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DWS Long View – Inflation

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Within this report, we present the DWS long-term capital market assumptions[1] as of the end of March 2021 for major asset classes.

As regions across the globe emerge from the COVID-19 pandemic, there is a growing sense of optimism about economic acceleration. The strength in global PMIs and measures of consumer confidence (such as the University of Michigan consumer sentiment and the European Commission consumer confidence) are further bolstered by the prospect of sizeable fiscal stimulus packages that are likely to arrive in the US and in Europe in the coming months.

The continued dovish monetary policy backdrop combined with this anticipated economic acceleration have stirred up market concerns over inflationary risks. Particularly, as the return outlook for nominal assets such as fixed income has repriced lower over the past year, investors are increasingly looking to alternative sources of return in anticipation of this reflationary environment.

The contrast between real and nominal assets is already being felt to an extent across our model 10yr return forecasts, as higher equity and real asset returns reflect modestly higher inflation expectations, although this is largely offset by more challenging valuations as prices for risk assets have continued to rise. Over the past quarter, government bond yields have repriced modestly higher but still remain negative in real terms and are susceptible to inflationary risks. **Our models now estimate a forecasted return of 4.8% from the MSCI All Country World Index ("ACWI") annually for the next decade, about half of what investors have received over the past decade[2]. At an aggregate level, we estimate the forecasted rate of return on a diversified portfolio of assets is now 4.2%, up 10 bps from the level at the beginning of the year.**

FIGURE 1. DWS TEN YEARS ANNUAL FORECASTED RETURNS

	As of 31 Mar. 2021	∆ since Dec 2020
S&P 500	5.3%	-0.1%
MSCI Europe	4.2%	-0.4%
MSCI UK	6.3%	-0.2%
MSCI Germany	3.6%	-0.7%
MSCI Japan	2.6%	-0.3%
MSCI World	4.8%	-0.1%
MSCI EM	4.8%	-0.2%
MSCI ACWI	4.8%	-0.2%
US Treasuries	1.6%	0.8%
Euro Agg Treasuries	-0.3%	0.1%
US Corporates	1.8%	0.6%
Euro Agg Corporates	0.2%	0.2%
US High Yield	2.8%	0.5%
Pan-Euro High Yield	1.6%	0.0%
EM Sovereigns	4.3%	0.5%
Developed REITs	4.6%	-0.8%
US REITs	5.4%	-0.7%
Global Infrastructure	5.4%	-0.7%
Americas Infrastructure	5.8%	-0.7%
Broad Commodities Futures	0.7%	0.8%

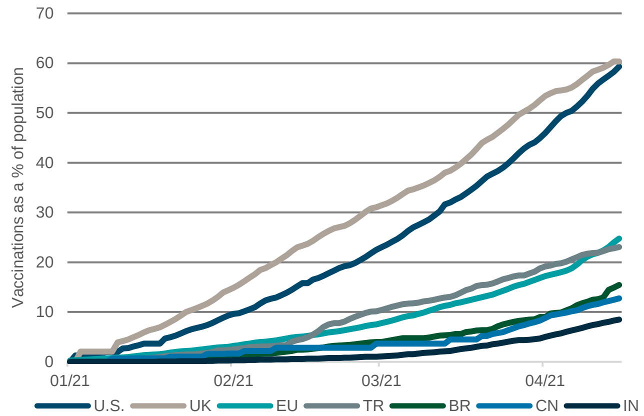
Source: DWS Investments UK Limited. Forecasts from of 31 March 2021 to 31 March 2031. Due to various risks, uncertainties and assumptions made in our analysis, actual events or results or the actual performance of the markets covered may differ materially from those described.

[1] Long-term forecasts are based on 10-year models and should not be compared with 12-month forecasts published in the DWS CIO View
[2] MSCI ACWI generated an annualized 9.14% total return from 3/31/2011 to 3/31/2021

Backdrop for renewed inflation fears

As COVID-19 vaccinations are being aggressively administered across regions, the consensus economic outlook has become more positive for reacceleration in Q2 and Q3. Figure 2 illustrates the rapid acceleration of vaccinations across different regions of the globe. The Eurozone still lags the US and the UK in the rate of shots administered, but the production outlook across these regions indicates that we are likely to reach critical mass across developed markets by the end of Q3[3].

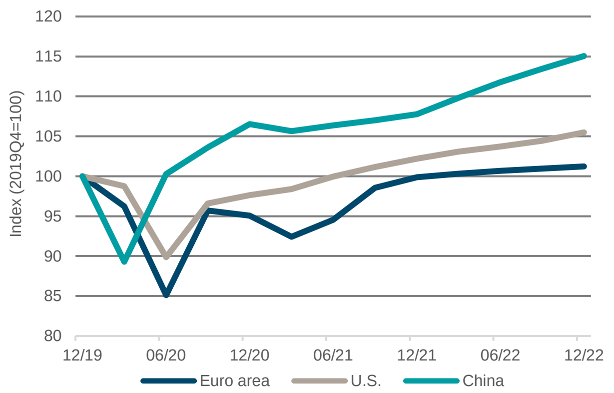
FIGURE 2. VACCINATIONS AS A % OF POPULATION



Source: DWS Investments UK Limited, Ourworldindata.com. Data as of 16 April 2021.

Such a rapid roll-out is fueling a reacceleration in global growth as we can see in Figure 3.

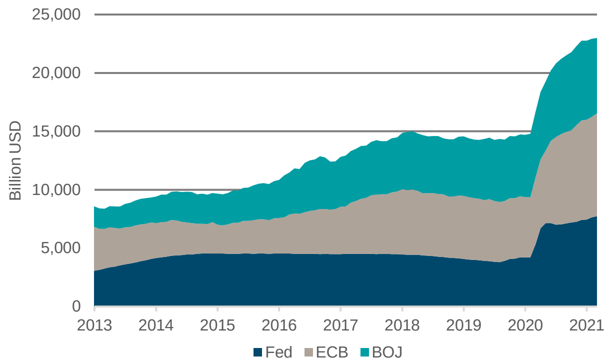
FIGURE 3. FORECAST OF GDP GROWTH ACROSS REGIONS



Source: DWS Investments UK Limited, Haver Analytics, Inc. Data as of 31 March 2021.

Growth continues to be supported by the backdrop of continued dovish monetary policy. Global central banks' efforts to avoid the combined effects of a global recession and a credit crisis in 2020 had a positive impact on global financial markets and helped corporations weather the significant fundamental stress but resulted in a significant increase in central bank balance sheets (see Figure 4).

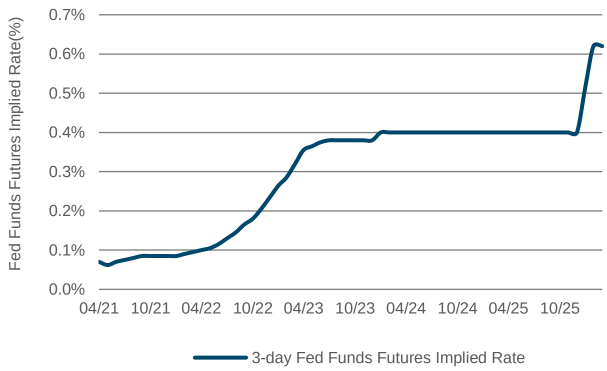
FIGURE 4. US, EUROPE, AND JAPAN CENTRAL BANK BALANCE SHEETS



Source: DWS Investments UK Limited, Haver Analytics, Inc. Data as of 31 March 2021.

Back in August of 2020, the Federal Reserve softened its language around its 2% inflation target, messaging to market participants that it is unlikely to engage in monetary tightening in the shorter term and is instead inclined to allow inflation to run moderately higher than the standard 2% target for some time before hiking interest rates. This is reflected in the flatness of the Fed Funds Futures curve shown in Figure 5.

FIGURE 5. FED FUNDS FUTURES IMPLIED RATE



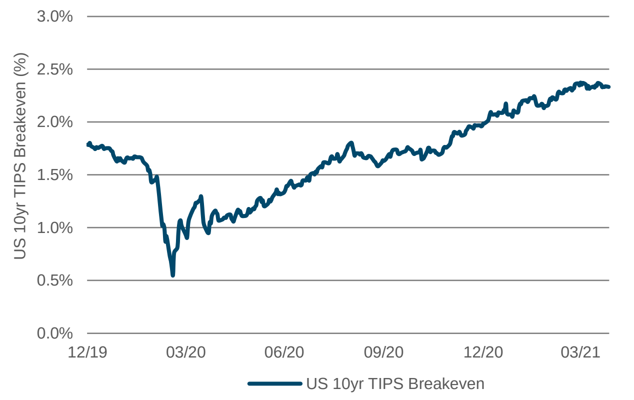
Source: DWS Investments UK Limited, Bloomberg Finance L.P. Data as of 31 March 2021.

The expected economic acceleration with the backdrop of continued easy monetary policy has fed into renewed inflationary fears by market participants. Market-based measures of inflation pricing have climbed higher in recent months, with the 10-year Breakeven Inflation Rate for US Treasury Inflation Protection Securities now trading above the 2% Fed target level (see Figure 6).

10-year TIPS Breakevens have reached levels not seen since early 2013. Back in 2013, longer term interest rates began to rise as inflationary pressures translated into a more hawkish stance from the Federal Reserve. This ultimately resulted in the Fed tapering its asset purchases in December of 2013, which caused temporary market turmoil but ultimately helped to quell inflationary fears.

[3] https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/when-will-the-covid-19-pandemic-end

FIGURE 6. 10Y US TREASURY INFLATION PROTECTION SECURITIES BREAKEVEN LEVEL



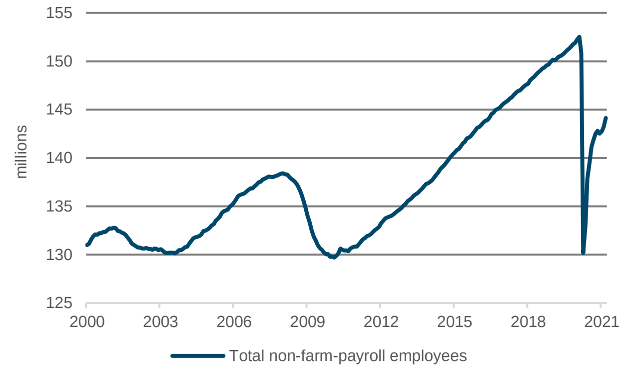
Source: DWS Investments UK Limited, Bloomberg Finance L.P. Data as of 31 March 2021.

In some ways, the 2013 Fed asset purchase tapering looks similar to the current market environment. However, whereas Bernanke indicated as early as May 2013 that the *"[The Fed] could, in the next few meetings, take a step down in our pace of purchases*", Chairman Powell has indicated as late as mid-March that the Fed is not yet ready to taper. Said Chairman Powell, "*Until we give a signal, you can assume we're not there yet. As we approach it, well in advance, well in advance, we will give a signal that yes, we're on a path to possibly achieve that, to consider tapering.*"

The question as to whether inflationary fears will materialize and the extent to which the Fed will proactively address inflationary concerns if they do, in fact, materialize are paramount for investors over the coming years. Our view on the inflationary outlook is largely dependent on time horizon (see CIO Special Inflation[4]). **In the short term**, we expect significantly higher inflation rates. One reason for this are special effects such as the end of the temporary VAT tax reduction in Germany. Other reasons include base effects, such as the oil price. Currently, the oil price (at 60 USD/barrel) is more than 200% higher than one year ago. However, such one off effects should be ignored by the central banks as they do not constitute structural inflation. Inflation is a process rather than a one-time price jump. Therefore, central banks will not react on transitory price increases. **In the medium term**, the outlook for inflation is dampened as economies still faces tremendous capacity underutilization, and it will take time to close the output gaps. This is especially true in Europe which lags in recovery, but is also the case in the U.S. where the economy is still far from full employment (see Figure 7).

In the long run, however, where the strategic 10-year outlook must incorporate the challenges of demographic tidal shift, inflationary pressures are very much conceivable. Shrinking working-age populations and weak productivity growth should weaken the supply side of the economy while demand, especially in the service sector, will likely be boosted by growing and aging populations.

FIGURE 7. US EMPLOYMENT



Sources: DWS Investments UK Limited, Haver Analytics, Inc. Data as of 31 March 2021.

Concerns about a rise in inflation also surfaced post the 2008 financial crisis, based on the simple view that inflation is possibly the easiest way to deflate debt obligations. As inflation never materialised, one could be tempted to dismiss such concerns, but such an approach is not prudent given the continued rise in the levels of debt. It is thus important to review how such inflationary dynamics will impact various asset classes, which we will subsequently address through the lens of the building blocks of our *Long View* return forecasts.

Inflation and traditional assets

As inflationary concerns take hold, investors are increasingly seeking to shift portfolio allocations toward assets that can benefit from, not lose to, inflation. Within this context, we must highlight that **the primary risk to investors comes from a prolonged period of rising inflation (like the one in the 1970s), rather than a temporary one, something that was recently highlighted in the aforementioned March speech by Chairman Powell.** While uncertainty remains as to the likelihood of inflation risk over the longer term, it is nonetheless prudent to map our 10-year forecast models to inflation. Figure 9Figure 8 illustrates our pillars of return contribution, and the underlying building blocks, that we utilize in forecasting returns for the *Long View*.

FIGURE 8. PILLAR DECOMPOSITION FOR TRADITIONAL ASSET CLASSES

Asset class	Income		Growth		Valuation		
Equity	Dividend yield	Buybacks & dilutions	Inflation	Earnings growth	Valuation adjustment		
Fixed income	Yield		Roll return		Valuation adjustment	Credit migration	Credit default
Commodities	Collateral return		Inflation	Roll return	Valuation adjustment		

Source: DWS Investments UK Limited.

[4] https://www.dws.com/insights/cio-view/macro/the-return-of-inflation/).

The universe of fixed income investments stands to suffer the most from any material shift higher in the long term inflationary outlook. The fixed income return building blocks shown in Figure 9 do not include any explicit inflationary components. Ultimately, fixed income (apart from TIPs and floating rate securities) is a nominal asset with a fixed, as the nomenclature indicates, stream of income payments. Even absent a material rise in interest rates, which has been the historical experience during periods of inflationary pressure, these fixed nominal returns may look less attractive in real terms if consumer prices rise.

In shorter term models, it is arguable that, particularly for credit markets, credit fundamentals could benefit from a strong economic environment where inflationary pressures are a function of growth acceleration and broad asset reflation. However, over a more strategic 10-year time frame, we generally find normalization of these valuation metrics of fixed income investments to be a better baseline assumption.

FIGURE 9. PILLAR DECOMPOSITION: FIXED INCOME

Income	Growth	Valuation		
Yield	Roll return	Valuation adjustment	Credit migration	Credit default

Source: DWS Investments UK Limited.

Alternatively, equities do possess some inflationary qualities. Figure 10 illustrates that the growth component of equity returns is both a function of real earnings growth and inflation, where we find an empirical sensitivity of corporate earnings to the inflationary landscape for a given country. However, the benefit or detriment of inflationary pressures will not be uniform across different equity sectors. According to in-depth research done by the CROCI® Investment & Valuation Team:

- Financials only provide exposure to nominal assets
- The rest of the market has historically provided inflation protection, which is highest in sectors with strong competitive advantage and pricing power (IT, Healthcare, some Consumer sectors)

Apart from the inflation component of the growth pillar, there is a belief that equities may be affected by increases in interest rates or discount rates because of inflation. However, this is a fallacy presented by academics that use reported earnings for their research and do not realise that, in periods of rising inflation, Reported Earnings become a poor proxy of Cash Earnings (Curto, 2021).

FIGURE 10. PILLAR DECOMPOSITION: EQUITIES

Income		Growth		Valuation
Dividend yield	Buybacks & dilutions	Inflation	Earnings growth	Valuation adjustment

Source: DWS Investments UK Limited.

For both secular and macroeconomic reasons, commodities, which we measure via commodities indices that are broadly used by the investment community, have been challenged in both nominal and real returns. Since financial exposure to commodities is achieved via futures contracts, our return forecasting methodology for individual commodities, which is then aggregated at the index level, relies largely on a few key components: 1. Financial carry or return on cash collateral 2. Inflation outlook 3. Carry and roll from the commodities futures curve and 4. Normalization of real commodities prices over time. The breakdown of these pillars is shown in Figure 11.

Collateral return, unsurprisingly, is low as risk-free rates have been in secular decline. Roll return will depend on the term structure of the individual commodity, which can vary based on a number of market dynamics for a given commodity. Whereas financial commodities such as Gold will have a futures curve largely anchored to financial carry (i.e. interest rates), energy and agricultural commodity term structures may reflect supply/demand imbalances and/or seasonality. Further, demand for hedging by producers or end users can impact the shape of the commodities curve. Finally, our valuation pillar argues for the long-term gradual mean reversion of commodity prices. This valuation adjustment is calculated by first converting nominal commodities prices into real commodities prices by dividing said prices by a CPI deflator. We then take these real commodity prices and assume a degree of real price mean reversion for each individual commodity via exponentially time weighting, recognizing that there may be an element of recency to these real prices.

FIGURE 11. PILLAR DECOMPOSITION: COMMODITIES

Income	Growth		Valuation
Collateral Return	Inflation	Roll return	Valuation adjustment

Source: DWS Investments UK Limited.

Inflation and alternative assets

Our real estate and infrastructure equity forecasts utilize the same pillars as do the traditional equity forecasts. While these assets have historically relied more on dividend distributions to drive realized returns, they nonetheless are inflationary assets. In contrast to traditional equities, valuations for REITs and listed infrastructure are less of an impediment going forward, a topic we explore in more detail in the following section. Our return forecast pillars for listed real estate equity and listed infrastructure are shown below in Figure 12.

FIGURE 12. PILLAR DECOMPOSITION FOR REITS AND INFRASTRUCTURE

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

Source: DWS Investments UK Limited.

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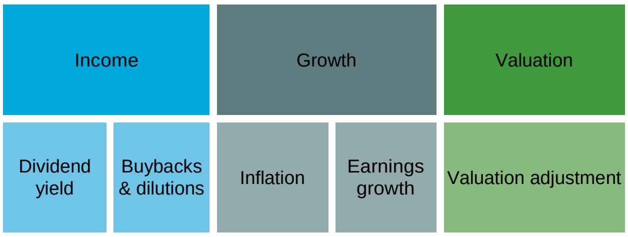
Equity Forecasts

For our equity return forecasts, Figure 12 illustrates the changes to our return pillars for 10-year MSCI All Country World local currency return forecast. The return has declined marginally to 4.8% from the 4.9% level at the beginning of the year.

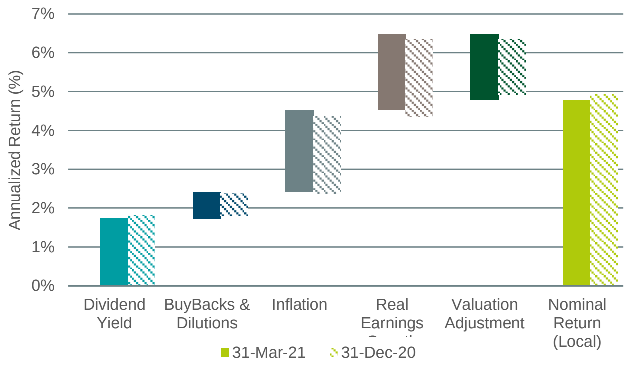
Modestly higher inflation expectations have added 12 bps to normal return forecasts (to 2.1% from 2% at the end of Q4). Alternatively, valuations continued to rise in Q1. As a result, our valuation adjustment pillar has reduced return forecasts by -1.7% per annum versus -1.4% at the beginning of the year.

FIGURE 13. PILLAR DECOMPOSITION FOR EQUITIES



Source: DWS Investments UK Limited.

FIGURE 14. MSCI ALL COUNTRY WORLD: CONTRIBUTION TO 10 YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS

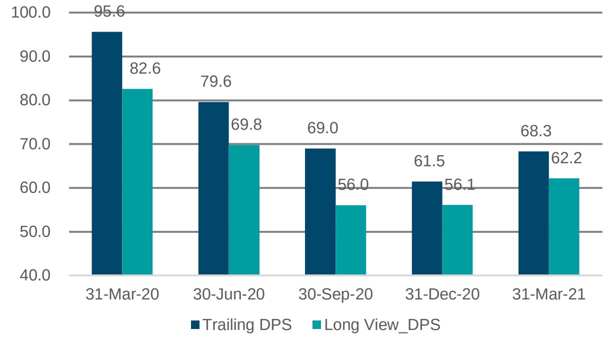


Source: DWS Investments UK Limited. Data as of 31 March 2021. Hypothetical performance is not an indicator of future actual results. Hypothetical performance results have many inherent limitations. No representation is made that actual profits or losses will be similar to those shown.

Removing the dividend haircut

Last April, in the early stages of the COVID-19 crisis, we embedded into our dividend forecasts a haircut that we would gradually phase out as market conditions normalized. A year later, this adjustment is no longer necessary. Figure 15 illustrates that, for MSCI UK, this haircut was appropriate to, and generally consistent with, dividend cuts that occurred in the ensuing quarter.

FIGURE 15. MSCI UK ACTUAL VERSUS LONG VIEW FORECASTED DIVIDEND PER SHARE

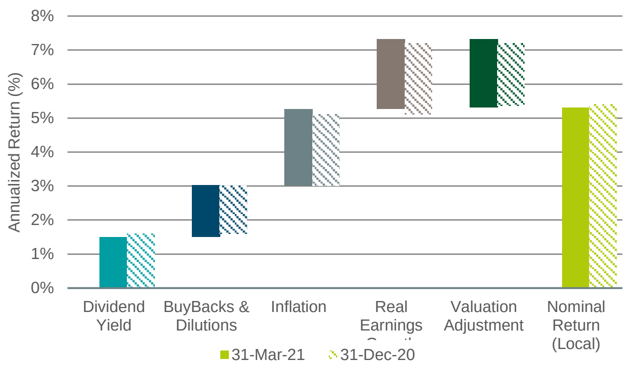


Source: DWS Investments UK Limited, Bloomberg Finance L.P. Data as of 31 March 2021.

Europe equity returns face greater hurdles

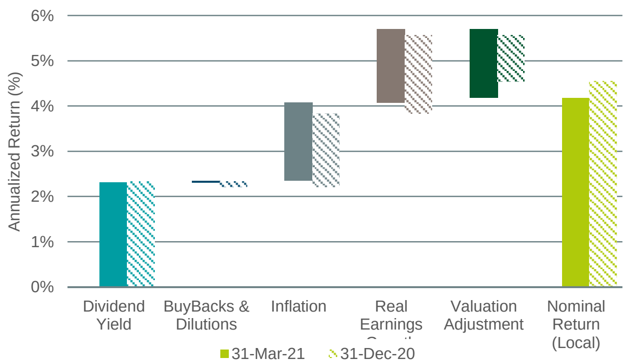
At the regional level, the valuation adjustment and income pillars have affected returns differently. The valuation adjustment was relatively modest in the US (see Figure 16), whereas the valuation headwind became more pronounced in Europe in Q1 (see Figure 17) by 50bps. This follows the strong multiple expansion experienced in Europe in Q1.

FIGURE 16. S&P 500: CONTRIBUTION TO 10 YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS



Source: DWS Investments UK Limited. Data as of 31 March 2021. Hypothetical performance is not an indicator of future actual results. Hypothetical performance results have many inherent limitations. No representation is made that actual profits or losses will be similar to those shown.

FIGURE 17. MSCI EUROPE: CONTRIBUTION TO 10 YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS



Source: DWS Investments UK Limited. Data as of 31 March 2021. Hypothetical performance is not an indicator of future actual results. Hypothetical performance results have many inherent limitations. No representation is made that actual profits or losses will be similar to those shown.

Liquid Real Assets Forecasts

While REITs and Infrastructure both leverage very similar pillars to equities (see Figure 18), returns are derived largely from income via dividend distributions as shown in Figure 19 and Figure 20.

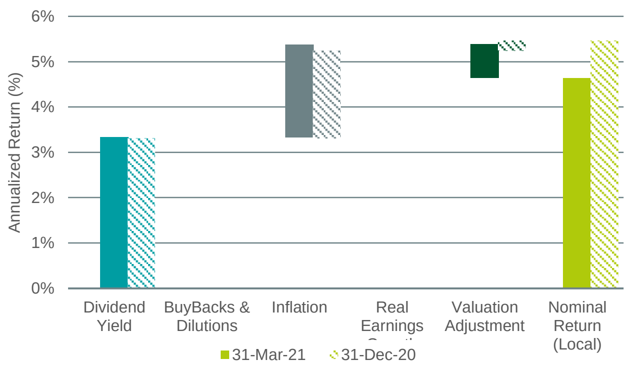
FIGURE 18. PILLAR DECOMPOSITION FOR REITS AND INFRASTRUCTURE

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

Source: DWS Investments UK Limited.

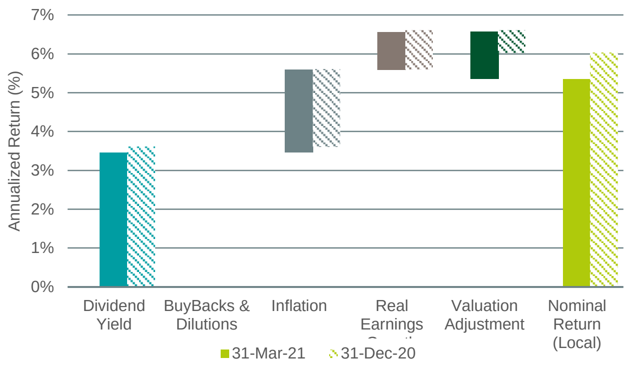
Across liquid real assets, our return forecasts indicate a somewhat more constructive outlook. While valuations remain stretched in traditional equities, REIT dividend yields are less compressed relative to longer term averages. This provides advantageous levels on income contribution but also means a lesser headwind in terms of valuation normalization. Similarly, infrastructure returns embed a favorable income stream.

FIGURE 19. GLOBAL REITS: CONTRIBUTION TO 10 YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS



Source: DWS Investments UK Limited. Data as of 31 March 2021. Hypothetical performance is not an indicator of future actual results. Hypothetical performance results have many inherent limitations. No representation is made that actual profits or losses will be similar to those shown.

FIGURE 20. GLOBAL INFRASTRUCTURE: CONTRIBUTION TO 10 YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS



Source: DWS Investments UK Limited. Data as of 31 March 2021. Hypothetical performance is not an indicator of future actual results. Hypothetical performance results have many inherent limitations. No representation is made that actual profits or losses will be similar to those shown.

Fixed Income Forecasts

The fundamental return outlook across fixed income looks challenged for the next 10 years. The combination of low starting yields, increasing government deficits, and persistent fundamental risk across corporates detract from the pillars of return contribution we utilize in Figure 21.

FIGURE 21. PILLAR DECOMPOSITION FOR FIXED INCOME

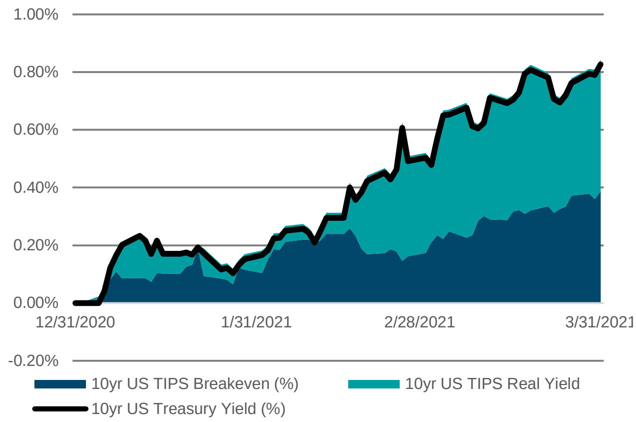
Income	Growth	Valuation		
Yield	Roll return	Valuation adj.	Credit migration	Credit default

Source: DWS Investments UK Limited. Data as of 30 June 2020.

Low expected returns in government securities

As discussed earlier in this newsletter, fixed income is a nominal asset without an explicit sensitivity to inflationary risks. While the selloff in US Treasury yields in Q1 provides a more favorable starting yield level for core fixed income investors, about roughly half of the repricing in 10yr US Treasury yields in Q1 (see Figure 22) can be attributed to higher Treasury Inflation Indexed Breakeven levels.

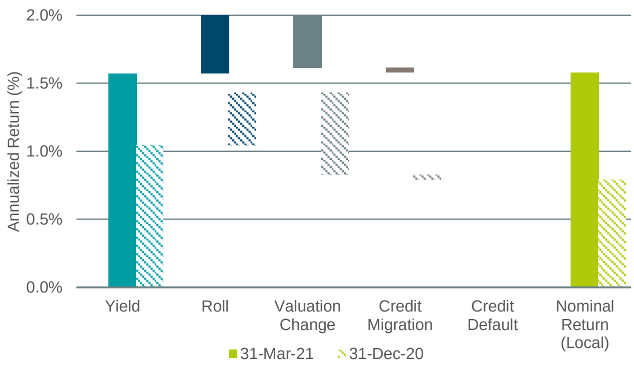
FIGURE 22. CHANGE IN 10YR US TREASURY YIELD (%)



Source: Bloomberg Finance L.P., DWS Investments UK Limited. Data as of 31 March 2021

Yields on government bonds and other safe-haven fixed income assets remain subdued as guidance from global central banks continues to be dovish, even amid shorter term inflationary pressures. The yield on the Barclays Global Agg Treasury Index rose 43 bps in Q1 from 0.57% to a modestly higher 1%. Figure 23 illustrates the increase in starting yields and roll yield have translated into a 79 bps increase in forecasted returns for the US Treasury Bond Index, increasing from 0.8% to 1.6%.

FIGURE 23. US TREASURY BOND INDEX: CONTRIBUTION TO 10 YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS



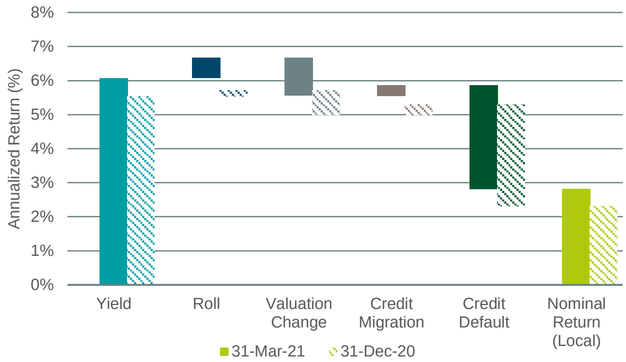
Source: DWS Investments UK Limited. Data as of 31 March 2021. Hypothetical performance is not an indicator of future actual results. Hypothetical performance results have many inherent limitations. No representation is made that actual profits or losses will be similar to those shown.

Strong technical credit backdrop

As economic fundamentals continued to improve in Q1, credit spreads experienced further compression. For US High Yield investors, options-adjusted spreads rallied by 50 bps from 3.6% to 3.1% in Q1 on the back of the strong risk-on environment. Yields remained largely unchanged, however, as risk-free yields moved higher.

US High Yield 10-year return forecasts have modestly improved from 2.3% to 2.8% as the yield, particularly the risk-free component, and roll look more attractive than they did to start the year (see Figure 24). This is partially offset by modestly more challenging valuations as noted in the compression in credit spreads.

FIGURE 24. US HIGH YIELD BOND INDEX: CONTRIBUTION TO 10 YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS

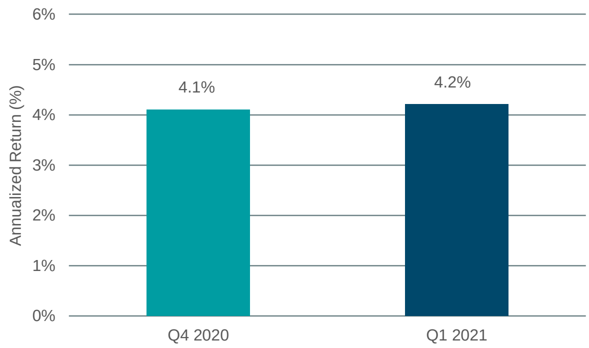


Source: DWS Investments UK Limited. Data as of 31 March 2021. Hypothetical performance is not an indicator of future actual results. Hypothetical performance results have many inherent limitations. No representation is made that actual profits or losses will be similar to those shown.

Conclusion

As inflation fears have crept back into the market, investors must increasingly differentiate between real and nominal assets. Modest repricing has left starting bond yields more attractive, yet these assets remain susceptible to material increases in inflation expectations. While inflationary assets such as equities and real assets may help investors sidestep these risks, valuations remain a hurdle. Figure 25 shows how richer equity valuations, tighter credit spreads, and increasing inflation risks impact a moderate strategic asset allocation[5]. The result leaves a challenging return outlook for investors both in nominal and potentially in real terms.

FIGURE 25. 10-YEAR FORECASTED HYPOTHETICAL ANNUALIZED RETURNS OF MODERATE STRATEGIC ASSET ALLOCATION



Source: DWS Investments UK Limited. Data as of 31 March 2021.

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

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Appendix

Representative indices

TABLE 1: EACH ASSET CLASS IN THIS PUBLICATION IS FORECASTED AS PER ITS CORRESPONDING REPRESENTATIVE INDEX*

Broad Asset Class	Asset Class	Representative Index
Equities	S&P 500	S&P 500
Equities	Euro Stoxx 50	Euro Stoxx 50
Equities	MSCI Europe	MSCI Europe
Equities	MSCI UK	MSCI United Kingdom
Equities	MSCI Germany	MSCI Germany
Equities	MSCI Switzerland	MSCI Switzerland
Equities	MSCI Japan	MSCI Japan
Equities	MSCI World	MSCI World
Equities	MSCI EM	MSCI Emerging Markets
Equities	MSCI ACWI	MSCI All Country World Index
Fixed Income	US Treasuries	Bbg Barclays US Treasury
Fixed Income	Euro Agg Treasuries	Bbg Barclays Euro Treasury
Fixed Income	Sterling Gilts	Bbg Barclays Sterling Gilts
Fixed Income	US Corporate	Bbg Barclays US Corporate
Fixed Income	Euro Agg Corporates	Bbg Barclays Euro Aggregate Corporate
Fixed Income	US High Yield	Bbg Barclays US High Yield
Fixed Income	EM Sovereigns	Bbg Barclays Emerging Markets USD Sovereign
Alternative	Developed REITs	S&P World REIT
Alternative	US REITs	S&P USA REIT
Alternative	Global Infrastructure	DJ Brookfield Global
Alternative	Americas Infrastructure	DJ Brookfield US
Alternative	Broad Commodities Futures	Bbg Commodity

Source: Bloomberg Finance L.P., DWS Investments UK Limited.

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