

4th February 2022

Adapting portfolios for inflation

- Equities: rotation into Value, with bias to income
- Bonds: cutting exposure, and dialling down duration
- Alternatives: incorporating asset-based and risk-based diversification

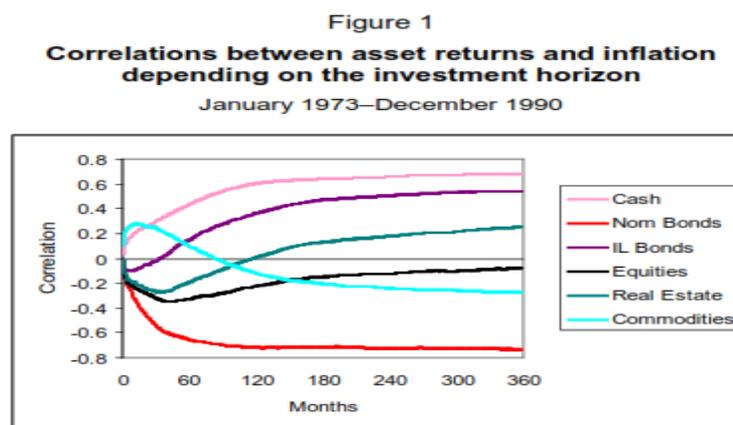
Adapting portfolios to inflation

In our [2022 outlook](#), we explained why inflation will remain hotter for longer and will settle above pre-pandemic levels. Advisers should consider how to [adapt portfolios for inflation](#) across each asset class – equities, bonds and alternatives. Research demonstrates¹ how different asset classes exhibit different degrees of inflation protection over different time-frames. Equities therefore provide a long-term inflation hedge.

- **Short- to Medium-term:** rate-sensitive assets, commodities
- **Medium- to Long-term:** real estate, equities and inflation-linked
- **Long-term** equities

This long-term positive relationship between equities and inflation exists both in inflationary (Fig.1.) regime 1973-1990.

Fig.1. Correlation between asset returns and inflation, by regime



Source: Briere & Signori, BIS Research Papers, 2011

¹ Briere & Signori, BIS Research Papers, 2011

To understand how asset classes respond to inflation, it is worth looking at a period of an inflationary shock (e.g. from 1973 to 1990), when inflation was higher and interest rates were rising. From a study² of asset class behaviour during that time:

- **Nominal Bonds** were the clear loser in a rising inflation/rising interest rate environment, as their fixed rate of interest can't keep pace with inflation, and their sensitivity to rising rates decrease their value
- **Commodities** provided a near-term hedge against an inflation shock
- **Property & Equities** had an initial negative reaction (on economic shock/higher risk premia) before inflation protective qualities kicked in
- **Inflation-Linked Bonds** had an initial negative reaction (on rising rates/long duration) before inflation protective qualities kicked in. Cash linked to floating interest rates (like **Floating Rate Notes**) protected against rising rates.

Because of the differing response by different asset classes over time, during an inflationary regime, a layered approach to inflation protection makes sense.

For this reason, a layered approach to inflation protection makes sense.

Fig.2. Illustration of a layered approach to inflation protection



Source: Elston research, for illustration only

Understanding “equity duration”

The degree to which equities respond to changes in interest rate regime is referred to as “equity duration”. This applies the duration concept for bonds to equities too. However it is a conceptual rather than a published measure.

Equity duration can be defined as how many years it takes for an equity investor to get the price paid for a share recouped from cash flows paid by the equity (dividends).

The term is therefore used to visualise the shape of future earnings and corresponding sensitivity to changes in interest rates to value those earnings in today's money.

- Shorter-duration equities: greater proportion of market value from near-term income and forecast dividends discounted back to today's terms.

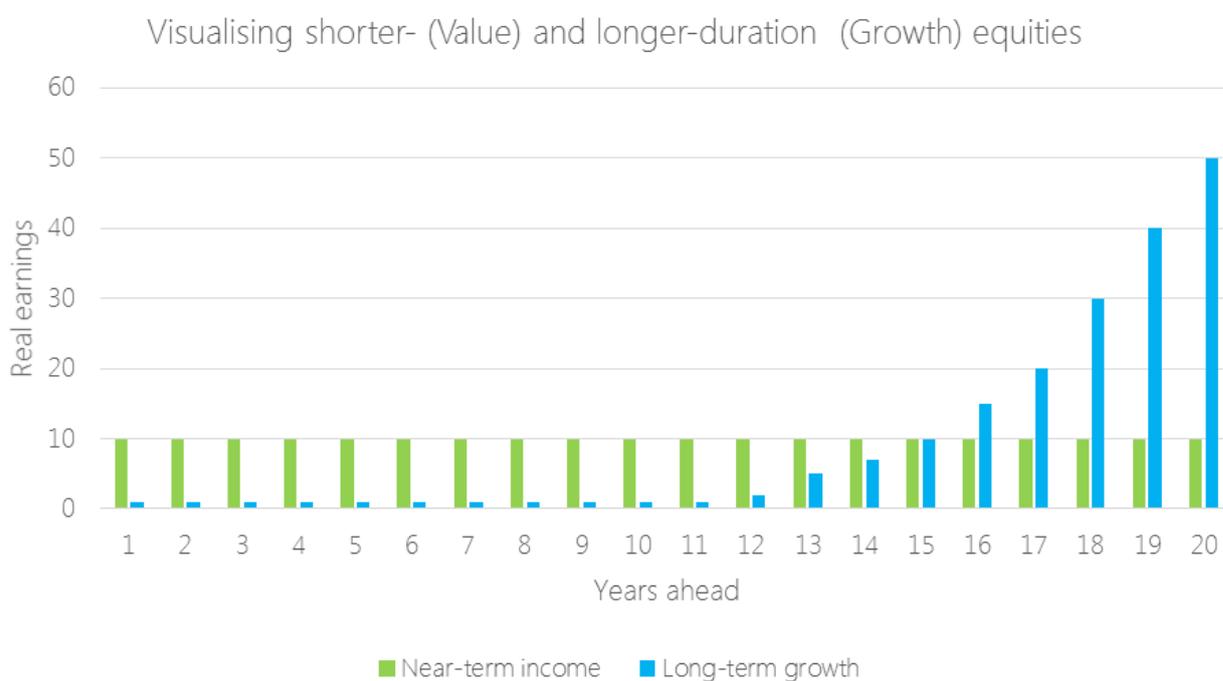
² Briere & Signori, BIS Research Papers, 2011

- Longer-duration equities: greater proportion of market value from long-term income and potential dividends discounted back to today's terms

When discount rates increase (with interest rates and/or inflation), today's value of future income decreases. The decrease is greater for longer-duration than for shorter-duration equities, other things being equal.

Companies with a shorter equity duration have higher near- and medium-term income and forecast dividends today tend to be "Value-style" companies. Companies with longer equity duration have higher earnings (and potential dividends) in the long-term and tend to be "Growth-style" companies.

Fig.3. Visualising equity duration



Source: Elston research, for illustration only, January 2022

Shorter-duration Value tends to outperform longer-duration Growth during inflationary regimes. Shortening the duration (interest- and inflation-rate sensitivity) by rotating towards funds that are overweight Value factor within an income bias therefore make sense within an equity allocation. This also explains why equity income (with value-bias) [has been the case in recent performance](#).

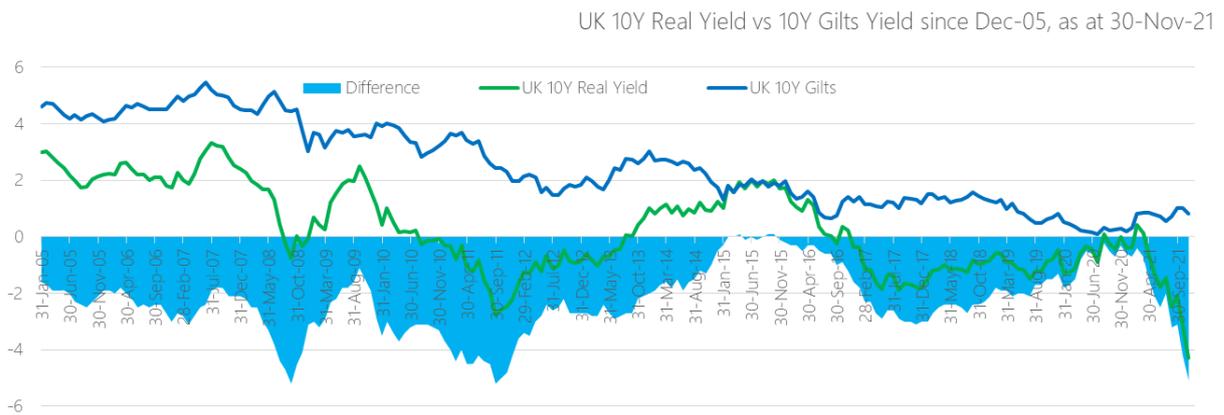
The trouble with bonds

Bonds' fixed income can't keep pace with inflation. And inflation-linked bonds are highly sensitive to increases in interest rates. This trouble with bonds is explored below.

In an era of compressed bond yields, only equities provide sufficient income yields that can potentially keep ahead of inflation. Bonds carry increasing risk of loss in real terms as inflation and interest rates rise.

Real yields, which are bond yields less the inflation rate, are negative. This makes traditional bonds which aren't linked to inflation unattractive. This is supportive for risk assets, including equity income.

Fig.4. UK bond real yields are negative



Source: Elston research, Bloomberg data

Source: Elston, December 2021

Focus on duration

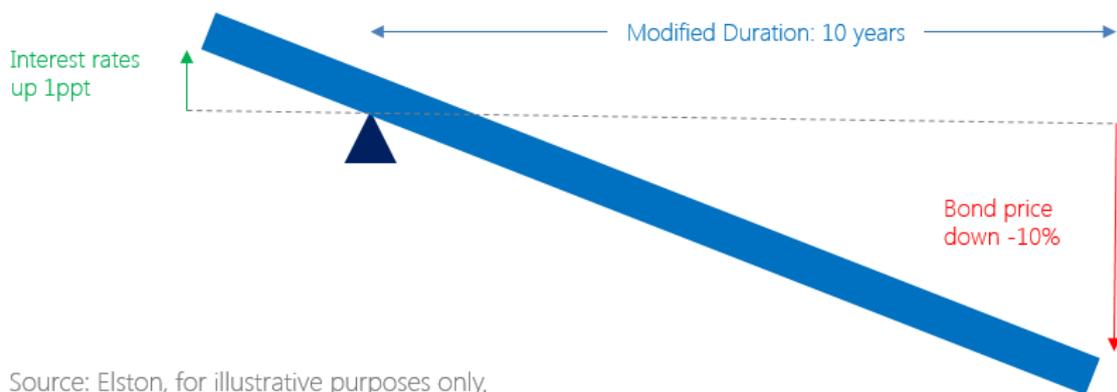
Whilst inflation-linked bonds protect against inflation in the long-run, they are highly sensitive to changes in interest rates in the near-term because of their long “duration”³.

The modified duration of the inflation-linked gilts index is currently ~22 years, meaning that the price of those bonds would decline -22% if interest rates were to increase +1ppt. If held to maturity (e.g. for 22 years), the higher income payments would offset the lower bond price. But if not held to maturity, the loss of value is permanent.

Bonds that are linked to inflation are therefore highly sensitive to rising interest rates (have high duration risk), so are not attractive in a rising rate environment.

³ A bond’s duration provides a measure of how many years it takes for a bond investor to get the price paid for a bond from the bond’s total cash flows (interest and principal), so is measured in “years” (Macaulay duration). It is therefore sensitive to the interest rate used to discount those cash flows back to today’s money. A bond’s duration can be used to measure its sensitivity (stated in years) to a 1ppt change in interest rates (Modified Duration) to a bond’s price representing a future stream of interest income and principal repayment in today’s money.

Fig.5. Bonds sensitivity to interest rates is measured in years



Source: Elston, for illustrative purposes only.

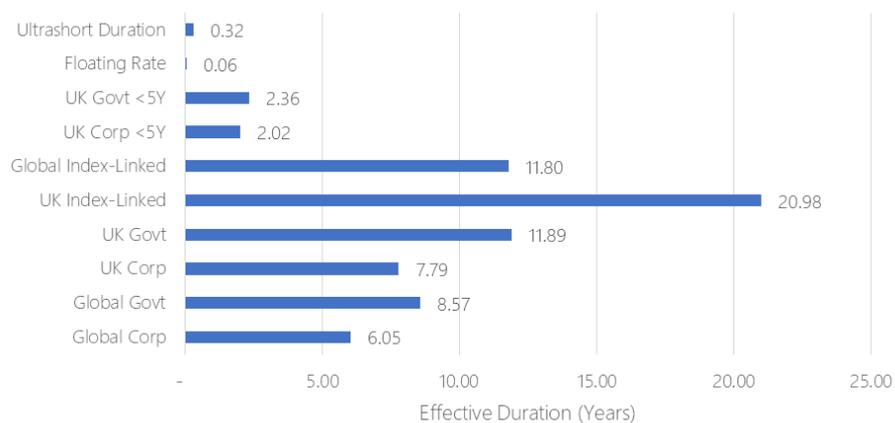
That's why [inflation-linked bonds don't offer near-term protection from inflation](#), because their value will decline in the near-term as interest rates rise.

Duration varies substantially for bond exposures. For example

- **Inflation-Linked Gilts** have a higher risk-return profile than gilts from a duration perspective, and protect against inflation risk in the long run, but not against interest rate risk short run.
- **Floating Rate Notes** have a lower risk-return profile than gilts from a duration perspective, and protect against interest-rate risk in the short and long run.

Dialling down the duration (interest rate sensitivity, in anticipation of rising interest rates) necessarily requires accepting reduced yield.

Fig.6. Duration of key bond exposures



Source: Elston research, January 2021

Within Alternatives, there are different ways of achieving diversification

Within Alternatives, it makes sense to explore both asset-based diversification and risk-based diversification.

Asset-based diversification means considering real assets, including gold & precious metals, and private markets.

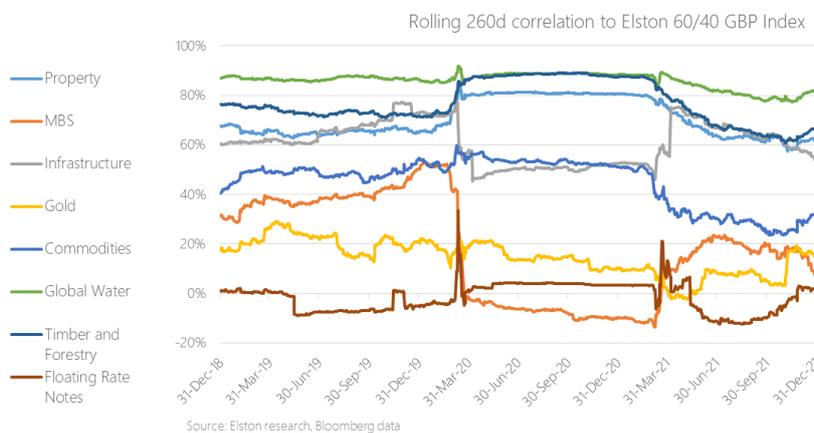
Incorporating Real Assets for diversification and inflation protection

Real asset exposures that focus on providing a real income, a real value or a real difference

- **Real income:** property, infrastructure & utilities exposures are underpinned by “real” (inflation-linked) income streams.
- **Real value:** assets such as gold, energy, industrial metals, agriculture, timber, water and natural resources have a real-world value and represent things. Inflation-linked bonds are examples of financial instruments that have real value as their value is linked to inflation.
- **Real difference:** the cross-correlation between these assets creates a diversification effect. The incorporation of rate-sensitive assets reduces overall risk and should be positively correlated with inflation. (Rates are increased when inflation increases).

There is a wide range of real assets accessible in liquid format, to enable asset-based diversification, including for example infrastructure, property securities, commodities, gold and precious metals.

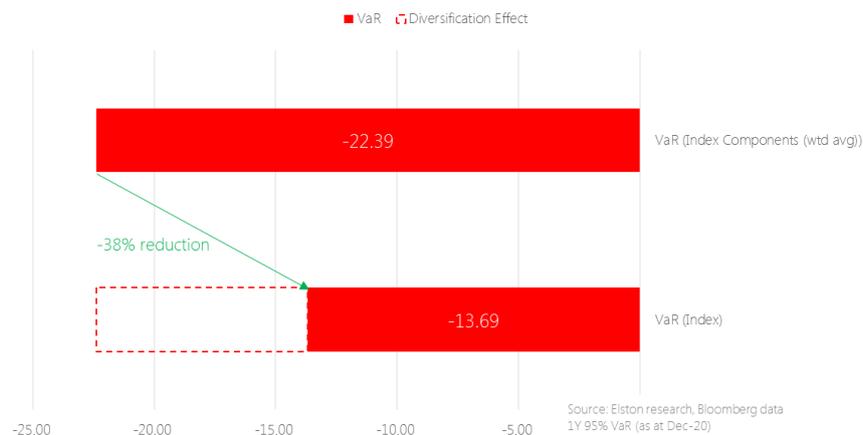
Fig.6. Dynamic correlation of real asset exposures



Real assets introduce not only asset-based diversification, but risk-based diversification, owing to the varied and varying correlation structure of those asset classes, relative to a traditional 60/40 portfolio. This means their combined risk can be less than the sum of their parts.

In our Liquid Real Assets Index, for example the risk of the combination of real asset exposures is -38% lower than the weighted average risk of its parts.

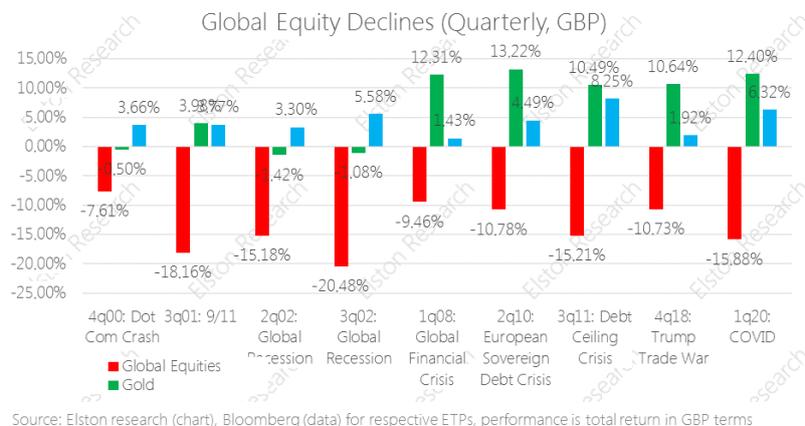
Fig.7. Diversification effect for our Liquid Real Assets Index



Source: Elston research, December 2020

Within the real assets space, **Gold & Precious Metals** are a store of value and traditionally provide a shock-absorber (and so can be incorporated on a standalone basis or within a real assets strategy). Gold therefore is a diversifier and offers a degree of portfolio insurance against market shocks... (but less so in a protracted recession).

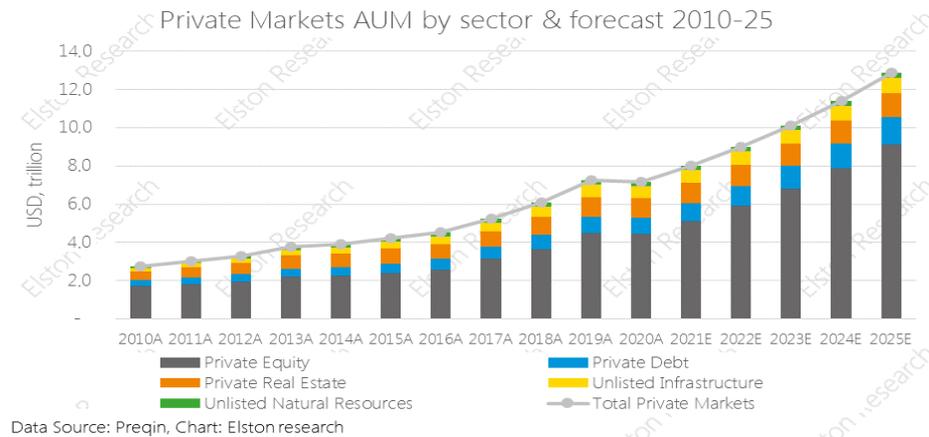
Fig.8. Gold can act as a shock absorber



Finally, listed **Private Market Managers** should benefit from tomorrow's long-term returns on underlying investments (and an additional "illiquidity premium"), but with the benefit of management fees today. They also have greater potential for alpha than in efficient public markets. In this respect, private market managers represent "true active".

Private Market exposures are a "longer equity duration" asset – so sensitive to interest rate changes, but inflation protection comes over time from the higher returns associated with the illiquidity premium. We believe access to private markets is best served through a liquid format, such as the listed securities of Private Market Managers, which will benefit from secular growth rising assets under management within the sector.

Fig.9. Secular growth in private market assets under management



Another alternative to bonds: risk-based diversification:

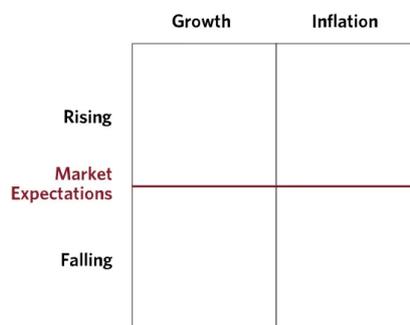
The “all-weather portfolio” is designed to deliver resilient performance in different market regimes.

The term was pioneered by Ray Dalio of Bridgewater Associates:

“What kind of investment portfolio would you hold that would perform well across all environments, be it a devaluation or something completely different?” (Ray Dalio)⁴

This framework can be illustrated in the quadrants below:

Fig.10. All-weather scenarios



Source: <https://www.bridgewater.com/research-and-insights/the-all-weather-story>

All-weather portfolio assumes equal odds of any of these 4 market regimes prevailing at any time. All-weather strategies often use risk parity (aka equal risk contribution) approach. This means each asset class contributes equally to the overall risk of the portfolio. It is therefore a risk-based strategy.

⁴ Source: <https://www.bridgewater.com/research-and-insights/the-all-weather-story>

Fig.11. Risk-based strategies mean risk allocation drives asset weights

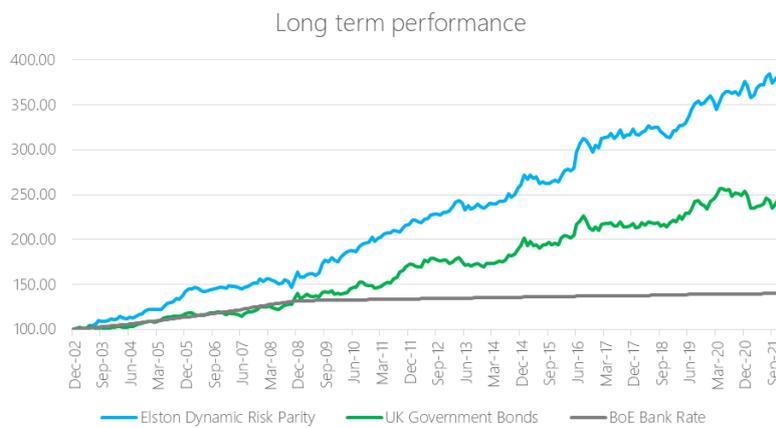


For illustration only, Elston Consulting

While the mathematical principles of risk parity are the same, portfolio implementation can be very different. For example: the decision to use US Treasuries or UK Gilts; to be designed for USD or GBP investors; to target US or UK inflation expectations; to use or not use leverage within the strategy; to build with swaps and derivatives, or with physical ETFs.

Our Risk Parity Index – which we use as a benchmark for Target Absolute Return funds that offer an “all weather approach” – has delivered a return premium to Gilts with similar levels of risk.

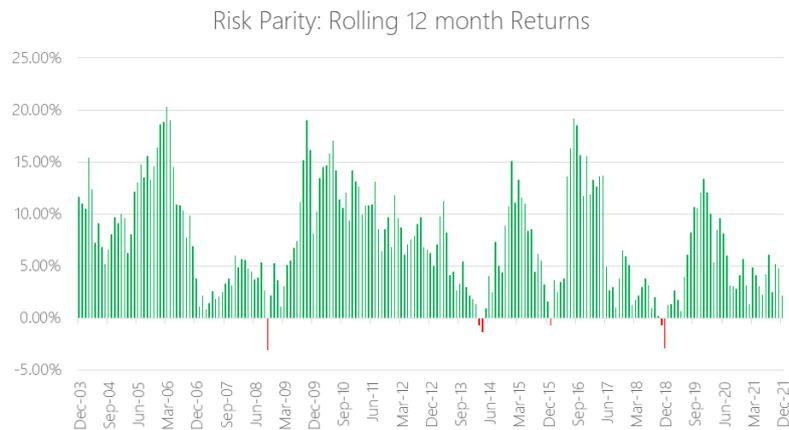
Fig.12. Elston Dynamic Risk Parity Index performance



Source: Elston research, as at December 2021

Furthermore, the diversification effect and a dynamic risk management approach means that there is reduced risk of loss over any 12 month period.

Fig.13. Elston Dynamic Risk Parity Index rolling 12 month returns



Source: Elston research, as at December 2021

Summary

Adapting portfolios for inflation, and the interest rate tightening that goes with it, is not as straightforward as switching into equities (without considering equity duration), buying commodities (without considering risk budget) and adding inflation-linked bonds (without considering bond duration).

We believe a more nuanced approach is required that gives the best chance within and across each asset class of increasing portfolio resilience against the pressures of inflation and rising interest rates. In summary, we advocate:

- For **Equities**: introducing a Value/Income bias for shorter equity duration
- For **Bonds**: cutting exposure and dialling down bond duration
- For **Alternatives**: introducing both asset-based, such as real assets, and risk-based diversification strategies, with a keen focus on risk control

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