SOLUTIONS: ENHANCED

Planning for the long term with capital market assumptions


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Introduction

Strategic asset allocation (SAA), the process of determining a well-diversified long-term investment strategy, requires an assessment of the potential returns from different financial assets, as well as the potential risks to which these assets and the final allocation may be subject. In this paper we present the capital market assumptions (CMAs) that we at Columbia Threadneedle use as central forecasts of risk and return when conducting SAA analyses for our clients.

We highlight our assumptions for the medium term (five years) and the long term (10-plus years) from 31 December 2020. These do not coincide: while fundamental asset characteristics are ultimately the key drivers of return, our process recognises that supply and demand can push market values to deviate significantly from these fundamentals in the near term. As Benjamin Graham is often quoted as saying: "In the short run, the market is a voting machine but in the long run, it is a weighing machine".[1]

Investment strategy in 2021

Investment strategy should be alert to these market undercurrents in our view and should not be a fixed asset allocation to which an investor continually rebalances. At the current time, for example, cash returns are extremely low by historical standards. Moreover, lending to governments and corporations for long periods does not offer as high a premium over lending for short periods as is normally the case.

The low level of the cash rates, the low "term premium", and our expectation that it will return to historically more normal levels has clear portfolio implications. One is that it is relatively more attractive for investors to take risk in asset classes other than bonds; and within bonds in our view it makes sense to hold shorter-duration instruments in the near term, with a plan to increase duration as the term premium reverts. The exact degree to which investors can or should tilt in these directions depends on each investor's circumstances – their willingness or ability to vary their allocation over time, asset-liability interactions, etc. The assumptions described here are just one component within the important process of determining an investment strategy.

[1] Cited by Warren Buffett in a Letter to the Shareholders of Berkshire Hathaway Inc, 1 March 1994.

How we forecast returns

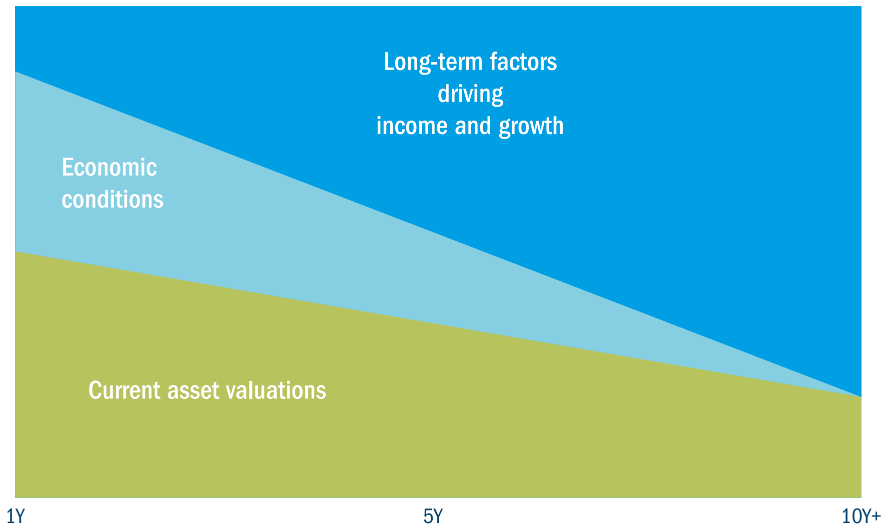
The return on an asset emerges as a combination of income, capital growth and the change in the market's valuation of the asset. Although it is the total return that is of primary importance for investors, it is often easier to analyse and then forecast the three components individually.

Levels of economic growth and financial conditions are strong determinants of the income and growth components of an asset's return. Over short horizons, current economic conditions and market opportunities play a key role in the performance of individual assets. Over time, however, it is the reward provided for bearing market-wide risks – broad, persistent factors such as exposure to economic growth or inflation – that become the primary determinant of asset class performance.

The final key component is changes in valuation. This plays a primary role over short horizons, but is overtaken in importance by the more fundamental components over longer horizons, as illustrated in Figure 1. While valuation changes are difficult to forecast, being driven in part by market sentiment which can change rapidly, we find that over periods of five years, it is important to account for the current level of under- or over-valuation of assets in our forecasts.

In summary, when forecasting five-year returns we use three building blocks: expected income, also known as carry; expected income growth; and expected changes in asset valuation.

Figure 1: The drivers of performance vary in importance by timeframe



Source: Columbia Threadneedle Investments, March 2021. While changes in valuation dominate over short time intervals, fundamental economic drivers come to the fore over longer horizons. For illustrative purposes only.

When forecasting long-term returns, the third component – the impact of valuation changes – becomes less important and all our attention is on expected income and growth. Using the same quantities in both five-year and longer-term forecasts ensures consistency across the time horizons. But by also tying the asset-level forecasts together through the lens of broad risk factors representing market-wide risks, we ensure consistency across asset classes. This cross-asset perspective is of importance in the SAA context where managing the interplay between returns on different asset classes plays a central role. The risk factor premia are:

- *Term premium* The reward that investors require for long- rather than short-term lending, and hence taking on the risk that interest rates will rise.
- *Inflation premium* Investors require a greater return for assets whose returns are not protected from increases in inflation, for example nominal bonds.
- *Credit risk premium* The reward that investors demand for lending to non-sovereign institutions due to the risk of default.
- *Equity risk premium* Investors in equity, real assets and commodities can suffer if the path of future economic growth is lower than expected and require a premium for bearing this risk.
- *Emerging market premium* Less developed markets and countries can suffer dislocations and may be more subject to political risk.
- *Illiquidity risk premium* Investors often require additional compensation for holding assets that can be less readily sold, particularly in a stressed market environment.

Cash and government bond returns

To illustrate our framework, we consider returns on US cash and government bonds. While the decline has not been steady, Treasury yields, for lending over both short and long horizons, have displayed a clear downward trend since the 1980s. Any forecast needs to take a stand on the important question of the extent to which future interest rate levels or moves will resemble the past.

At the end of 2020, short-term interest rates are close to zero and market expectations are for them to rise only slowly in the coming years. Our analysis supports this view. Longer-term bonds typically offer higher yields than shorter-term bonds, a "term premium" as compensation for being exposed to inflation and changes in interest rates over the lending horizon.

However, we concur with analysis by US Federal Reserve economists[2] that this premium has reduced materially – and is even currently negative. We expect reversion to higher levels over our forecast horizons, but that short-term yields will stay low for a protracted period. The increase in yields will be slow, we believe, and will be to levels of 1.5%-2% rather than the yields that were observed in the past. We also expect investors to be rewarded for long-horizon lending, ie, the term premium will become positive, but the level of the term premium will be below what has been observed historically. A summary of our forecasts for US returns over five- and 10-year time horizons is shown in Figure 2.

Figure 2: US return forecasts

Component	5Y forecast	10Y forecast
a. Cash	0.1%	0.8%
b. Treasury bonds (7y duration)	0.6%	1.3%
c. Term premium, (b-a)	0.5%	0.5%

Source: Columbia Threadneedle Investments, forecast annualised returns (arithmetic basis), 31 December 2020. Treasury bonds measured as per the ICE BofAML 5-10 Year US Treasury Index.

Equity returns

The low level of cash and bond returns has knock-on effects. While in the near term the support provided by low interest rates can increase relative returns for riskier instruments, the premium that these instruments need to offer investors has not permanently increased. Longer-term returns on assets are therefore reduced in absolute terms, while remaining stable in relative terms.

We can illustrate this with US equities. Over the next five years our models suggest that S&P 500 real earnings growth will be 3.5% per annum – somewhat higher than usual. Combining this with inflation and income forecasts produces an equity excess return that is 7.1% above our forecast cash return. This forecast risk premium is well above the long-run historic average – over the longer term we expect income and growth to be lower, and protracted low cash returns to bring overall asset returns down, producing a US equity risk premium of 5.2% on an arithmetic basis, more in line with historic experience (Figure 3).

Figure 3: US equity returns vs cash

Component	5Y forecast	10Y forecast
a. Cash return	0.1%	0.8%
b. US equity return	7.2%	6.0%
c. US equity premium	7.1%	5.2%

Source: Columbia Threadneedle Investments, forecast annualised returns (arithmetic basis), 31 December 2020.

[2] Tobias Adrian, Richard Crump, and Emanuel Moench's (or "ACM") estimates are published at https://www.newyorkfed.org/research/data_indicators/term_premia.html and are updated daily.

Putting our capital market assumptions to work in building SAA

Figure 4 shows how our returns help to determine the asset allocation for long-term institutional investor. Typical objectives for a long-term institution such as a university or charity endowment fund would be:

- A spending target, eg 5% of the endowment is spent on projects each year;
- Real capital growth, sufficient to maintain the endowment's spending power in perpetuity.

So, for example if inflation is measured using consumer prices, the target return could be expressed as CPI+5% per annum over the long run.

Figure 4: Our latest capital market assumptions

Asset class	5Y forecast (USD)	Long-term forecast (USD)
US Cash	0.1%	0.8%
US Treasuries	0.6%	1.3%
Global Treasuries	0.1%	2.1%
US TIPS	1.7%	2.3%
US Corporates	2.0%	2.9%
Global Corporates	1.6%	3.0%
US High Yield	4.7%	4.1%
Emerging market debt (USD)	4.0%	4.0%
US Large Cap Equities	7.2%	6.0%
US Small Cap Equities	8.5%	7.5%
EAFE Equities	7.4%	5.9%
Global Infrastructure Equities	7.9%	7.1%
Emerging Market Equities	9.2%	8.8%
Private Equity	9.7%	8.2%
US Property	7.9%	8.8%
Absolute return	2.1%	2.8%
Commodities	2.7%	4.0%

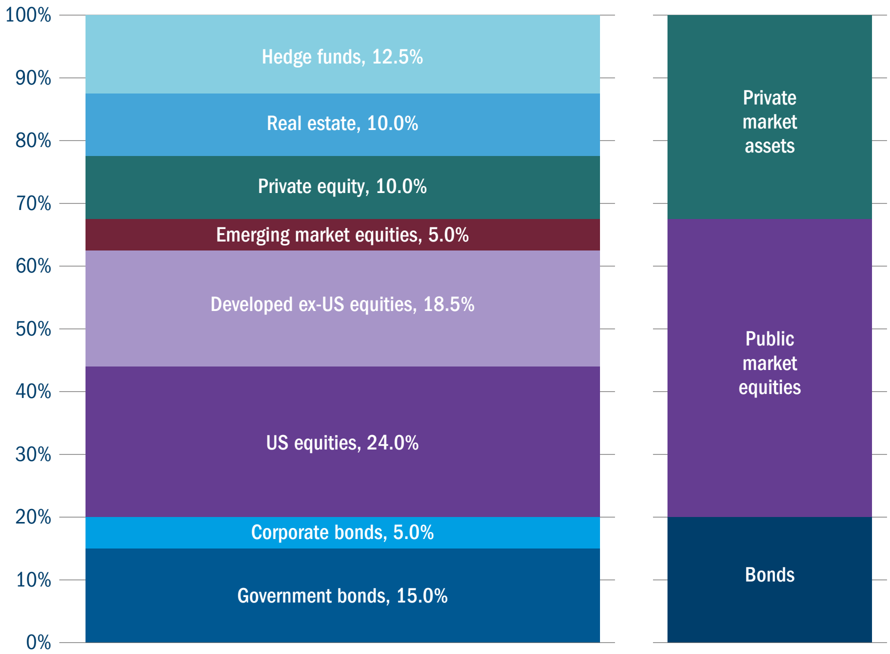
Source: Columbia Threadneedle Investments analysis, March 2021. See disclaimer for benchmark indices.

When building an investment strategy to deliver this objective, emphasis could be placed on the income objective or on the return objective. Traditionally, institutions focused on real estate assets that delivered a high income with a secondary expectation of long-term real capital growth. In more recent decades, however, the focus has shifted towards total return[3] delivered through a more diversified mix of assets. The spending target is no longer equated with assets' income.

[3] John Maynard Keynes' management of the King's College endowment was an early example, while David F. Swensen's tenure at the Yale endowment provides a more modern template for this approach.

The long investment time horizon presents opportunities, giving the institution a competitive advantage for investing in less liquid asset classes. Size may also provide a scale advantage when accessing alternative asset classes. Private equity, real estate and hedge funds are therefore included in the investment universe alongside more traditional assets when determining the SAA.

Figure 5: Endowment: high-level capital allocation

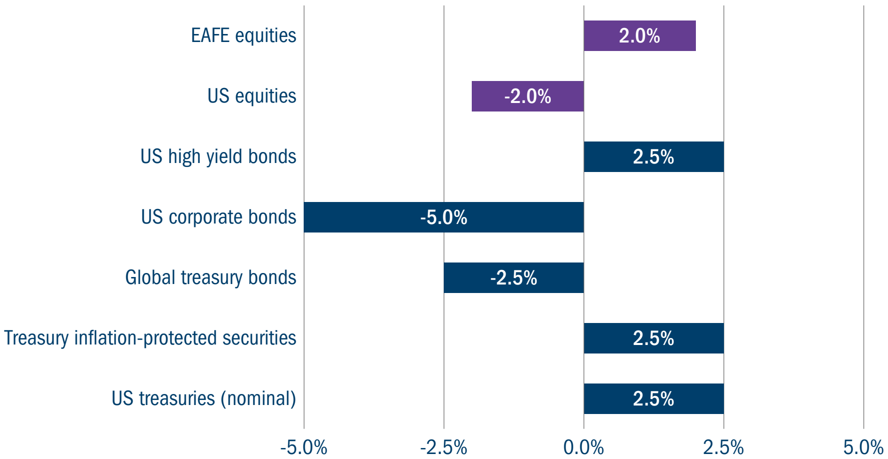


Source: Columbia Threadneedle Investments analysis, March 2021.

Optimising using our long-term capital market assumptions produces a portfolio which, given the high return requirement, is dominated by equities (Figure 5). Public and private market equities comprise around 60% of the capital allocation. A bond allocation, both to government and corporate issuers, provides some ballast and diversification. A second-stage optimisation using our five-year capital market assumptions indicates how this portfolio should be tilted to make best use of current market opportunities. The result is a reduction in exposure to assets expected to do relatively poorly in the immediate future, in favour of those expected to do relatively well, while remaining consistent with the broad risk stance determined in the first stage.

The tilts that arise from using our end of 2020 assumptions are shown in Figure 6. While US equities remain the largest equity allocation, this has been trimmed by 2% in favour of European, Australasian and Far East (EAFE) equities, reflecting the slightly higher return forecast for these regions.

Figure 6: Tilts based on end-2020 market conditions



Source: Columbia Threadneedle Investments analysis, March 2021. See disclaimer for benchmark indices.

Within bonds the main changes are:

- Overall duration is reduced, consistent with currently low yields and the impact expected on returns of nominal bonds when yields begin to increase;

- In contrast, credit-spread duration is increased, reflecting our positive view of corporate bond returns relative to nominal bonds.

Additionally, there is a relative preference for inflation-linked over nominal bonds and for US over global bonds which leads to the final allocations shown in Figure 5.

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Important Information:

Indices referred to in Figures 4 and 6 are: US cash = 3-month US LIBOR; US Treasuries = ICE BofAML 5-10 Year US Treasury Index; Global Treasuries = Barclays Global Aggregate Treasuries; US TIPS = ICE BofAML US Inflation-Linked Treasury Index; US Corporates = ICE BofAML 5-7 Year US Corporate Index; Global Corporates = Barclays Global Aggregate Corporate; US High Yield = ICE BofAML US High Yield Master Index; Emerging market debt (USD) = JPM EMBI Global Diversified; US Large Cap Equities = S&P 100 Index; US Small Cap Equities = Russell 2000 Index; EAFE Equities = MSCI EAFE US Dollar Hedged Net Index; Global Infrastructure Equities = S&P Global Infrastructure Index; Emerging Market Equities = MSCI Emerging Markets Index (USD); Private Equity = S&P Listed Private Equity Index; US Property = Dow Jones US Real Estate Index; Commodities = Bloomberg Commodities Total Return Index.

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