Getting Real: The Importance of Real Assets Diversification in U.K. DC Schemes

Vince Childers, CFA, Senior Vice President and Portfolio Manager

With stocks and bonds facing the prospect of uncertain returns, many trustees and providers are looking to enhance diversification in defined contribution schemes. We believe liquid real assets — including real estate securities, commodities, natural resource equities and listed infrastructure — offer an attractive way to fill that diversification need, particularly as the market pivots away from quantitative easing and low interest rates to a policy-induced reflationary environment.

Summary

Will DC schemes embrace real assets? Listed real assets remain significantly under-represented in U.K. defined contribution (DC) schemes compared with the sizable allocations in most defined benefit pension plans. However, over time we expect this to change as innovative new funds make it easier for DC schemes to diversify beyond traditional equities and fixed income.

What’s real is real. Tangible real assets have been an increasing focus for investors looking to diversify beyond traditional equities and fixed income. However, there is often a misconception that private, illiquid investments are the only “real” way to allocate to real assets. This has had the effect of leaving most DC investors underallocated due to the cost, liquidity and complexity challenges of implementing private-market strategies in DC schemes. Even among the few DC schemes that have managed to establish a real assets allocation, few have implemented a well-diversified real assets program and therefore miss out on some of the most compelling characteristics of the asset class.

Ease of access. Listed markets can reduce barriers to access so significantly that investors of any size can establish a broadly diversified real assets allocation — diversified globally and by real asset category (real estate, infrastructure, commodities, resource enterprises, etc.). Diversifying in this way may help to balance the inherent tradeoffs of individual real asset categories and has historically offered attractive full-cycle returns, diversifying performance patterns and positive sensitivity to unexpected inflation.

Benefits of the blend. Individually, each of the above attributes has merit, but together they can offer tremendous utility to investors that are concentrated in traditional equities and fixed income, helping to maintain or potentially enhance portfolio returns while reducing risk.
Real Assets in Retirement Portfolios

Defined benefit (DB) schemes have long recognised real assets for their history of attractive returns and low correlation with other asset classes. For these investors, real assets has typically been a significant long-term allocation, generally in the 8–10% range. By contrast, the DC market has been slower to adopt real assets and other diversifiers, focusing predominantly on core equity and bond strategies.

There is relatively little information available regarding real assets allocations in DC schemes in the U.K., as is the case in most countries. However, our discussions with market practitioners suggest that many DC members have no exposure to real assets, and among the few that do, allocations are typically well below levels found among institutionally managed DB pension funds and other large investors (Exhibit 1). As such, we believe there is a broad and sizable real assets “disconnect” between DC and other plans.

We believe the low prevalence of real assets in DC schemes presents an opportunity for educating providers and trustees on the potential benefits of real assets allocations, bringing some of the sophistication of DB investing to DC members.

In our opinion, the time is right because as the DC industry continues to evolve, there is renewed focus on building better default funds to increase the chances of members achieving their retirement goals. This task is taking on particular urgency now amid growing uncertainty in equity markets, the prospect of rising inflation, and an increasingly negative outlook for bonds—providing worryingly little cover for the average DC member today.

Exhibit 1: The DC Disconnect

Average Real Assets Allocation in 2017

Why Real Assets Are a Good Fit for DC plans

There was a time when a balanced mix of global equities and fixed income was generally sufficient to achieve attractive, stable returns over the long run. This success has been supported in large part by the secular bull market in bonds that began in the 1980s. However, bonds now face an uphill climb amid low yields, rising global inflation and the prospect of higher interest rates. Equities may likewise struggle to deliver higher returns, especially in light of the market's demanding valuations. In our view, these trends are likely to shape global financial markets for years to come, arguing for a broader approach to diversification.

To help address the need for broader diversification, many investors have turned to real assets. Since 2005, global assets under management (AUM) in listed real assets have risen nearly eight-fold, benefiting from increasing awareness of the historical benefits of real return strategies (Exhibit 2).

We believe listed real assets are particularly well suited as a diversifier in DC schemes for several reasons:

- **A long track record:** Most alternatives offer relatively little historical data, limiting the scope of risk-return analysis. By contrast, listed real assets indexes go back decades, providing suggestive information of the historical benefits to investors.

- **Diversification potential:** Real assets have historically helped to enhance portfolio efficiency over full cycles, providing strong low-correlated returns relative to traditional equities and bonds.

- **Liquidity:** Listed real assets trade on public stock and commodity exchanges, matching the daily liquidity and pricing needs of most DC plans.

- **Simplicity:** Compared with other alternatives, real assets investing is relatively straightforward, transparent and tangible, helping to improve member understanding and engagement.
What Are Listed Real Assets?

Real assets are the structures and raw materials that economies rely on to function and be productive. That includes the properties where we live, work and shop; the infrastructure that provides power and water and enables transportation and communications; and basic natural resources such as food and heating oil.

Direct investments in real assets typically require significant upfront capital and a commitment to keep the money tied up for an extended period. For many investors, a more convenient way to access real assets is through products that invest in publicly traded (listed) markets that capture the underlying economics of real asset industries, providing similar exposure as direct investments but with the added benefits of liquidity and daily pricing.

Because listed instruments offer underlying liquidity, we believe they are a natural match to liquid, daily traded investment vehicles, avoiding the pitfalls seen in the open-end property fund market, where many popular funds have “gated” in times of market stress to prevent forced selling.

Prospective Advantages of Listed Real Assets

- Similar historical investment attributes as privately held real assets
- Access to a large investment universe distinct from global equities
- Potential for a globally diversified portfolio of real assets across multiple categories
- Small investment minimums
- Daily pricing and liquidity
- Transparency into the underlying assets
- No lock-up periods
- Generally lower fees than private real assets

At Cohen & Steers, our focus is on what we call the **Core Four Real Assets**, which share common characteristics but represent distinct markets with different risk and return drivers:

<table>
<thead>
<tr>
<th>Real Estate Securities</th>
<th>Commodities Futures</th>
<th>Natural Resource Equities</th>
<th>Listed Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices, apartments, hotels, shopping centres, self-storage, industrial warehouses, medical facilities, data centres, student housing</td>
<td>Crude oil, natural gas, heating oil, petrol, gold, silver, copper, aluminium, zinc, wheat, corn, soybeans, sugar, cotton, coffee, cocoa, livestock</td>
<td>Companies that own agribusiness, energy and metals &amp; mining businesses</td>
<td>Electric utilities, toll roads, railways, midstream energy, cell towers, marine ports, airports, water, gas distribution</td>
</tr>
</tbody>
</table>

Please see page 11 for additional disclosures.
Investment Characteristics

In framing the discussion of real assets and their investment attributes, we emphasise three key criteria for a long-term allocation:

1. **Attractive return potential** over full market cycles may improve risk-adjusted portfolio returns without sacrificing the potential for equity-like returns over time.

2. **Diversification potential** from distinct performance drivers generally results in differentiated behaviours from broad equities and fixed income.

3. **Positive inflation sensitivity** to protect against the potentially damaging effects of accelerating inflation on a portfolio concentrated in stocks and bonds.

Total Returns

Real assets have historically generated strong returns across full market or economic cycles, with three of the four categories outperforming global equities since 1973, and commodities putting in solid returns as well (Exhibit 3). Individual categories of real assets also had somewhat higher volatility than global equities—but, with the exception of commodities, ultimately achieved higher risk-adjusted performance. Crucially, though, when combined together, an equal blend of real assets generated superior returns over time relative to global equities but with far less volatility, reflecting low intercorrelations within and across the sub-categories of real assets.

A balanced combination of key real asset classes generated better returns than equities, but with significantly lower volatility.
Diversification

The distinct performance drivers of real assets have historically resulted in diversifying correlations—both with each other and with stocks and bonds, as shown by the correlation matrix in Exhibit 4.

Exhibit 4: 20-Year Correlation Matrix
1998–2017, in GBP unhedged

<table>
<thead>
<tr>
<th></th>
<th>MSCI World</th>
<th>Global Aggregate Bonds</th>
<th>7–10 Year U.K. Gilts</th>
<th>Global High Yield Bonds</th>
<th>Real Estate</th>
<th>Commodities</th>
<th>Natural Resource Equities</th>
<th>Listed Infrastructure</th>
<th>Diversified Real Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI World</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Aggregate Bonds</td>
<td>0.24</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7–10 Year U.K. Gilts</td>
<td>-0.10</td>
<td>0.58</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global High Yield Bonds</td>
<td>0.71</td>
<td>0.49</td>
<td>0.06</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>0.75</td>
<td>0.28</td>
<td>0.06</td>
<td>0.68</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commodities</td>
<td>0.34</td>
<td>0.21</td>
<td>-0.07</td>
<td>0.37</td>
<td>0.32</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Resource Equities</td>
<td>0.72</td>
<td>0.13</td>
<td>-0.19</td>
<td>0.52</td>
<td>0.57</td>
<td>0.61</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listed Infrastructure</td>
<td>0.68</td>
<td>0.36</td>
<td>0.06</td>
<td>0.64</td>
<td>0.63</td>
<td>0.37</td>
<td>0.59</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Diversified Real Assets</td>
<td>0.79</td>
<td>0.30</td>
<td>-0.05</td>
<td>0.69</td>
<td>0.80</td>
<td>0.71</td>
<td>0.88</td>
<td>0.80</td>
<td>1.00</td>
</tr>
</tbody>
</table>

At 31 December 2017. Source: Morningstar. 

Data quoted represents past performance, which is no guarantee of future results. Diversified Real Assets is an equal blend of the other four real asset classes in the exhibit. Correlation measures how closely two data series move in relation to one another, with 1 indicating perfect unison and -1 indicating perfect opposition. See page 11 for index definitions and additional disclosures.

Real assets have historically had diversifying correlations.

However, correlation only measures the average relationship over an arbitrary period of time, and therefore offers little insight into different market regimes. We believe that real assets’ attractive long-term risk-adjusted returns partly reflects its tendency to be more correlated with other classes during generally favourable investment periods, and less correlated in difficult environments. Specifically, we believe investors that are concentrated in traditional equities and fixed income can most benefit from asset classes that may perform well in challenging periods when both equity and fixed income markets deliver below-average returns at the same time.

Historically, joint or simultaneous underperformance by stocks and bonds has happened relatively often. Going back to 1973, representing the longest period of common available history in our database, such periods occurred in 21% of rolling one-year periods (Exhibit 5 on the following page). Real assets have been relatively more resilient in such times, outperforming bonds and global equities. We believe this indicates the potential for real assets to provide an important buffer during one of the more challenging market conditions for most DC portfolios, while still offering solid return potential in more favourable times.
Inflation Sensitivity

While it remains a common misconception, listed real assets have not been dependent on significant 1970s-style inflation shocks to generate attractive full-cycle returns. As indicated in Exhibit 3 (on page 5), real assets as a group delivered significantly greater annualised real (inflation-adjusted) returns than equities over a multi-decade span. While this period saw elevated inflation in the early years, for the most part inflation was relatively benign. However, if there is one common factor for real assets, it is their sensitivity to inflation surprises, making them potentially valuable in helping to protect a portfolio’s future purchasing power.

History shows that the impact of inflation tends to be most damaging to stocks and bonds when it is unexpected. Our analysis suggests that real assets tend to experience strong returns precisely during those periods, when realised inflation exceeds prior expectations.

Exhibit 6 (on page 8) shows the impact of unexpected inflation using a metric we call “inflation beta.” Inflation beta measures the sensitivity of returns to a 1% upside surprise in realised inflation relative to the inflation estimate from a year before. For example, an asset class with a positive inflation beta should generally react favourably to inflation surprises.

The results below show that a diversified real assets blend historically outperformed its long-term average by 2.8% for every 1% that inflation exceeded its prior-year estimate. We believe this is a strong indicator that real assets can serve as an effective inflation hedge without being dependent on inflation to produce strong returns.

<table>
<thead>
<tr>
<th>Regime 1</th>
<th>Regime 2</th>
<th>Regime 3</th>
<th>Regime 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.4</td>
<td>15.6</td>
<td>8.4</td>
<td>-7.0</td>
</tr>
<tr>
<td>10.1</td>
<td>14.4</td>
<td>-0.1</td>
<td>-2.8</td>
</tr>
<tr>
<td>10.6</td>
<td>-2.4</td>
<td>-2.3</td>
<td>-0.3</td>
</tr>
<tr>
<td>0%</td>
<td>5%</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>-5%</td>
<td>-2.3</td>
<td>-7.0</td>
<td>14.4</td>
</tr>
</tbody>
</table>

At 31 December 2017. Source: Bloomberg, Dow Jones, FTSE, S&P, St. Louis Fed, Thomson Reuters Datastream and Cohen & Steers. Based on monthly observations of rolling 12-month real returns of the MSCI World Index and Constant Maturity 10-year U.K. Gilts, adjusted for inflation using the U.K. Retail Price Index. Returns in each quadrant represent periods of over/underperformance by global equities and bonds relative to their respective long-term averages of 4.3% and 3.3%. See page 11 for index definitions and additional disclosures.
Real asset classes have inherent inflation-sensitive features.

The reasons for the inflation sensitivity of real assets stem from their distinct economics:

- **Commodities** are often direct inputs to inflation measures and generally respond to the same forces that drive prices for other goods higher, including supply constraints and stronger demand from increased economic activity.

- **Natural resource producers** tend to benefit from higher prices for raw materials, leading to potentially higher profits on their capital base.

- **Real estate owners** may benefit from higher inflation due to their ability to raise rents, increasing the value of their property. Higher inflation can also reduce the incentive for new construction due to higher costs for labour, land, materials and financing.

- **Infrastructure** cash flows and asset values may have direct or indirect links to inflation, such as rate escalators tied to inflation measures often seen in utilities and toll roads. Long-term economic growth may also drive higher throughput for infrastructure assets.

**Benefits of a Diversified Real Assets Blend**

Investors have generally targeted just one or two categories of real assets—most commonly, real estate and infrastructure. Historically, however, no one type of real asset has excelled equally across all three criteria of diversification, total returns and inflation sensitivity. Each has had periods of success and disappointment in one aspect or another. Only by combining them into a coherent and properly managed investment framework do we believe that investors can effectively navigate those tradeoffs (Exhibit 7 on the next page).
Our research suggests that the potential for a more consistent experience and lower volatility offered by a diversified real assets portfolio can be an important factor in the long-term success of a real assets allocation. This approach also affords active managers the opportunity to add value through dynamic asset allocation, providing an additional means of enhancing return potential.

Exhibit 7: How Different Real Assets Have Met Our Criteria

<table>
<thead>
<tr>
<th>Real Asset Category</th>
<th>Diversification Potential</th>
<th>Total Return Potential</th>
<th>Inflation Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Real Estate</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Commodities</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Global Natural Resource Equities</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Global Infrastructure</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Diversified Real Assets Blend</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

At 31 December 2017. Source: Cohen & Steers.
See page 11 for additional disclosures.

Portfolio Perspective

If the past is any indication, listed real assets may help to enhance a portfolio’s risk-return potential. Historically, adding 10–20% of a diversified equal-weighted real assets blend to a 70/30 portfolio of global equities and U.K. Gilts would have produced stronger returns with lower volatility, resulting in higher risk-adjusted performance as measured by the Sharpe ratio (Exhibit 8).

Exhibit 8: Adding Real Assets to a 70/30 Stock/Bond Portfolio 1973–2017

<table>
<thead>
<tr>
<th>Real Assets</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annualised Total Return</td>
<td>10.1</td>
<td>10.3</td>
<td>10.4</td>
<td>11.7</td>
<td>11.3</td>
<td>10.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.31</td>
<td>0.33</td>
<td>0.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>0.35</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At 31 December 2017. Source: Bloomberg and Cohen & Steers.
Data quoted represents past performance, which is no guarantee of future results. See page 11 for index definitions and additional disclosures.
Economic Backdrop Shifting in Favour of Real Assets
Many investors have come to rely on asset allocations modelled on the old economic order: decades of globalisation, falling inflation, slowing economic growth and declining interest rates. We believe the old order is transitioning and that the global macro environment may now be moving in favour of real assets.

Economic growth, employment and inflation readings are on the rise and could accelerate in the wake of U.S. tax cuts and a more active mindset by policymakers globally. After a long period of unexpectedly low inflation—during which certain real assets have broadly underperformed—the transition to a new market regime of higher inflation risk represents a potential multiyear tailwind for real assets.

This turning point comes at a critical juncture for investors. Whether they choose to target a specific asset class or a multi-strategy solution, we believe real assets are likely to play a vital role in anchoring the potential for attractive returns in the years ahead.

Implementing Real Assets in DC Schemes
We believe adding listed real assets to DC investment lineups and default solutions can be an effective way for providers and trustees to help their DC membership achieve better portfolio diversification and improve their potential outcomes. To summarise:

- A diversified, multi-asset-class strategy may effectively address the three objectives of long-term return potential, diversification, and inflation protection.
- For the trustees and providers seeking to minimise menu clutter, a single real assets option can provide a streamlined solution that encourages sensible asset-class diversification.
- For DC members, having a meaningful real assets allocation built into their default fund arrangements can raise the probability of successful outcomes at a time of great uncertainty for stocks and bonds.

To continue the discussion about how real assets may enhance DC investing, please contact your Cohen & Steers representative.
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Infrastructure, commodities and natural resource equities, as well as preferred securities and other income solutions. Cohen & Steers is a global investment manager specialising in liquid real assets, including real estate securities, listed infrastructure, commodities, and natural resource equities.

About Cohen & Steers
Cohen & Steers is a global investment manager specialising in liquid real assets, including real estate securities, listed infrastructure, commodities and natural resource equities, as well as preferred securities and other income solutions. Founded in 1986, the firm is headquartered in New York City, with offices in London, Hong Kong, Tokyo and Seattle.
We believe accessing investment opportunities around the world requires local knowledge and insight into specialised and regional markets. Cohen & Steers maintains a global presence through the following offices:

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