The Global Market Portfolio

The 2023 Update

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The Global Market Portfolio

The 2023 Update

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Executive summary

How can investors reach their financial goals in the current market environment? Which asset classes need to be considered? One year ago, we delved into the global market portfolio concept to help answer these questions. The months after the publication have been shaped by various drivers ranging from euphoric hopes for an AI revolution paired with robust economic performance to cases of market stress underpinning recessionary expectations. The difficulty of navigating these crosscurrents is a reminder for investors to find a good starting point for a long-term investment. We believe that our updated global market portfolio (GMP) allocation fits this purpose exactly.

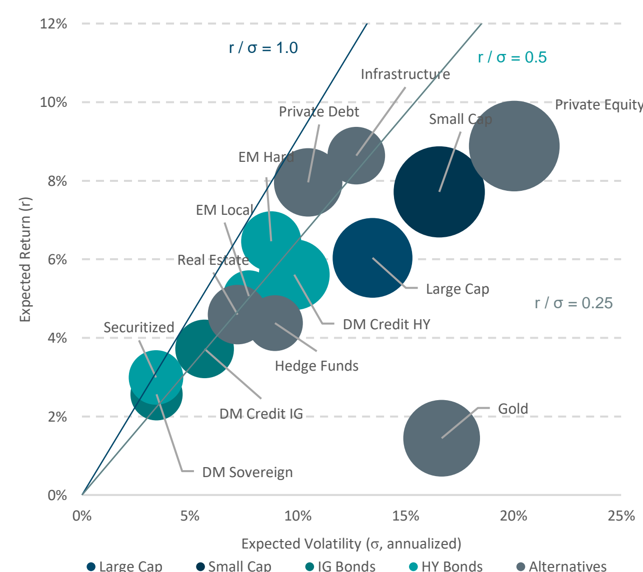
Our study in a short- and long-term context

So far, 2023 has reminded investors of the importance of investing over a strategic time horizon. Many market participants came into the year positioned cautiously amid continued concerns about global growth and worrying events such as US banking failures, signs of cracks in the commercial real estate market, and the ongoing debt ceiling debate. However, against the backdrop of these negative views, we have seen a rally in risk assets: over the first seven months of this year, global equities are up 18.5%, high yield spreads have tightened almost 100bps, and even hard currency emerging markets debt investments have realized a total return of 4.9%.

The omnipresent bearishness at the beginning of the year has shifted to a general re-risking of portfolios in the search for beta, with many investors capitulating after having missed out on this rally. In an environment of elevated uncertainty, the cost of getting short term views wrong should not be underestimated. The possibility of such short-term mistakes highlights the importance of a proper strategic perspective when navigating markets even more.

The DWS Long View, our set of long-term capital markets assumptions, aims to provide guidance for investors - especially in these uncertain times. In recent years, the expected return frontier across asset classes has shifted significantly higher - with an improved return potential for bonds and equities. Despite the year-to-date rally in risk assets, we still expect higher returns compared to one year ago, in particular for nominal bonds, and a positive excess return of equities over sovereigns and cash. Figure 1 visualizes the projected long-term risk-return landscape across equities, bonds, and alternatives.

FIGURE 1. EXPECTED RISK-RETURN OVERVIEW



Source: DWS Investment GmbH, as of: August 2023

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Put simply, the chart shows that different asset classes have different risk-return profiles and that some asset classes are more attractive than others – at least from a risk-adjusted return perspective. It's important to have these views, and it's even more crucial to understand how to combine these opportunities and risks in portfolios. While we assume that the optimal portfolio composition will depend on investors' circumstances, investment objectives, and constraints, we have introduced the global market portfolio (GMP) in last year's publication as a market value-weighted global allocation that can serve as a starting point for asset allocators.

In this year's paper, we first present an update of the weights of the global market portfolio and the corresponding risks across asset classes. Secondly, we discuss the various year-over-year changes in market conditions with a focus on fixed income: with global yields near multi-decade highs, we focus on the changing role of bonds in this allocation. Lastly, we present a case study that outlines the ways income-seeking investors can deviate from the GMP to reach their yield targets. To achieve this, we employ our proprietary optimization methodology in combination with income objectives applied to each asset class.

The global market portfolio

The idea of the GMP is to derive a global composite allocation of the overall financial market such that investors can take a bird's eye view on all available asset classes and thus better seize opportunities and navigate risks. Due to the market dynamics that we have witnessed during the past months, we have updated the market value-weighted allocation[1] that we first introduced in last year's report[2]. Such an overview is relevant for investment discussions, especially of those investors who want to diversify their portfolios or who want to stay informed about their relative allocation amid changing market conditions.

Asset and risk allocation

Figure 2 shows the overall split of the updated GMP: 42% in equities, 40% in fixed income and 18% in alternatives. Large-cap equities and nominal sovereign bonds[3] from developed markets account for 57% - just over half of the overall allocation. This demonstrates that there is a variety of other asset classes that investors can consider to potentially enhance the long-term return potential and to increase the diversification of a simple stock-bond portfolio.

However, note that this overview is not designed to convey the message that every investor needs to be invested in all of those asset classes. Nor does it claim the weights are optimal. Different market regimes call for different allocations, and different investment objectives and scenarios require different exposures. The overview serves as an initial guide to a truly global and diversified investment landscape that goes beyond traditional large-cap equities and sovereign bonds.

FIGURE 2. THE GLOBAL MARKET PORTFOLIO

Equities	**42.30%**	
	% of GMP	% of EQ
Developed Markets	37.70%	89.15%
Emerging Markets	4.59%	10.85%
Large Cap	37.59%	88.87%
Small Cap	4.71%	11.13%
Infrastructure	2.15%	5.09%
Real Estate	1.23%	2.92%
Fixed Income	**40.16%**	
	% of GMP	% of FI
Developed Sovereign	20.90%	52.04%
Nominal Bonds	18.99%	47.30%
Inflation Protected Bonds	1.90%	4.74%
Developed Credit	8.01%	19.95%
DM Credit IG	6.91%	17.20%
DM Credit HY	1.11%	2.76%
Emerging Markets	5.87%	14.63%
Emerging Markets - Local	2.75%	6.85%
Emerging Markets - Corporate	2.33%	5.80%
Emerging Markets - Hard	0.79%	1.97%
Securitized	5.18%	12.90%
Convertibles	0.19%	0.48%
Alternatives	**17.55%**	
	% of GMP	% of ALT
Private Equity	3.78%	21.52%
Private Debt	0.76%	4.33%
Real Estate	6.64%	37.86%
Infrastructure	0.39%	2.24%
Hedge Funds & Liquid Alternatives	2.27%	12.93%
Digital Assets	0.68%	3.88%
Gold	3.03%	17.25%

Source: DWS Investment GmbH, Bloomberg L.P., MSCI, HFR, Burgiss, J.P. Morgan, World Gold Council. as of: August 2023

[1] All asset classes proportionally weighted by their market capitalization.
[2] Warken and Kostyrina (2022)
[3] Nominal sovereign bonds refer to bonds with fixed nominal yields.

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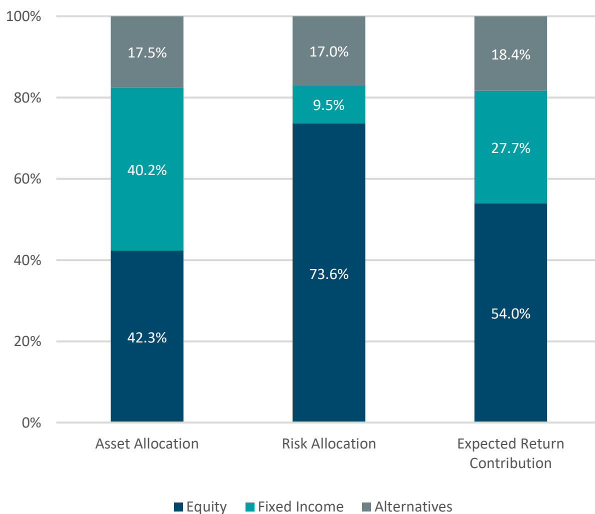
From a risk perspective, we estimate that the 2023 GMP has a long-term annualized volatility of 7.8%. As highlighted in Figure 3, equities contribute the largest share of risk, while alternatives also account for a fifth of the portfolio's overall market risk. Fixed income contributes less risk to the portfolio than equities or alternatives, particularly in comparison to its nominal portfolio allocation. This can be attributed to both lower absolute variance of many fixed income asset classes as well as low-to-negative correlations to equities and alternatives. Moreover, the bond-equity correlation is an important consideration for the risk of the GMP which we address in more detail in the fixed income section.

From an expected return perspective, the situation is slightly more balanced: the contribution of fixed income assets is expected to be at 30%, while equities make up more than 50% of the overall return potential.

FIGURE 3. ALLOCATIONS AND CORRESPONDING RISK & RETURN CONTRIBUTION BY ASSET CLASS

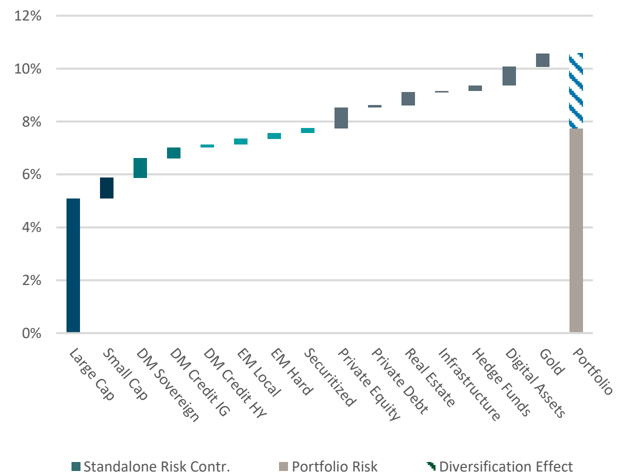


Source: DWS Investment GmbH; as of: August 2023

Nevertheless, Figure 4 also shows that the risk sources outside of equities cannot be neglected. Alternatives increase the overall standalone risk by about 3 percentage points (pp) with the most prominent contributors being Private Equity and Digital Assets.

We estimate that through correlation between asset classes, the diversification effect significantly reduces the portfolio risk by about a quarter when compared to the sum of the standalone risks of the individual assets, represented by the blue striped bar in Figure 4.

FIGURE 4. RISK CONTRIBUTION AND DIVERSIFICATION



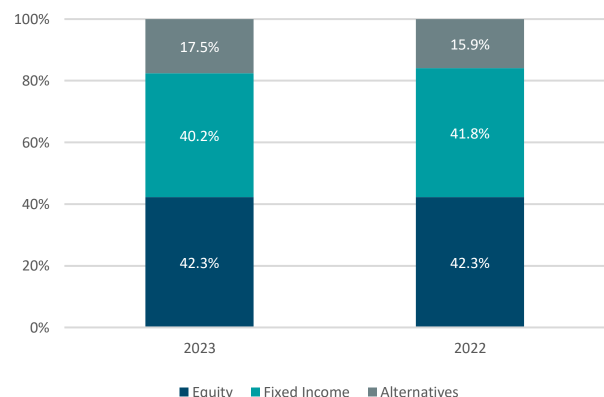
Source: DWS Investment GmbH; as of: August 2023

Changes relative to the 2022 GMP

Generally speaking, changes in the global market portfolio allocations are incremental from year to year. Changes to the market capitalization-weighted global asset allocation reflect net changes in the global market structure.

Relative to the previous year's global market portfolio, the 2023 GMP shows very modest shifts in terms of broad asset allocation, as shown in Figure 5. The largest shift is an increase in alternatives of about 1.6pp, which is largely offset by a reduction in the fixed income allocation of roughly 1.6pp driven by a sharp increase in interest rates in 2022 and a commensurate reduction in bond prices and correspondingly, total market value. The equity allocation remains rather stable at 42.3%. The overall market value of the global market portfolio increased by 4.8 bn USD and is now at 168.8 bn USD.

FIGURE 5. ALLOCATION CHANGES IN ASSET CLASSES



Source: DWS Investment GmbH; as of: August 2023

More interesting changes in the GMP can be observed at the sub-asset class level and through portfolio risk measurements and

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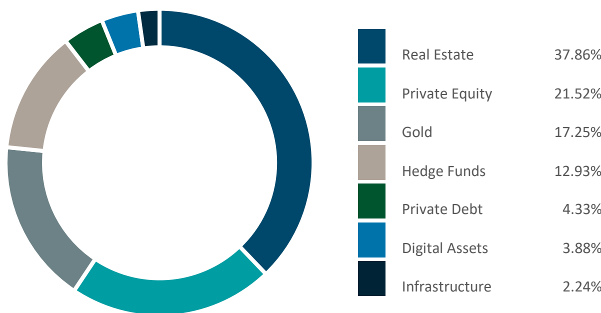
expected returns that reflect changes in market conditions over the past year.

The increase of alternatives is, to some extent, explained by the denominator effect that we can still observe in mid-2023. Private market investments account for more than 60% of the alternatives bucket (Figure 6) and those assets are subject to infrequent, appraisal- or transaction-based valuation approaches, and in some market segments, we still have not observed larger markdowns. However, funding dynamics for venture capital, for example, suggest that, after an incredible decade for growth assets, things are changing: funding globally almost halved in the first half of the year – despite the significant interest in AI investments. As a result, with some markdowns potentially still to come, adjustments to the private market weight in the GMP may be practical to account for artificially smooth or modestly inflated market values.

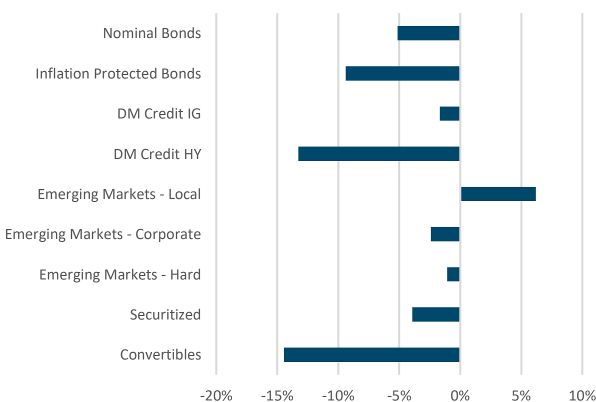
FIGURE 6. ALTERNATIVES ALLOCATION (%)



Source: DWS Investment GmbH; as of: August 2023

The decrease of the fixed income weight takes place across almost all sub-asset classes (Figure 7). The relative change is most pronounced in more volatile, high beta, spread asset classes such as convertible bonds and high yield corporates but also in inflation-linked bonds which have been impacted by rising real interest rates: the weights of these fixed income sub-asset classes have been reduced by 10-15%.

FIGURE 7. CHANGES IN FIXED INCOME ALLOCATION



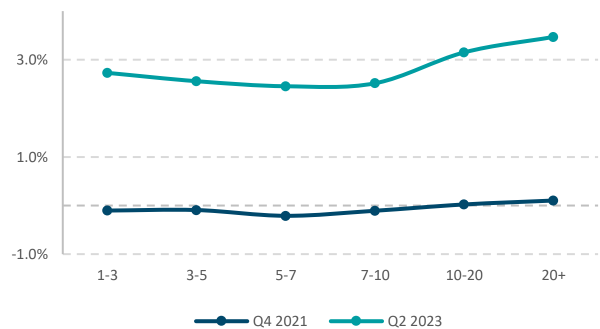
Source: DWS Investment GmbH; as of: August 2023

While the overall fixed income share has shrunk by only around 2pp in the GMP, investors' perspective on this asset class has changed dramatically last year. Many were reminded of how complex and dynamic the fixed income universe can be.

Fixed Income: gaining more relevance with increased granularity needed.

Years of Quantitative Easing and ultra-loose monetary policy suppressed bond yields or in some regions even sent them into the negative territory. Naturally, investors aspiring for positive returns had been predominantly pushed out into the longer end of the yield curve as a result. Merely 18 months ago, a typical European investor would have had to be in the long end of the sovereign bond curve just to earn returns above zero (Figure 8), introducing higher duration risks into the portfolio.

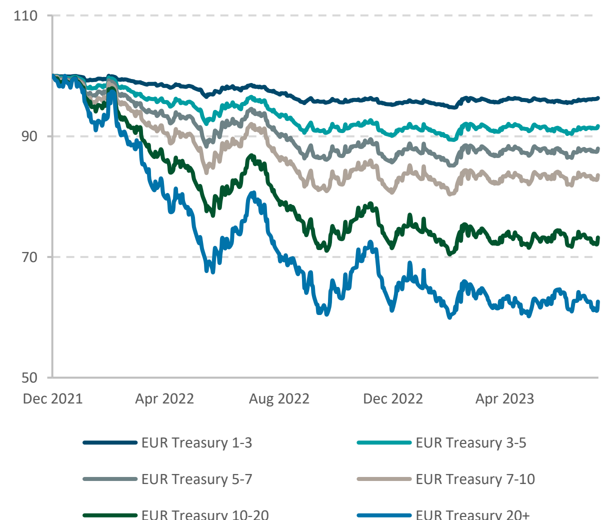
FIGURE 8. EXPECTED RETURNS FOR EUR SOVEREIGNS



Long View Q2 expected returns for Eurozone Sovereigns.
Source: DWS Investment GmbH; as of: August 2023

However, a perfect storm of geopolitical and macroeconomic crises in 2022 caught many investors off-guard. Dramatic selloffs in core fixed income markets have reminded investors of the importance of duration management (Figure 9).

FIGURE 9. REALISED PERFORMANCE ACROSS TENORS



Source: DWS Investment GmbH; as of: August 2023

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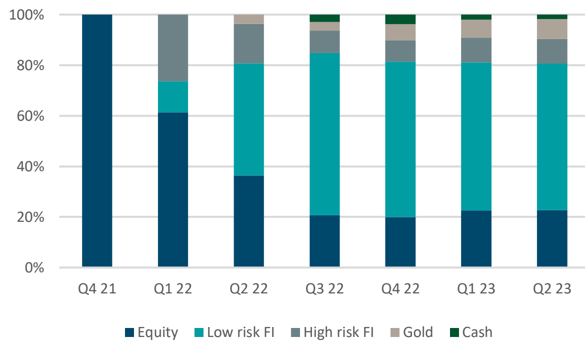
As a result, increases in fixed income yields have been the largest driver of improved expected returns. Currently, a multi asset investor needs less equity risk - and can allocate a greater proportion of the portfolio to low risk fixed income - to achieve the same return as in previous quarters (Figure 10).

FIGURE 10. TARGETING A 4% ANNUAL RETURN

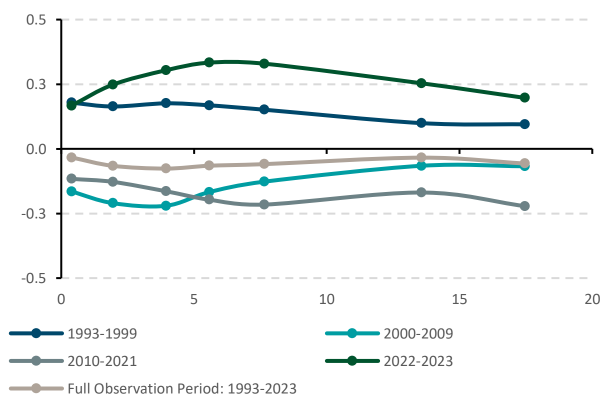


Optimisation based on the DWS Long View expected returns denominated in Euro. Low risk FI includes DM sovereigns and IG corporate bonds. High risk FI includes EM hard currency debt and DM HY corporate debt.
Source: DWS Investment GmbH; as of: August 2023

Moreover, as one can see in Figure 8, it is now possible again to stay in the shorter maturity space while still generating positive returns. Thus, returns that are attractive both relatively and absolutely across the curve, combined with the generally higher allocation to fixed income in multi asset portfolios (cf. Figure 10), encourage a more granular approach to this asset class in a portfolio construction context.

Additionally, a notable, albeit not unprecedented characteristic of markets from 2022 onwards has been a positive correlation between prices of government bonds and equities, combined with an increased fixed income volatility. In Figure 11, one can see that the most recent beta of treasuries to equity markets[4] has been unusually high by historical standards.

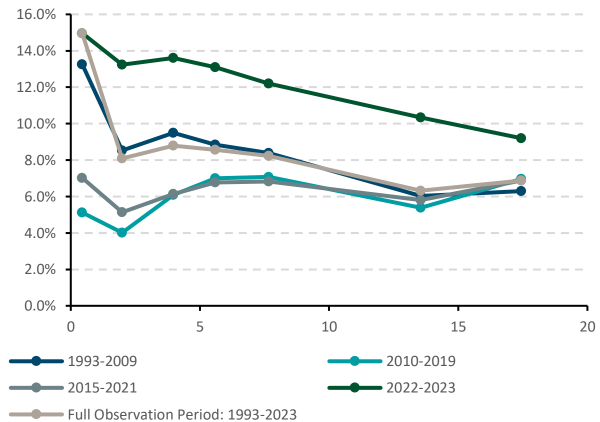
FIGURE 11. BETA TO EQUITIES PER UNIT OF DURATION



To ensure the comparability of the various maturity profiles we apply a normalization of the monthly returns by using the modified duration of each sub-index and a target duration (in this example, target is set to 10 for illustrative purposes). We define the resulting statistics as measured "per unit of duration" in this article.
Source: DWS Investment GmbH; as of: August 2023

Volatility across the yield curve has also notably increased, with more pronounced moves in short-term rates (Figure 12).

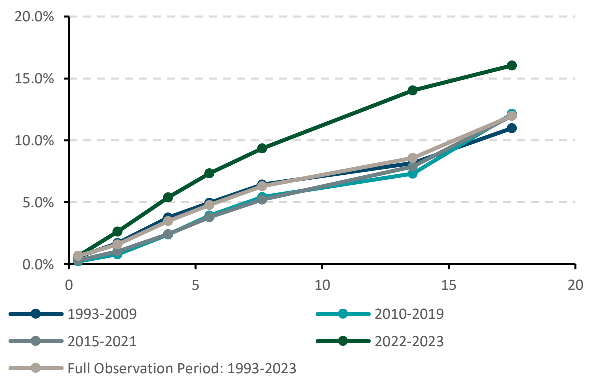
FIGURE 12. PRICE RETURN VOLATILITY FOR DIFFERENT TENORS PER UNIT OF DURATION



To ensure the comparability of the various maturity profiles we apply a normalization of the monthly returns by using the modified duration of each sub-index and a target duration (in this example, target is set to 10 for illustrative purposes). We define the resulting statistics as measured "per unit of duration" in this article.
Source: DWS Investment GmbH; as of: August 2023

Nevertheless, as it can be seen in Figure 13, bonds with longer maturities still exhibit a much higher price volatility. It is also very noticeable how elevated recent fluctuations are compared to the last 30 years. Under such circumstances, it would be prudent to keep in mind that, in the current market environment, fixed income might be riskier than what investors experienced during recent periods of easy monetary policy.

FIGURE 13. PRICE RETURN VOLATILITY FOR DIFFERENT TENORS



Source: DWS Investment GmbH; as of: August 2023

For certain types of investment approaches, such as income portfolios, bonds in both their lower and higher risk forms are an indispensable part. However, even though predictable coupon streams and (usually) lower volatility do imply a significant role of fixed income for those in search of stable income, there are also other variables at play.

[4] In this example, US treasuries and the S&P 500 indices are used.

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Case Study: How to boost your income

The previously outlined results in this article are derived from the market value-weighted GMP. The following case study demonstrates how investors can deviate from the GMP to design allocations that meet their specific financial objectives. Further, we show that it is optimal for investors to deviate from the market cap weighted allocation given qualified views on expected risks and returns.

In this case study, we take the perspective of an income-seeking investor who is looking for a yield-enhanced, broadly diversified portfolio. The investable universe is global, with potential allocations across equities, bonds, and alternatives with selected sub-asset classes to account for the intended income tilt. To remain within close proximity to the reference allocation (the GMP), we set the target volatility equal to the risk of the reference allocation and limit the tracking error to 1.5%.

To translate these conditions into an actionable strategic asset allocation, we engage in the following steps:

1. Define the reference allocation with an adjusted GMP.
2. Identify income opportunities within each asset class.
   - Equities: Tilt towards high dividend stocks.
   - Fixed Income: Shift to credit.
   - Alternatives: Focus on income-seeking assets.
3. Optimize across asset classes: Bringing it all together.

We thereby illustrate that the introduced GMP is an essential starting point to derive customized solutions.

1. Define the reference allocation.

To account for the intended income-tilt, the asset class universe of the original GMP is filtered and only a relevant subset of income-oriented asset sub-asset classes is considered. The yield potential of the asset classes and expert views are the most important drivers of this filtering process.

While leaving the top-level weights of the original GMP unchanged, the remaining sub-asset classes (after filtering for income) are scaled up to the asset class weights. The resulting weights of the income-oriented, tailored global market portfolio (GMP*) are shown in Figure 14. In the following this GMP* serves as a reference allocation.

For this allocation, we currently assume an annualized volatility of 7.2%[5]. Utilization of dividend yields and yield to maturities on an index level results in an overall portfolio yield of 3.5%. Developed market equities, developed sovereigns and emerging market debt are the top contributors to this yield level. However, this is mostly explained by the high weight of these asset classes in the GMP* whereas other asset classes offer higher yields - in relative perspective.

The latter demonstrates that there is optimization potential for income-seeking investors.

FIGURE 14. TAILORED GLOBAL MARKET PORTFOLIO (GMP*)

Equities	**42.3%**	
	% of GMP*	% of EQ
Developed Markets	37.7%	89.1%
Emerging Markets	4.6%	10.9%
Fixed Income	**40.2%**	
	% of GMP*	% of FI
Developed Sovereign	24.1%	60.1%
Nominal Bonds	24.1%	60.1%
Developed Credit	9.3%	23.0%
DM Credit IG	8.0%	19.9%
DM Credit HY	1.3%	3.2%
Emerging Markets	6.8%	16.9%
Emerging Markets – Hard	6.8%	16.9%
Alternatives	**17.5%**	
	% of GMP*	% of ALT
Private Debt	1.7%	9.7%
Real Estate	15.0%	85.2%
Infrastructure	0.9%	5.0%

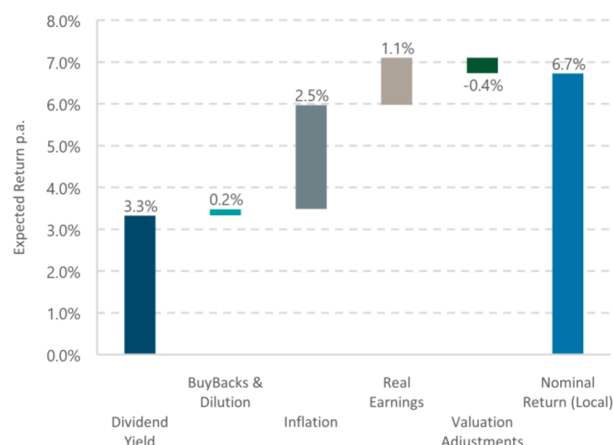
Source: DWS Investment GmbH; as of: August 2023

2. Identify income opportunities within each asset class.

Equities: Tilt towards high dividend stocks.

The long-term expected return of equities can be decomposed in three fundamental drivers: income, growth, and valuation[6]. In some regions, the %-share of the income pillar is significant. As shown in Figure 15, the dividend yield accounts for 50% of the long-term return outlook of European equities.

FIGURE 15. RETURN DECOMPOSITION EUROPEAN EQUITIES



Source: DWS Investment GmbH; as of: August 2023

[5] The GMP* volatility is 0.6pp lower than the volatility of the original GMP (see pg. 3).

[6] Cf. DWS Long View 2023

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The implementation of the equity bucket offers some further potential for yield enhancement. A replacement strategy, switching from a market value-weighted to a high dividend-yielding approach, increases the yield of the portfolio by 20%[7]. The dividend yield of the high dividend implementation of global equities is currently 1.8pp above the market value weighted reference. Over the long run, this equity implementation is also assumed to have lower volatility: a 0.4pp risk reduction on the portfolio level.

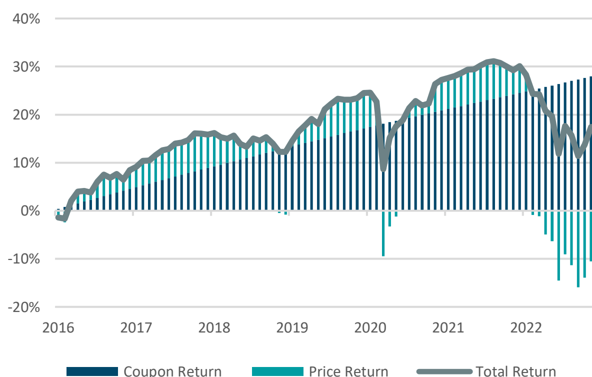
However, a full switch leads to significant one-off turnover and active risk: the tracking error of the allocation (full replacement) vs. the GMP* is at 2%. As mentioned in the introduction, factor rotation or extended periods of outperformance of other styles can leave you behind longer than you can last. Thus, a prudent approach is required.

Fixed Income: Shift to credit.

As outlined in the fixed income section, the role of bonds has changed significantly during the last quarters. With global yields near multi-decade highs, bonds have income to offer again – without losing too much credit quality or going too far out in maturities.

For example, investors could turn their attention to the more defensive parts of High Yield markets. Since 2016, BB-rated European High Yield bonds have generated a stable coupon return even in stressful market phases (Figure 16).

FIGURE 16. CONTRIBUTION TO TOTAL RETURN FOR EUROPEAN BB-RATED HIGH YIELD



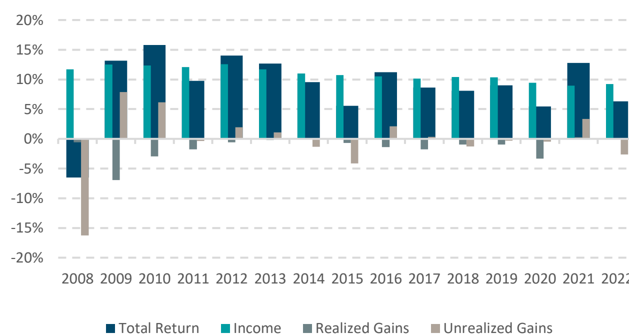
Source: DWS Investment GmbH; as of: August 2023

Alternatives: Focus on income-seeking assets.

Some illiquid alternative asset classes, by design, deliver regular income streams. Thus, it is only natural to consider them as a part of an income portfolio as long as investors understand peculiarities of the private markets and have a prudent risk management approach. Of course, a longer-term investment horizon is also required, considering the illiquid nature of these assets.

Reverting to the cash flow-generating features of alternatives, private debt has particularly been characterized by high income returns in both an absolute and relative sense, largely driving the overall return of this asset class, as seen in Figure 17.

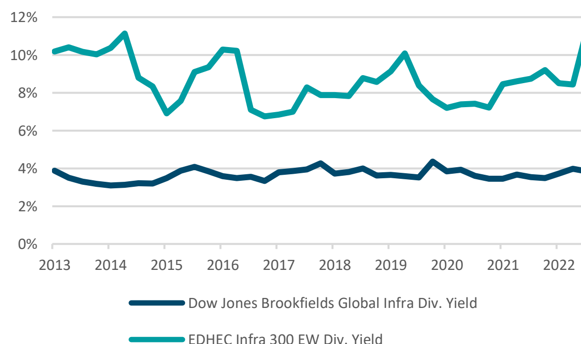
FIGURE 17. RETURN DECOMPOSITION IN PRIVATE DEBT



Return decomposition of the Cliffwater Direct Lending Index covering U.S. middle market corporate lending – one of the largest segments of private debt. Total return = Income + Realized Gains + Unrealized Gains.
Source: DWS Investment GmbH; as of: August 2023

Figure 18 shows that private infrastructure is another alternative asset class that could be of interest for those investors who require regular income streams. Over the last decade, it has on average generated about 9% in income return – more than double of the listed infrastructure dividend yield of 3.7%.

FIGURE 18. DIVIDEND YIELD IN PUBLIC VS. PRIVATE INFRASTRUCTURE



Dividend yield of the EDHEC Index includes not only the realised dividends, but also interest payments/ principal on shareholder loans. However, most of the time equity investors and loan holders are the same party and thus carry the same risk.
Source: DWS Investment GmbH; as of: August 2023

3. Optimize across asset classes.

To showcase how income-seeking investors can make use of these asset class-specific ideas from a holistic portfolio perspective, we apply our proprietary optimization process – Group risk in portfolios (GRIP)[8].

Our GRIP methodology is a robust, risk-based optimization approach that uses expected long-term returns and risk parameters as inputs and is designed to create allocations that are truly diversified, with less extreme asset and risk allocations as well as a higher number of uncorrelated exposures. This framework allows us to design, build, and analyze solutions that are aligned with clients' specific investment needs and their desired risk profile.

[7] Leaving all other weights of the GMP* unchanged.

[8] Warken and Hille (2018)

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In the optimization, we adhere to the specified parameters and constraints. In particular, we target the volatility of the GMP* (7.2%), limit the tracking error to 1.5% and focus on the filtered asset class universe.

The result is encouraging: the portfolio has an overall yield of 5.0%, i.e., an enhancement of 1.5% vis-à-vis the GMP*. Thus, the current market regime offers opportunities for income-seeking investors.

In Figure 19, the resulting changes are shown. The allocation to equities decreases to 34%, alternatives are up at 25% and fixed income remains almost unchanged at 41%. Nearly half of the developed market equity allocation is shifted to high dividend yielding stocks. Within fixed income, we observe a distinct focus on investment grade credit and some risk-controlled shifts to high yield and emerging market debt. In the alternative segment, private debt and infrastructure are the preferred sub-asset classes.

FIGURE 19. OPTIMIZATION RESULT VS. GMP*

	Optimization	GMP*
Equities	**34.2%**	**42.3%**
Developed Markets	25.8%	37.7%
Market value-weighted	13.9%	37.7%
High dividend yield-focus	11.9%	0.0%
Emerging Markets	8.3%	4.6%
Fixed Income	**40.9%**	**40.2%**
Developed Sovereign	5.0%	24.1%
Developed Credit	29.5%	9.3%
DM Credit IG	23.8%	8.0%
DM Credit HY	5.7%	1.3%
Emerging Markets	6.4%	6.8%
Alternatives	**25.0%**	**17.5%**
Private Debt	7.6%	1.7%
Real Estate	13.3%	15.0%
Infrastructure	4.1%	0.9%

Source: DWS Investment GmbH; as of: August 2023

The most pronounced shift on an asset class level is observed for developed credit: the allocation increases 20pp. Not only on a standalone basis, but also compared to equities, the new yield environment makes the case for a shift to corporate bonds. The simple illustration in Figure 20 shows that most equities in the Eurozone offer less yield than a broad allocation to EUR investment grade corporate bonds. It goes without saying that yield-to-volatility ratios point even more strongly in the direction of credit.

FIGURE 20. % OF COMPANIES WITH DIVIDEND YIELD ABOVE YIELD TO MATURITY OF CORPORATE BONDS

Dividend yield of Eurostoxx600 vs. yield to maturity of BBG Euro-Aggregate Corp.
Source: DWS Investment GmbH; as of: August 2023

Targeted deviations from the global market portfolio, can support investors to better achieve their financial objective given certain preferences - in this case for income-seeking investors. Note that this case study is just a starting point for further analyses. For example, increasing the granularity of the fixed income allocation or integrating liquid real assets offers further enhancement potential.

By leveraging the information of the GMP and applying comparable approaches, customized and tailored solutions can be designed that meet the demands of investors – beyond this income case study

Past performance is 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.

Summary

The global market portfolio demonstrates the importance of incorporating a broad array of global asset classes into a strategic portfolio. In light of changing market dynamics - stubborn inflationary pressures, elevated market volatility, and changing return expectations - we show the importance of updating the allocation to reflect changing market conditions. While the high-level asset class weights have stayed almost unchanged compared to last year, the underlying dynamics of risk and return across asset classes has materially changed.

Perhaps most noteworthy, significant repricing in fixed income has made the asset class more relevant in a portfolio context: higher potential fixed income returns mean achieving low-to-mid single digit nominal return targets seems to be possible with a reduced allocation to riskier equities. However, enhanced alertness is required in the context of changing correlation regimes and more volatile yield curves.

In addition to impacting risk and return dynamics, the increase in fixed income yields among other market dynamics has provided increasing opportunities for a variety of investor objectives. For example, income-seeking investors can benefit from rather simple tilts on the global market portfolio that offer significantly higher yields without deviating too far from market weights. Hence, those investors are able to accomplish their investment goals without materially changing the risk profile of their portfolio.

With consideration to changing market dynamics and individual investor preferences, the applicability of the global market portfolio remains universal. Leveraging the global market portfolio along with other portfolio construction tools provides a suitable starting point for constructing portfolios that help achieve an investor's objectives.

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