Aon
Retirement and Investment

Aon Investment Research and Insights

Global Infrastructure Equity

Opportunities in the pipeline

July 2018

Empower Results®

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Executive summary

The extensive infrastructure policies, such as the UK government's commitment to a target £100 billion in infrastructure projects by 2020-21 and the U.S. administration's infrastructure programme, has grabbed investor attentions.

While these developments are welcome given recent constraints in new deal-flow, there is still significant capital (especially from institutional pension investors) yet to be tapped. Despite attractive risk-return features alongside low correlation to other assets, investor exposure to infrastructure has been fairly low with only c.20% of pension schemes investing in the asset class and an average allocation of under 2% of total scheme assets[1].

This paper outlines why infrastructure merits an inclusion in investor portfolios as well as identifying potential opportunities and risks in a broad asset class.

Some of our key takeaways are presented below:

Highly desirable features	Infrastructure's relatively attractive risk-return profile, lower correlation with other asset classes, steady income and inflation linkages make it particularly appealing from a strategic perspective for pension funds and other investors with long-term liabilities.
Supportive macro backdrop	The macroeconomic backdrop, alongside megatrends is likely to favour certain sectors such as energy and transportation that will benefit from higher growth and inflation. Conversely, core infrastructure assets will offer a degree of downside protection with long-term contractual revenues.
High valuations	The demand-supply imbalance has been one of the causes of higher infrastructure valuations. They are likely to remain so in the near-term but could be addressed by more opportunities coming to market.
Active management	In a competitive environment with downward pressure on returns, the selection of high-quality managers is essential in terms of avoiding non-performing assets and minimising losses.

[1] Source: UBS Pension Fund Indicators 2017

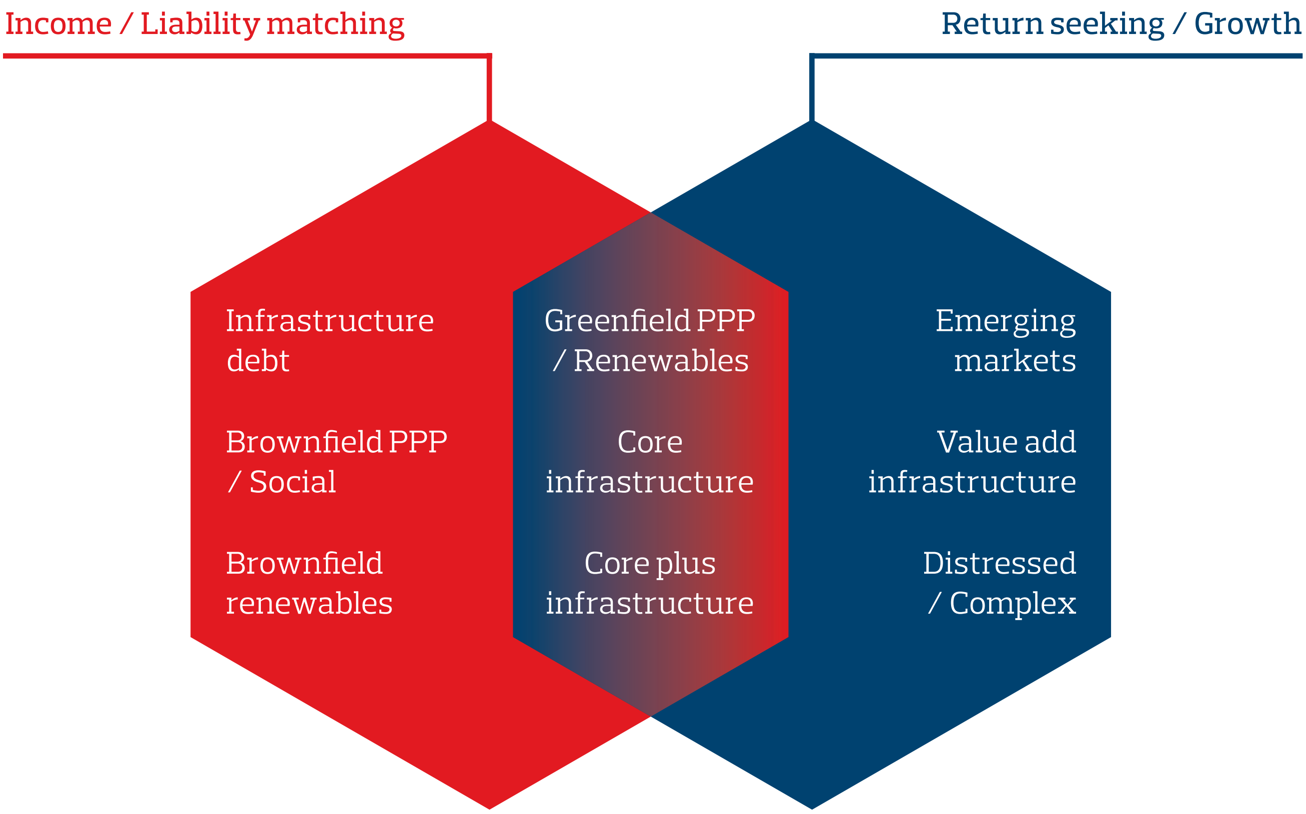
What is infrastructure?

Infrastructure relates to the fundamental systems and assets needed for the operation of an economy. The capital provided for these projects was historically publicly funded but since the onset of the financial crisis government debt has ballooned to levels where there is insufficient public funding for all infrastructure projects.

In order to bridge this financing gap there has been a clamouring for private capital, which since 2008 has been met with approximately $400bn of capital raised including a record c.$70bn raised in 2017 alone.

Private investors can access a large opportunity set within the infrastructure universe that encompasses a broad spectrum of assets and strategies, including both equity and debt investments, as illustrated in the diagram below. Whilst not exhaustive, examples of infrastructure assets include toll roads, telecommunication networks and airports.

Infrastructure opportunity set



Source: Aon

For the purposes of the paper we will be looking at unlisted infrastructure equity investments, where investor capital is used to purchase or develop an infrastructure project. In particular, we will focus primarily on strategies shown in the middle of the above diagram which we believe should be the main building block of an investor's infrastructure portfolio.

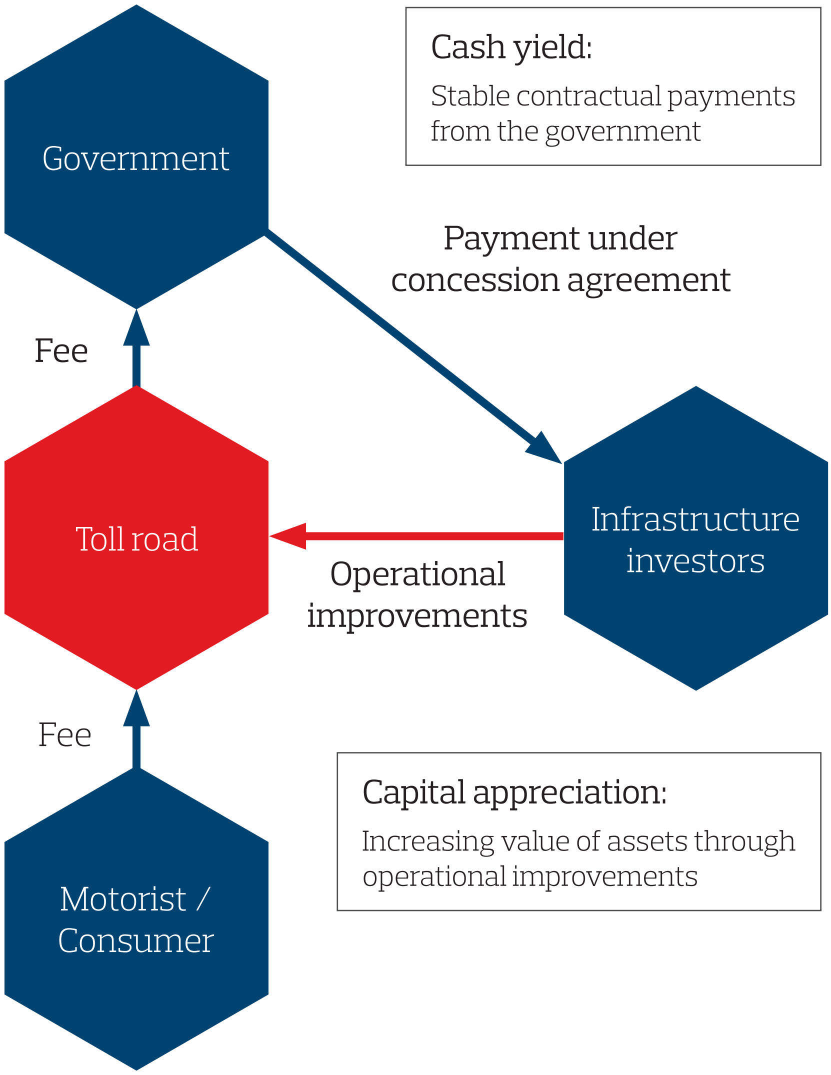
How do infrastructure assets generate return?

The diagram to the right illustrates, from a high-level perspective, how an investment in infrastructure can generate returns for investors. Returns are typically split between income and capital appreciation components.

For example, a toll road infrastructure investor may receive stable cash flows from the government (the owner) under a concession-based agreement. The income return can be supplemented by improvements made to the asset (e.g. road maintenance).

As a very heterogeneous asset class, the split between the two return components can vary a great deal; some assets particularly within core infrastructure may have limited capital upside as operational efficiencies may be difficult to come by while some greenfield assets (assets which are constructed without any prior work or foundation) may not generate stable cash flows early in the life of the project.

Example of how a government-owned toll road can generate return



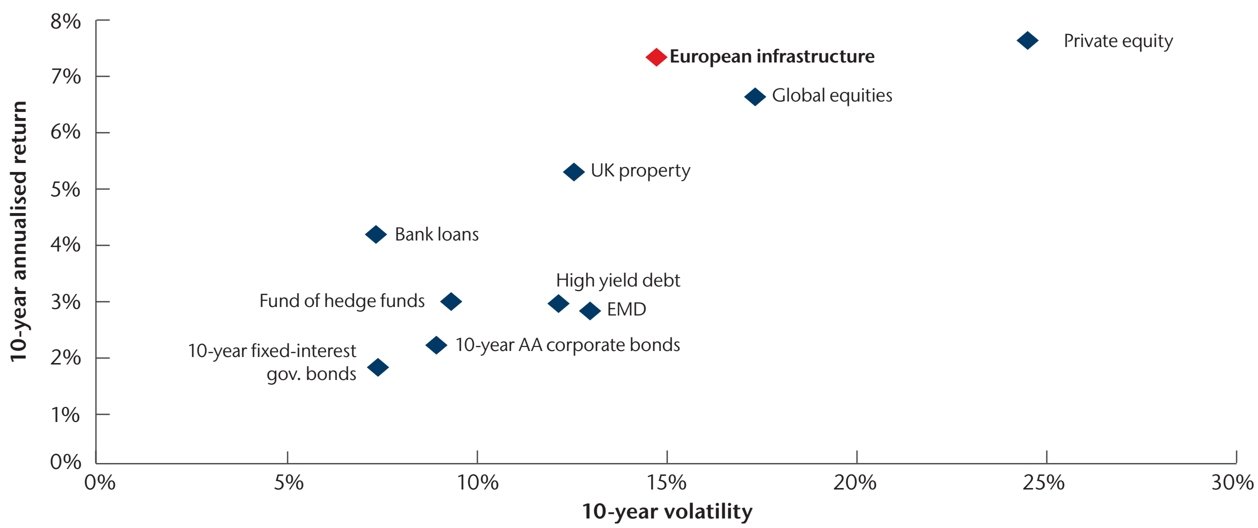
Infrastructure can tick a lot of boxes for investors

We have generally liked infrastructure investment as a strategic asset class for institutional investor portfolios for a long time due to a number of desirable characteristics:

- Cash-flow generation (some of which can have inflation-linkages)
- Low correlation to other traditional asset classes
- Attractive risk-return characteristics

The latter is reinforced further at a time when returns in conventional listed assets are clearly challenged and when the backdrop for more infrastructure investment being seen globally is improving, we believe the case for including an infrastructure allocation in portfolios is particularly compelling.

Attractive risk-return characteristics



Source: Aon Capital Market Assumptions. Non-UK denominated assets are GBP-currency hedged.

Based on our Capital Market Assumptions (see above chart), we expect infrastructure to return just above 7% p.a. over a 10-year period. This is not only on par with listed and private equity but is very compelling on a risk-adjusted basis compared to a host of other asset classes with the exception of bank loans in the above example.

Recent market turbulence earlier this year, where equities and bonds fell concurrently, has emphasised the case for diversification in portfolios. Infrastructure can act as a good diversifier as their risk-return drivers can be quite different to other asset classes. For example, with long-term contracts which bring with them stable cash flows, many core infrastructure assets have significantly reduced revenue risk from lower economic activity. They may, however, be affected from regulatory changes which are typically uncorrelated to business cycles. The diagram below reflects the correlation, or lack thereof, between major asset classes and unlisted infrastructure equity since 2008.

Unlisted infrastructure has exhibited very low correlation to other assets since 2008

	Global equities	Global bonds	Hedge funds	UK real estate	Private equity	Global listed infrastructure	Global unlisted infrastructure
Global equities	1.0						
Global bonds	0.5	1.0					
Hedge funds	0.9	0.5	1.0				
Uk real estate	0.5	0.1	0.4	1.0			
Private equity	0.8	0.3	0.9	0.4	1.0		
Global listed infrastructure	0.9	0.6	0.8	0.5	0.7	1.0	
Global unlisted infrastructure	0.2	0.0	0.1	0.5	0.0	0.4	1.0

Source: FactSet, MSCI, ICE Bank of America Merrill Lynch, HFRI, IPD, S&P, Preqin
Notes: Calculated using quarterly returns with return series for UK Real Estate, Private Equity and Unlisted Infrastructure adjusted to offset smoothing

Based on the risk-return chart and the correlation matrix above, there is a very strong case for adding infrastrucuture to investor portfolios whether that is to help enhance returns or reduce overall portfolio volatility.

Economic backdrop – current market environment and outlook

The low interest rate environment has been supportive

Based on Preqin (an alternative asset class data provider), infrastructure has returned 7.8% p.a. in the period December 2008 to June 2017; higher than a host of other asset classes including global equities and UK real estate.

While there have been other drivers of returns, including strong income returns and value creation from fund managers, the low interest rate environment has helped bolster returns by:

- Spurring 'search for yield' investor activity which has increased the demand, and with it, the price of infrastructure assets;
- Increasing valuations of assets through lower discount rates;
- Easing the access and cost of leverage, used to enhance returns.

Should investors therefore be concerned of a reversal in the downward trend?

While necessarily no longer a tailwind, upward movements in interest rates are unlikely to detract significantly from future returns due to:

- Interest rates coming from such low levels that we believe that the yield advantage over government bonds will be sufficient to reward investors;
- Some infrastructure managers incorporating additional premiums to discount factors in anticipation of moves from historic low interest rates;
- Leverage, which contributed to infrastructure's underperformance in the latter stages of the last decade, is now at more manageable levels and unlikely to detract strongly if rates do increase.

Infrastructure is not a homogeneous asset class... but improving macroeconomic fundamentals may increase opportunities

Rising rates become even less of a concern if they are a response to faster GDP growth and inflation; both of which can drive revenues for assets higher. Some assets may be linked to the health of an economy - greater levels of activity can demand for certain assets such as airports or merchant power.

However, infrastructure is far from a homogeneous asset class with varying sector sensitivity to changes in income (economic activity) and price. Some assets like utilities can be quite defensive in nature, which may help investors withstand any potential deterioration in the economy. These particular assets tend to be regulated as they are in a position of monopolistic power and tend to benefit from long-term defined contracts, some of which have built-in price escalators where the prices charged move in line with inflation which provides investors with a degree of inflation linkage.

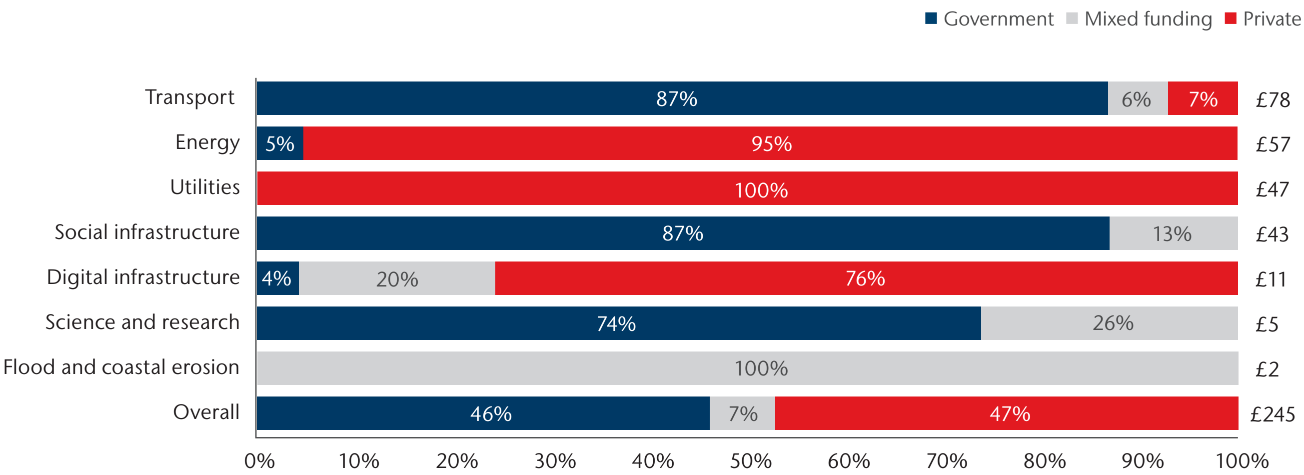
Will the demand-supply imbalance persist?

As discussed earlier, investors have been more than willing to bridge the infrastructure financing gap with record amounts of private capital being raised. From a demand-perspective, investors are building up allocations from very low levels – UBS data showed that the average UK pension fund exposure to infrastructure was less than 1.5% of total assets.

Moreover, investor intentions to increase exposure to infrastructure have been strong with a recent Preqin survey indicating 55% of respondents intend to increase their exposure to the asset class. The issue has been that the demand has not been fully satiated by attractively-priced opportunities for investors.

Over the longer term, however, we are seeing opportunities evolve to satiate this demand. Infrastructure spending gaps, which McKinsey (a management consulting company) estimate to be around $5.2 trillion, combined with high government indebtedness will require greater private participation. This is already being reflected in current US and UK infrastructure policies where nearly 50% of the UK's upcoming infrastructure pipeline is to be financed solely by private sources (see chart below). Supply is also likely to be boosted by older vintage closed-ended funds coming to maturity and selling their assets.

Funding mix of the UK's infrastructure pipeline 2017/18 to 2020/21 by sector



Source: UK National Infrastructure Commission

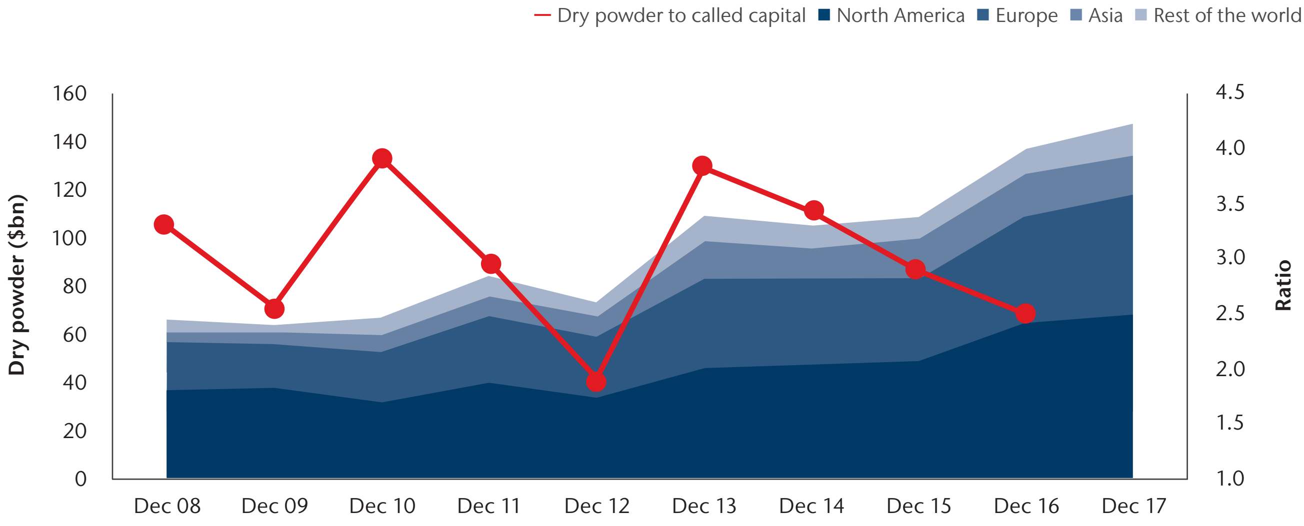
There are building risks in pockets of the infrastructure market

The effects of this imbalance have been:

- Higher valuations which may depress future returns. We have seen the distribution of target returns for infrastructure move lower since 2010 with the median target return falling to 10-12%, according to Deloitte.
- These higher valuations have lowered the number of attractive deals for investors.
- These factors have led to dry powder, the yet-to-be invested committed capital, to reach a record $150bn. This further intensifies an already competitive market.

When comparing the accumulation of dry powder to the capital being put to work in the previous year, it would suggest managers are putting more capital to work in an already expensive market and may limit future return prospects.

Record levels of dry powder but invested at a faster rate



Source: Preqin

A key challenge for fund managers will therefore be finding value in this environment and may lead many to move up the risk/return spectrum where there is far less competition for assets.

Aside from these issues relating to current market conditions, investors will also have to contend with other risks such as illiquidity with long lock-up periods. This may be an issue for more mature schemes and those with strict de-risking policies which require easy access to pension scheme capital.

There is the risk that investors may miss out on other potentially attractive opportunities. Moreover, investors may initially face extended periods of low (or negative) returns as manager fees are charged but assets may either be yet to throw off cash or capital has not been put to use.

Political and regulatory risks are unlikely to dissipate

Aside from the higher valuations and constrained deal flow, infrastructure is likely to be impacted by the changing political and regulatory backdrop.

As natural monopolies, infrastructure assets are highly regulated and under high public and government scrutiny. This has recently come to the fore in the UK as issues with the privatised rail network have led greater political support for a re-nationalisation of the network. This could earmark a greater change in sentiment with other infrastructure assets at risk of being moved back into the public sector.

Similarly, greater scrutiny from regulators of underperforming companies could well see falling regulated returns. At a time where significant premiums are being paid for assets generating steady income, investor return could well tighten further.

How best to access the asset class

For the reasons outlined above, we believe manager selection is crucial to navigate these risks and opportunities, and in an environment of elevated valuations identify ways to add value whether that is through deal origination or improving operating assets.

While it is possible to add exposure through listed infrastructure equities, we do not recommend this approach due to the stronger relationship with broader equity markets.

Our specialist infrastructure manager research team are able to help with any questions you may have around building an infrastructure portfolio programme. The table below provides a short overview of the typical fund terms within the opportunity set.

Typical terms	Infrastructure
Routes to direct infrastructure	• Direct investing • Co-investing • Funds
Type of funds available	• Closed-end (Primary and Secondary) • Open-ended (Primary) • Listed Infrastructure funds
Term / liquidity	• Fund term 12-25 years for closed-end funds, depending on strategy • Evergreen for open-ended funds with quarterly to semi annual liquidity (lock-up may exist) • Daily liquidity for listed infrastructure funds
Fees	• Closed-end: 1.5 % management fee and 20% carried interest over a specified hurdle rate (usually 8%) • Open-end: 0.8 % to 1.2% management fee and 10-20% carried interest over a specified hurdle rate (usually 8%) • <1.0% for listed infrastructure funds with no performance fee
Cash flows	• Closed-end: Drawdown over first 5 years. Distributions from year 5 to 12 • Open-ended: Drawdown within 6 to 24 months. Distributions post drawdown
Leverage	• 40-80% depending on strategy

Source: Aon

Conclusion

We believe clients who can afford the illiquidity, and are below target or have no exposure to infrastructure, should consider adding exposure to it in their portfolios. For clients that are able to tolerate higher risk and lower liquidity levels, opportunities further up in the risk-spectrum may offer more compelling risk-adjusted opportunities.

A diversified portfolio, from both a geographical and sector perspective, is prudent to mitigate any unwarranted specific risks and maximise the opportunity set for investors.

With potentially very long asset lives and investors unable to redeem until maturity, investors should be cognisant of their ability to lock-up capital for long periods and what this may mean for de-risking frameworks.

Please get in touch with your consultant or one of our manager research specialists for any further discussion.

We're here to empower results

For more information visit
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