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GLOBAL MACRO RESEARCH

ASSET ALLOCATION CHALLENGES AND OPPORTUNITIES IN A WORLD OF LOW GOVERNMENT BOND YIELDS

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GLOBAL MACRO RESEARCH

ASSET ALLOCATION CHALLENGES AND OPPORTUNITIES IN A WORLD OF LOW GOVERNMENT BOND YIELDS

ALTERNATIVE FORMS OF DIVERSIFICATION ARE WARRANTED. REPORTS OF THE DEMISE OF GOVERNMENT BONDS AS A DIVERSIFIER MAY HAVE BEEN EXAGGERATED BUT THE LATEST LEG LOWER IN GOVERNMENT YIELDS MEANS THAT THEIR LIKELY IMPACT WITHIN A RETURN SEEKING PORTFOLIO HAS LESSENER. HISTORICALLY HIGH EQUITY VALUATIONS ALSO HIGHLIGHT THE NEED FOR ALTERNATIVE RETURN GENERATORS.

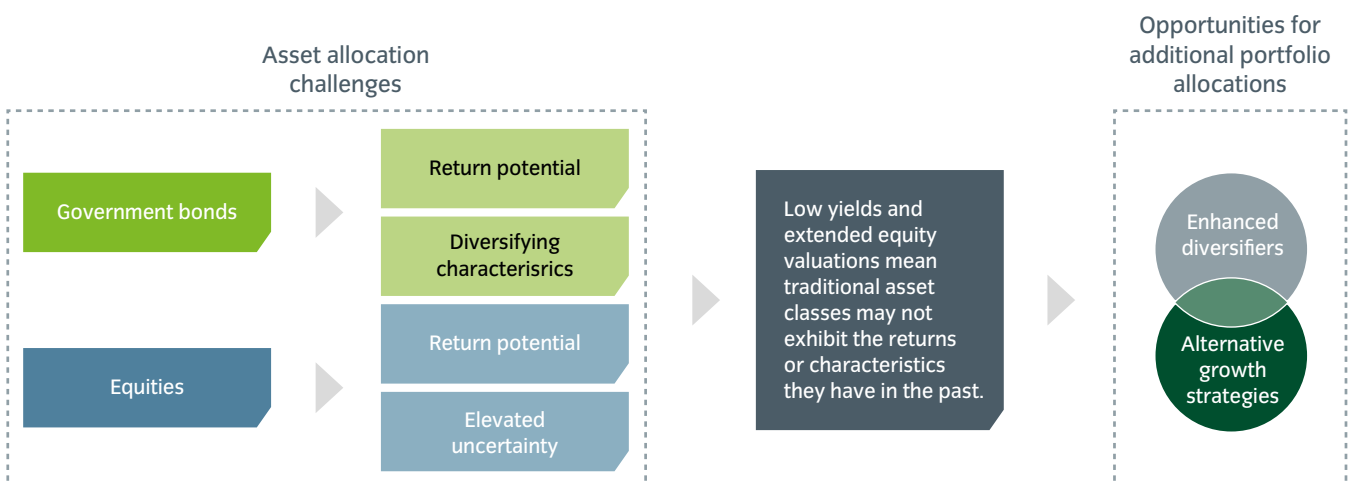
From an asset allocation perspective, government bonds have held a unique attraction in recent decades. They have provided positive convexity relative to equities (i.e. they help performance when equity markets fall) and at the same time delivered, on average, a positive excess return. As such they have played a key role in improving the risk-adjusted returns of multi-asset portfolios.

The COVID-19 crisis has pushed rates towards their lower practical bound and this implies less return potential from here. Already we can show that, from a diversification perspective, the ‘bang from the rate buck’ has diminished. But the anchoring of rates at exceptionally low levels has other implications beyond a potentially reduced role for government bonds from a return generating or diversification standpoint.

While the risk-free rate is close to its lower practical bound for fundamental reasons – a challenging economic backdrop – it is the risk premium above the risk-free rate which sets longer-term return expectations for a range of other risk assets. Compared to the last few decades, this implies lower prospective returns from a range of assets. This point is reinforced when we consider the valuation platform on which many risk assets currently reside.

Against this backdrop we see multi-asset investing as being well placed to adjust to these challenges – seeking out opportunities for both diversifying and return seeking strategies which will be needed to deliver attractive risk-adjusted returns.

Figure 1: The future investment environment looks more challenging than the past¹



¹ For illustrative purposes only.



THE ASSET ALLOCATION CHALLENGE OF LOW GOVERNMENT BOND YIELDS

THE UNIQUE ATTRIBUTES DELIVERED BY GOVERNMENT BONDS

Historically, government bonds, or duration, have been unique in providing positive convexity (see Figure 2) while also delivering, on average, a positive return. This convexity is most evident in severe equity market drawdowns² where risk asset declines have broader economic ramifications.

Figure 2 also shows the dynamic of equities and bonds performing well together in the right-hand tail of the return distribution. This happened at times when central banks reduced interest rates (or signal easier policy) to support the economy.

Figure 2: Positive convexity 10-year bonds vs equities³

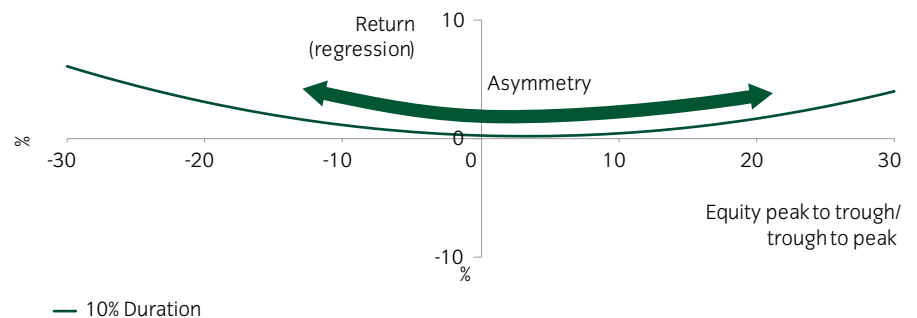
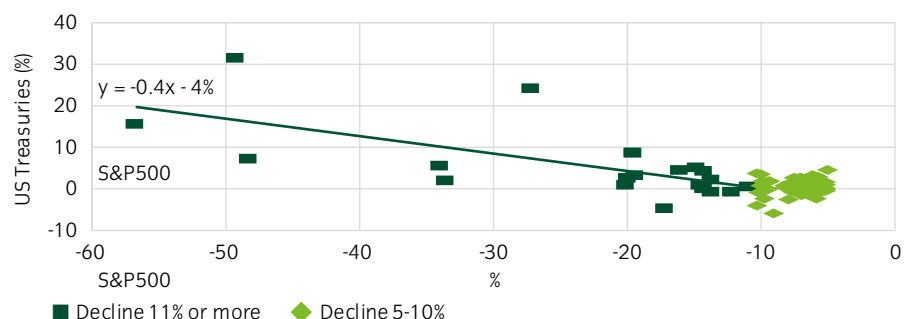


Figure 3 explores this relationship in more detail. It shows that there has been no significant relationship (zero beta) between equities (S&P500) and government bonds (10-year US Treasuries). For significant equity declines (between 5% and 10%), there is, however, a negative beta. A similar relationship should exist for all long-dated risk-free government bonds. This convexity should be greater the longer the duration. The question today is whether this historic relationship is likely to hold in the future, and if so, to what extent.

Figure 3: US 10-year bonds vs equities during declines⁴



Indeed, even if we focus on large equity drawdowns, the slope of the regression (see Figure 3) is -0.4. Even with this relatively high beta, to fully offset severe equity declines a portfolio needs a lot of government bonds (e.g. $1/0.4 = 2.5$ times the number of 10-year treasuries to hedge the S&P 500 Index).

² While volatility is the usual measure of risk as it is mathematically convenient, in practice peak to trough declines is the key risk focus of investors. Similarly, upside participation relative to equities is the main focus of reward. ^{3,4} Source: Insight and Bloomberg, using data from 1973 to 2020.

But the special position of government bonds has not simply been their status as a protective asset. It has been the combination of positive carry (and on average a positive historic return) combined with some element of downside protection that has made government bonds the proverbial unicorn in the investment forest.

GOVERNMENT BOND RETURN POTENTIAL HAS DECLINED ...

Government bond yields have enjoyed a secular decline for over 30-years, and in recent years the calls that yields can go no lower have been disproved time and again. Yet COVID-19 accelerated the trend and pushed us into a surreal space. At its worst point \$15 trillion of developed market government debt – 35% of developed market government bonds – were trading with negative yields⁵. Current yields are off their lows but even from today's starting point it is difficult to project attractive returns over the medium-term.

A post COVID-19 recovery could see yields back up a little, but we see limits to this. Central banks have become the marginal buyer of government debt and any normalisation in monetary policy is quite literally years away. Indeed, we argue that government bonds still have an important role to play in a multi-asset context, but it seems clear that their return generating attraction is greatly diminished.

... AND THE POWER OF THEIR PROTECTION IS ALSO WANING

The nature of government bond returns is already changing – in an absolute sense and relative to equity markets. We can illustrate this in relation to Figure 4 which shows the convergence of global government bond yields. German and Japanese yields converged around zero in 2016 when US and UK equivalents were still yielding 2.27% and 1.95% respectively.

Figure 4: 10-year government bond yields⁶

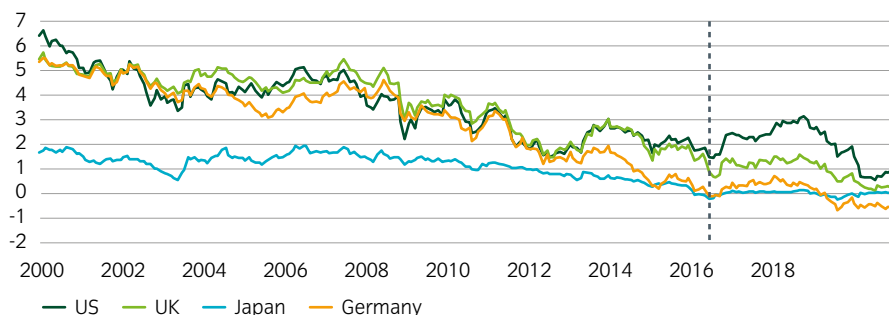


Figure 5: Govt bond returns during recent periods of equity market distress⁷

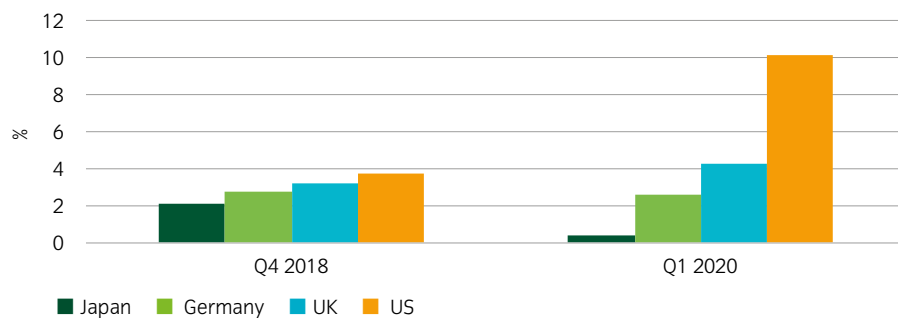


Figure 5 shows the government bond returns from the same assets during the two biggest 'risk-off' periods post 2016. For example, the Japanese central bank's policy shifts to yield curve control limited their ability to act as a hedge in Q1 2020.

⁵ Source: JP Morgan as of December 2020. ^{6,7} Source: Insight and Bloomberg. Data as at 31 December 2020.





It is difficult to ignore the conclusion that, from the current yield levels, the return outlook for government bonds is modest, and the prospect of a strong rally in the risk-free rate alongside rising equity markets appears somewhat remote.

BROADER RAMIFICATIONS OF A LOW INTEREST RATE REGIME

The background described above is certainly challenging. Even more so because the decline in short-term interest rates towards zero (or in some cases beyond, i.e. Europe and Japan) has ramifications for all sorts of return seeking assets.

Indeed, to the extent that expected returns for such assets are often described in terms of a risk premium (on top of the risk-free rate), this implies lower absolute returns across a range of instruments commonly used as investment building blocks.

In financial markets, reflexivity often plays a key role in understanding asset class dynamics. As has often been described in different ways by the collapse in interest rates, the huge injections of liquidity and related forms of monetary easing has driven a search for yield and the adoption of the TINA mantra (there is no alternative) of a move into riskier assets.

Of course, this has been helpful in the short-term and it has driven an unprecedented recovery (in terms of speed) from the Q1 2020 COVID-19 market crash. But it complicates the longer-term landscape. Equity markets have rebounded sharply, leaving valuations, based on many normal metrics, extended while spread compression in the riskier end of the fixed income spectrum has happened earlier than one would expect based on normal cyclical considerations. In the next section, we focus on the other great pillar of the balanced multi-asset portfolio – equity, before reviewing the range of other opportunities which provide useful asset allocation building blocks for us to work with.

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The decline in short-term interest rates towards zero has ramifications for all sorts of return seeking assets.

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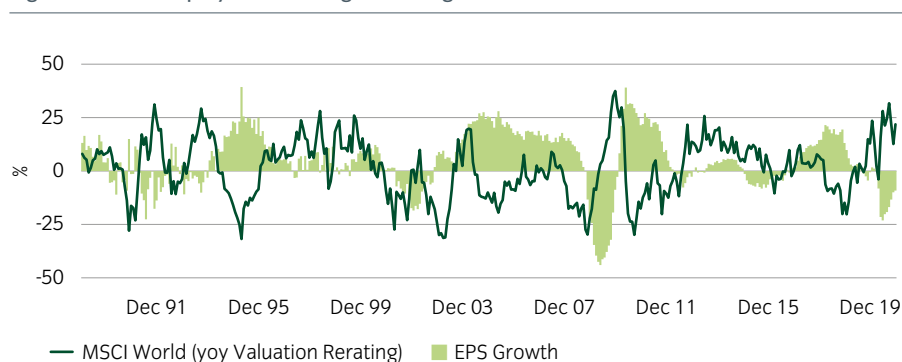
EQUITY MARKETS, EARNINGS AND INTEREST RATES

History has taught us that, over the long term, equity market returns tend to reflect corporate profits which in turn reflect the underlying health of the economy. A review of equity bear markets reaffirms the point that markets normally struggle to cope with periods of large-scale EPS contractions. This is because, when the fall-out from an economic shock becomes entrenched, the second-round effects (or scarring) associated with large scale business failures and rising unemployment imply lengthy recovery periods.

The current economic shock could be the exception as unprecedented policy action may have limited the potency of the normal hysteresis effects.

Nevertheless, the strength of the equity market rebound combined with the collapse in corporate profitability leaves most markets on an uncomfortable valuation platform. Indeed, as figure 6 illustrates, 2020 has seen a significant upward re-rating of global equity valuations.

Figure 6: Global equity P/E re-rating and EPS growth⁸



Liquidity support and the unique nature of the COVID-19 crisis may explain how we have arrived at this juncture, but with a medium-term focus two factors present a challenge to stock markets maintaining their historic return profile into the future.

These two factors are:

- The equity risk premium is now set against a lower anchor point (a risk-free rate close to zero)
- The observable fact that multiples are elevated in an historical context, and empirically the forward returns posted by stock markets from such an elevated starting point have tended to be modest)

With regards to the latter point we can illustrate the challenge using both the US and Japan as examples. The US provides the longest data source for such analysis and Figure 7 shows the relationship between the P/E versus 10-year forward returns.

Of course, there are ways to justify current valuations. One argument is based on the idea that very low interest rates (i.e. the discount rate) justify high equity market valuations when looked at through a dividend discount style framework.

Whilst theoretically appealing we find little evidence that low rate environments have been supportive of markets trading at elevated valuation levels. If that were the case, the best-fit line in Figure 8 would go from top-left to bottom right. Instead what we see is a non-linear relationship where the highest market multiples are witnessed in what we see as a 'normal'

⁸ Source: Insight and Bloomberg. Data as at 31 December 2020.





real interest rate environment of c.2-4%. Periods of lower real rates (whether reflecting inflation or disinflation) and poor earnings growth are normally associated with lower multiples.

The Japanese experience – the collapse in interest rates following the 1989 stock market collapse is another cautionary tale in expecting low interest rates alone to drive stock markets indefinitely.

Our point here is not to make an overly bearish case of stock markets. Indeed, tactically we see considerable opportunity. It is simply to make the point that, from a long-term planning perspective, the next few decades may struggle to live up to the recent past given that returns in that period have been abnormally strong.

Figure 7: PE ratio vs. forward returns⁹

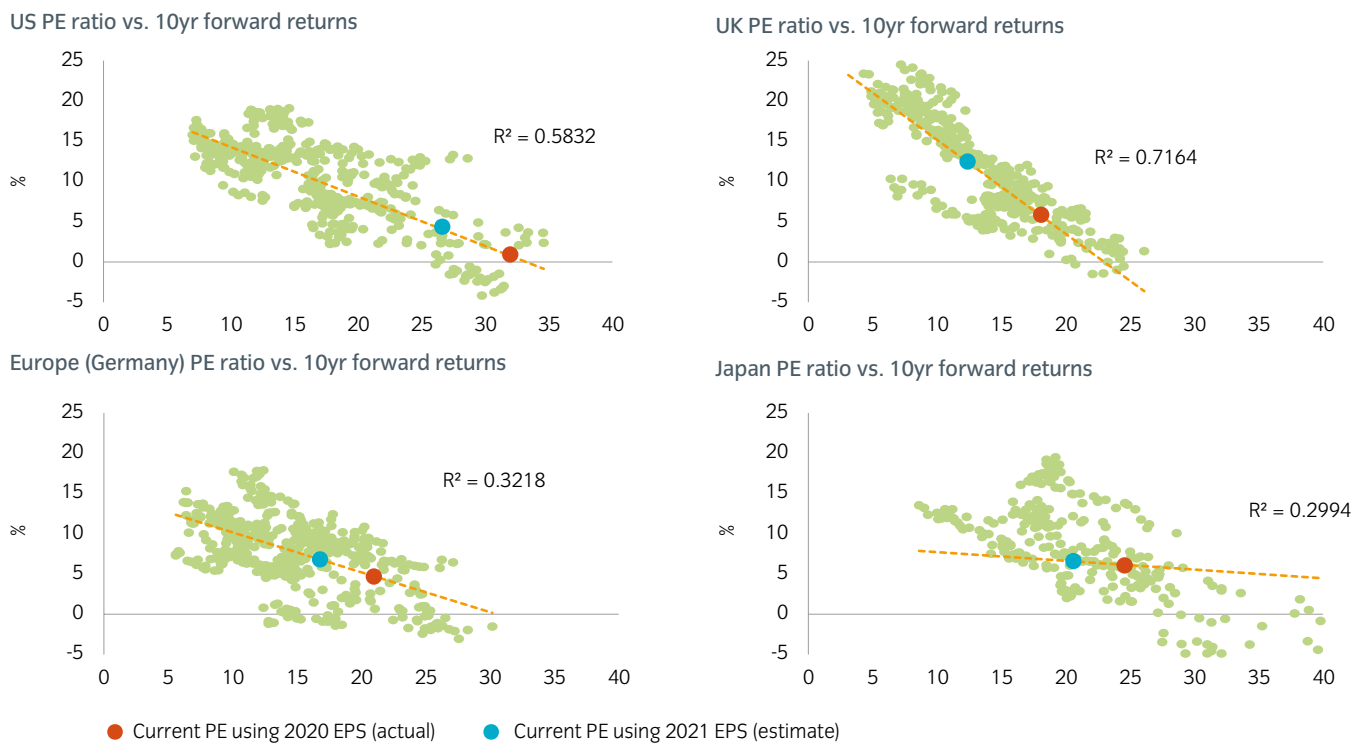
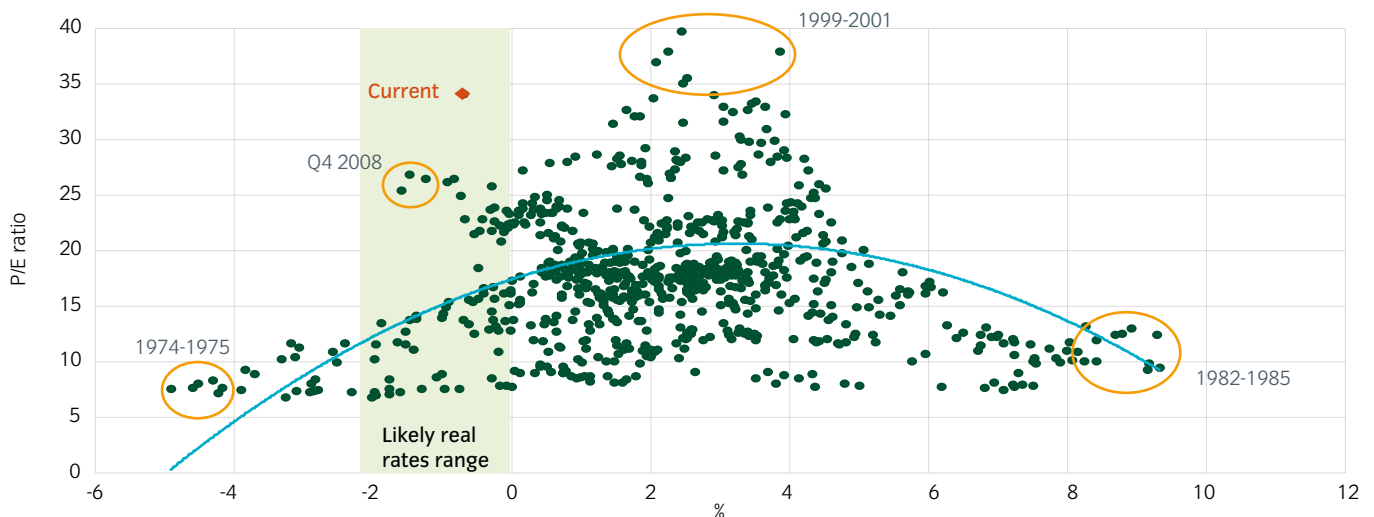


Figure 8: Stock market valuations (S&P 500 Index P/E) vs. real interest rates¹⁰



⁹ Source: Insight and Bloomberg. Data as at 31 December 2020. ¹⁰ Source: Insight and Bloomberg. Data as at 31 December 2020.

THE CHALLENGE AND OPPORTUNITIES – AN ASSET ALLOCATION PERSPECTIVE

This background sets us on a quest for more diversifying investments to help spread portfolio risk and generate return. It reflects a recognition that the unique return enhancing and risk mitigating qualities of government bonds are under threat. At the same time, the return generating prospects of equities also appear far more challenged than in recent times. The search will be ongoing, but we are mindful that, from an asset allocation perspective, even a few additions can help improve our chances of building portfolios with better risk-adjusted returns.

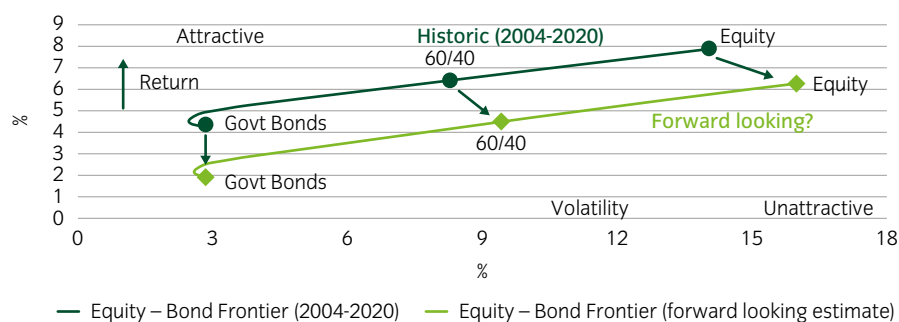
Whilst our own preferred style of managing multi-asset portfolios has focused on a non-benchmarked total return approach (normally referred to as our flagship Insight Broad Opportunities Strategy) we first look at the problem through the lens of an asset allocator using the industry standard – a 60/40 balanced portfolio as our benchmark. The areas for enhancement that we unearth are equally applicable to our total return approach or could be incorporated into a more benchmark-oriented product.

60/40 HAS BEEN A HIGH HURDLE TO BEAT

In recent years, a 60/40 construct has proven to be a very hard benchmark to beat. For example, over the last ten years it has delivered an excess return of 7.6%, with a volatility of 7.5% delivering an excess return/volatility (i.e. Sharpe ratio) of 1.0 – an exceptional result as any textbook would attest¹¹.

Where does it go from here? As discussed, from current yield levels the outlook for government bond returns looks poor, while elevated stock market valuations do little to offer encouragement in terms of prospective equity market returns. From a portfolio construction context lower returns, and the possibility of a less helpful (albeit we assume still negative) equity / government bond correlation, suggest in asset allocation speak, a lower efficient frontier. Depending on the assumptions we make this would shift our efficient frontier from the 10-year historic one observed in Figure 9 to one that occupies a less appealing space.

Figure 9: A challenging starting point for multi-asset portfolios¹²



That's the bad news. But it also throws up opportunities for asset allocators.

¹¹ Source: Insight and Bloomberg. Data as at 31 December 2020.

¹² Source: Insight. Stylised efficient frontier curve for illustrative purposes only.



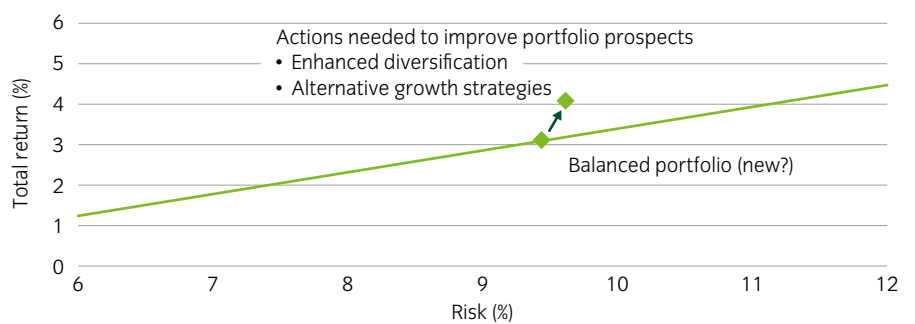
OPPORTUNITIES TO INCORPORATE ATTRACTIVE CHARACTERISTICS

Historically, the blended return from a 60/40 construct was so good that the inclusion of additional assets into the portfolio mix contributed little in the way of higher risk-adjusted returns. Doing so sensibly though, and with appropriate timing, could reduce volatility or drawdown and this has been the experience of our own total return (i.e. non-benchmarked) approach to multi-asset portfolio management.

Looking forward, there is greater scope for alternative investments to add value both from a risk mitigation and return generation perspective. The importance of active asset allocation is also likely to be of more value.

To simplify the asset allocation challenge and to focus our minds, in Figure 10 we begin at our new starting point of the likely return and volatility characteristics of our forward looking 60/40 portfolio. Our aim, or objective, is simple. To improve upon the likely risk-return outcome implied by our new 60/40 starting point

Figure 10: Improving portfolio outcomes¹³



Our tools are also simple, at least in principle. A wider range of investment building blocks and sensible inclusion criteria. When we are assessing additive investments, we will split our search for building blocks into two camps:

- Enhanced diversifiers which offer some form of left tail protection – but with limited cost
- Alternative growth strategies ideally accessing alternative risk premia or offering some degree of asymmetry

The list of building blocks for our alternative diversifying and growth buckets is potentially large but in this note we limit ourselves to a few examples of each to balance a desire for brevity with transparency as to our investment thinking.

¹³ Source: Insight. Stylised efficient frontier curve for illustrative purposes only.

ENHANCED DIVERSIFIERS

CONCENTRATED GOVERNMENT BOND BASKETS

Barring a big rise in inflation or an un-anchoring of inflation expectations the negative correlation between equities and bonds will probably hold. In that sense the government bond unicorn has not lost all of its allure and they still have a role in helping to diversify holdings in more risky assets without the negative costs often associated with other hedges.

Hence a framework where bond holdings are based on their likely performance in periods of stress rather than simply traditional index weightings is likely to maximise their diversification impact.

Figure 11 does this by looking through developed market government bond markets with an eye to what carry they currently offer and what support they might offer in a stressed risk asset environment. Where central banks seem likely to lean against market pressures, for example via yield control targets in Japan, or where their perceived yield floor is close to current market pricing, then this needs to be reflected in portfolio return expectations. Risk free assets in this camp offer little and capital should be deployed elsewhere.

The correct asset mix is likely to require periodic adjustment, depending on the central bank reaction function and return expectations, but assessing risk-free bond holdings through this lens should at least maximise their attractiveness from a diversification standpoint.

Figure 11: Govt bonds – viewed through a ‘risk-off’ lens¹⁴

		Yield			Severe Bear Market		
		Pre-Covid (31-Jan)	UST Low (8-Jan)	Current	Assumed Low	Yield move (%)	Return (%)
US	Funding	1.75	0.25	0.23	-0.50		
	10yr	1.51	0.51	1.10	-0.50	-1.60	12.7%
	30yr	2.00	1.19	1.86	0.00	-1.86	37.2%
UK	Funding	0.76	0.08	0.03	-0.50		
	10yr	0.52	0.08	0.29	-0.50	-0.79	6.3%
	30yr	1.04	0.60	0.87	0.00	-0.87	17.4%
Germany	Funding	-0.39	-0.47	-0.55	-0.70		
	10yr	-0.43	-0.55	-0.53	-0.70	-0.18	1.5%
	30yr	0.07	-0.14	-0.13	-0.20	-0.07	1.3%
Australia	Funding	0.88	0.10	0.02	0.00		
	10yr	0.95	0.83	1.13	0.00	-1.13	9.0%
	30yr	1.55	1.68	2.17	0.50	-1.67	33.3%

This more concentrated government bond portfolio appears better placed to be the natural portfolio bedfellow for the more cyclical positions we own in our growth portfolios.

EQUITY PROTECTION STRATEGIES

Given that portfolio volatility is driven by the riskiest things a portfolio holds it would be silly not to re-examine the ways we can manage equity risk. We start by revisiting equity protection strategies, but as always, the problem with these has been the cost of protection. Below we review some alternatives, before exploring other ways of adding both downside protection and diversification into a multi-asset portfolio.

¹⁴ Source: Insight and Bloomberg. Data as at 8 January 2021.





Equity put protection

There are many ways of making money when risk assets fall, for example buying equity market puts. Over the longer run, however, this tends to be very expensive if implemented on a systematic basis. To illustrate this, the annual cost of rolling 90% S&P 500 Index put protection is c.5% per year for maturities between three and 12 months. This means a 90% put-buying strategy is only profitable for declines of more than c.15% (the break-even point of this strategy being 5% premium plus 10% out-of-the-money (OTM) strike).

The effectiveness of the protection is then very dependent on when the put is bought and for what maturity. For example, if a 90% put is bought, then equities rise 10% and subsequently fall 20%, the 90% put is worth zero at expiry and the investor has suffered a 20% drawdown (excluding the cost of put). Similarly, if three-month puts are systematically bought with a 90% strike, in theory, if equities fall 10% or more each quarter, an investor can suffer a 40% drawdown per year.

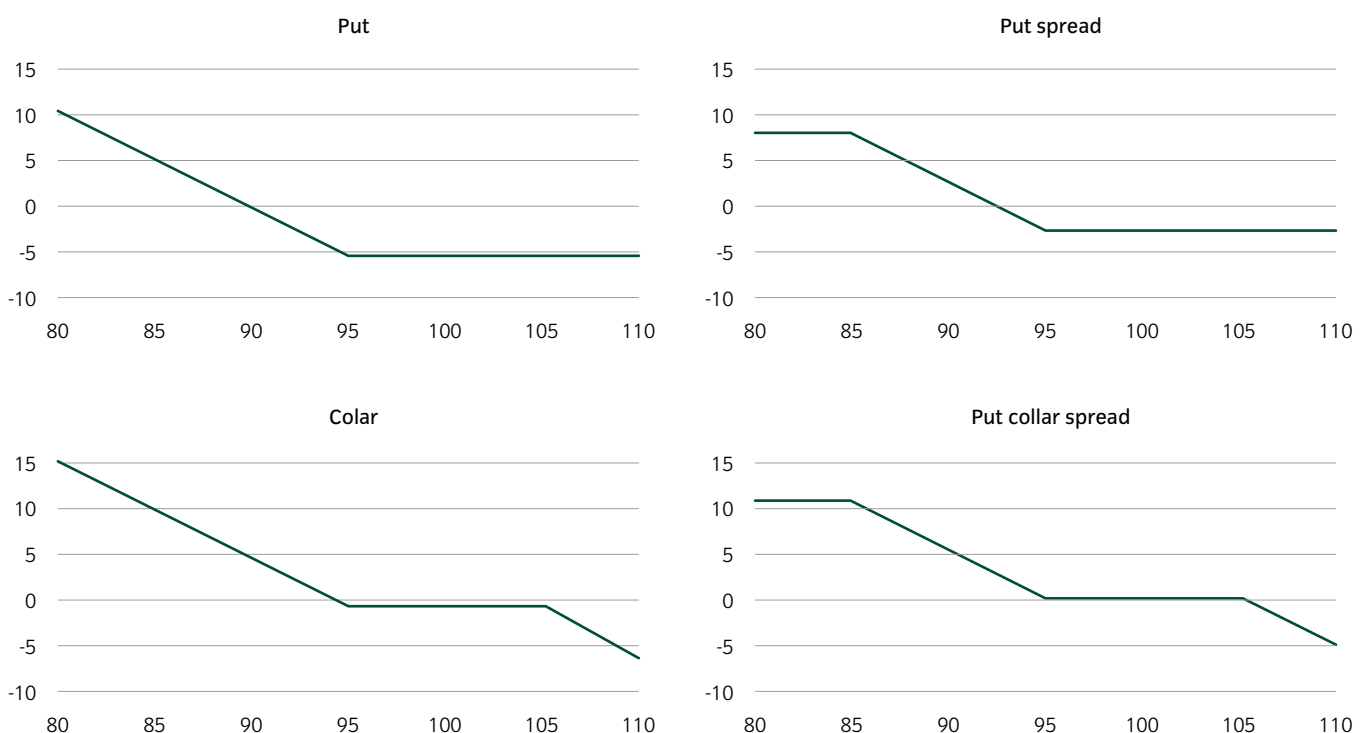
The importance of path dependency cannot be overemphasised for those minded to buy protection in this way or for anyone considering hedging strategies.

Multi-leg equity protection strategies

Selling out of the money puts (e.g. put spread) or calls can cheapen a protection strategy, at the cost of limiting the upside. There may be occasions where such a trade makes sense (path dependency notwithstanding) if fundamentally an investor feels downside risks are capped, for example by an aggressive policy response to a large equity market sell-off. Similarly, there may be occasions where taking on 'right tail risk' (i.e. losing money if equity markets rise) is an acceptable strategy when viewed in a broader portfolio context.

A range of such strategies are shown in Figure 12. More complex variants, for example using calendar structures to take advantage of the shape of the term structure of volatility, are worth careful consideration although we would envisage only light usage – our back-testing suggests these are rarely profitable strategies. However, when implemented, for example as part of active asset allocation strategies they may have some use.

Figure 12: Defensive equity hedging strategies¹⁵



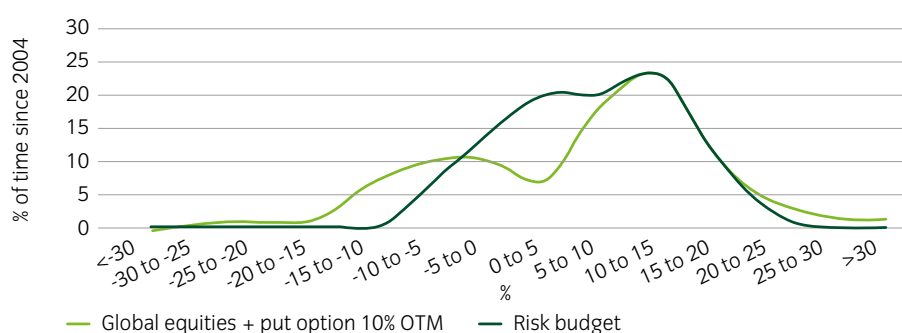
¹⁵ Source: Insight, for illustrative purposes only.

Synthetic equity protection strategies

It is possible to synthetically replicate a profile similar to that of a long call. By increasing exposure to an asset when it is performing, and reducing exposure when it underperforms, a convex profile can be created. This can be done by trading index futures, rather than buying options.

We already incorporate an element of synthetic option replication in our own multi-asset strategy. In our framework it replaces a fixed equity weight benchmark and acts as a dynamic risk budget (or benchmark) within total return portfolios. The parameters within our approach are carefully designed with an aim to reduce the headwinds from mean reversion and this dynamic benchmark serves only as a guide around which we make active asset allocation decisions. The use of such strategies is less suited to benchmark orientated 60/40 style portfolios, but they can still be a useful building block.

Figure 13. Dynamic Risk Budget distribution vs systematic put protection¹⁶



ALTERNATIVE DIVERSIFYING STRATEGIES

Option strategies like those described in section 2.2 take advantage of the implied volatility premium, term-structure and skew to construct a desired payoff profile.

Non-equity option strategies

Such trades of course are not limited to equity markets. We have a long track record of using bond option structures within our flagship diversified growth strategy. The range of risk premia embedded into government bond options is less than, say equity index options (for example, skew dynamics are such that you are less well rewarded for selling options). Nevertheless, positions like the one in Figure 14 can give some asymmetry to a position allowing the holder to benefit if bonds rally in a risk off environment but they afford some protection from an upward move in yields from their record lows.

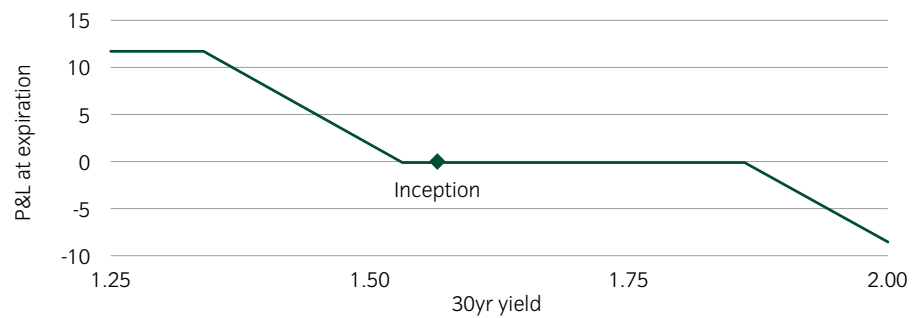
Other option strategies that monetise volatility premium in rates markets, for example more complex structures such as swaptions, also have the potential to act as diversifiers to more risky assets.

¹⁶ Source: Insight and Bloomberg. As at 31 December 2020. Global equities represented by MSCI World Index, in gross, local currency terms. Chart explanation: the chart illustrates the distribution of returns achieved by our dynamic risk management process applied to global equities compared to simple put-protection strategy. On the bottom axis we show 12-month rolling returns, while on the vertical axis we show the percentage of time those returns were observed from the inception of the Insight broad opportunities strategy (31 December 2004) to 31 December 2020.





Figure 14: Defensive US treasury option structure¹⁷



Screening for success

More generally, what are the other candidates we can put into our diversification 'bucket' and by what yardstick should we judge their attractiveness?

- First, we noted earlier that in recent decades government bonds have exhibited a negative correlation with equity markets. We also know the slope of our regression of government bonds returns relative to equity market declines was around 0.4. So, as a starting point we would like our enhanced diversifiers to have a beta in the region of -0.4 although this may prove a high hurdle.
- Secondly, the positive carry historically associated with government bonds was one of their alluring features. Of course, in a world where central banks have anchored rates close to zero, carry is likely to be a rare commodity. That said we should aim to pick up return where we can and avoid (or be sparing) in the use of enhanced diversifying strategies that imply a negative cost of carry.

Ideally, both of these requirements (negative beta and carry) should be relatively stable in nature and we should look at a range of metrics to identify those diversifying assets that currently are displaying attractive characteristics.

Our research has unearthed a range of opportunities that meet these requirements. The appropriateness of these investments depends, in part, on the underlying macroeconomic investment backdrop. Others have idiosyncratic features which suggest they would work best as more modest positions within a portfolio of enhanced diversifiers. Figure 15 is a snapshot of one of the diversification score-cards we monitor. A cursory glance of potential trades shows a range of cross asset ideas. A number of them sit in currency space so we shall use FX as an illustrative example.

EXAMPLE: A GREATER ROLE FOR FX STRATEGIES

We have always viewed currency as an important part of any multi-asset portfolio discussion and in an environment of ultra-low government bond yields across much of the developed world, the case can be made that FX positions become an even more important tool.

The rationale here is fundamental. With monetary policy in most countries anchored at the lower effective bound, there is likely to be small movements in terms of relative interest rate differentials to move currencies. But by the same token, the exchange rate becomes the main pressure value that can move to reflect changing economic circumstances, be that caused by domestic policy in non-monetary arenas (fiscal or political) or to help cushion exogenous shocks. In this regard, FX moves may well become a lightning rod signalling broader economic issues that are pertinent from an asset allocation perspective.

¹⁷ Source: Insight, for illustrative purposes only.

Obviously, FX positions allow us to benefit from opportunities / risks emanating from individual country circumstances or from more general trends in risk appetite. In the latter regard, various currency pairs often appear as attractive diversifying positions in our cross-asset screening tools. The thrust of these broader diversifying trades is essentially:

- Long safe haven / short cyclical currency

Historically, one of the challenges of successfully implementing such trades is the cyclical leg of the trade has enjoyed a higher interest rate differential making the trade a negative carry position.

Figure 15: Diversification scorecard¹⁸

Description	Current							Momentum		Rank	Existing position	Recent / Reviewing position
	Beta (52W)	Beta Dispersion (52W)	R2 (52W)	Beta*R2 (52W)	Volatility (52W)	Drawdown Protection (20Y)	Carry (Current)	Carry/vol	Signal			
US 10 Yr	-0.04	0.14	0.04	0.00	4.1%	-0.26	0.57%	0.14	Long	1	✓	
USD AUD	-0.50	0.25	0.68	-0.34	13.6%	-0.34	0.38%	0.03		2		✓
USD CAD	-0.28	0.11	0.59	-0.17	8.1%	-0.29	0.16%	0.02		3		✓
AUS vs JPY 10yr	-0.04	0.06	0.04	0.00	4.3%	-0.04	0.94%	0.22	Long	4		
VIX Short term	-4.49	1.35	0.75	-3.36	116.8%	-2.61	-0.08%	0.00		5		
USD Swaption 2y10y	-0.24	0.22	0.20	-0.05	12.0%	-0.19	0.55%	0.05		6		✓
VIX Medium term	-1.74	0.46	0.52	-0.90	54.3%	-1.18	-0.08%	0.00	Long	7		
GBP AUD	-0.11	0.19	0.10	-0.01	8.0%	-0.31	0.18%	0.02		8		
USD Swaption 10y20y	-0.12	0.09	0.15	-0.02	7.1%	-0.06	0.55%	0.08		8		✓
China Government bonds	0.05	0.12	0.06	0.00	4.6%	-0.08	3.09%	0.68	Long	10	✓	
USD NOK	-0.61	0.23	0.57	-0.35	18.3%	-0.24	0.05%	0.00		11		✓
Equity Dispersion Index	-0.71	0.14	0.45	-0.32	23.9%	-0.27	-0.50%	-0.02		12	✓	
SPX Put Protection Index	-0.59	0.23	0.69	-0.40	15.9%	-0.70	-3.00%	-0.19	Long	12		
AUS 10 Yr	-0.01	0.07	0.00	0.00	5.0%	-0.01	0.98%	0.20	Long	14	✓	
US 30/10 Flattener	-0.06	0.06	0.06	0.00	5.9%	0.03	0.75%	0.13		15		✓
US 30 Yr	-0.15	0.29	0.06	-0.01	14.0%	-0.23	1.56%	0.11	Long	16	✓	
CHF AUD	-0.42	0.23	0.62	-0.26	11.8%	-0.41	-0.65%	-0.05		17		
JPY AUD	-0.44	0.25	0.60	-0.26	12.8%	-0.32	-0.04%	0.00		17		✓
USD MXN	-0.67	0.25	0.50	-0.33	21.2%	-0.43	-4.15%	-0.20		19	✓	
EUR AUD	-0.38	0.17	0.59	-0.22	11.1%	-0.25	-0.45%	-0.04		20		
COSLER	-0.06	0.05	0.01	0.00	12.9%	-0.10	0.00%	0.00	Long	21	✓	
USD ZAR	-0.36	0.24	0.28	-0.10	15.6%	-0.52	-4.28%	-0.27		22	✓	

¹⁸ Source: Insight and Bloomberg. Data as at 31 December 2020. Data in columns marked 52W is over the 52 weeks to 31 December 2020. Drawdown and protection data (marked 20Y) is over the 20 years from 31 December 2000 to 31 December 2020.



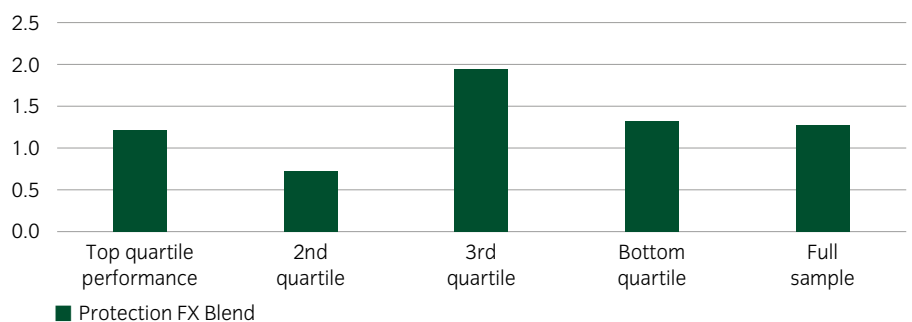
As with all such trades, market timing becomes increasingly important if the cost of holding the position is not to be a drag on performance. But, in a world where interest rates almost everywhere are at historic lows, the headwind of negative carry is much reduced, if not eliminated, leaving FX markets as an attractive candidate in our search for positions that can augment our rates exposure as diversifiers in a multi-asset context.

Another way to use FX for diversification purposes is in a more tailored solution. The starting point is straightforward: currency markets are driven by a number of key factors – some are aligned with traditional risk premia such as carry, volatility, value, momentum, and quality while others are more closely aligned with traditional macro-economic analysis and are more discretionary in nature. Each factor has different characteristics and behaves differently in different market conditions, for example, the performance of the carry factor tends to be very positive in constructive market conditions, while the opposite is true of a volatility factor.

Instead of combining these factors in a way to maximize the overall expected information ratio of the strategy or by simple risk parity, which would work to create a FX alpha strategy in its own right, these can be customised in a strategy that ‘overweights’ the importance of good performance in adverse equity market conditions and ‘underweights’ the importance of good performance in supportive market conditions.

One very simple example would be to simply combine our FX team’s discretionary, quality, and volatility factors as they tend to have the most solid performance in adverse market conditions. As can be seen in Figure 16, while the overall expected performance is positive, this currency alpha solution is tailored to deliver outperformance when global equities, as defined by the MSCI World Equity Index, are in the bottom half of the distribution of monthly returns.

Figure 16: Illustrative example of an FX alpha strategy to add value in difficult equity market environments¹⁹



Gold and other precious metals can feature on our diversification menu to the extent that they exhibit safe-haven characteristics in times of stress. The lack of positive carry has long weighed on the allure of gold from our perspective. Nevertheless, in a world where positive carry opportunities are notable by their absence, it deserves a place in our diversification screens.

Positions from the diversification scorecard, shown above, are unlikely to be static holdings and an active approach to maintaining these would make most sense. This would help maintain diversifying qualities whilst at the same time being attuned to the changing investment landscape. Overall though, collectively these investments should maintain the correlation/beta/carry characteristics outlined above.

¹⁹ Source: Insight, for illustrative purposes only.

ALTERNATIVE GROWTH STRATEGIES

Looking forward, we believe the addition of alternative growth strategies will be additive in building portfolios with more attractive risk-adjusted returns.

Some of the risk premia embedded in such assets have been squeezed lower as the risk-free return has come down. But some of the underlying drivers of return are fundamentally different. This should help from both a return generation and correlation perspective. It should also provide opportunities from an asset allocation standpoint.

In the interests of brevity we will not explore the attributes of some of these assets here (such as high yield and emerging market debt) as they fit within the mainstream and as such are widely understood.

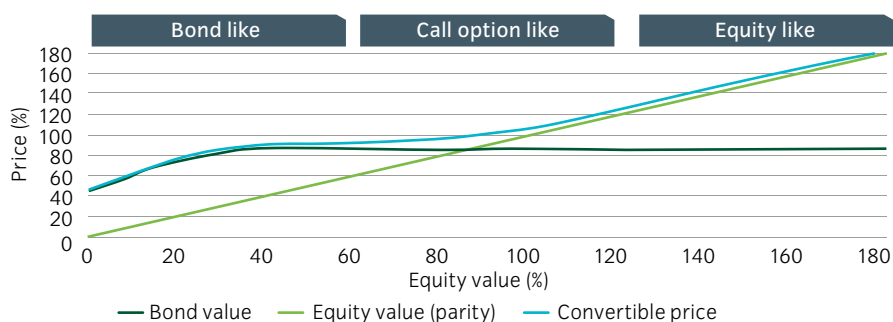
There are other alternative growth assets which warrant more than a mention. As with our list of 'enhanced diversifiers', the examples below form part of a longer-list, but our aim is to give a line of sight as to our thinking.

EXAMPLE 1 – CONVERTIBLE BONDS

One obvious line of enquiry is for return orientated investments that have at least some degree of non-linearity in their return profile as these can help improve overall portfolio risk/return dynamics.

Convertibles bonds are one such example. They offer an attractive combination of the downside protection of fixed income if equities decline, with the option of converting into equity if equities rise. As a result, they have the benefit of giving upside exposure to the equity market during bull markets, while still maintaining the lesser drawdown characteristics of bonds in bear markets.

Figure 17: Stylised pay-off profile of a convertible bond²⁰



The stylised pay-off profile shown in Figure 17 implies a high degree of protection (relative to equity) but as we see in Figure 18 the drawdown experience of a convertibles index is not dissimilar to risky bond indices.

²⁰ Source: Insight, for illustrative purposes only. ²¹ Source: Insight and Bloomberg, October 2014 to December 2020.



Figure 18. Risk reward characteristics of ETFs on high yield, USD emerging market debt and global convertibles²¹

Characteristic	US High Yield	EM \$ debt	Global Convertibles
Return	4.7%	5.2%	10.1%
Volatility	8.9%	9.6%	10.4%
Max drawdown	22%	27%	24%
Sharpe	0.53	0.54	0.97

There are two aspects to understanding this performance profile. Firstly, as convertibles have a maturity of several years (and therefore contain a lot of time value), the value to convert has a less convex profile than a typical call option of maturity of several months.

Secondly, the equity sensitivity or delta of a convertible will increase as equities rise. Conversely the equity sensitivity will decrease as equities decline. This means that convertibles are especially sensitive to market declines that occur after a long bull market. For example, during the Great Financial Crisis (GFC) which began in 2007 the drawdown of the global convertibles index was 55% of the decline of MSCI world. Similarly, during the coronavirus crisis, in early 2020 the global convertibles index fell 60% of the amount of MSCI world.

Of course, not all convertible indices or strategies are the same. Some less diverse convertible indices than the one described here are likely to have higher drawdowns. Other strategies, for example that take long/short positions within the convertible universe are likely to have more attractive drawdown characteristics.

EXAMPLE 2 – INFRASTRUCTURE

In theory investing in infrastructure is perceived to offer two key positives – stable long-term returns and diversification benefits versus equity risk, both attractive attributes for a multi-asset investor. In reality, however, many global listed infrastructure indices have a high economic sensitivity and demonstrate a close relationship with equity markets.

At Insight, we access infrastructure via listed, closed-end investment companies, and our focus has been on less economically sensitive parts of the infrastructure universe. By concentrating on assets that produce stable long-term cashflows, often linked to inflation, we have been able to generate relatively stable returns over time, with a very low beta to global equities. The composition of infrastructure exposures within our multi-asset strategy has also evolved over the last decade, reflecting an expansion in the underlying investment universe, particularly in opportunities to put money to work supporting sustainable investments that drive investment returns and contribute towards a zero-carbon future.

EXAMPLE 3 – COMMODITY STRATEGIES

Accessing carry in commodity markets can be an attractive form of alpha, exploiting the shape of most commodity curves. One strategy we find attractive consists of a long exposure to a constant maturity index and a short exposure to a more traditional commodity index. By extending beyond short-dated futures contracts, curve diversification and a continuous rolling mechanism can be more beneficial than limiting exposures to short-term futures investments, particularly for commodity markets with an upward sloping forward curve which puts investors in the costly position of “buying high – selling low” each time a future is rolled. One of the attractions for including this type of exposure within a multi-asset portfolio is the typically negative correlation with commodities, and low correlation with equities and bonds.

Figure 19: Commodity strategies – correlation benefits within a multi-asset portfolio²²



EXAMPLE 4 – INDEX-LINKED BONDS AND BREAK-EVEN INFLATION

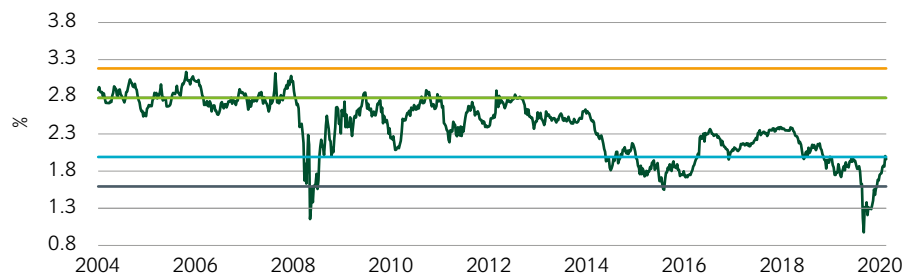
For those concerned that the degree of monetary easing will eventually cause inflationary pressures to build, a long position in index linked bonds makes sense.

The challenge here is that inflation markets are not the most liquid in the world. For example, the UK market is primarily used for liability hedging purposes which tends to make the breakeven rate (the difference between the nominal and index-linked bond for the same maturity) not the cleanest indicator of inflation expectations.

Arguably, this is less of an issue elsewhere but from a fundamental perspective, break-even rates are already at (in the case of the US), or beyond (in the case of Europe), their 1-standard deviation lower bound – see Figure 20.

For those more concerned about economic relapse or an equity market sell-off, break-evens could also prove useful. The relevant trade involves going short break-evens (via selling an inflation swap so the investor essentially pays rather than receives inflation).

Figure 20: US 10-year inflation swap²³



The position should be profitable so long as any risk-off move was enough to get growth, or more specifically, inflation expectations to take a leg lower.

For now, we are happy to be in neither camp (worried about a sharp rise in inflation or a lurch lower in inflationary expectations, but looking forward, index-linked securities and break-even inflation trades are likely to be useful building blocks in our tool-kit.

²² Source: Insight and Bloomberg. Data as at 31 December 2020, shows 52 week rolling correlation of commodity carry strategy to global equities. ²³ Source: Insight and Bloomberg. Data as at 31 December 2020.





CONCLUSIONS

This note began by exploring the challenges that the secular decline in Government bond yields give us when we think about forward looking returns. At this juncture, the elevated valuation plain of equity markets adds little in the way of comfort.

However, as we have shown, by widening our horizon and embracing a wider range of asset classes and investments we can find alternative investments that can help better diversify our portfolios and be additive from a return generation standpoint.

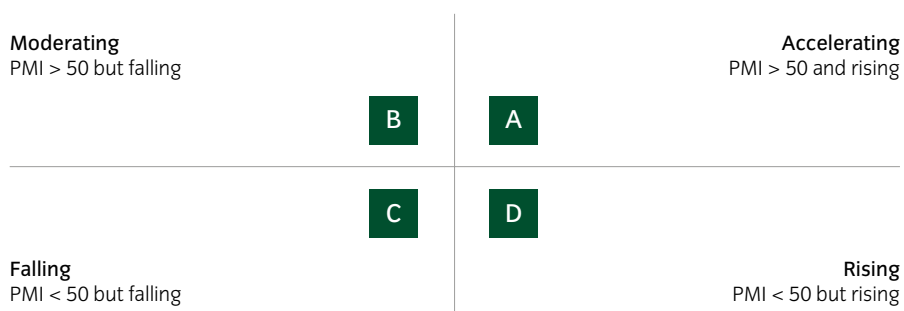
But our thinking is couched in terms of achieving a wider objective - attractive risk-adjusted returns from a return seeking portfolio. In that context the prospect of lower absolute returns from a range of traditional asset classes raises the importance of asset allocation as a source of value creation.

A BIGGER ROLE FOR ASSET ALLOCATION

As noted earlier, our own preferred style of managing multi-asset portfolios has focused on a non-benchmarked total return approach (normally referred as our flagship Insight Broad Opportunities Strategy) and active asset allocation forms a core part of our investment process.

Our Insight Broad Opportunities Strategy utilises in-house indicators to help us invest across a range of asset classes depending on the growth cycle. We utilise our 'regimes framework' illustrated in Figure 21.

Figure 21: Growth regimes framework²⁴

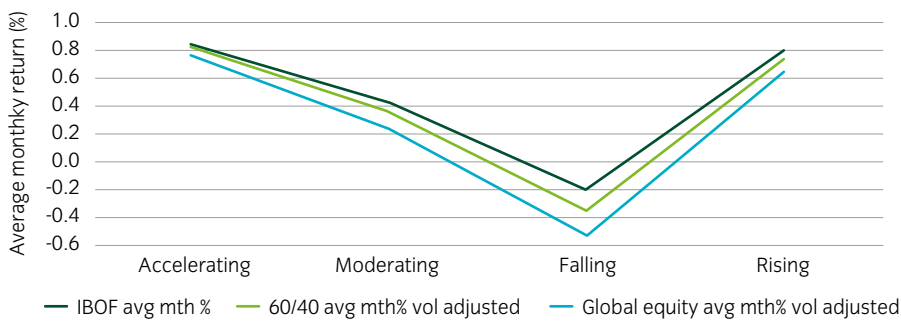


²⁴ Source: Insight, for illustrative purposes only.

Our assessment of asset class returns in these different environments provide a good guide as to likely asset class preferences.

In Figure 23 we compare our core strategy returns, using volatility adjusted strategy data since 2004, with global equity exposure and a more traditional comparison of a 60/40 portfolio. Here we can see the impact of active management over the economic cycle. We find on a volatility adjusted basis the strategy performs well across most of the cycle with the largest benefit being delivered in the falling regimes where the economy is in full contractionary phase (volatility is most elevated).

Figure 23: Asset allocation and growth regimes²⁵



The future however may be more challenging than the past and, in that regard, we see our asset allocation framework as a useful starting point, in need of further enhancement, rather than a completed process.

²⁵ Source: Insight, for illustrative purposes only.



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