Long View Q1

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- Return forecasts for the next decade are relatively unchanged from the end of Q4 with global equities modestly higher and global fixed income marginally lower.
- Dispersion across regions was the story in Q1, with a risk-off bond rally in the US versus stronger developed ex-US equity returns and higher bond yields across Europe and Japan.
- The 10-year nominal return outlook continues to be very similar between High Yield corporate bonds and global equities, reflecting elevated real sovereign bond yields and still demanding equity valuations.
- We enhance our methodology for estimating 10Y returns of commodities (via fully collateralized futures): we now focus on near-dated futures (expiring within one year) and attempt to model the impact of changing term structures between entering a futures contract and rolling over at expiry.
- Return forecasts across alternatives are largely unchanged with the exception of REITs whose attractiveness has increased primarily because of 40-50bps higher dividend yields.

Summary

In this report, we present the DWS long-term capital market assumptions for major asset classes as of the end of Q1 2025 while exploring the risks to these forecasts.

Entering 2025, growth and inflation concerns clouded a rather constructive earnings outlook for global equities. The economic impact of protectionist tariff policy has further damaged investor sentiment, introducing heightened volatility in US equity and fixed income markets. In contrast to previous years, a more sanguine macroeconomic and policy outlook across Europe and the rest of the world bolstered international equity returns in the early part of the year.

In Q1 of 2025, global equities were down modestly, with the MSCI All Country World ("ACWI") index was down -1.3% for the quarter. Looking at the individual regions, S&P 500 returned -4.3%, while ex-US developed markets and emerging markets outperformed, up 6.9% and 2.9%, respectively. Strengthening non-dollar currencies also bolstered these returns, driven by capital outflows from US dollar assets.

Amid the macroeconomic turnmoil, global fixed income markets were relatively strong. In the first quarter, the 10-year and 2-year US Treasury yields rallied from 35bps and 36bps, respectively, resulting in the Bloomberg US Aggregate Bond Index and the Bloomberg US Treasury Index returning 2.8% and 2.9%, respectively. The Bloomberg Global Aggregate Bond Index returned a more modest 1.2% as sovereign yields across Europe moved higher in Q1 reflecting optimism around German fiscal impulse. Within credit, spreads were modestly higher, with US High Yield and US Investment Grade corporate bond spreads widening 60bps and 14bps, respectively, consistent with challenging conditions for risk assets.

While significant uncertainty remains about the final state of new tariff regimes, these forecasts include our macro economists' best efforts to factor in the impact on near-term (2025 and 2026) growth and inflation: real GDP estimates for 2025 have been cut by 1% for the US and by up to 1.5% for highly exposed markets (such as Korea or Mexico), but by less than 0.5% for European markets which benefit from an improving cyclical trend and increased investments (particularly in Germany). Overall, the 10-year real GDP (and therefore equity earnings growth) assumptions are lower by only around 20 bps p.a. in the US.

Our models now forecast an annual local currency return of 6.1% for the MSCI All Country World Index ("ACWI") over the next decade, versus 5.9% three months prior as well as an decreased for the Global Aggregate Bond Index from 3.7% to 3.6%. At an aggregate level, we estimate the forecasted rate of return on a diversified portfolio at 5.7%*, up from 5.6% at the end of Q4.

*Source: Bloomberg as of 31 December 2024. DWS Calculations for a strategic asset allocation that targets volatility of 10%.

Table 1: DWS Ten-year annualized forecasted local currency returns

	As of 31 Mar 2025	Δ since 30 Dec 2024
MSCI ACWI	6.1%	0.3%
MSCI World	6.1%	0.3%
MSCI Emerging Markets	6.3%	0.4%
S&P 500	6.3%	0.4%
MSCI Europe	6.4%	-0.2%
MSCI Germany	4.2%	-0.7%
MSCI UK	7.7%	-0.4%
MSCI Japan	4.9%	0.5%
Bloomberg Barclays Euro Treasury	2.9%	0.3%
Bloomberg Barclays Euro Aggregate Corporate	3.4%	0.2%
Bloomberg Barclays Pan-European High Yield	4.9%	0.4%
Bloomberg Barclays US Treasury	4.2%	-0.3%
Bloomberg Barclays US Corporate	5.0%	-0.2%
Bloomberg Barclays US High Yield	6.1%	0.2%
Bloomberg Barclays Emerging Markets USD Sovereign	6.6%	-0.1%
S&P Developed REIT	4.6%	0.0%
S&P USA REIT	5.3%	0.2%
DJ Brookfield Global Infra. Equity	6.6%	-0.5%
DJ Brookfield US Infra. Equity	6.5%	-0.5%
NFI-ODCE Value Weighted US Private Real Estate Equity	5.0%	0.3%
Private Infra (EDHEC Private Infra 300 Equal Weighted Equity)	13.5%	-0.1%
Markit iBoxx EUR Infrastructure	3.7%	0.4%
Private Infra Debt (Markit iBoxx EUR Infrastructure)	5.0%	0.4%
Bloomberg All Hedge Fund	5.0%	-0.3%
Bloomberg Commodity	4.7%	0.1%

Source: DWS Investments UK Limited. 10Y Forecast as of 31 March 2025. Due to various risks, uncertainties and assumptions made in our analysis, actual events or results or the actual performance of the markets covered may differ materially from those described.
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Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. Past performance, [actual or simulated], is not a reliable indication of future performance.
Any hypothetical results presented in this report may have inherent limitations. Among them are the sharp differences which may exist between hypothetical and actual results which may be achieved through investment in a particular product or strategy. Hypothetical results are generally prepared with the benefit of hindsight and typically do not account for financial risk and other factors which may adversely affect actual results of a particular product or strategy.

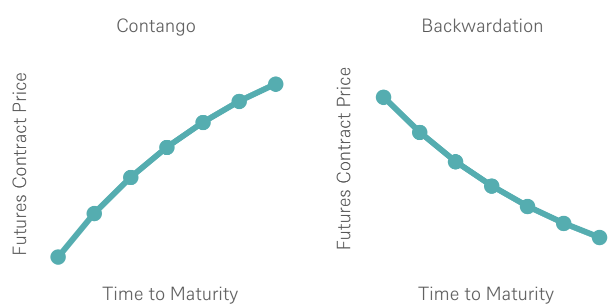
1 / Commodity Roll Return

1.1 Background: commodity futures

In our long-term capital market assumptions (LTCMA) methodology, we assume that institutional investors wishing to include commodities in their strategic asset allocation do so via commodities future contracts (which we model to be fully collateralized in order to remove any leverage effects and make these more comparable with other asset classes). In order to maintain exposure over longer investment horizons, investors need to exit the current futures contract once it is approaching its expiry and enter the next available contract. This is known as rolling over the current contract to the next contract and the associated profit or loss is referred to as the roll return. In order to understand roll yield, we need to consider the term structure of the relevant commodity: this is the curve of all futures prices across different expiry dates.

Term structures are traditionally classified into two categories: backwardation and contango. Contango refers to term structures where futures prices for far-dated contracts are higher than those for short-dated contracts or the underlying spot commodity price. This indicates a premium that buyers are willing to pay in order to take delivery of the underlying commodity at a more distant future time and can be a function of factors such as storage costs, interest rates and other opportunity costs, seasonal effects and other supply-demand dynamics of the underlying commodity market. For non-perishable commodities, this is the more common shape of futures curves. Conversely, if far-dated futures prices are lower than short-dated futures prices or spot, the term structure is said to be in backwardation (see Figure 1).

Figure 1: Illustration of futures term structures in contango and backwardation



Source: DWS Investments UK Limited.

1.2 Our original approach to roll yield

Roll yield is based on the phenomenon that futures prices should converge towards spot prices as futures approaches their expiry. Let's understand this with an example: suppose at time $t = t_0$ an investor takes a position in a futures contract which is expiring at $t = t_e$, and futures and spot prices at time $t = t_0$ are F and S, respectively. Now if we assume that the term structure for this commodity stays constant as the future contract approaches its expiry, then the roll yield will be calculated as shown in Figure 2:

Figure 2: Point-in-time roll yield calculation for a single futures contract

$$roll\ yield = \left(\frac{S}{F}\right)^{\left(\frac{365}{t_e - t_0}\right)} - 1 - ZCB$$

Source: DWS Investments UK Limited.

Here, we need to subtract the cash yield (zero-coupon bond yield ZCB) because these are fully collateralized futures in our model.

This formula represents roll yield for this one specific futures contract; however, at a given point in time we have multiple futures with different expiries. In our LTCMA methodology designed and implemented since 2018/19, we have so far considered all the available futures contracts for a commodity (i.e. we utilize the entire term structure to compute the roll yield) – implicitly assuming that an investor takes exposure to all tradeable futures across expiry dates. Below are the steps which we followed to compute roll yield in any given month:

- First, at month end, roll yield was calculated individually for all the available futures contracts using the formula shown above in Figure 2.
- Then the overall roll yield at that point in time was calculated as the average of the individual roll yields for futures of different expiry dates (see Figure 3) – effectively assuming that an investor had an equal-weighted portfolio of all these futures
- In this way we obtained a time series of monthly roll yields.

Figure 3: Point-in-time roll yield calculation for a given month (traditional approach)

$$Roll\ Yield_t = \frac{1}{N}\sum_{i=2}^{N}\left(\left(\frac{S}{F_i}\right)^{\left(\frac{365}{LTD_i - LTD_1}\right)} - 1 - ZCB_i\right)$$

Source: DWS Investments UK Limited.

where:

- F_i = price of the i^{th} futures contract at time t
- S = the front month contract (as a proxy for the commodity spot price) at time t
- LTD_i: last trade date of the i^{th} futures contract
- LTD_1: last trade date of the 1^{st} futures contract
- N: number of contracts available in the commodities term structure.
- ZCB_i: Zero Coupon Bond yield at time t for the duration $(LTD_i - LTD_1)/365$ – this is the collateral yield relevant to the i^{th} futures contract

- Finally, we arrived at the overall roll yield forecast as the exponentially weighted moving average (EWMA) of these monthly roll yields with a half-life of 5 years (reflecting our attempt to model an average roll yield over the next 10 years):

Figure 4: Overall roll return as exponentially weighted moving average of the monthly roll yields

$$Roll\ Return = EWMA(Roll\ Yield_t)$$

Source: DWS Investments UK Limited.

1.3 Why change it now?

While the methodology described above is a sound modelling approach for the investment strategy of entering all available futures contracts and rolling them over at expiry, we observed some practical and theoretical limitations in recent years:

- First, the approach described above implicitly assumed that the term structure remains constant throughout the entire life of futures contract until expiry. However, this is of course far from reality and we have seen some quite rapid short-term changes in term structures in recent years (such as during the pandemic or in the first year of the Russian invasion of Ukraine and the associated commodity shocks).
- Next, the approach described above uses the entire term structure to deduce the point-in-time average roll yield; however, far-dated futures contracts are illiquid and some of them may not even be priced by the market. Most investors usually hold only nearer-dated contracts (although often more than just one).
- Finally, as shown in the formula above in Figure 3, we annualize the roll yield for each futures expiry. Thus, for contract expiries within one year, we are effectively scaling up the roll yield. At times when the near-term slope of the term structure is very steep (i.e. in strong contango or backwardation), this scaling may lead to unusually high roll yields (positive if backwardation and negative if contango).

1.4 Our enhanced methodology for commodity roll yield

We address the changing term structure (and the associated "prediction error" between estimated and realized roll yield) by computing a transfer coefficient which is applied on a commodity-group level. For individual commodities, this transfer coefficient is calculated based on the regression coefficient between estimated and realized roll yield. Here, the estimated roll yield for an individual futures expiry is computed in the same way as described in the previous section (Figure 2). The realized roll yield is calculated as the difference between the excess return and spot return indices for futures of a given commodity.

We use a simple regression between estimated roll yields and realized roll yields (over monthly historical observations) to estimate the extent to which futures prices have converged towards spot prices as futures approach expiry. The slope of this regression for the given commodity is our initial estimate of the transfer coefficient, but we find that these cluster by commodity groups (reflecting the shared characteristics of these commodity markets). In order to reduce noise, we employ common transfer coefficients for all commodities within a given group based on the weighted average of the initial regression coefficients of all commodities in that group. Table 2 below shows our final transfer coefficients.

Table 2: Transfer coefficients by commodity group

Commodity	Transfer Coefficient
Wheat	0.6
Kansas Wheat	0.6
Soybean	0.5
Soybean Meal	0.5
Soybean Oil	0.5
Corn	0.5
Cocoa	0.3
Coffee	0.7
Sugar	0.7
Cotton	0.7
Lean Hogs	0.3
Live Cattle	0.3
Cattle Feeder	0.3
Heating Oil	0.9
Gasoline	0.9
Gasoil	0.9
Natural Gas	0.9
Brent Crude	0.9
WTI Crude	0.9
Gold	0.5
Silver	0.5
Lead	0.4
Nickel	0.4
Zinc	0.4
Aluminium	0.4
Copper	0.4
Copper CMX	0.4

Source: DWS Investments UK Limited.

The second issue identified above applies to the number of futures contracts used for the (point-in-time) roll yield calculation. Since longer-dated futures are illiquid and investors tend to take positions only in nearer-dated futures, from now on we only consider futures contracts expiring within one year (accounting for most of the liquidity in terms of open interest). This represents a compromise between avoiding illiquid contracts (which are more likely to be mispriced) and not losing valuable information on the term structure by considering more than just the nearest-dated expiry.

Finally, we deal with the issue of scaling the roll yield for near-dated futures, especially in the case of strong contango or backwardation. Instead of the simple arithmetic average of the (annualized) roll yields for each futures expiry described above (Figure 3), we now calculate the roll yield in any given month as an extended internal rate of return (XIRR) of a series of cashflows.

Consider a concrete example: when computing the roll yield for WTI Crude futures in March 2025, we consider 12 futures contracts (since this commodity has futures expiries each month – but note that the number of contracts falling within one year will differ by commodity as they have their individual calendars and contract specifications). Since we take the very first (nearest) futures expiry as a proxy for the spot price, we have spot and 11 futures contracts. How do we calculate the XIRR of this? If you invest an equal amount into the 11 futures contracts, this amounts to a cash outflow. As these futures expire one by one, we will have cash inflows at different dates (based on the principle that futures prices should converge to spot at expiry). This way, we end up with a series of cashflows (an initial large outflow and then inflows at each expiry) and the XIRR of this series becomes our new point-in-time roll yield estimate for the relevant commodity – before we then apply the transfer coefficient described above and determine the EWMA of these roll yields (with a half-life of 5 years) as the new roll return pillar in our 10Y return estimate for the relevant commodity.

What is the result of these changes? While the overall effect is to lift the roll return pillar of the Bloomberg Commodity Index by 0.8% this quarter compared to the end of Q4, the effect is nuanced between commodity groups:

- for energy, the roll return is down by -0.9%;
- for industrial metals, the roll return is up by 1.6%;
- for precious metals, the roll return is up by 2.2% (more than offsetting the 0.7% decline in the valuation pillar during Q1 2025 due to strong price performance);
- for grains, the roll return is up by 0.9%; and
- for soft commodities, the roll return is up by 1.3%.

We will continue to assess and enhance the overall commodities methodology, with the focus now moving on to rebalancing premia for basket indices and the interplay between the valuation pillar and roll return, driven by changes in spot prices.

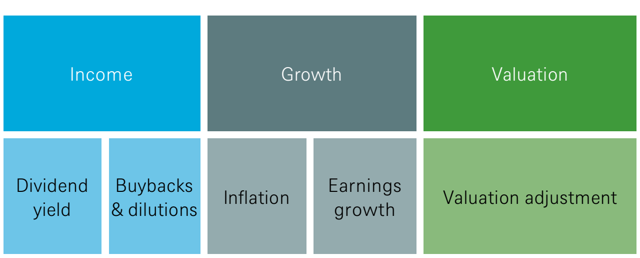
2 / Long View Forecasts

2.1 Equity Forecasts

For our equity return forecasts, Figure 6 illustrates the changes to our return pillars for our 10-year MSCI All Country World ("ACWI") local currency return forecast. Forecasted returns for global equities have increased marginally to 6.1% from 5.8% at the end of December 2024. The selloff in global equities, and in particular in the US equity market, resulted in less demand valuations, with the valuation adjustment component going from -1.0% to -0.6% per annum in return contribution. Dividend yield contribution was incrementally higher (increasing from 1.8% to 1.9%) whereas real earnings growth was modestly lower, going from 1.6% to 1.5% over the course of Q1.

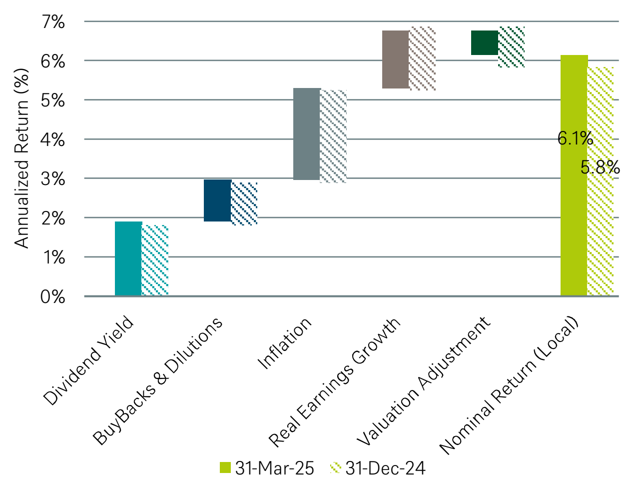
This may seem like a surprisingly small downgrade in 10-year real earnings expectations (in the light of the economic damage potential from higher tariffs and particularly from the significantly elevated level of policy uncertainty which is likely to lead to postponed investment decisions), but this reflects the stickiness of long-term trend growth (which in our model is a function of population growth, labour force participation and productivity). While our trend growth numbers (relevant to annual growth towards the end of the 10-year forecast horizon) are stable, the near-term cyclical growth component has certainly seen an impact already: DWS economists' estimate for real GDP growth in the US was 1.0% for 2025 and 1.5% for 2026 at the time of our 10Y forecasts in April, reduced from the start of this year by 1.0% and 0.7%, respectively. However, this only contributes to a reduction in 10Y real earnings growth assumptions by 20 bps p.a. to 1.6% p.a. for US equities. In most other developed markets, the impact was even smaller. While uncertainty about the real economic impact of tariffs remains very high, this will continue to be a bigger risk to valuations (through rapid changes in equity risk premia) than to the fundamental long-term earnings trends underlying equity prices.

Figure 5: Pillar decomposition for equities



Source: DWS Investments UK Limited.

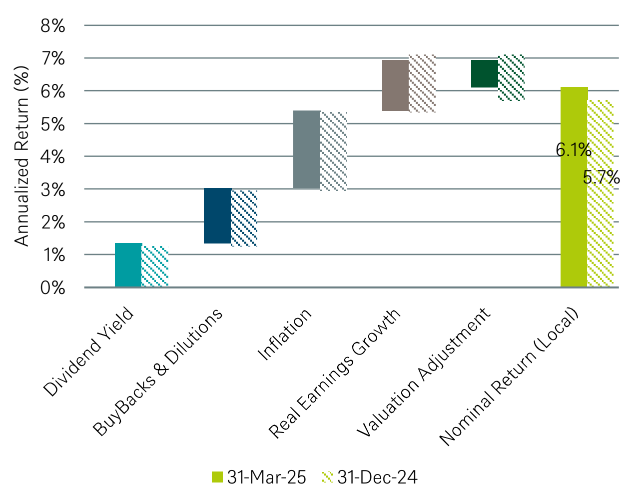
Figure 6: MSCI All Country World: Expected contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 31 March 2025.

For the same reasons, our US equity forecasts are also marginally higher relative to the end of December 2024. Our 10-year return forecasts for MSCI USA increased marginally from 5.7% to 6.1%, primarily driven by the valuation adjustment pillar going from -1.4% to -0.8%, as shown in Figure 7.

Figure 7: MSCI USA: Expected contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 31 March 2025.

2.2 Liquid Real Assets Forecasts

While REITs and Infrastructure both leverage very similar pillars to equities (see Figure 8), returns are derived largely from income via dividend distributions as shown in Figure 9 and Figure 10.

Figure 8: Pillar decomposition for REITs and Infrastructure

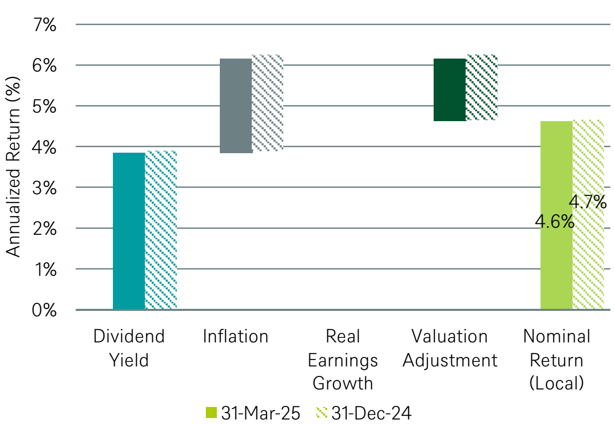
Asset Class	Income	Growth		Valuation
Listed real estate equity	Dividend yield	Inflation		Valuation adjustment
Listed infrastructure	Dividend yield	Inflation	Earnings growth	Valuation adjustment

Source: DWS Investments UK Limited.

Across liquid real assets, our return forecasts are comparable to our return forecasts for traditional markets. Global REIT returns are expected to provide less incremental yield spread given higher real interest rates while our Infrastructure equity outlook provides a potential return outlook modestly above traditional public equity markets.

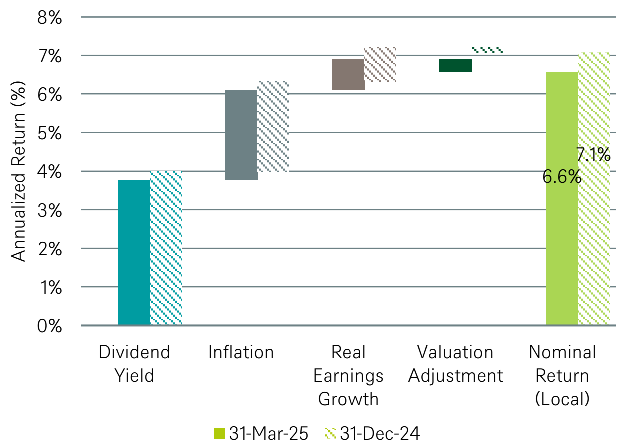
Relative to the previous quarter, our 10-year return forecast for Global REITs have stayed relatively unchanged, from 4.7% to 4.6%. Global Infrastructure forecasted returns decreased modestly from 7.1% to 6.6%, reflecting marginally lower dividend yield and real earnings growth contribution as well as slightly more challenging valuations.

Figure 9: Global REITs: Expected contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 31 March 2025.

Figure 10: Global Infrastructure: Expected contribution to 10-year forecasted hypothetical annualized returns



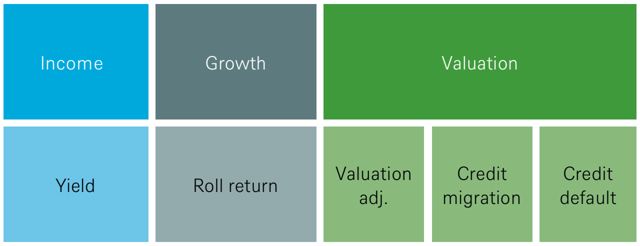
Source: DWS Investments UK Limited. Data as of 31 March 2025.

2.3 Fixed Income Forecasts

Global bond yields were a mixed bag in Q1, as US Treasury yields rallied amid domestic market turmoil while sovereign bond yields across Europe and Asia were modestly higher amid more reflationary fiscal and monetary policy stances. This divergence in the interest rate outlook is reflective of continued uncertainty in the US around tariff and global trade policy and its impact on both short-term growth and inflation but perhaps more importantly on US dominance in global trade and investment. Throughout the quarter, the 10-year US Treasury yield moved lower from 4.57% to 4.21%, driven entirely by a 39bps decline in the 10-year real yield from 2.22% to 1.83%. Conversely, the 10-year German Bund yield increased 37bps from 2.37% to 2.74% to end the quarter as investors became increasingly optimistic around the prospect of significant fiscal stimulus measures. The 10-year Japanese Government bond yield also climbed higher by 35bps, from 1.14% to 1.49%, as Japan continues to pivot toward tighter fiscal policy as inflation has seemingly returned to the economy. In aggregate, the yield-to-worst for the Global Aggregate Treasuries Index declined just 1bp, from 3.18% to 3.17% at the end of Q1.

Over a strategic horizon, the outlook for fixed income investors is optimistic, both in absolute terms and relative to equities. Repricing in sovereign bond yields–real yields in particular, is reflected in in higher yield contributions to our strategic return outlook for both core and speculative fixed income asset classes. Starting yield is by far the most important driver of return contribution in our building blocks shown in Figure 11.

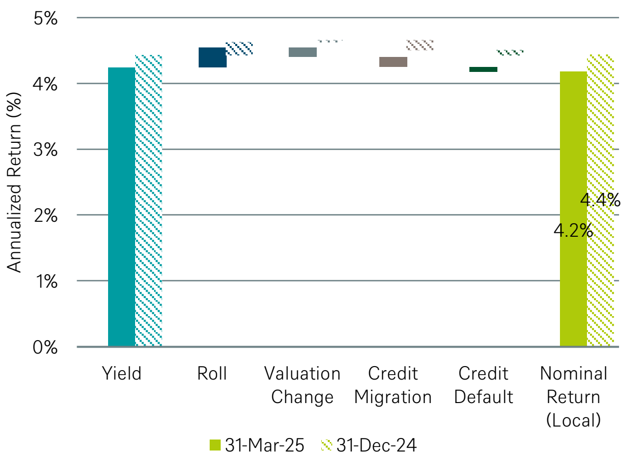
Figure 11: Pillar decomposition for Fixed Income



Source: DWS Investments UK Limited.

The 36bps move lower in the 10-year US Treasury yield in Q1 reduced yield contribution for our Bloomberg US Treasury Bond Index forecast from 4.4% at the end of 2024 to 4.2% at the end of March. This has moved our total return forecasts for the US Treasury Bond index lower to 4.2% as shown in Figure 12.

Figure 12: US Treasury Bond Index: Expected contribution to 10-year forecasted hypothetical annualized returns

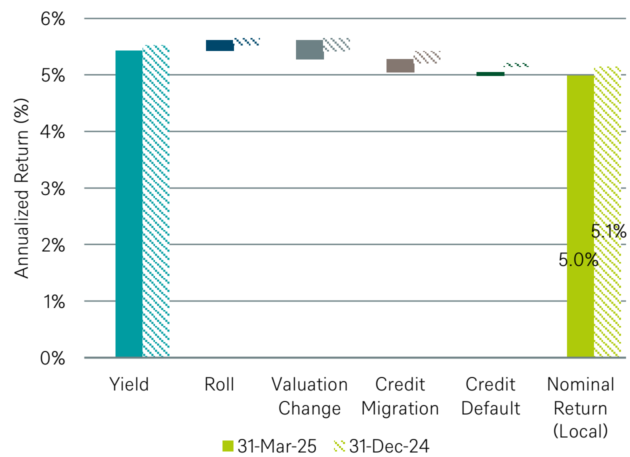


Source: DWS Investments UK Limited. Data as of 31 March 2025.

Return forecasts across corporate credit markets were mixed as well. For US Investment Grade bonds, widening in credit spreads in Q1 were offset by the rally in US Treasury yields, while more speculative spread-driven US High Yield bonds saw yields modestly rise as a result of spread widening. In Q1, US IG and US HY OAS widened by 14bps and 60bps, respectively, alongside other risk assets. The widening in spreads provides some reprieve from historically tight credit spread vlauations, and all-in yields continue to look attractive relative to the past decade.

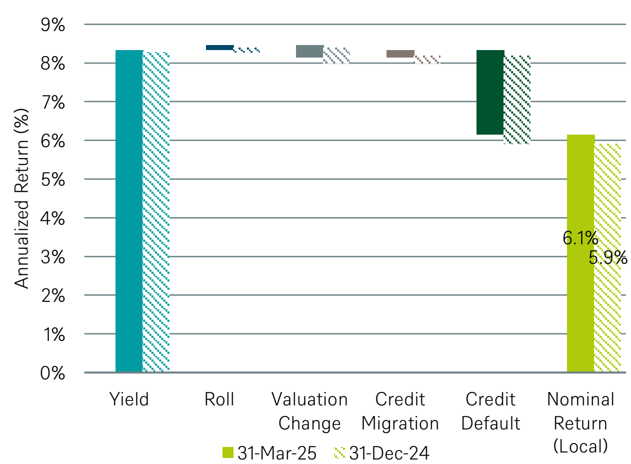
Over the course of Q1, our total return forecast for US Investment Grade Corporate Bonds decreased slightly from 4.1% to 5.0% (reflecting the modest decrease in the yield pillar contribution from 5.5% to 5.4%) and our US High Yield Corporate Bond forecast increased marginally from 5.9% to 6.1% (with the drag from the credit default loss pillar going from -2.3% to -2.2%). Figure 13 and Figure 14 show US Investment Grade and US High Yield return forecasts, respectively. The high starting nominal yield for US High Yield in contrast with historically tight equity risk premia for US equities—even after the recently selloff, results in a very similar strategic return outlook between the S&P 500 and the Bloomberg US High Yield Index now after these two estimates had been converging towards each other for several quarters.

Figure 13: US Investment Grade Corporate Bond Index: Expected contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 31 March 2025.

Figure 14: US High Yield Bond Index: Expected contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 31 March 2025.

3 / Conclusion

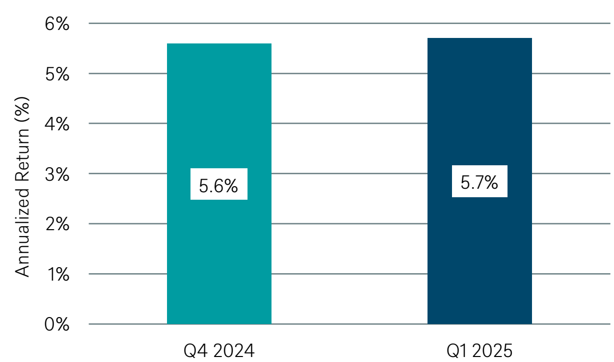
Return forecasts across asset classes in aggregate are a mixed bag as compared to the end of 2024. Decoupling across regional equity and bond markets characterized the first quarter of 2025, with the US experiencing uncertainty around the implications of protectionist tariff policy while Europe experienced renewed investor optimism around the potential for significant fiscal impulse. While US equity return forecasts are modestly higher following a modest decline in prices and valuations in Q1, international developed and emerging markets equities, and in particular European equity markets, experienced stronger price action, reflected in modestly lower strategic forecasts. This decoupling in risk sentiment across developed markets regions also acted to weaken the US dollar significantly, which exacerbating the differential in currency unhedged regional equity returns.

Fixed income returns reflected the same divergent regional macroeconomic dynamics in Q1, with the 10-year US Treasury yield rallying 36bps versus increases in the 10-year German Bund and Japanese Government Bond yields of 37bps and 35bps, respectively. Within corporate credit markets, where spreads behave similarly to equity risk premia, US Investment Grade Corporate and US High Yield Corporate spreads widened by 14bps and 60bps, respectively, although US corporate credit spreads have remained at or below long-term averages.

While concerns around the growth impact of US tariff policy has been the principle driver of US investor sentiment to start 2025, global risk markets still face the reality of very demanding valuations both in absolute terms and relative to history. Equity risk premia in the US in particular continue to reflect significant optimism around the positive strategic impact that artificial intelligence will have in labor productivity and corporate profitability, while real bond yields demonstrate a macroeconomic reality that now includes inflationary risk for the foreseeable future. These dynamics continue to drive a relatively flat efficient frontier, with fixed income asset classes offering a strategic return outlook not too far from equity asset classes.

All in all, the strategic outlook for investors is relatively unchanged on the surface but reflects modest divergence in the strategic return outlook between regions. In equities, the strategic outlook for the US has improved modestly while valuations have become slightly across internationl equity markets. Conversely, the rally in US Treasury yields amid a selloff across sovereign bond yields in Europe and Japan have modestly reduced the strategic return outlook for core US fixed income while modestly improving the starting yield across many other regions. As a result, our 10-year return forecasts shown in Figure 15 illustrates our 10-year return forecasts for a moderate strategic asset allocation multi-asset[1] portfolio, which have increased by about 0.1% over the most recent quarter.

Figure 15: 10-year forecasted hypothetical annualized returns of moderate strategic asset allocation in local currency



Source: DWS Investments UK Limited. Data as of 31 March 2025.

[1] Moderate strategic asset allocation refers to a portfolio that targets annualized volatility of roughly 10%

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