Research Institute
DWS Long View

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Marketing material

Long View Q3: Japanese reflation

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- Return forecasts for the next decade are modestly higher relative to the previous quarter reflecting higher fixed income yields and a modest decrease in equity valuations
- After multiple decades of tepid growth and inflation, Japan has a number of positive potential catalysts that may help to escape the deflationary trap
- Structural challenges still remain, where economic reform will depend on sustained positive wage pressures and consumption behavior that can help build a reflationary mindset
- The decline in Japanese unit labor costs over the past three decades now makes Japan internationally competitive and leaves flexibility for labor unions to negotiate higher nominal and real wages
- Pressure from Japan's government and the Tokyo Stock Exchange should continue to shift Japanese corporate behavior toward improved shareholder return and profitability
- To expand the Long View forecast coverage, we now integrate 10-year forecasts for Private Infrastructure Equity, focused around the EDHEC infra indices

Summary

In this report, we present the DWS long-term capital market assumptions for major asset classes as of the end of September 2023 while exploring the risks to these forecasts.

After mostly calm conditions throughout the first half of this year, interest rate volatility re-emerged in Q3, translating into instability across fixed income and equity markets alike. The MSCI ACWI equity index was down 3.4% in Q3, bringing year-to-date returns down to 10%, while the Bloomberg Global Aggregate Bond index returned -1.8% bringing year-to-date returns down to 1.1%.*

Bolstered by resilient labor markets amid stronger-than-expected summer hiring, the 10-year US treasury yield sold off from 3.84% at the end of June to 4.57% at the end of September. Market pricing around short-term interest rates also exhibited a more hawkish bias, with Fed Fund futures markets pricing in the overnight rate to remain north of 4.5% through Q3 of next year. This more challenging outlook for cost of capital and discount rates weighted on returns across equity, fixed income, and alternative asset classes, with valuations and starting yields broadly repricing toward more attractive levels.

Where inflationary pressures have proven to be a headwind for consumers and corporations around most of the globe, the Japanese market has generated renewed confidence among investors with the potential to escape the deflationary trap of the past three decades. While valuations in Japan have become modestly more expensive following the year-to-date rally–MSCI Japan is over 25% in local currency terms through the end of Q3, the potential for increased labor competitiveness, economic reform, improved corporate governance and emphasis on shareholder return, and the potential to shift consumption behaviors amid positive inflation trends embeds a level of strategic optimism not seen in decades.

Our 10-year forecasts continue to look increasingly favorable toward fixed-income asset classes that reflect higher starting yield levels that can be partially attributable to inflation risk premia associated with owning nominal return assets. Equities, meanwhile, have strong nominal return potential but remain challenged by elevated valuations.

Our models now forecast an annual local currency return of 6.8% for the MSCI All Country World Index ("ACWI") over the next decade, versus 6.6% three months prior as well as an increase for the Global Aggregate Bond Index from 3.4% to 3.9%. At an aggregate level, we estimate the forecasted rate of return on a diversified portfolio at 6.5%**, 0.3% higher from the level at the end of Q2.

***Source: Bloomberg as of 30 September 2023**
****DWS Calculations for a strategic asset allocation that targets volatility of 10%**

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

	As of 30 Sep 2023	Δ since 30 Jun 2023
ACWI Equities	6.8%	0.2%
World Equities	6.7%	0.2%
EM Equities	7.2%	-0.1%
US Equities	6.8%	0.3%
Europe Equities	6.9%	0.2%
Germany Equities	6.9%	0.2%
UK Equities	8.3%	-0.3%
Japan Equities	3.8%	-0.1%
EUR Treasury	3.1%	0.5%
EUR Corporate	4.2%	0.3%
EUR High Yield	6.5%	0.4%
US Treasury	4.7%	0.5%
US Corporate	5.7%	0.8%
US High Yield	6.9%	0.6%
EM USD Sovereign	8.3%	0.9%
World REITS	5.3%	-0.6%
United States REITS	6.0%	-0.7%
Global Infra. Equity	8.1%	0.5%
US Infra. Equity	8.5%	0.6%
Private RE Equity US	3.0%	-0.6%
EUR Infrastructure IG	4.1%	0.5%
Private EUR Infra. IG	5.3%	0.7%
Hedge Funds: Composite	5.9%	0.2%
Broad Commodities Futures	5.9%	0.5%

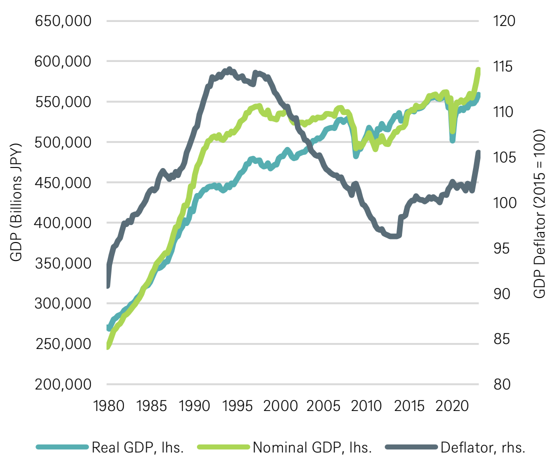
Source: DWS Investments UK Limited. 10Y Forecast as of 30 Sep 2023. Due to various risks, uncertainties and assumptions made in our analysis, actual events or results or the actual performance of the markets covered may differ materially from those described.
This information is intended for informational and educational purposes only and does not constitute investment advice, a recommendation, an offer or solicitation. The opinions and forecasts expressed are those of the authors of this report as of the date of this report and may not actually come to pass. This information is subject to change at any time, based on market and other conditions and should not be construed as a recommendation of any specific security or investment strategy.
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. Any forward looking statements (forecasts) are based on but not limited to assumptions, estimates, projections, opinions, models and hypothetical performance analysis. All of which are subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. Past performance is no guarantee of future results.

1 / Japan seeks to escape the deflation trap

1.1 Escaping the growth and inflation rut

For much of the past 30 years, Japan's nominal growth has been effectively zero (see Figure 1), reflecting both a significant slowdown in the economy and negative inflation. This deflationary trap, characterized by a prolonged cleaning-up in the banking, corporate, and real estate sectors after the bursting of the asset price bubble in the early 1990s, poor labor cost competitiveness, combined with worsening demographic challenges–vis-a-vis a shrinking working age population, has created a challenging growth backdrop for Japan and its businesses.

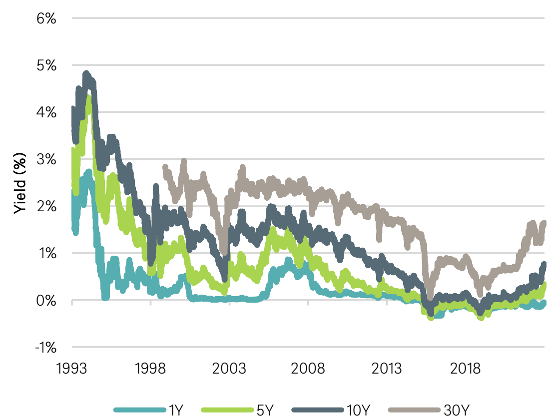
Figure 1: Japan nominal GDP (Billions JPY), seasonally adjusted annual rate



Source: Cabinet Office of Japan, Haver Analytics as of 30 September 2023.

As a consequence of persistent deflationary conditions, Japanese bond yields have moved significantly lower over the past three decades, with the 1-year sovereign bond yield not having exceeded 1% since the summer of 1995. Additionally, growing debt-to-GDP balances have necessitated low nominal risk-free rates, furthering the downward momentum in Japanese government bond ("JGB") yields across the entire term structure and constraining the flexibility of monetary policy measures. Figure 2 illustrates this downward trajectory in both short and long-term yields in Japan over the past three decades.

Figure 2: Japanese government bond yields (%)



Source: Japan Ministry of Finance from 30 September 1993 to 30 September 2023.

In 2013, the eponymously named Abenomics–after Prime Minister Shinzo Abe, enacted several fiscal and monetary policies in a coordinated effort to accelerate growth and inflation. This included the switch to the ultra-expansive "quantitative and qualitative easing", complemented by the negative interest rate policy in 2016, and an expansionary fiscal stance which has gradually led to today's government debt of 250% of GDP. While initial reactions to the accommodative policies lifted investor optimism as well as economic and price momentum, this sanguine outlook quickly dissipated. Insufficient structural reforms played a role, as did the global economic environment that entered a period of low growth and disinflationary pressure.

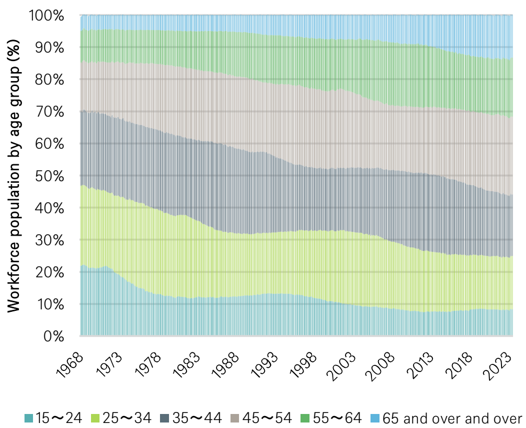
1.2 Challenging demographics

As with other mature economies, Japan faces the prospect of further demographic challenges amid an aging population. Japan, however, arguably faces the greatest demographic headwinds, with a projected nearly 40% of the population expected to exceed retirement age by 2050[1]. With a median age of 48.6 years[2], Japan currently ranks as the oldest country in the world, with the shrinking workforce population reflecting this worsening reality (see Figure 3).

[1] The Aging Readiness & Competitiveness Report. AARP International (2019). https://www.aarpinternational.org/initiatives/aging-readiness-competitiveness-arc/japan

[2] https://www.worlddata.info/average-age.php (2021)

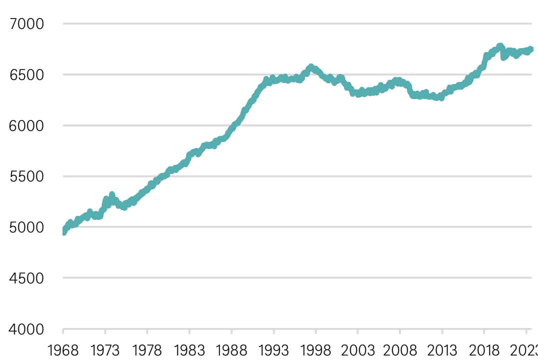
Figure 3: Workforce population by age group (%)



Source: Statistics Bureau of Japan as of 30 September 2023.

Despite a population that is both aging and shrinking, Japan has managed to in fact increase the number of employed people over the past two decades. In part, this reflects efforts since Abenomics to increase the labor market participation of women and elderly people. Further, the number of working immigrants has risen, albeit the overall level is still low.

Figure 4: Japan employed persons, (ten thousand)



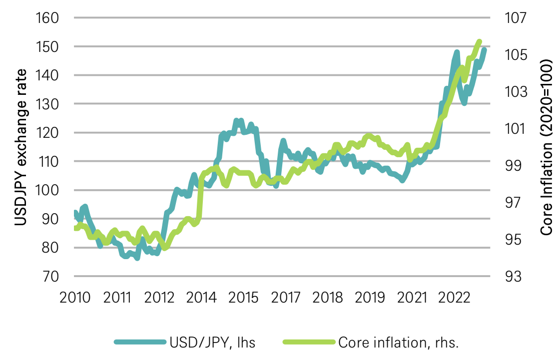
Source: Statistics Bureau of Japan as of 30 September 2023.

According to UN forecasts, the demographic challenges will intensify over the coming decades. Furthermore, the successful increase of the participation rate cannot be continued indefinitely. While effects of an aging population on inflation are unclear[3], the scarcity of workers will likely support investments in labor-saving production methods and digitalization. At the same time, however, these demographic headwinds will keep the economy on a less dynamic growth path.

1.3 Building up "home-made" inflation

Recently, however, green shoots have emerged once again as inflation and nominal growth have reaccelerated (see Figure 1). The initial spark probably came from outside. The international turnaround in interest rates – while Japan sticked to its extremely expansive monetary policy – led to a yen depreciation of more than 20% since the beginning of the tightening cycle (see Figure 5).

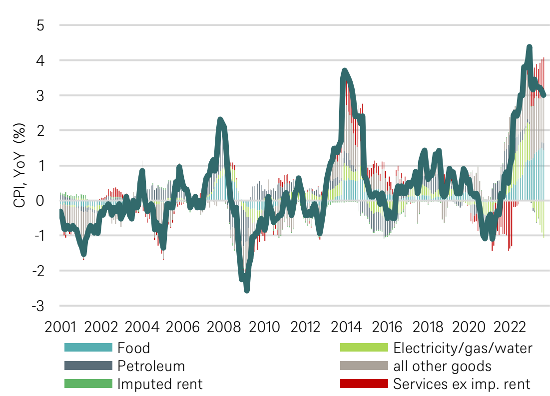
Figure 5: Depreciation of the Yen has boosted inflation



Source: Bank of Japan, Haver Analytics as of 30 September 2023.

The external cost-push inflation surge has now spread into many domestic areas. Currently, 87% of items in the consumer price index basket are rising, the highest share since the start of the time series in 2001. Surveys also point to an improvement in the price setting behaviour of companies. As households' and companies' expectations about wage and price increases shift, there is a realistic chance that inflation is back in the Japanese system, even if price dynamics will moderate towards 2%.

Figure 6: Domestically generated service price inflation takes over, YoY (%)



Source: Bank of Japan, Haver Analytics as of 30 September 2023.

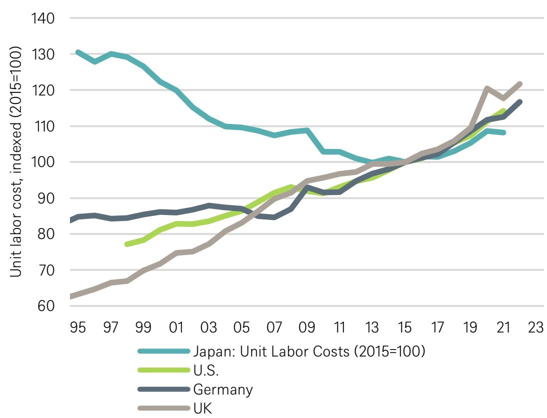
[3] Source: Inflation: here to stay? (dws.com)

2 / Overcoming the lost decades

2.1 Improvement in global competitiveness…

A legacy from the boom time before the bursting of the asset price bubble was that Japan's unit labor costs exceeded those of its developed market peers. To a certain extend, the painful adaptation process over the last decades, characterized by real wage stagnation and a de-leveraging of the corporate sector, was necessary to regain international competitiveness. Japan's average cost of labor per unit of output produced is now, for the first time in modern history, more competitive versus the US, Germany, and the UK (see Figure 7).

Figure 7: Competitive unit labor costs

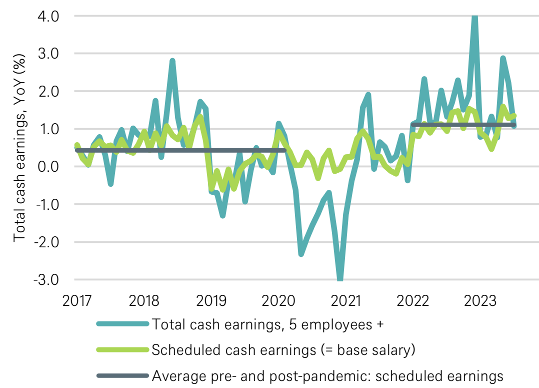


Source: OECD, Haver Analytics as of 31 December 2022.

2.2 … with positive domestic implications

The real wage losses described above have weighed on consumption and fuelled deflation. Now that these adaptation processes seem to have come to an end, improved labor cost competitiveness has provided a backdrop for real wage growth. Over the past two years, scheduled cash earnings for employees appear to have moved toward a higher equilibrium level of above 1% as shown in Figure 8.

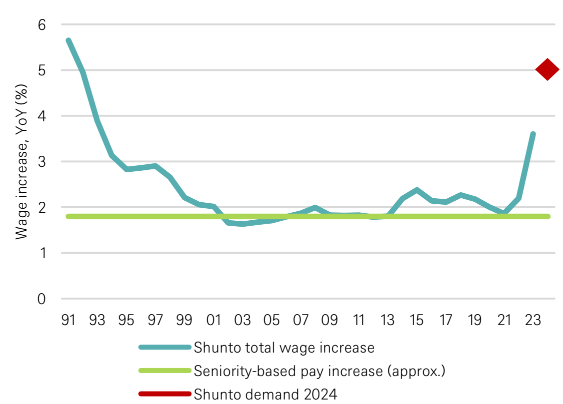
Figure 8: Higher employee cash earnings



Source: Ministry of Health, Labor and Welfare, Haver Analytics as of 30 September 2023.

This is not yet enough to create the virtuous circle from income to spending that the Bank of Japan ("BoJ") is eagerly awaiting, but it is a start. More evidence of increasing wage pressure comes from the annual Shunto wage negotiations. The national labor association RENGO has announced it will demand a total wage increase of more than 5% in the spring 2024 negotiations (see Figure 9). While last year's wage increase of 3.6%--the highest in 30 years–failed to exceed the 4% realized inflation level, thus resulting in a minor decline in real incomes, even a more moderate outcome from this year's wage negotiations should have a positive effect on real wages as global inflation slows.

Figure 9: Shunto negotiations show progress

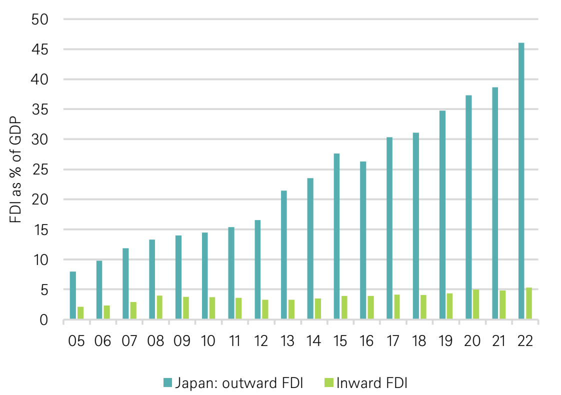


Source: Ministry of Health, Labor and Welfare, Haver Analytics as of 30 September 2023.

2.3 Corporates have re-organized

Parallel to lengthy cost cutting processes at home, Japanese companies have also strategically set up production facilities abroad[4]. Outbound driven foreign direct investments have strongly increased over the last years, albeit from low levels (see Figure 10)

Figure 10: Higher outbound direct investments



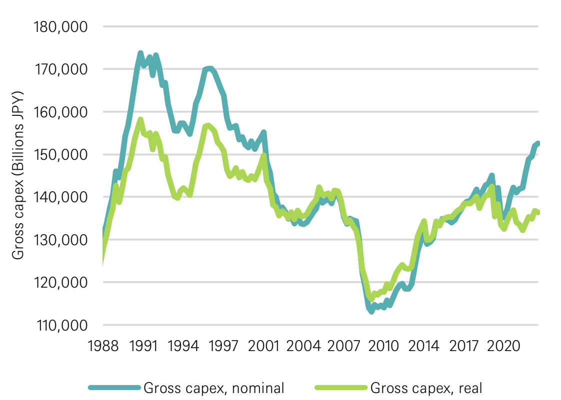
Source: OECD, Haver Analytics as of 31 December 2022.

The primary motivation for these foreign investments was likely to exploit labour cost advantages and diversify supply chains. However, these investments will also open up sales markets in attractive destination markets with higher demand growth than domestic Japan.

2.4 Potential drivers for economic reflation

While the return of inflation has pushed nominal growth for the first time in 30 years, real domestic investment having lagged in recent quarters (see Figure 11).

Figure 11: Domestic investment must accelerate

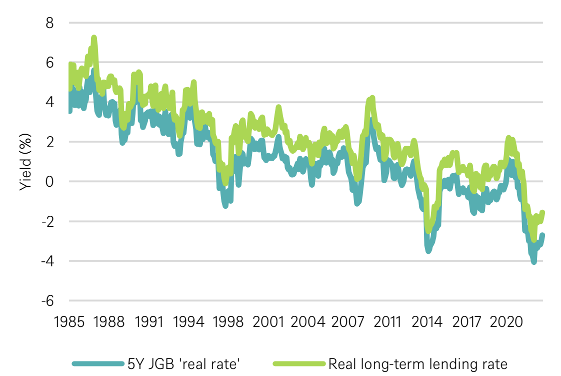


Source: Cabinet Office of Japan, Havaer Analytics as of 30 September 2023.

However, besides structural factors that should support higher investments, labor shortages could necessitate higher capital expenditures in order to meet demand. Structural issues like decarbonization needs to be financed, and the current combination of an extremely expansive monetary policy plus higher inflation rates has led to deeply negative interest rates which should spur investments as well.

Though the BoJ is likely to end its negative key interest rate policy in 2024, when it becomes sufficiently convinced that the reflationary process is more of a permanent nature, it will act very cautiously and gradually. This implies that the negative real rates environment, as painful as is is for savers, will continue to support investments.

Figure 12: Favorable environment for investments



Source: Ministry of Internal Affairs and Communications, BoJ, Haver Analytics as of 30 September 2023.

Sustained positive real wage momentum combined with required increases in capital expenditures could help to improve what has been otherwise slow productivity growth. The BoJ's expectation of a moderate rise of the potential growth rate, currently estimated to be at around 0.5%, seems plausible.

2.5 Strategic positioning in international trade

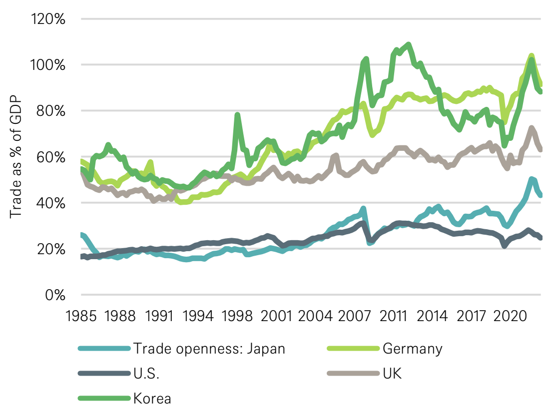
At a time of global trade wars and a retreat from globalization, Japan has chosen to integrate itself even more deeply into international trade. It is not only via FDI activities that Japan has positioned itself well in the Asian region. It also decided to consistently join the major trade agreements of the last years.

Among the biggest is the CTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership), the successor of the TPP, from which the U.S. withdrew unter President Trump. Further, Japan also jointed the RCEP (Regional Comprehensive Economic Partnership), that

[4] See Goodhart/Pradhan (2020): The great demographic reversal

focuses on Asian trade and includes China. Both trade arrangements lead to lower non-tariff and tariff barriers and should foster regional trade and a deeper integration especially in the Asian Pacific region. It shows that Japan has decided against international compartmentalisation and trusts its companies to withstand global competition. Japan's current trade openness comparatively provides further room for growth (see Figure 13), effects will become visible in the longer term.

Figure 13: Trade openness

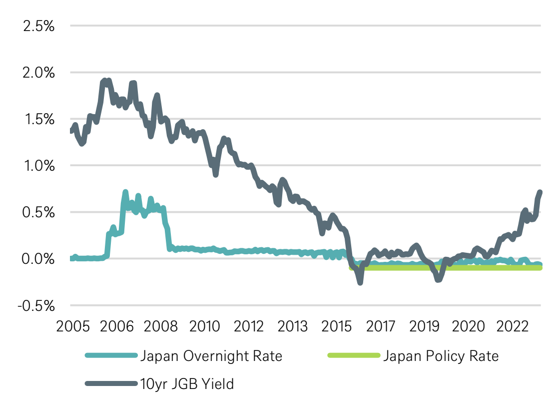


Source: Respective central banks, Haver Analyticsas of 30 September 2023.

2.6 Central bank policy

After seven years of yield-curve control, the Bank of Japan has begun to reintroduce flexibility around the Japanese treasury bond yields, allowing increased market determination as to the fair value of medium-to-long-term interest rates. The BoJ has already changed the binding ceiling for the 10-year JGB yield into a more loose reference band since October 2023. Markets are expecting this to be the direction of travel given a backdrop of more persistent inflationary pressures that could put upward pressure on nominal yields.

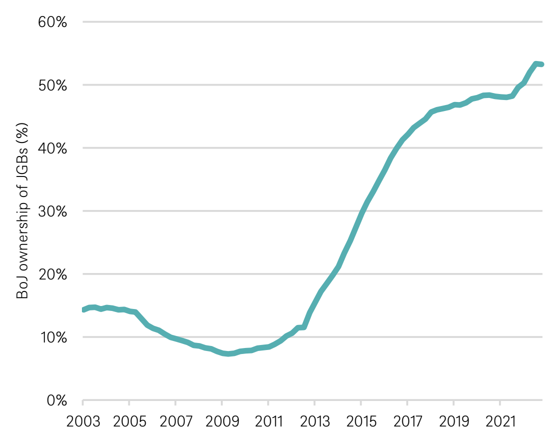
Figure 14: Short end stuck in negative territory



Source: Bank of Japan, Haver Analyticsas of 30 September 2023.

To pivot back toward a more flexible treasury yield environment, the BoJ must gradually manage down its dominance of the BoJ market (see Figure 15), where it currently makes up over half of the current holdings. Furthermore, high debt-to-GDP balances both in absolute terms and relative to other countries increases the net interest sensitivity of Japan's treasury to significant increases in real interest rates. The question of fiscal dominance is therefore certainly even more pressing in Japan than in other countries, where debt ratios have also risen since the pandemic. This is certainly an important reason to expect the BoJ to act very cautious in the future.

Figure 15: BoJ ownership of JGBs (%)

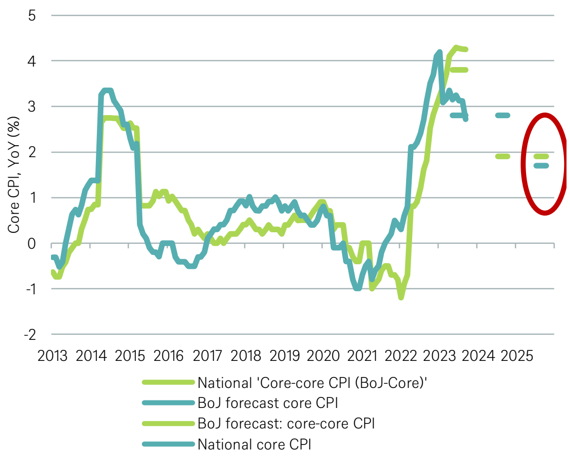


Source: Bank of Japan, Bloomberg as of 30 June 2023.

Nonetheless, moving away from YCC in light of positive developments in economy and price reflation can be viewed as a broadly positive signal to investors. It marks a first step towards a gradual and cautious normalization of monetary policy. As inflation is becoming more entrenched and the economy seems likely to expand above its growth potential at least this year and next, the BoJ is also becoming more and more confident that it can eventually achieve its price stability target of 2%. The central bank's medium-term CPI forecasts have recently been revised upwards (see Figure 16).

We expect the BoJ to end its Negative Interest Rate Policy NIRP around spring/summer 2024. From a macro perspective, it is essential that key indicators such as a positive output gap, domestic price momentum, and rising wage dynamics remain on track. The aforementioned structural improvements in the economy, which have been taking place more in the background and are of a long-term nature, can certainly flank the long hoped-for path out of deflation

Figure 16: BoJ inflation forecasts: higher conviction



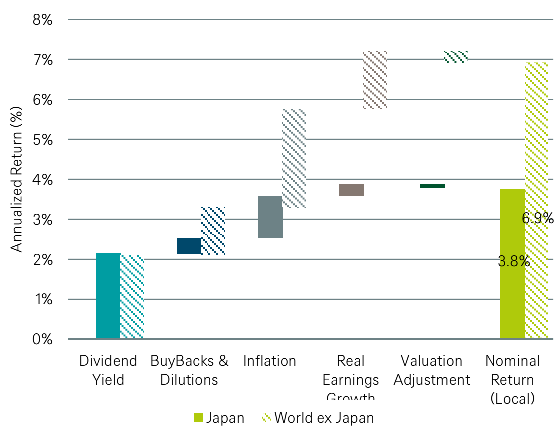
Source: Bank of Japan, Haver Analytics as of 15 September 2023.

3 / Improving shareholder return

3.1 Breaking down the strategic return outlook

When evaluating strategic asset weightings across equity markets, Japan looks noticeably low as compared to other equity markets. Primarily, lower levels of potential inflation and real earnings growth (derived from economic growth) limit the contributing factors to the 10-year nominal return outlook (see Figure 17).

Figure 17: Comparison of MSCI Japan and MSCI World-ex Japan 10-year forecasted hypothetical annualized returns



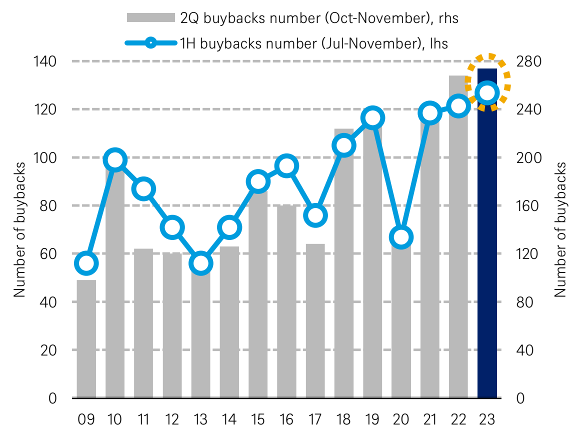
Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

While lower top-line growth potential is an unavoidable reality in Japan given the current demographic trends, the potential for reflationary pressures could help to stimulate real earnings growth beyond current levels. Still, in order to bridge this gap in potential returns between Japanese equities and other regional equity markets, Japanese corporations must become more friendly to shareholders as to warrant more structural foreign investor appetite. Already, a number of reform measures have been enacted in an effort to improve profitability and justify higher structural valuations.

3.2 Corporate reform measures

Since the initial Abenomics reform measures in 2013, Japanese corporations have been pressured to increase their shareholder value through a variety of corporate reform measures. Beginning in 2013 with the ratification of Japan's Stewardship Code, which laid out a framework to "promote sustainable growth of companies through investment and dialogue", companies have been pressured to return capital to shareholders in an effort to improve cash returns. Over the past decade, we've observed buybacks in Japan climb gradually, with record figures thus far in 2023 (see Figure 18).

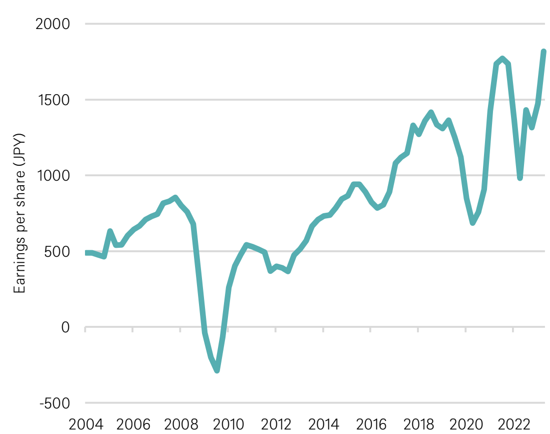
Figure 18: TOPIX cumulative buyback number (Oct-Nov, Jul-Nov)



Note: Share buybacks are aggregated from Jul-Nov, Oct-Nov for each fiscal year.
Source: BofA Global Research, QUICK as of 15 November 2023.

This improvement in capital efficiency, along with strong foreign revenue exposures, has created positive earnings momentum for Japan's stock market since 2013. Figure 19 shows the Nikkei 225 earnings per share on a trailing 12-month basis since 2004.

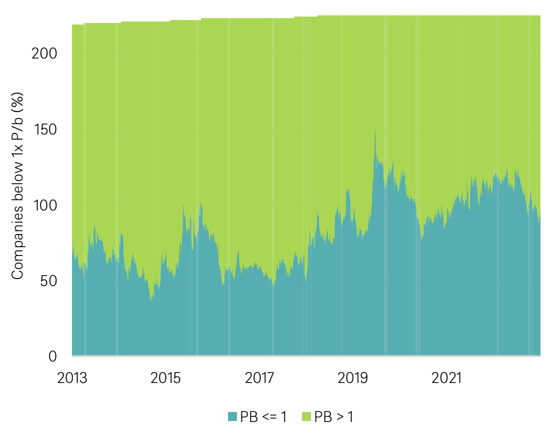
Figure 19: Nikkei 225 earnings per share (TTM)



Source: Bloomberg as of 30 September 2023.

Pressure from Japan's government and from the Tokyo Stock Exchange ("TSE") in more recent years has put the spotlight on companies that have realized poor valuations, with companies trading with a price-to-book ratio below 1[5] (where a P/B of 1 is viewed as the liquidation value of the company) being asked to plan and announce measures to improve the valuations of their businesses by increasing shareholder friendliness. Up to this point, valuations across the Nikkei 225 still look quite poor, with nearly 45% of the index still trading at a below a 1x P/B (see Figure 20).

Figure 20: Share of Nikkei 225 trading below 1x P/B (%)



Source: Bloomberg as of 30 September 2023.

Particularly as inflation pressures have seemingly returned, the transmission of a reflationary economy to corporate pricing power may provide a structural tailwind to Japanese corporations. While necessary price hikes on good and services have thus far been met with negative consumer sentiment, a shifting mindset toward gradually increasing prices combined with more favorable wage growth may provide the structural backdrop necessary for Japan companies to improve their top-line growth.

[5] https://www.japantimes.co.jp/news/2023/07/24/business/financial-markets/tse-price-improvement/

4 / Private infrastructure equity

4.1 Private infrastructure equity underlying characteristics

As part of our Q3 Long View update, we are expanding our coverage in the alternative space with the introduction of Private Infrastructure Equity return forecasts. The building blocks of these returns are consistent with liquid infrastructure equity and other equity asset classes, constituting income, growth, and valuation pillars as shown in Figure 21.

Figure 21: Pillar decomposition for REITs and Infrastructure

Asset Class	Income		Growth		Valuation
Private infrastructure equity	Dividend yield		Inflation	Earnings growth	Valuation adjustment
Listed infrastructure	Dividend yield	Interest on shareholder loans	Inflation	Earnings growth	Valuation adjustment

Source: DWS Investments UK Limited.

While these Private Instrastructure Equity return forecasts leverage the same fundamental pillars as other equity asset classes, there are some key differences relative to listed infrastructure equity that we highlight in this section.

- Dividend Estimates: Income includes both cash dividends and interest payment on shareholder loans. Less smooth yields necessitate averaging for yield contribution forecasts
- Growth Estimates: same as public infrastructure equities
- Inflation Estimates: same as public infrastructure equities
- Valuation Estimates: valuation contribution of Public Infrastructure is used as proxy where Private Infrastructure index data is not available

4.2 Pillar decomposition details

Dividend Estimates

Influence of Market-Participants/Public-Private Market Differences: For public companies, initiation and omission of dividends have asymmetric market-adjusted returns in the 12 months after announcement (+7.5% for firms initiating dividends vs. -11.0% for firms omitting dividends)[6]. The short run ,three-day, price reaction is also asymmetric (+3.4% for firms initiating dividends vs. -7% for companies omitting dividends). In similar vein, the average three-day abnormal returns associated with dividend increases and decreases are 1.3% and -3.7%, respectively[7]. This market-dynamics make public companies more tendentious to smooth dividends[8]

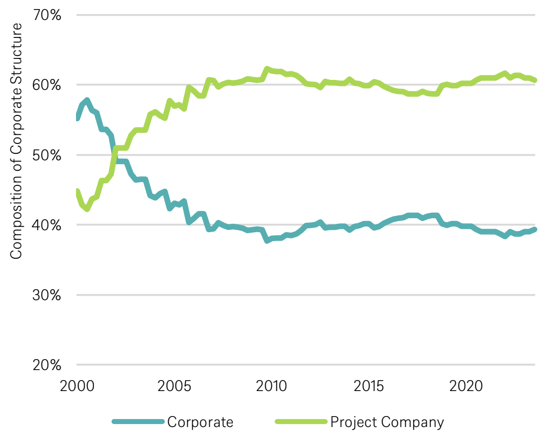
Private companies which don't have to face this adverse reaction generally don't smooth dividends. Further, less access to capital avenues and illiquidity premium increases the cost of financing for private firms, consequently making them less tendentious to smooth dividends and use the earnings proceeds for financing their needs.

Characteristics of Firms: Private firms tend to be smaller than listed firms and exhibit higher leverage. This makes their profits more sensitive to changes in market cycles /business cycles. And hence they are less inclined and less capable to smooth their dividends during periods of profit shocks.

Predominance of Project Companies in Private Infrastructure: Listed infrastructure indices consist of companies that have long lives, as they are a "going-concern". Unlisted infrastructure indices have a combination of companies that have long lives and specific project companies which have finite lives. Further, project companies, by definition, are not diversified. Hence, their dividends are much more volatile and is dependent on the earnings of a specific project. Further, over the years, the share of project companies in the private infrastructure index has increased (see Figure 22).

[6] Michaely, Roni, Thaler, Richard H, and Womack, Kent. Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift?. The Journal of Finance (1995)
[7] Grullon, Gustavo, Michaely, Roni, and Swaminathan, Bhaskaran. Are Dividend Changes a Sgn of Firm Maturity? The Journal of Business (2002)
[8] Lintner, John. Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes. American Economic Association (1956)

Figure 22: Share of project companies within infrastructure index (%)



Source: EDHEC. Share of Corporate and Project Company in EDHEC Infra Global 300 Equal Weight Equity Index as of 30 September 2023.

For the above reasons, we can infer that private infrastructure firms tend to pass on the dividends and not smoothen the dividends over time. Given such high variation owing to the nature of firm and corporate structure, for generating an income return estimate over a ten-year period, it is prudent to take a long-term average instead of taking a point-in-time estimate for dividend estimation. Considering these factors, income yield input is taken as the two-year average of the quarterly realized income yield.

Growth Estimates

Same as public infrastructure indices.

Inflation Estimates

Same as public infrastructure indices.

Valuation Estimates

The valuation pillar has growth and non-growth components. The methodology to estimate the valuation contribution through non-growth component is the same as used in the listed infrastructure equity indexes.

For estimation of valuation contribution through growth component in unlisted infrastructure equity, while the methodology is same as that for listed infrastructure equity there are constraints in data availability of Long Term Cyclically Adjusted Price to Earnings. Hence, for Private infrastructure indexes, in the absence of required data, valuation contribution of Public Infrastructure is used as a proxy for valuation contribution of Private Infrastructure. Further, as EDHEC indexes' country/region specific exposures are different from that of Dow Jones Global Infrastructure index, the countries of EDHEC indexes are allocated to the representative regional indices of Dow Jones Brookfield Public Infrastructure index and then valuation contribution is computed.

4.3 Private infrastructure equity indices

The expected returns across global and regional infrastructure indices is shown in Table 2.

Table 2: DWS Ten-year annualized forecast for Private Infrastructure Equity Indices

	INCOME	REAL EARNINGS GROWTH	INFLATION	VALUATION ADJUSTMENT	NOMINAL RETURN (LOCAL)
EDHEC Infra Global 300 EW	9.3%	0.4%	2.7%	-0.2%	12.2%
EDHEC Infra 100 Core Plus EW	7.8%	0.6%	2.8%	-0.1%	11.1%
EDHEC Infra 100 Core EW	7.3%	0.7%	2.7%	0.0%	10.6%
EDHEC Infra 100 Europe EW	7.4%	0.5%	2.8%	-0.4%	10.4%
EDHEC Infra Green EW	9.3%	0.0%	2.7%	0.2%	12.1%

Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

Figure 23 shows the description for each of the Private Infrastructure Equity indices now integrated into the DWS Long View forecast coverage.

Figure 23: Private infrastructure equity index coverage

NAME	DESCRIPTION
EDHEC Infra Global 300 EW	The infra300 equity index represents the quarterly performance of 300 unlisted infrastructure companies. The companies are selected to form a representative sample by TICCS categories of an underlying universe of close to 6000 firms in 22 countries.
EDHEC Infra 100 Core Plus EW	The infra100 Core+ equity index represents the performance of the largest 100 unlisted infrastructure companies in the Core+ segment of the global unlisted infrastructure market.
EDHEC Infra 100 Core EW	The infra100 Core equity index represents the performance of the largest 100 unlisted infrastructure companies in the Core segment of the global unlisted infrastructure market.
EDHEC Infra 100 Europe EW	The infra100 Europe equity index represents the performance of the largest 100 unlisted infrastructure companies in Europe, including the UK.
EDHEC Infra Green EW	The infraGreen equity index represents the performance of unlisted infrastructure companies in the wind and solar sectors.

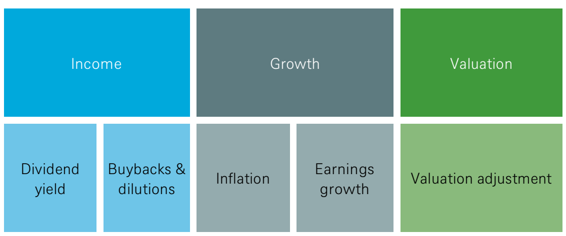
Source: EDHEC.

5 / Long View Forecasts

5.1 Equity Forecasts

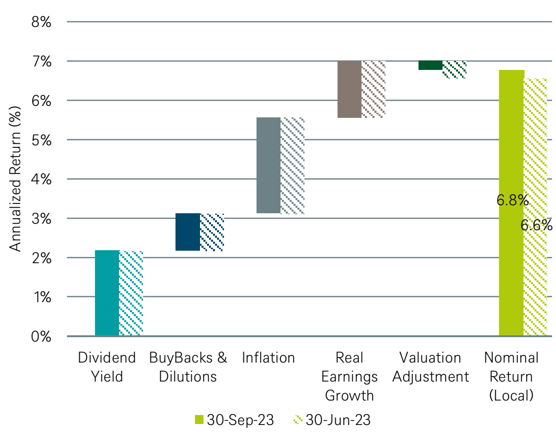
For our equity return forecasts, Figure 25 illustrates the changes to our return pillars for our 10-year MSCI All Country World local currency return forecast. Forecasted returns for global equities increased incrementally to 6.8% from 6.6% at the end of June. Valuations were the primary driver of improved return forecasts, with the valuation adjustment component going from -0.4% to -0.2%, reflecting less prohibitive equity multiples following the market selloff.

Figure 24: Pillar decomposition for equities



Source: DWS Investments UK Limited.

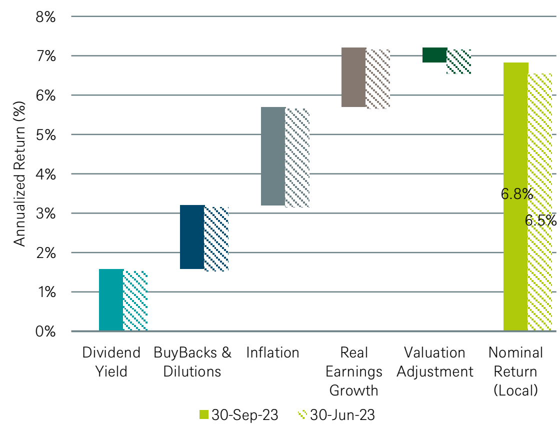
Figure 25: MSCI All Country World: Contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

Our US equity forecasts are also modestly higher relative to the end of Q2. 10-year return forecasts for MSCI USA increased from 6.5% to 6.8%, with the valuation adjustment going from -0.6% to -0.4% following the decline in US equity prices in Q3. Additionally, dividend yield contribution increased slightly from 1.5% to 1.6%, also reflecting lower equity prices relative to the previous quarter.

Figure 26: MSCI USA: Contribution to 10-year forecasted hypothetical annualized returns

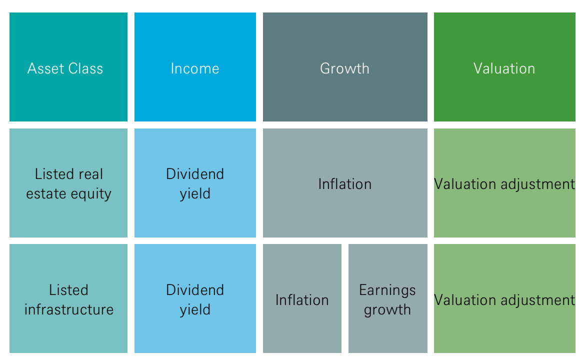


Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

5.2 Liquid Real Assets Forecasts

While REITs and Infrastructure both leverage very similar pillars to equities (see Figure 27), returns are derived largely from income via dividend distributions as shown in Figure 28 and. Figure 29.

Figure 27: Pillar decomposition for REITs and Infrastructure

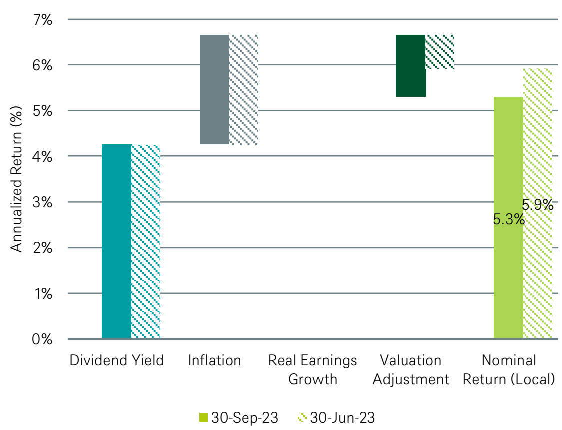


Source: DWS Investments UK Limited.

Across liquid real assets, our return forecasts are roughly comparable to traditional markets. Global REIT returns provide less of a buffer given higher real interest rates while our Infrastructure equity outlook provides a return outlook commensurate to or modestly above traditional public equity markets. Relative to the previous quarter, our 10-year return forecast for Global REITs declined from 5.9% to 5.3%, driven by more challenging valuations. Global Infrastructure forecasted returns improved from

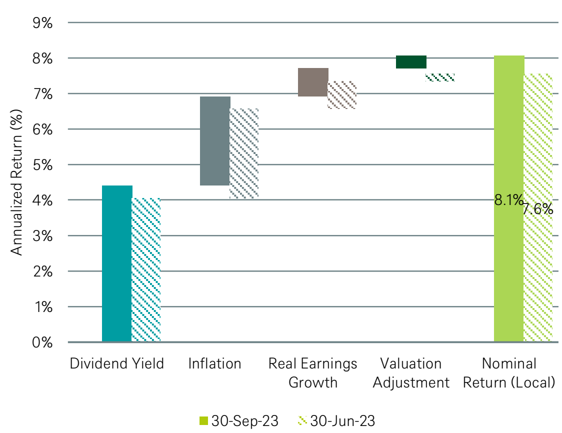
7.6% to 8.1%, reflecting higher dividend yield contribution and less demanding valutions.

Figure 28: Global REITs: Contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

Figure 29: Global Infrastructure: Contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

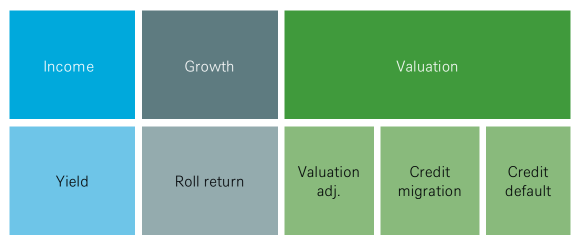
5.3 Fixed Income Forecasts

US Treasury yields continued to move higher in Q3, with a particularly pronounced move in interest rates concentrated in the latter half of September. The significant upward bias in both short and longer-term interest rates reflects robust economic data and an increased probability that higher interest rates are likely to remain in place for some time. While the Federal Reserve hiked interest rates just once in Q3—with a 25bps move in late July, the Fed Funds Futures curve now shows the short-term interest rate peaking in February of 2024 and remaining above 4.5% into the beginning of 2025. This sustained outlook for monetary tightness is in stark contrast to the zero interest rate policy backdrop for the real economy and for financial markets for much of the post-global financial crisis era.

Medium-to-longer-term interest rates also experienced a significant selloff in Q3, with the 10-year US Treasury yield moving from 3.84% at the end of June to 4.57% at the end of September. This significant move higher in the 10-year yield has introduced discussions of term premia and inflation risk premia, as attractive nominal yield levels that, in much of the last 15 years would have attracted significant investment interest, has not yet garnered sufficient demand to stabilize yields.

Looking over the longer term, however, the net effect of the modest move higher in interest rates is reflected in higher yield contribution to our strategic return outlook for sovereign bonds. Starting yield is by far the most important driver of return contribution in our building blocks shown in Figure 30.

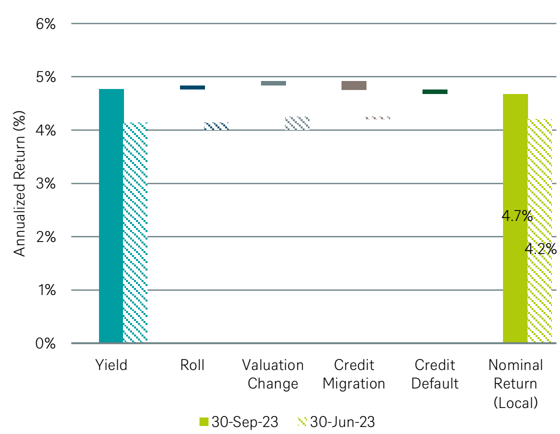
Figure 30: Pillar decomposition for Fixed Income



Source: DWS Investments UK Limited.

The nearly 75bps move higher in the 10-year US Treasury yield in Q3 increased yield contribution for our US Treasury Bond Index forecast from 4.1% at the end of June to 4.8%. This has moved out total return forecasts for the US Treasury Bond index half a percent higher to 4.7% as shown in Figure 31.

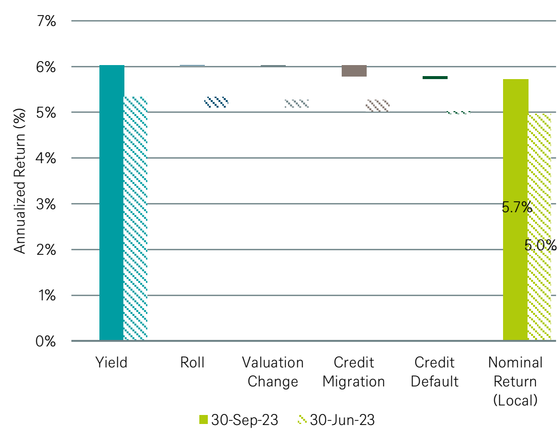
Figure 31: US Treasury Bond Index: Contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

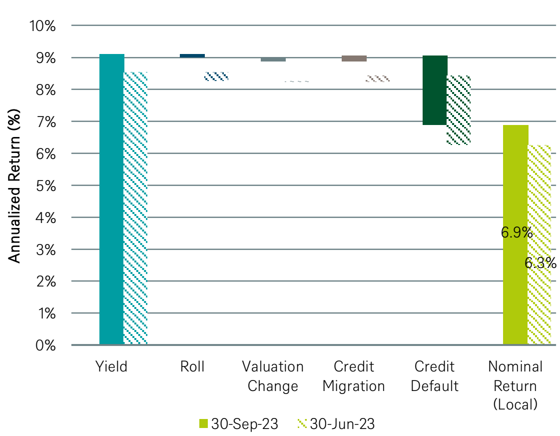
Return forecasts across corporate credit markets are similarly improved relative to Q2. Broadly speaking, corporate credit spreads were flat in Q3, with the US Investment Grade Corporate OAS moving from 1.23% to 1.21% and the US High Yield Corporate OAS moving from 3.90% to 3.94%. The sideways move in spreads combined with the increase in US Treasury yields across the curve results in higher starting yield levels across corporate credit asset classes, and by consequence, a modestly improved strategic return outlook. Over the course of Q3, our total return forecast for US Investment Grade Corporate Bonds increased from 6% to 6.7% (reflecting an increase in yield contribution from 5.3% to 6%) and our US High Yield Corporate Bond forecast improved from 6.3% to 6.9% (reflecting an increase in yield contribution from 8.5% to 9.1%). Figure 32 and Figure 33 shows US Investment Grade and US High Yield return forecasts, respectively.

Figure 32: US Investment Grade Corporate Bond Index: Contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

Figure 33: US High Yield Bond Index: Contribution to 10-year forecasted hypothetical annualized returns



Source: DWS Investments UK Limited. Data as of 30 Sep 2023.

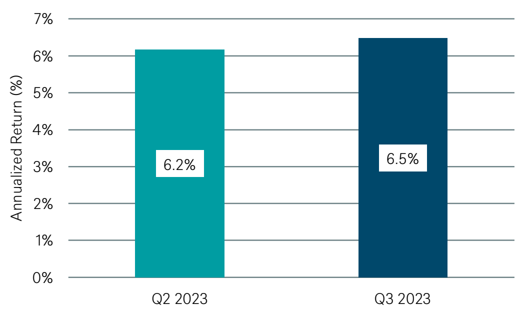
6/ Conclusion

Return forecasts are modestly higher across equity and fixed income asset classes relative to the end of Q2. Across global equity markets, price corrections in the latter half of August and into September resulted in less prohitive valuations to start the third quarter of 2023, while a sizeable move higher in interest rates, particularly in the US, benefitted fixed income asset classes by driving started yields materially higher. Longer-duration bonds in particular saw nominal yield levels improve significantly, which continues to make real and nominal bond yields more strategically attractive than they've been since the Global Financial Crisis and the subsequent implementation of global quantative easing measures.

The third quarter of this year continues a nearly 2-year trend of unanticipated inflationary pressures that unexpectedly followed over a decade of easy monetary policy and disinflationary trends. While the near-term outlook for global inflation still contains elements of uncertainty, reflected in elevated inflation risk premia observed in the real term premia, investors should be reminded that returns over a strategic time horizon are fundamentally grounded. Nominal fixed income returns have historically been most dependent on starting yield levels, and growth and inflation potential have historically been bounded to slow-moving labor and consumption demographic trends.

As such, the strategic outlook for investors is much improved to reflect these higher real term and risk premia across fixed income and equity asset classes. As a result, our 10-year return forecasts shown in Figure 34 illustrates how our 10-year return forecasts for a moderate strategic asset allocation multi-asset[9] have changed over the most recent quarter.

Figure 34: 10 year forecasted hypothetical annualized returns of moderate strategic asset allocation in local currency



Source: DWS Investments UK Limited. Data as of 30 September 2023.

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

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