

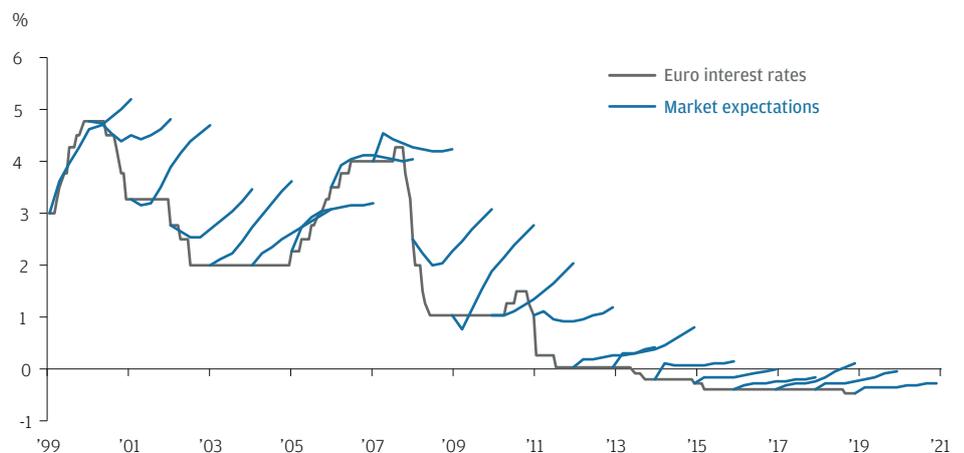
On the Minds of Investors

January 2020

A menu of options for income-hungry investors

Life is tough for an income-seeking investor today. A decade of easy monetary policy has pushed cash and short-dated government bond rates down to levels where they now offer little to nothing in terms of income. In some countries, negative rates are nibbling away at savings held on deposit. **Exhibit 1** will not provide much encouragement for those who are hopeful that this is a temporary phenomenon. Over the past 30 years, markets have consistently expected yields to rise, and have been consistently disappointed. The market is now questioning whether the “lower for longer” catchphrase should in fact be changed to “lower forever”.

EXHIBIT 1: EURO INTEREST RATES AND MARKET-BASED EXPECTATIONS OF FUTURE INTEREST RATES



Source: Bloomberg, J.P. Morgan Asset Management. The grey line shows Euro interest rates. The blue lines show the market's expectations at each year-end of how Euro interest rates will move over the subsequent eight quarters. Euribor futures referred to the Euro refinancing rate until 2012, when they changed to reference the Euro deposit rate. The “interest rate” line therefore plots the refinancing rate until 2012 and then the Euro deposit rate thereafter. Past performance is not a reliable indicator of current and future results. Data as of 14 January 2020.

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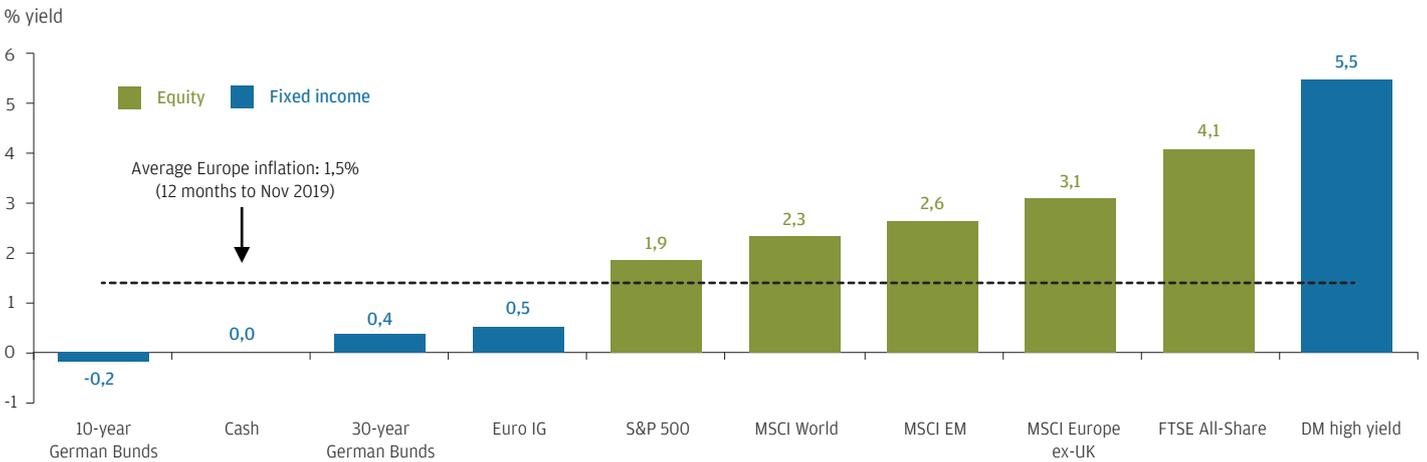
Understanding the menu

It is still possible to find higher-yielding assets (see **Exhibit 2**). Investors could choose longer-maturity government bonds, or corporate credit. Yet given low yields across much of the fixed income world, investors are increasingly looking to the income that is available from equities. Stock markets across the globe are offering dividend yields that stand comfortably above the yield available on developed market government bonds. Yields on European indices - especially the FTSE All-Share in the UK - look particularly attractive. As the hunt for income intensifies, attractive dividends could well be a catalyst for inflows to return to European stock markets following a prolonged period of the region being out of favour.

Although there are options available to generate a higher income, in investment - as in life - there is no such thing as a free lunch. Higher income comes with higher risk. While an economic downturn doesn't seem imminent it is essential that investors understand and are comfortable with the risk that comes with these assets. Investors don't want to find that achieving ample income today results in a nasty bout of indigestion when the market next goes through a period of turbulence.

The purpose of this piece is to understand the risks associated with the different income choices on the menu before considering some options to achieve a more satisfying mix.

EXHIBIT 2: ASSET YIELD COMPARISON



Source: Bloomberg Barclays, BofA/Merrill Lynch, FTSE, MSCI, Refinitiv Datastream, Standard and Poor's, J.P. Morgan Asset Management. Additional yield often comes with associated capital and/or liquidity risk. Yields for the bond indices are yield to worst and dividend yields for the equity indices. German Bunds: German 10- and 30-year yield; Euro IG: Bloomberg Barclays Euro Agg. - Corporates; DM high yield: BofA/Merrill Lynch Developed Markets High Yield Constrained. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 December 2019.

Avoiding indigestion

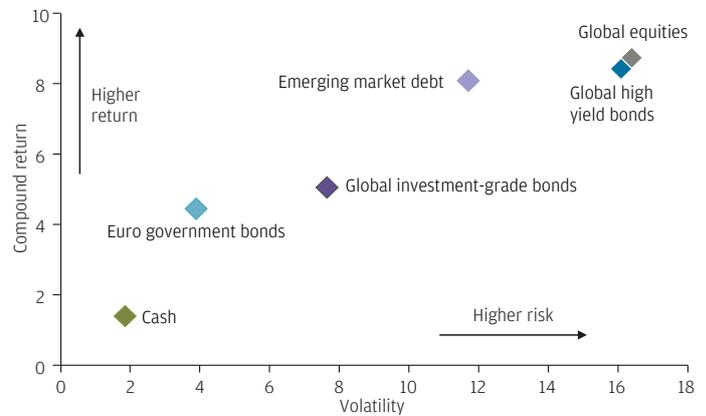
The chart commonly used to capture the risk/return trade-off faced by investors is shown in **Exhibit 3**, which plots historical returns alongside the volatility each asset class has experienced.

However, the term “volatility” can feel opaque. It might be more helpful, or feel more tangible, to understand exactly what happened to these assets during past periods of market turbulence. **Exhibit 4** considers the behaviour of credit and equities during the last three US recessions. We focus here on US asset classes due to data availability for credit indices but we believe that the conclusions are similar for European markets, given the relatively close relationship over time.

The size of drawdown and the time taken for assets to recover their losses varied significantly. The recession of the early 1990s was mild and declines in risk assets were recovered relatively swiftly, primarily thanks to the swift pace of the economic recovery once a brief surge in oil prices had subsided. In comparison, equity market declines in 2001 and in the global financial crisis lasted far longer: it was necessary to wait for over three years in both instances if an investor wanted to avoid selling below the previous peak. Somewhat surprisingly there is no clear link between the starting valuation (shown in the table by spreads and price-to earnings (P/E) ratios) and the size of the drawdown in these three episodes. This lack of a clear relationship between valuation and drawdown emphasises the importance of other factors, especially the extent to which central banks step in to support the market, in determining the size of a market move.

EXHIBIT 3: HISTORICAL RISK VS. RETURN FOR SELECTED ASSET CLASSES

%, annualised return 2004-2019 in EUR



Source: Bloomberg Barclays, MSCI, Refinitiv Datastream, J.P. Morgan Asset Management. Volatility is the standard deviation of annual returns since 2004. Cash: JP Morgan Cash EUR (3M); Euro government bonds: Bloomberg Barclays Euro Aggregate - Treasury; Global investment-grade bonds: Bloomberg Barclays Global Aggregate - Corporate; Emerging market debt: J.P. Morgan EMBI Global; Global high yield bonds: Bloomberg Barclays Global High Yield; Global Equities: MSCI All-Country World Index (includes developed and emerging markets). Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 December 2019.

EXHIBIT 4: COMPARISON OF PREVIOUS US RECESSIONS

US RECESSION	US GDP DROP (%)	US IG CREDIT			US HY CREDIT			US EQUITIES		
		Spread prior to drawdown	Max drawdown	Time to recover loss	Spread prior to drawdown	Max drawdown	Time to recover loss	P/E prior to drawdown	Max drawdown	Time to recover loss
Jul '90 - Mar '91	-1,4%	91 bps	-1,6%	3 months	821 bps*	-17,2%	5 months	12,2x	-14,7%	4 months
Mar '01 - Oct '01	-0,4%	201 bps	-1,9%	2 months	684 bps	-12,0%	8 months	23,1x	-44,7%	49 months
Dec '07 - Jun '09	-4,0%	92 bps	-15,4%	8 months	238 bps	-33,3%	9 months	14,7x	-51,0%	37 months

Source: Bloomberg Barclays, NBER, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. GDP drop is from peak to trough. Spread prior to drawdown and P/E prior to drawdown shows the option-adjusted spread and 12-month forward price-to-earnings ratio for credit and equities respectively, at the month-end prior to the start of the drawdown. Maximum drawdown shows the peak to trough decline for each index around the time of the recession. The time to recover loss shows the number of months required for each index to make new highs. US IG credit: Bloomberg Barclays US investment grade credit, US HY credit: Bloomberg Barclays US high yield credit, US equities: S&P 500. All calculations are based on monthly total return data in USD. Past performance is not a reliable indicator of current and future results. Data as of 15 Jan 2020. *Data is not available for US high-yield option-adjusted spreads in 1990, so as a proxy we show the index yield minus the U.S. 10-year Treasury yield.

Another way of considering the experience of investors in the different asset classes over this period is shown in **Exhibit 5**. In short, these charts show that investors who are focused on annual income and have a high degree of tolerance to the

gyrations in their capital position are better suited to higher risk options for higher incomes. Those that might need to access capital or have little tolerance for swings in capital values will need to accept lower incomes.

EXHIBIT 5A: US TREASURY ANNUAL RETURNS, 1990-2019

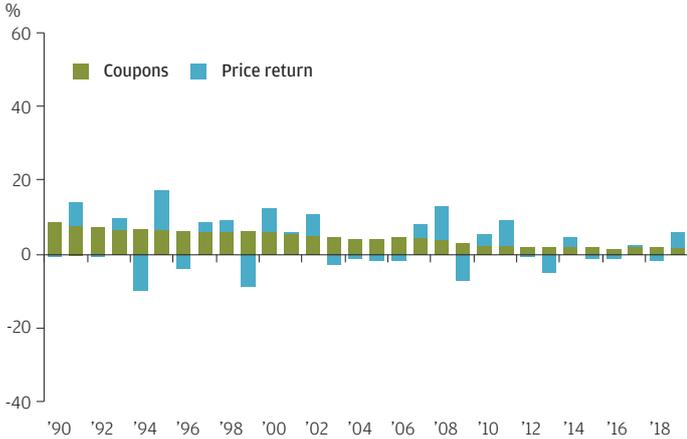


EXHIBIT 5B: US INVESTMENT GRADE CREDIT ANNUAL RETURNS, 1990-2019

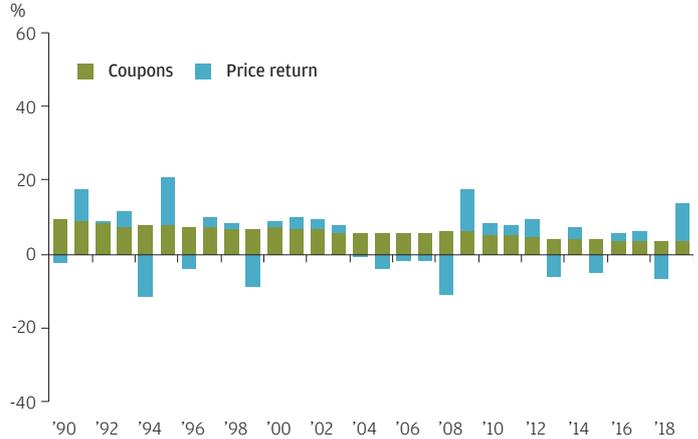


EXHIBIT 5C: US HIGH YIELD CREDIT ANNUAL RETURNS, 1990-2019

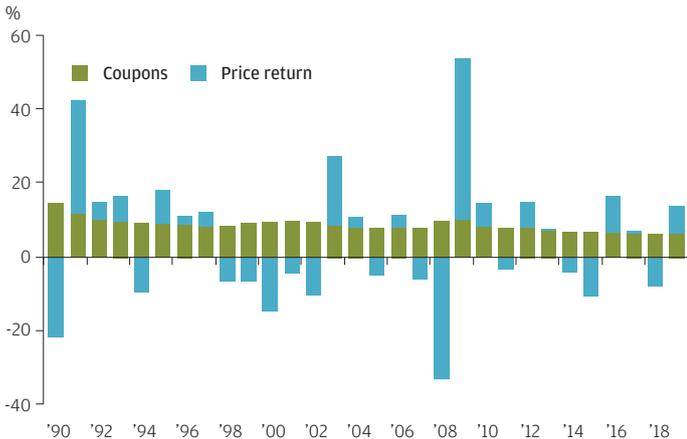
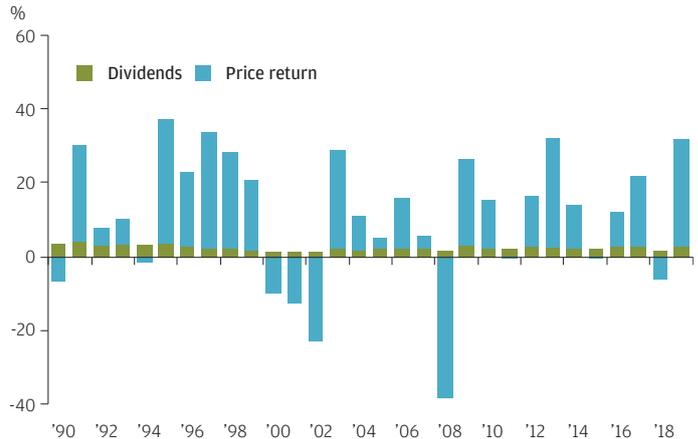


EXHIBIT 5D: US EQUITY ANNUAL RETURNS, 1990-2019



Source: Bloomberg Barclays, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. Indices used are US Treasury: Bloomberg Barclays US Treasury; US investment grade credit: Bloomberg Barclays US Corporate Investment Grade; US high yield credit: Bloomberg Barclays US High Yield; US equity: S&P 500. All indices shown are in USD. Past performance is not a reliable indicator of current and future results. Data as of 31 December 2019.

Increasing the options on the menu

Of course, high yield credit and equities are not the only options available to investors looking to boost income in their portfolios. But whatever the asset class, investors cannot find higher yields without taking on higher risk in some form. With no easy options, investors may be best positioned by adopting a diversified approach that incorporates a range of different risks.

Within fixed income, another income option is emerging market debt (EMD), which received record inflows in 2019. EMD has historically been more volatile than developed market credit, although the universe has matured significantly over the past decade: the number of countries in the JP Morgan EMBI Global Index has increased from 32 countries ten years ago to over 70 today. The introduction of five Gulf Co-operation Council (GCC) countries in 2019, along with the phasing out of Venezuela, has further improved the index quality, which has been reflected by a decrease in the extra yield-pickup available from EMD assets. Local currency yields are typically higher than US dollar-denominated hard currency debt, but clearly come with added risks from extra foreign exchange volatility.

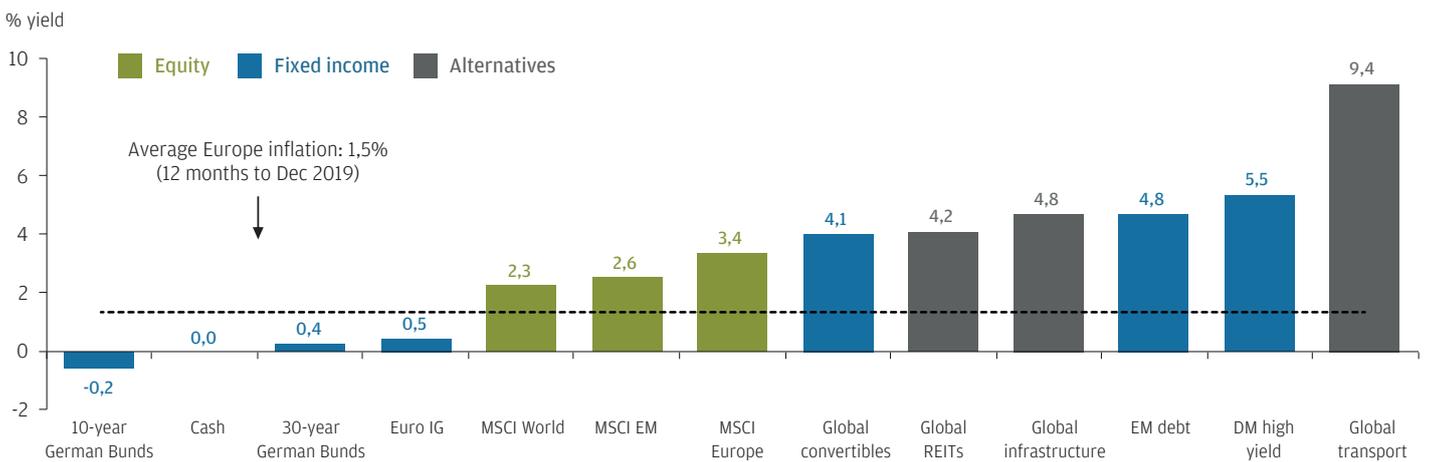
Securitised credit is another key component of the income opportunity set: securitised assets are one of the largest and most liquid fixed income asset classes, making up around 30% of the total US fixed income market today. The term “securitisation”

- a security whose value is linked to a pool of underlying assets - will for many bring back memories of the derivatives that proved so problematic during the global financial crisis. Yet underwriting standards have improved significantly since the crisis and broadly remain in good shape today. Securitised assets are also a helpful tool to gain exposure to the consumer, which for several years has been a stalwart of this expansion across developed markets, and arguably stands in better health than the corporate sector across many developed markets today.

Outside of fixed income, real assets - and especially infrastructure - have gained strong traction with income-focused investors in recent years. The relatively young nature of this alternative asset class makes historical analysis of different economic scenarios more challenging, but the data that exists for infrastructure assets points to relatively robust performance through the global financial crisis. This is thanks to the combination of stable and forecastable cash flows, coupled with a high proportion of total return generated through income. Infrastructure can also improve portfolio diversification, yet again there is a trade-off involved - namely the illiquidity associated with unlisted private assets.

As **Exhibit 6** shows, with this expanded opportunity set, the list of options to achieve income above inflation looks a lot tastier.

EXHIBIT 6: ASSET YIELD COMPARISON



Source: Bloomberg Barclays, BofA/Merrill Lynch, Clarkson, DrewryMaritime Consultants, MSCI, Refinitiv Datastream, J.P. Morgan Asset Management. Additional yield often comes with associated capital and/or liquidity risk. Global infrastructure and global transport yields are as of March 2019 and June 2019, respectively. Yields for the bond indices are yield to worst and dividend yields for the equity indices. Global transport levered yield is rental income minus operating expenses, debt amortisation and interest expenses, expressed as a percentage of equity value. Global convertibles: Bloomberg Barclays Global Convertibles; German bunds: Germany 10- and 30-year yield; Euro IG: Bloomberg Barclays Euro Agg. - Corporates; Global REITs: FTSE NAREIT Index; DM high yield: BofA/Merrill Lynch Developed Markets High Yield Constrained; EM debt: J.P. Morgan EMBI Global; Global infrastructure: MSCI Global Infrastructure Asset Index - Low risk. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 December 2019.

Conclusions

In summary, investors that remain in cash-like deposits are likely to remain starved of income for the foreseeable future. While there is no simple solution to the challenge of boosting portfolio income while limiting risk, investors should consider embracing the broadest menu of options possible. Core government bonds are still a key part of a balanced portfolio, yet their role is now much more about insurance than providing income. Credit and equities will need to provide a

higher proportion of total income relative to history, but investors should also consider combining the broadest possible range of assets to take advantage of the merits of diversification and optimise the risk-return mix. Income-hungry investors should deploy the culinary tips of the Spanish “tapas” – combine a wide range of dishes for the most appetising meal.

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