	6.66%	6.87%	7.23%	6.32%	10.00%	9.02%
	Global long duration	6.29%	5.42%	6.85%	5.14%	12.20%	9.13%
	Global corporates	6.11%	5.01%	6.67%	3.90%	17.27%	8.51%
	Global aggregate	5.72%	5.53%	6.02%	4.97%	10.13%	8.34%
	Global short duration	4.40%	5.44%	5.29%	3.72%	5.71%	5.04%
Fixed income hedged	Global high yield	7.19%	3.27%	9.97%	4.41%	22.02%	8.28%
	Global inflation linked	6.05%	3.76%	5.67%	5.22%	11.69%	10.76%
	Global corporates	4.60%	2.58%	4.56%	2.81%	14.21%	6.93%
	Global long duration	4.08%	3.04%	4.03%	2.79%	6.61%	7.00%
	Global government	3.18%	2.31%	2.99%	2.59%	4.60%	5.29%
	Global aggregate	**3.18%**	**2.27%**	**2.83%**	**2.37%**	**5.54%**	**5.55%**
	Global short duration	0.89%	0.69%	0.95%	0.43%	1.35%	1.64%

Past performance is not a reliable indicator for future results.

Source: Bloomberg, Vanguard. Data are for the date ranges as shown. Standard deviation is annualised and based on weekly total returns in USD. Table is ranked by 'all weather' within asset class. Indices used are: Global short duration Fixed income hedged = Bloomberg Global Aggregate 1-3 Year Total Return Index Hedged USD, global long duration fixed income hedged = Bloomberg Global Aggregate 7-10 Year Total Return Index Hedged USD, Global government Fixed income hedged = Bloomberg Global Aggregate Treasuries Total Return Index Hedged USD, Global inflation linked Fixed income hedged = Bloomberg Global Inflation-Linked Total Return Index Hedged USD, Global corporates Fixed income hedged = Bloomberg Global Aggregate Corporate Total Return Index Hedged USD, Global high yield fixed income hedged = Bloomberg Global High Yield Total Return Index Hedged USD, Global aggregate fixed income hedged = Bloomberg Global-Aggregate Total Return Index Hedged USD

Index selection: Methodology matters

Understanding the Bloomberg Global Aggregate Float Adjusted and Scaled Index

While the case for global bond beta is compelling, the way investors obtain this exposure matters. Not all indices capture the global fixed income universe with the same precision or market accessibility. Traditional aggregate indices, for example, include the full stock of outstanding debt – regardless of whether it is actually available for trading in public markets.

In other words, because traditional indices weight by total outstanding debt, they can over-represent markets with large issuance footprints or restricted access, which may not reflect the opportunities that are accessible to global investors.

The Bloomberg Global Aggregate Float Adjusted and Scaled Index addresses these issues directly. Its construction has two defining features:

- **Float adjustment,** which removes non-tradable or captive holdings; and
- **Regional scaling,** which reduces structural concentration in countries with elevated replication costs.

Combined with systematic currency hedging, these elements result in an index that more accurately reflects the investable market.

At a glance: Bloomberg Global Aggregate Float Adjusted and Scaled Index

Regional variety	Diversified issuer types	Investment grade	Multi-currency	Float adjusted	China A bonds
Over **30,000 constituents** with a diversified geographic exposure across developed and emerging markets	Broad range of issuer structure, including **government-related, corporate and securitised bonds.** Senior and subordinated issuances are included	Securities must be **rated investment grade** for inclusion in the index	A local debt market is eligible if its **currency is freely tradable, convertible, free of capital controls** and has the ability to be hedged	Provides an **alternative representation** of the investable market	Partial inclusion of **local Chinese government and policy bank securities**

Source: Vanguard, as at 31 March 2026.

Want to capture the true investable market? Go with the float

Float-adjusting is the first step in aligning a global bond index with the true investable portion of each market. Traditional market-cap indices assign weights based on total outstanding debt, even though a significant share of that debt may be locked away in central banks, government institutions or other entities that do not participate in secondary markets. These holders typically do not trade in the open market, which means that the securities they hold, although counted in traditional measures of outstanding debt, do not represent true investable supply. Including them can distort assessments of liquidity, risk and market exposure, and has historically been reflected in wider tracking during implementation.

Float-adjusting removes those non-tradable holdings so that each market's weight reflects only the securities genuinely available to investors. This is most visible in Japan, where the Bank of Japan holds a considerable share of JGBs; removing those holdings leads to a meaningful reduction in Japan's weight. For a similar reason, US Treasuries are also adjusted down, because the Federal Reserve owns a sizeable portion of the Treasury market as part of its balance-sheet operations.

Once non-investable holdings are removed, the resulting index becomes more representative of actual market liquidity and accessibility.

Scaling: Reducing structural concentration

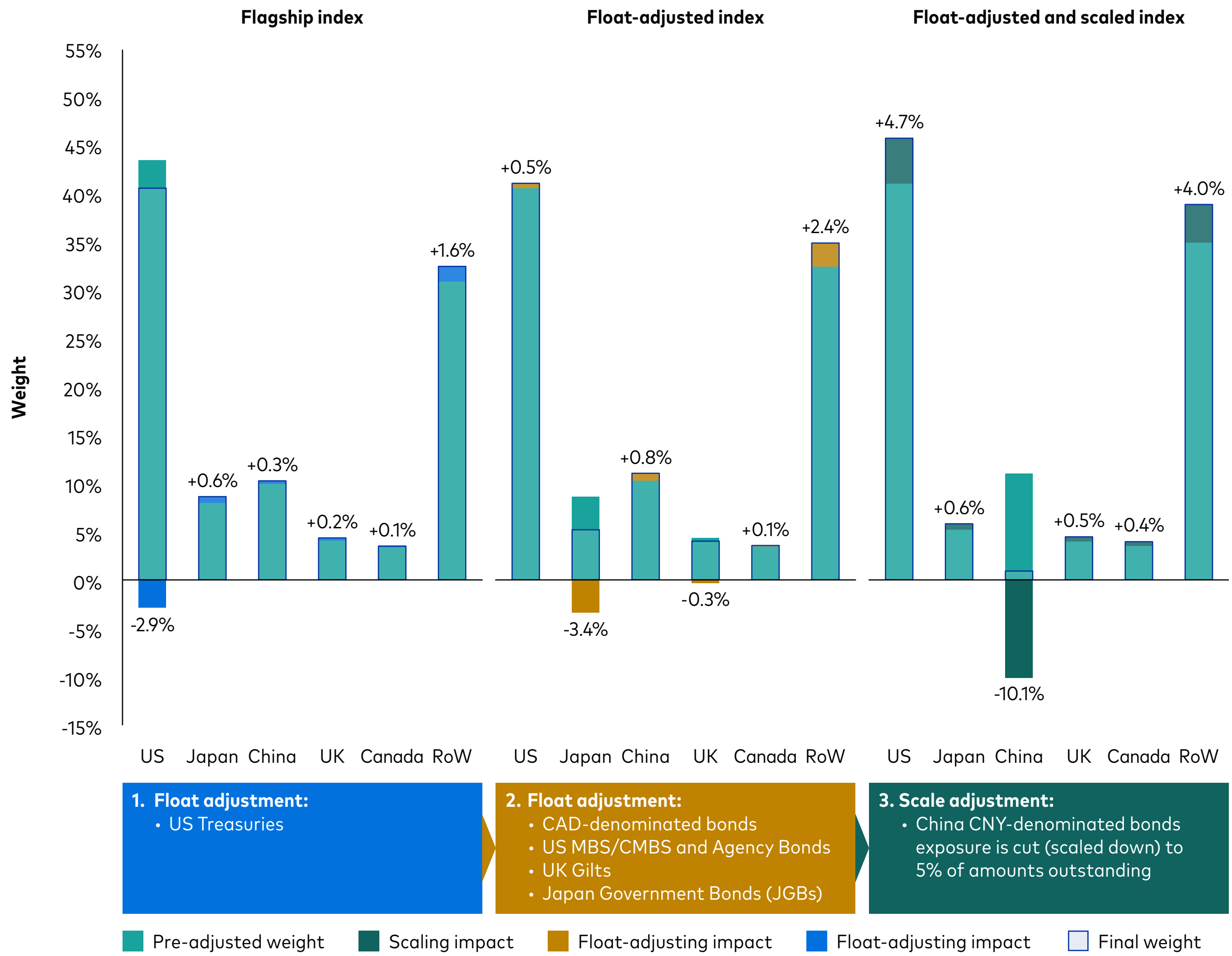
Scaling is the second step and is applied after float-adjusting. While float-adjusting corrects for investability, scaling addresses markets where the *headline issuance footprint* is disproportionately large relative to accessibility. This factor is especially relevant for China, where the local government and government-related sectors issue large volumes of CNY-denominated debt, but foreign investor access remains more constrained. As shown in the chart below, the scaling step significantly reduces China's weight—in this case, scaling CNY exposure down to 5% of par amount outstanding—bringing the country's representation more in line with global market accessibility and risk considerations.

Scaling further improves the balance and diversification of the global index. Removing extreme concentration risk allows other key markets—such as the US, the UK, Canada and the rest of the world—to take on weights that more accurately reflect their investability and contribution to global bond fundamentals.

Taken together, float-adjusting and scaling create an index exposure that is more diversified, more investable and better aligned with the structural drivers of global fixed income returns, helping investors capture global opportunities while maintaining cost-efficient, balanced portfolio construction.

A more balanced view of the investable global bond universe

Key changes to parent index based on float-adjusting and scaling



Source: Bloomberg, Vanguard. Data as at 25 November 2025. Chart is provided for illustrative purposes.

Indices used: Flagship index = Bloomberg Global Aggregate Index, float-adjusted index = Bloomberg Global Aggregate Float Adjusted Index, float-adjusted and scaled index = Bloomberg Global Aggregate Float Adjusted and Scaled Index. "RoW" = rest of world.

The Bloomberg Global Aggregate Float Adjusted and Scaled Index offers an investability-focused representation of global fixed income by removing non-tradable central-bank holdings and tempering the outsized influence of large, difficult-to-access issuance markets.

By adjusting Japan's weight to reflect its reduced free float and scaling China's CNY exposure to more accessible levels, the index avoids structural concentration, improves diversification and tilts modestly towards stronger income fundamentals – all while remaining practical and cost-efficient to track.

Implementation: Access hedged global bond beta with Vanguard

Vanguard Global Aggregate Bond UCITS ETF

The **Vanguard Global Aggregate Bond UCITS ETF** provides a straightforward, diversified and cost-efficient way to access the Bloomberg Global Aggregate Float Adjusted and Scaled Index. The physically replicated ETF delivers exposure that is both precise and risk-controlled, across currency-hedged share classes.

Its broad holdings—spanning thousands of securities across sovereign, agency, corporate and securitised sectors—ensure that investors capture a deep and representative cross-section of the global investment-grade universe. The ETF's hedging overlay aims to minimise the impact of currency fluctuations, enabling the underlying bond exposures to drive performance.

In practice, this means the ETF could be used by investors as part of a diversified portfolio, depending on investment objectives and constraints. Its emphasis on investability and methodological precision aligns with the structural improvements embedded in the index. Coupled with Vanguard's low-cost philosophy, it offers an efficient building block for global fixed income exposure.

Vanguard Global Aggregate Bond UCITS ETF

Share class	TER/OCF	Hedging	Inception date	ISIN	Currency	Ticker	Listing exchange
Accumulating	0.08%	CHF	14-Sep-21	IE00BG47KF31	CHF	VAGX	SIX Swiss

Source: Vanguard, as at 31 March 2026. The ongoing charges figure (OCF) or total expense ratio (TER) is the sum of investment management fees (the fees paid to the portfolio manager to invest your money and manage the fund) and administrative and other expenses (which cover all costs and expenses connected with the operation of the fund, which includes administrative fees, shareholder's registration and transfer agency fees, custody fees and all other operating expenses).

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