BRUNEL

Pension Partnership

AVON PENSION FUND

Quarterly Performance Report for Period Ending 31 December 2018

Information Classification: Public

About Brunel and News

About Brunel

Brunel Pension Partnership (Brunel) was established on 18 July 2017 as one of eight national Local Government Pension Scheme (LGPS) Pools. The pool brings together circa £30 billion investments of 10 likeminded funds.

We manage the investments for the pension funds of Avon, Buckinghamshire, Cornwall, Devon, Dorset, Environment Agency, Gloucestershire, Oxfordshire, Somerset and Wiltshire.

Brunel is authorised and regulated by the Financial Conduct Authority No. 790168.

Brunel News

Quarter 4 2018 provided us with the chance to share the news of the progress we've made, as well as celebrating some high points.

- Brunel's CIO Mark Mansley received the Funds Europe award for CIO of the Year in the category of Institutional Manager
- We published our Stewardship Policy
- We issued a press release regarding our appointment of Colmore as our private markets service provider
- We launched our pre-search for the Emerging Markets mandate
- For the second year running, Brunel's CEO Dawn Turner has been named one of the 100 Most Influential Women in Finance by FN London
- Brunel was shortlisted in the Finance for the Future Awards' Investing and Financing category, and as Pool of the Year at the LAPF Investment Awards
- We introduced our ACS scheme and published our Asset Management Accord

Market Summary – Chief Investment Officer

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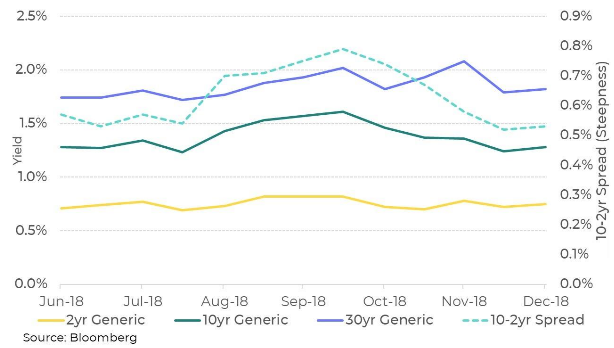
Pension Partnership

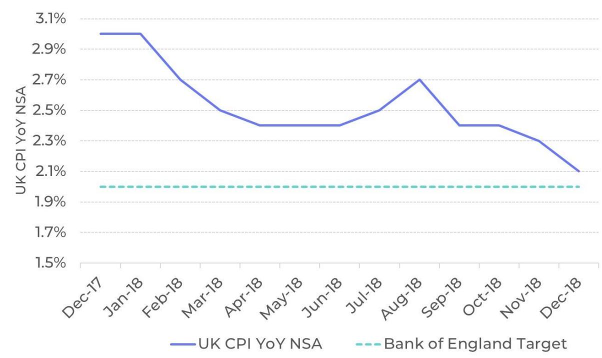
The last quarter of 2018 resulted in further return dispersion within fixed income. Global concerns on international trade – fuelled by the ongoing dispute between the US and China – have prompted investors to sell risk assets. These fears were compounded by a drop in US business surveys and inflation data. Domestically speaking, the delay in the Commons Brexit vote in December stoked further fears amongst investors. Hence, the overall risk-off environment has prompted higher sovereign bond demand, which has caused falling yields.

- UK Gilts have appreciated by +2.1% in local terms over the last quarter
    - o UK investment grade bonds and European high yield have not done so well following rising credit spreads, which have offset the positive impact from falling government yields. These asset classes have fallen by -0.1% and -3.8% respectively
- Fixed income has had a tough 2018 overall; most parts of the market have fallen
    - o The only exceptions to this are US Treasuries and UK Gilts, which had local returns of +0.9% and +0.5% respectively
    - o The worst performing area of the market across 2018 was European high yield, which returned -3.7% in local terms
    - o It is worth noting that default rates in European high yield were low in 2018 despite the poor performance
    - o Default rates in 2018 were a mere 0.3%, the lowest observed over the last 20 years
- UK yields have fallen significantly in Q4 2018
    - o The 10-year bond yield has fallen from by 29bps down to 1.28%; this has been a result of the ongoing complications with the Brexit negotiations
    - o UK yields have fallen across the curve; however, curve steepness has decreased following a peak in October 2018
    - o The 10-2yr spread on yields is now 0.53%; this is down from a high of 0.79% in October
- Headline inflation fell globally in the last quarter
    - o Global headline inflation was 2.4% as at November, down from 2.7% in September
    - o UK headline inflation expectations are almost unchanged over the quarter, with headline CPI measuring 2.3% as at November 2018
    - o This remains 0.3% above the Bank of England's headline inflation target of 2%
    - o Services inflation has continued to remain flat at 2.5%, which remains below the long-term average of 3.4% since 2000

UK Gilt Yields & Curve Steepness Q3 2018



UK CPI vs Bank of England Target



Market Summary – Chief Investment Officer

- The Federal Reserve raised rates in December to a range of 2.25-2.5%, which was the fourth rate rise of 2018
    - This move was no surprise to markets; however, Jay Powell announced later in the month that the Fed will consider pausing further tightening measures
    - The Fed also mentioned that two rate hikes are anticipated for 2019, which is still ahead of the broad market consensus
    - The announcement prompted further falls in the US 10-year yield, which fell to 2.68% at the end of the year
    - The 10-year US yield was as high as 3.2% as recently as November 2018; it has since fallen as a result of trade tensions

Source: Bloomberg as at 31/12/18

Tickers:

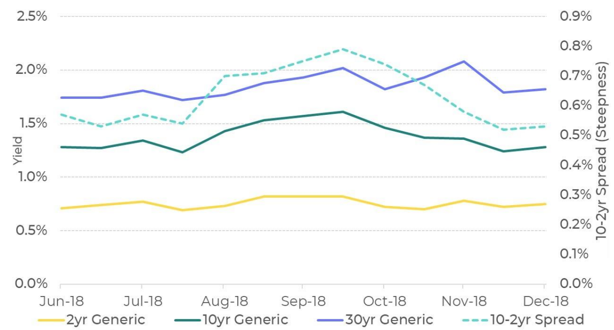
- GUKG2:IND - UK Govt Bonds 2 Year Note Generic Bid Yield
- GUKG10:IND - UK Govt Bonds 10 Year Note Generic Bid Yield
- GUKG30:IND - UK Govt Bonds 30 Year Note Generic Bid Yield

Market Summary – Chief Investment Officer

Equity markets experienced a difficult end to the year as Q4 saw a global sell-off due in part to the continuing USA/China trade tensions and increased quantitative tightening. A US government shutdown also added to investor anxiety. Despite this recent market decline, global earnings have remained strong. This combination of falling prices in the presence of strong earnings has depressed equity valuations with P/E's in US, Europe and EM currently 22% below their 2018 peaks.

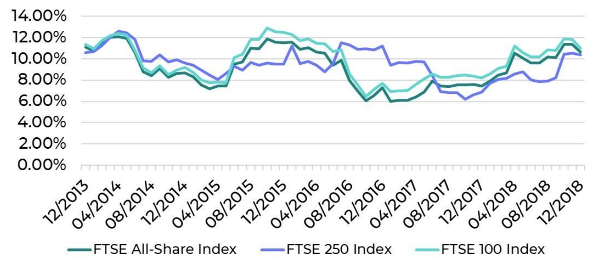
- US equities led the sell-off in Q4 as the FED continued to raise interest rates and investor fears that the escalating tariffs were having detrimental effects on US business resulted in the S&P declining -13.5% in dollar terms over the quarter
  - The Industrials, Energy and the Tech sectors were the largest detractors to performance posting total returns from -23.8% to - 17.1%
  - However, going into 2019 US economic data remains strong, with the US economy adding 2.64 million jobs over 2018 as wage growth increased by 3.2%, its largest annual growth in a decade
- Emerging Markets also ended the year on a low
  - The MSCI Emerging Index posted a -7.4% return in USD for Q4, resulting in a fall of 14.2% over the year
  - The year started positively with a Q1 return of 1.47%, however escalating trade tariffs and an increasing US dollar led to MSCI Emerging suffering 3 consecutive negative quarters
  - As mentioned last quarter, China has a 30% weighting in the Emerging markets and the performance of China has an effect on most other EM countries
  - This quarter, hampered by fears of economic slowdown, China detracted -10.73% in USD terms over the quarter, again largely contributing to the negative returns in Emerging markets
- European markets were down 11.6% in Euro terms over the quarter largely due to earnings downgrades and revisions
  - Industrial and Tech Sectors were the largest underperformers over the quarter, returning -15.1 and -15.8% respectively, closely followed by the Financial sector, which fell -13.6% over the quarter
  - Defensive sectors such as Utilities faired better over the quarter, posting a 4% total return
- FTSE All share was down 10.2% in Q4, and the FTSE 250 underperformed the FTSE 100 by 3.7%, returning -13.3%
  - The continued uncertainty surrounding Brexit has contributed to increased 1 year volatility

2018 Cumulative Returns in GBP



Source: Bloomberg

1 Year Rolling Volatility of UK Indices



Source: FTSE

within the FTSE All Share index, which had been 7.5% at the start of the year and increased to 11.4% at its peak in November
  - GBP was down 2.55% vs the USD in Q4 and 6% in 2018. Against the EUR however, GBP declined -1.16% in Q4, representing 80% of the total -1.45% decline for 2018

- In contrast to the declining Equities markets, the price of Gold increased 11.3% in GBP terms over Q4 as many investors sought a safe haven
  - Oil on the other hand was affected by the slowing global economy, falling 36.9% over Q4 and 21.9% over 2018

Sterling returns for indices:

- FTSE All-Share: -10.2% (3m) -9.5% (12m)
- MSCI Europe: -10.6% (3m) -9.0% (12m)
- MSCI Europe ex UK: -11.0% (3m) -9.1% (12m)
- MSCI ACWI: -10.6% (3m) -3.3% (12m)
- MSCI ACWI ex USA: -9.3% (3m) -8.4% (12m)
- MSCI Emerging: -5.2% (3m) -8.9% (12m)
- MSCI Emerging ex China: -3.6% (3m) -6.5% (12m)
- S&P 500: -11.5% (3m) 1.6% (12m)
- GBP Vs USD: -2.3% (3M) -3.5% (12M)

Market Summary – Head of Private Markets

Overview

Global economic growth has decelerated and is expected to continue to decline for 2019 and beyond. In this environment, markets look set to remain volatile with a high risk of further market corrections. While downside risk has risen, falling asset prices could be an opportunity for long-term investors to exploit potential mispricing of macro risk.

The uncertainty caused by fears of a US-China trade war in December and the extended US federal shutdown this year suggests that the Federal Reserve may not rush to raise US interest rates much higher than the current 2-2.5%. Earnings predictions, particularly in the US, remain optimistic. In this context, the economic cycle appears to still have support.

Infrastructure

In 2018, unlisted infrastructure fundraising marked an all-time high with total capital raised reaching $85bn. This annual record is likely to be surpassed again in 2019.

However, 67 funds closed in the year, down from 94 in 2017. Mega funds dominated through the year, and the average fund size rose from $864m in 2017 to $1.3bn.

Aided by record fundraising, dry powder has climbed to a new record of $172bn as at December 2018. 71% of funds closed through the year exceeded their fundraising targets.

Looking ahead, 208 funds are in the market, targeting an aggregate $193bn in January, which would be a record high. Brookfield Infrastructure Fund IV and Global Infrastructure Partners IV are each targeting c$20bn.

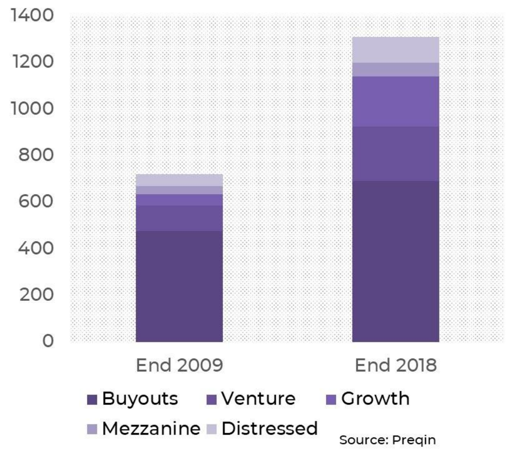
Investor interest in infrastructure shows no sign of abating in 2019 given the uncertain outlook and the asset class' relatively defensive characteristics. The asset class is not risk free and there is a danger that it is increasingly being perceived as so.

Brunel committed €50m to a pan-European core infrastructure fund and €30m to a renewable energy generation fund (onshore wind and solar electricity) in Q4 2018. Both have good sustainability credentials and are a good fit with Brunel's RI outlook.

Private Equity

Private equity activity remained robust despite public equity market volatility, with investors taking

Unfunded Commitments to PE Fund Worldwide, $bn



Source: Preqin

advantage of market disruptions.

Although exits decreased by c$22bn in Q4 to c$63bn, there has been an overall increase from last year ($330bn 2018 vs. $294m 2017). 460 companies acquired by PE firms were divested in Q4 2018.

PE Funds with final close in Q4 raised $98bn – a decline from 2017. However, momentum has persisted with 2018 being the third consecutive year in which LPs committed more than $400bn. Of this, 55% was invested in buyout funds and c20% in VC. The US remained the dominant market at 56%, with the remainder split equally between Europe and Asia/RoW.

Global committed but undrawn capital increased by $131bn in 2018, to a record of >$1.3tr. Investors should remain resolute and focus on building a portfolio with a view to the long-term. In times like this, consistent deployment by vintage and sound portfolio construction comes to the fore. The biggest mistakes in terms of investor behaviour are made in the tough market environments, yet the best performing funds emerge from these very circumstances.

The secondary market deal value has grown an estimated 15-20% since 2017 to c$50bn, enhancing liquidity in portfolios and benefiting from attractive pricing levels. Using the secondary market as a portfolio risk management tool has become a popular strategy across large LPs globally. Brunel committed $50m to a secondary fund in Q4 2018.

Property

It is anticipated that investors will commit over €70bn to global property in 2019, despite the generally subdued outlook for the sector. In the UK, returns are expected to be particularly low (less than 4% p.a. total return over the next five years).

Rising interest rates in the US and compressed yields in the developed world real estate sectors have left the asset class looking expensive in many geographies. In addition, profit warnings and rationalisations in the traditional retail sector will continue in 2019. In the UK, even demand for industrial assets is expected to be more subdued this year, with total returns of over 15% in 2018 expected to reduce to around 6% in 2019. The office sector has remained surprisingly resilient in 2018 and has benefited in the UK from overseas investor interest and, in Europe, from supply shortages in specific cities.

Two large UK property fund managers, Columbia Threadneedle and Kames, have already re-priced several of their funds to a bid basis, following recent redemption requests. Clients should expect other UK generalist funds to adopt this policy in 2019, as managers seek to slow redemptions either by repricing units or by ‘gating’ funds. The FCA has proposed that UK property Non-UCITs Retail Schemes (NURS) should suspend dealing when there is ‘material uncertainty’ around the value of more than 20% of the fund’s assets. Fund liquidity may therefore be tighter this year, but opportunities are likely to arise as valuations start to reflect the economic outlook.

Listening to Your Views

We enjoyed the opportunity to share our approach to responsible investment and stewardship at stakeholder engagement days in November. It was helpful to hear the views and concerns of the committee and board members so we can reflect this in shaping and prioritising our work in this area.

One clear priority was the importance of reporting on what we are doing to deliver on our responsible investment commitments. We are delighted that from this quarter you will receive voting and engagement reports for assets invested in the Brunel portfolios. We are also working on providing more information directly and on our website on key themes.

UK Regulatory Developments

In addition to our responsible investment and stewardship policies, we also publish responses to government and policy makers' consultations on our website. The most recent of these was to the Bank of England who were consulting on their draft supervisory statement which sets out "expectations regarding firms' approaches to managing the financial risks from climate change. These centre on how managing the far-reaching and foreseeable risks from climate change requires a strategic approach which considers how actions today affect future financial risks." (Prudential Regulation Authority (PRA))

On the theme of consultations, we welcomed the publication of Sir John Kingman's Review of the Financial Reporting Council (FRC) on 18 December 2018. The recommendations addressed all the concerns we had raised in our response and engagement with the FRC. The review recommends "the FRC be replaced with an independent statutory regulator, accountable to Parliament, with a new mandate, new clarity of mission, new leadership and new powers. The new regulator would be called the Audit, Reporting and Governance Authority."

Diversity and Inclusion

We participated in an engagement, organised by the 30% Club, with Ross McEwan, CEO of the Royal Bank of Scotland (RBS) on the Bank's approach to diversity and inclusion. The bank's approach focuses on five different aspects of diversity and inclusion with commitments linked to measurable objectives and challenging targets. McEwan provided numerous examples of how being a more inclusive employer was supporting the delivery of their strategic plan and business growth.

Climate Change

In 2015, at COP 21 in Paris, a landmark agreement was reached to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. The central aim of this agreement was to keep temperature rises below 2 degree Celsius above pre-industrial levels. In December, the Conference of the Parties to the United Nations Framework Convention on Climate change met for COP24. Discussions focused on putting the Paris agreement into practice. Climate change is a key theme for Brunel. Assessment of the impacts of climate change encompass adaptation and physical risks as well as those risks and opportunities arising from the transition to a low carbon economy.

We are a signatory of Climate Action 100+ (CA 100+), a five-year initiative led by investors to engage with systemically important greenhouse gas emitters and other companies across the global economy that have significant opportunities to drive the clean energy transition and help achieve the goals of the Paris Agreement. 310 Investors, with more than $32 trillion in assets under management, are calling on companies to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures. The initiative is coordinated by five partner organisations, Brunel is a member of two of these: Principles for responsible investment (PRI) and the Institutional Investors Group on Climate Change (IIGCC).

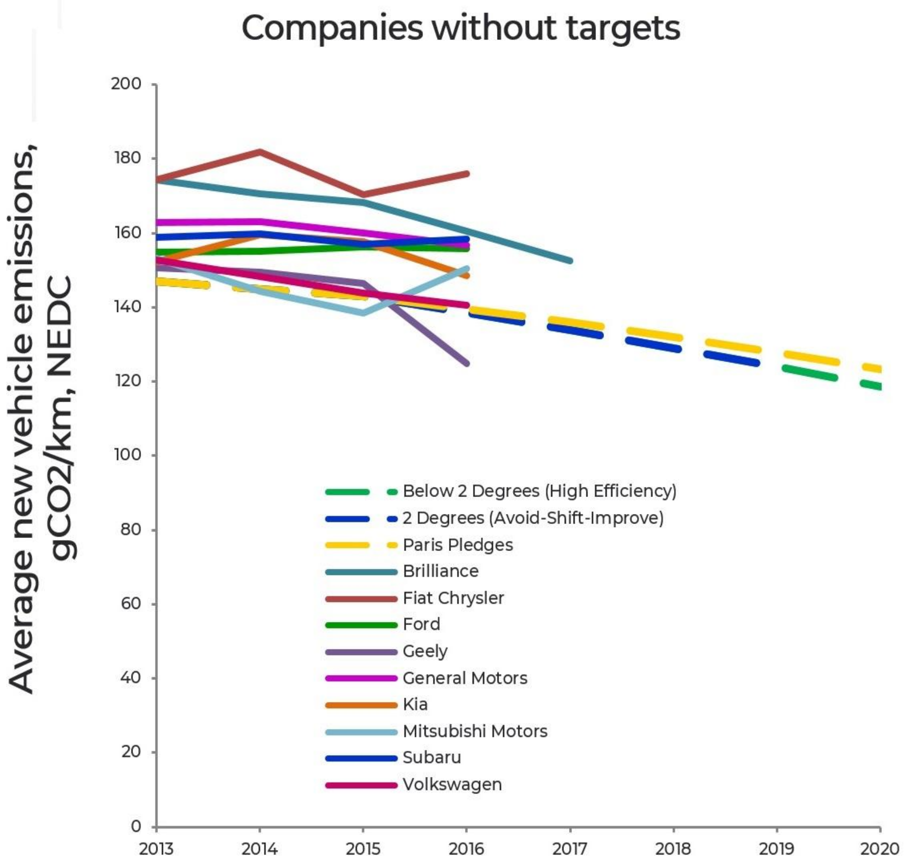
CA 100+ has made good progress towards its goals, including a trebling in support from companies for the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). In December they announced a milestone achievement. Following collaborative engagement by CA 100+, Shell have committed to setting specific Net Carbon Footprint targets for shorter-term periods (three or five years) from 2020 to operationalise its long-term target ambitions. Furthermore, Shell will be taking the step to incorporate a link between energy transition and long-term remuneration into its policy.

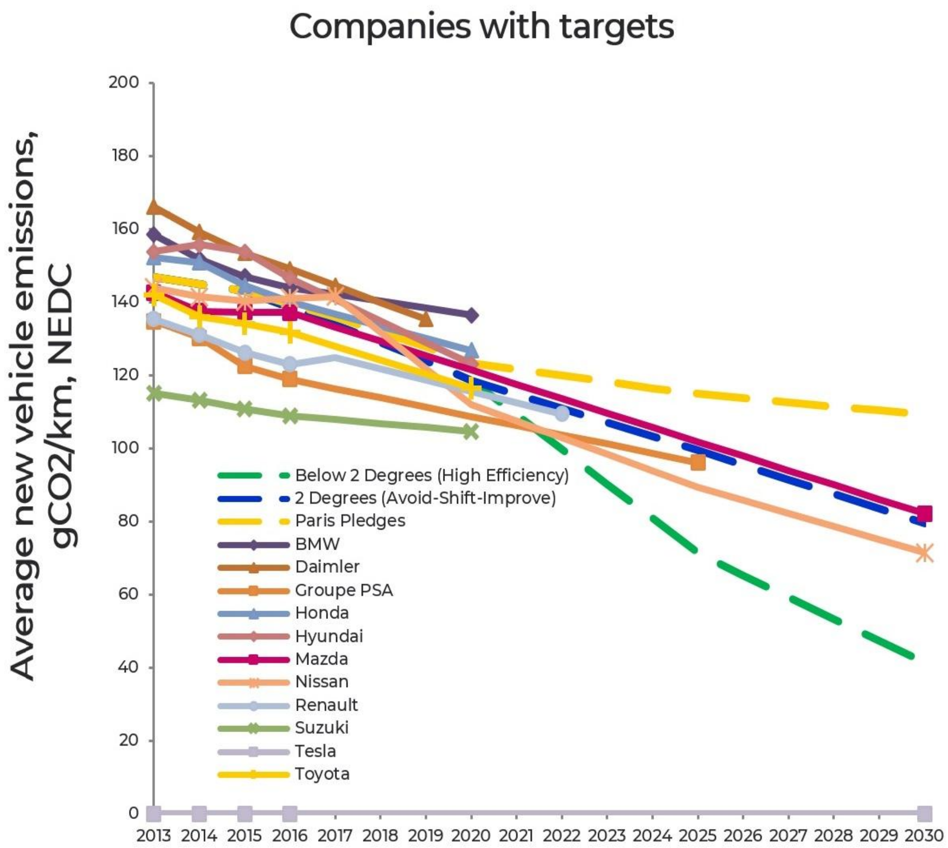
Transition Pathway Initiative

Research from the Transition Pathway Initiative (TPI) informs the engagements undertaken by CA 100 +. Throughout Q4 18, the TPI released several publications, most recently a report on Management Quality and Carbon Performance of automobile manufacturers. The following charts are an extract from this report and demonstrate the reduction in emissions achieved from target setting vs non-target setting. We will continue to provide outcomes of engagement in our regular reporting.

Companies with targets have lower emissions than companies without targets

Transition Pathway Initiative





Brunel Portfolios Overview

Portfolio	Benchmark	AUM (GBPm)	Perf. 3 Month	Excess 3 Month	Perf. 1 Year	Excess 1 Year	Perf. 3 Year	Excess 3 Year	Perf. 5 Year	Excess 5 Year	Perf. SI	Excess SI	Inception Date
Brunel UK Active Equity	FTSE All Share	171	-3.38%	-0.24%							-3.38%	-0.24%	21 Nov 2018
Passive Low Carbon Equities	MSCI World Low Carbon Target	473	-11.24%	-0.01%							-7.31%	-0.12%	11 Jul 2018

Passive Low Carbon Equities

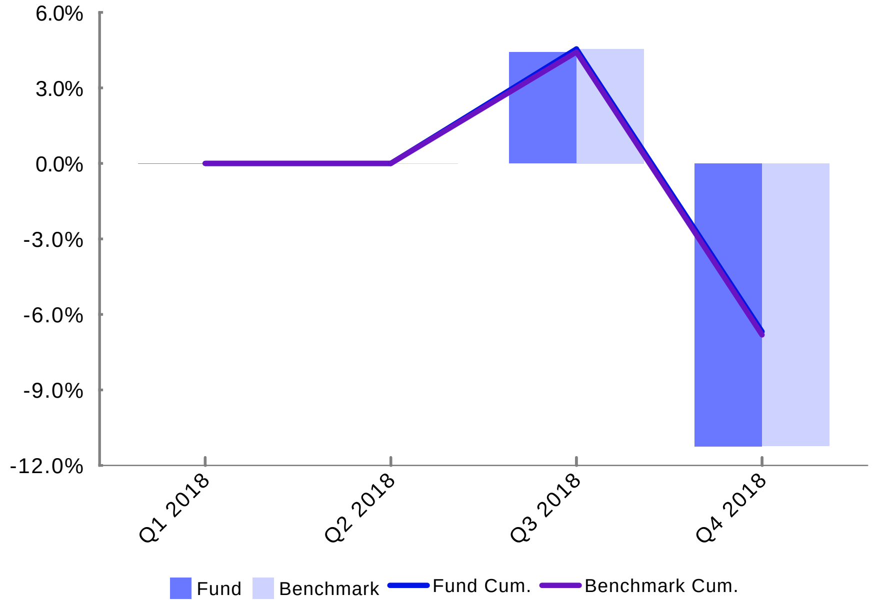
Overview

	Description
Portfolio Objective:	Provide exposure to equity returns and global economy with low exposure to carbon emissions and fossil fuels.
Investment Strategy & Key Drivers:	Portfolio is invested in global equities in accordance with Low Carbon index.
Liquidity:	High
Risk/ Volatility:	Absolute: High Relative: V.Low
Holding:	£472,991,524

Quarterly performance

All values in %	Fund	BM	Excess
3 Month	-11.24	-11.23	-0.01
Fiscal YTD	0.00	0.00	0.00
1 Year	0.00	0.00	0.00
3 Years	0.00	0.00	0.00
5 Years	0.00	0.00	0.00
10 Years	0.00	0.00	0.00
Since Inception	-7.31	-7.19	-0.12

Rolling Performance



Passive Low Carbon returned negative performance over the quarter. Performing in line with its MSCI Low Carbon benchmark, the portfolio returned -11.24%.

- The Low Carbon portfolio was affected by the global equity sell off throughout Q4. As the US has such a large allocation to global equities, around 60%, this region was the largest contributor to negative performance
- With regards to global sectors, Financials and Technology were the largest contributors to global negative performance

Active UK Equities

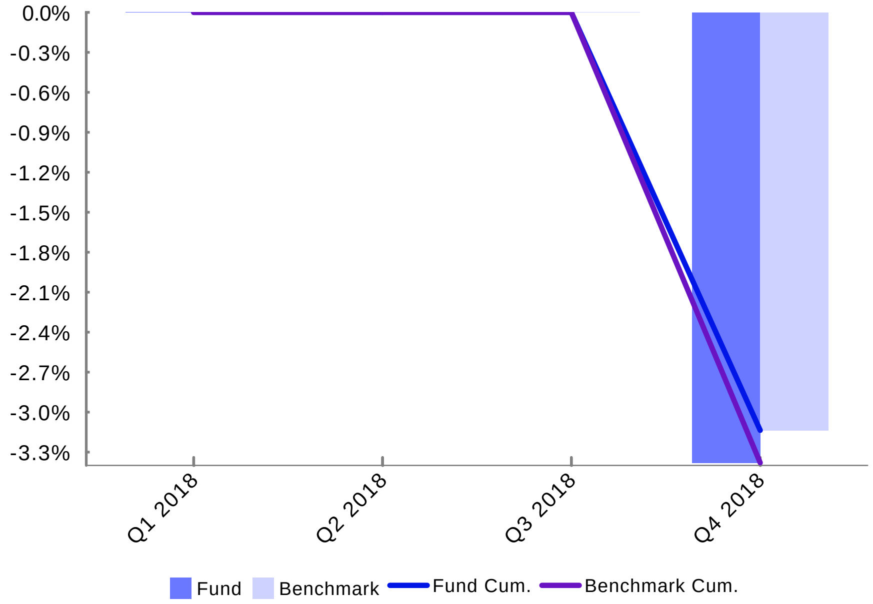
Overview

	Description
Portfolio Objective:	Provide exposure to UK Equities, together with enhanced returns from manager skill.
Investment Strategy & Key Drivers:	Skilled managers will create opportunities to add long term value through stock selection and portfolio construction.
Liquidity:	Managed level of liquidity. Less exposure to more illiquid assets.
Risk/ Volatility:	High absolute risk with moderate relative risk, around 4% Tracking error.
Holding:	£170,762,981

Quarterly performance

All values in %	Fund	BM	Excess
3 Month	-3.38	-3.14	-0.24
Fiscal YTD	0.00	0.00	0.00
1 Year	0.00	0.00	0.00
3 Years	0.00	0.00	0.00
5 Years	0.00	0.00	0.00
10 Years	0.00	0.00	0.00
Since Inception	-3.38	-3.14	-0.24

Rolling Performance



During the course of Q4, client assets transitioned into the Brunel portfolio from incumbent managers. The portfolio consists of three sub managers with an allocation of 25% Baillie Gifford, 25% Aberdeen Standard and 50% Invesco.

- Since inception on 21 November, the portfolio has underperformed the FTSE All share by 0.2%. However, this is on a net basis and is inclusive of all restructuring costs to achieve the target portfolio
- The one-month return for December, which will exclude a number of costs associated with restructuring, is -3.9% vs -3.75%, with a slight underperformance of 0.15%. However, we can still attribute 4bps of relative underperformance to an illiquid portfolio of incumbent assets
- The vast majority of illiquid assets have been sold down. Going forward we do not expect any restructuring costs associated with the transition to impact future returns

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Administered by Dorset County Council

Environment Agency Pension Fund

Somerset County Council

Avon Pension Fund

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