INVESTMENT STRATEGY

HERTFORDSHIRE COUNTY COUNCIL PENSION FUND ("THE FUND")

JUNE 2017

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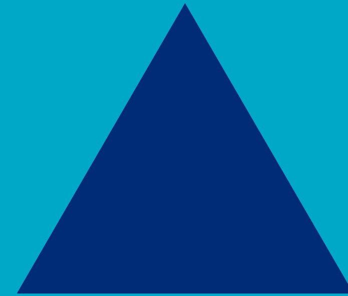
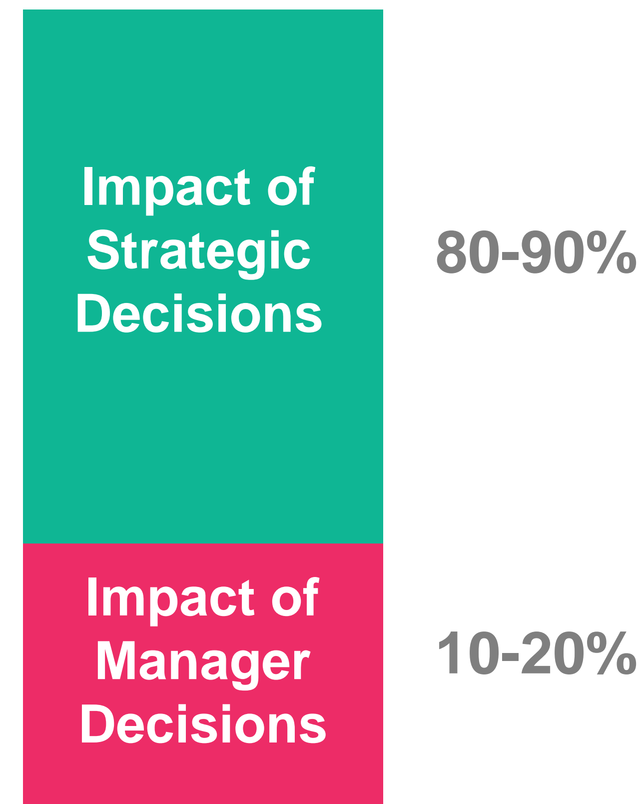
INVESTMENT STRATEGY

WHAT DO WE MEAN BY 'INVESTMENT STRATEGY'?



INVESTMENT STRATEGY
WHAT DO WE MEAN BY "INVESTMENT STRATEGY"?

- Long term allocation between various asset classes, such as equities, bonds, property etc.
- Most important decision for most pension funds
  - Returns between asset classes can vary significantly
  - Whereas manager returns for the same asset class tend to be within a few percentage points
- The investment strategy should consider the Fund's specific liabilities and investment objectives



Investment strategy contributes the majority of investment performance and – just as importantly – investment risk

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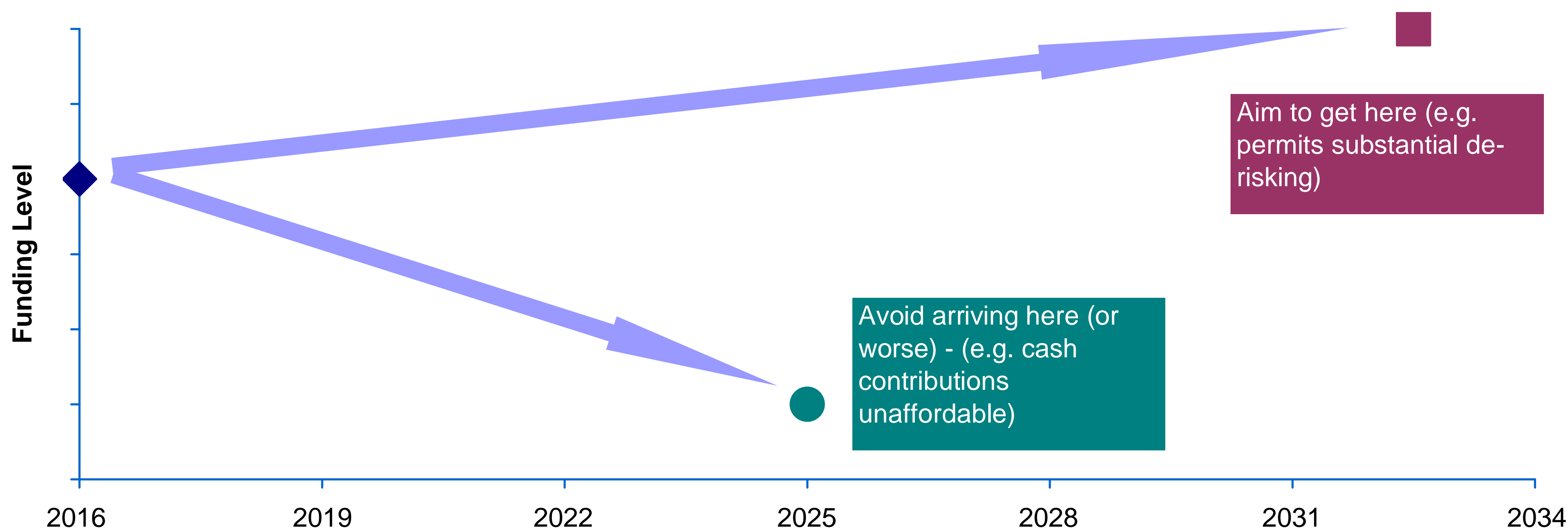
INVESTMENT RISK AND INVESTMENT STRATEGY
WHERE DO WE WANT TO BE?

- Main driver of investment risk is investment strategy
  - Broad long term allocations to the major asset classes (equities, bonds, alternatives, etc)
- Aim of taking investment risk is to (in conjunction with contributions):



- Once you have identified an objective and an acceptable level of risk which will meet that objective, create an investment strategy that seeks to achieve the greatest expected return for that risk level.

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INVESTMENT STRATEGY
WHAT IS DESIRABLE FOR THE FUND?

DESIRABLE CHARACTERISTICS…

INFLATION LINKED

- The majority of benefit payments are linked to inflation. It therefore makes sense to have a significant allocation to assets where returns have either an implicit or explicit link to inflation.

REFLECT BELIEFS

- The investment strategy should reflect the beliefs of the Fund. For example: Illiquid assets (to harvest 'illiquidity premium') and risk mitigation where possible.

CASHFLOW GENERATING

- The Fund should have a mind to meeting benefits without becoming forced sellers of assets. Investments that generate secure income can help to address this need. This will become more important over time.

RETURN GENERATIVE

- There is a deficit for the Fund to recover over time. Therefore, unless an investment is specifically required for risk management purposes, there should be a clear focus on long term return potential of the assets to help reduce the deficit over time.

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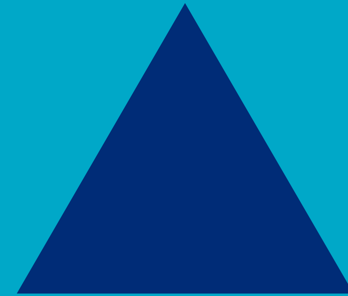
INVESTMENT STRATEGY

PLAN FOR THE FUTURE



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INVESTMENT STRATEGY
2016 TRIENNIAL VALUATION RESULTS

- Hymans have produced the 2016 triennial valuation results for the Fund, which shows that over the three year period from the 31 March 2013 the Funding level has increased by 9%, from 82% in 2013 to 91% in 2016.

- But how does this compare to what we would have expected in 2010?

	31 March 2010	31 March 2013	31 March 2016
Expected funding level of 65/35 strategy*	-	79%	84%
Actual Funding level	74%	82%	91%

* Funding level based on a 50% probability in the 2010 ALM analysis

- The Fund is materially ahead of where it was expected to be as at the 2016 valuation (as it was, to a lesser extent, at the 2013 valuation).

- This is to be expected though as the Fund has not completely implemented the move to 65/35, and is currently at 75/25.

- Given the higher level of risk that the Fund is taking you would expect the Funding level to be higher (although, in practice, this is not the main driver).

INVESTMENT STRATEGY
WHY ARE WE AHEAD OF SCHEDULE?

Positive Contributing Factors

- **Strong Investment Returns** – Fund returned 6.9% p.a. over the three years to 31 March 2016, these were above those assumed by the actuary
- **Reduction in Inflation Expectation** – the Fund's inflation assumptions have changed from the 2013 valuation, the assumed wedge between CPI and RPI has increased by 0.2%, Salary increase has also changed from 0.5% above RPI to 0.9% below RPI. Overall 1.6% reduction in inflation assumptions
- **Membership experience over the period**
- Slight change in **liability discount rate**

Negative Contributing Factors

- **Reduction in Bond Yields** – given the valuation basis all else being equal a reduction in gilt yields increases the present value of liabilities
- **Interest on the deficit** – the deficit grows by the unwinding of the discount rate

INVESTMENT STRATEGY
OPPORTUNITY TO DE-RISK?

- Based on the analysis conducted so far there appears to be an opportunity to reduce the level of risk that the Fund is running.
- The question now is what is the most efficient way to reduce risk.
- There are clearly drawbacks to the traditional approach of buying risk-free assets like gilts given the unappealing yields on offer.
- Given this, it was agreed we should also consider alternative assets that would reduce the level of risk being run in equities and are expected to produce returns in excess of inflation, a “real asset portfolio”.
- It was agreed that an appropriate long term time frame would once again be to look over the next 21 years, 7 valuation cycles
- In addition to reviewing the current strategy and the previously agreed target of 65/35 growth/matching split we looked at two further strawmen to aid in the discussion
- The first strawman is again moving 10% out of equities, into a portfolio of “real” assets comprised of property (high lease value and private rented sector) and infrastructure debt
- The second strawman goes further with a 20% reduction from growth assets with the strategy both increasing the allocation to index-linked gilts introducing an allocation to real assets.

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INVESTMENT STRATEGY
STRAWMEN SUMMARY

Asset Class	Current Allocation (25%/75%)	Target Allocation (35%/65%) bonds	Target Allocation (35%/65%) Real assets	Target Allocation (45%/55%) Real assets
UK Equity	16.0	10.0	10.0	5.0
Global Equity	34.2	30.0	30.0	25.0
Bonds	25.0	35.0	25.0	35.0
Property	8.0	8.0	8.0	8.0
HLV, Infrastructure Debt, PRS	-	-	10.0	10.0
Alternatives	10.8	11.0	11.0	11.0
Private Equity	5.0	5.0	5.0	5.0
Residual Assets/Cash	1.0	1.0	1.0	1.0
Total	**100.0**	**100.0**	**100.0**	**100.0**
Expected Return above gilts	3.5%	3.1%	3.3%	2.8%
1 Year Value at Risk	£830m	£740m	£760m	£670m

- All of the allocations above, should be able to support the current valuation assumptions
- But what effect does it have on the time probability of being fully funded in 2037 and the downside risk?

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INVESTMENT STRATEGY
FUNDING LEVEL PROJECTIONS SUMMARY

Objective	Current	35%/65% Bonds	35%/65% Real	45%/55%
Return, 100% funded probability by 2037	65%	63%	66%	63%
Time until fully funded	c.5 yrs	c.6.5 yrs	c.6 yrs	c.7 yrs
Median expected funding level in 2019	96.1%	95.4%	95.9%	95.2%
Risk, 1 in 10 funding level in 2019	73.7%	75.7%	75.4%	77.4%

- All of the strategies, under the current prudent modelling, don't appear to meet the same probability likelihoods as the analysis for the 2010 valuation, in terms of long term funding level
- They do however all have a good chance of meeting long term objectives and reducing shorter term risks
- Of the 'strawman' portfolios consider, the Working Group's preference was for the portfolio with 65% in growth assets, of which 10% would be in real assets and 35% in bonds (as is currently targeted).

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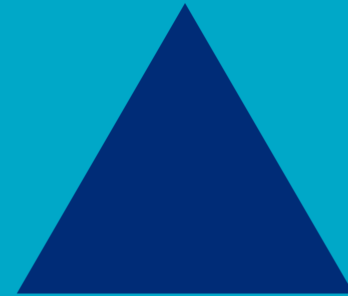
INVESTMENT STRATEGY

IMPLEMENTATION – FIRST STEPS



IMPLEMENTATION
TRANSITION PLAN

Asset Class	Current Allocation (25/75)	Target Allocation (35/65) Real assets	Change
UK Equity	16.0	10.0	**- 6.0**
Global Equity	34.2	30.0	**- 4.2**
Bonds	25.0	25.0	0.0
Property	8.0	8.0	0.0
HLV, Infrastructure Debt, PRS	-	10.0	+10.0
Alternatives	10.8	11.0	+ 0.2
Private Equity	5.0	5.0	0.0
Residual Assets/Cash	1.0	1.0	0.0
Total	**100.0**	**100.0**	**100.0**

- The key transition is from equities to the 'Real Portfolio' of assets although the Fund also needs to make new Private Equity commitments as the current holdings are running off.
- The real assets being considered are not asset classes which are quick to access and hence fast progress is unlikely.
- Key questions are nevertheless how to implement the real assets efficiently and which equity managers should we reduce to fund the new allocations in due course.

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IMPLEMENTATION
BUILDING A PORTFOLIO OF REAL ASSETS

- Potential assets for inclusion in a real portfolio
  - Index Linked Gilts
  - Conventional Property
  - **HLV (High Lease to Value) Property**
  - **PRS (Private Residential Sector) Property**
  - Ground Leases
  - **Infrastructure Debt**
  - Infrastructure Equity
  - Agriculture
  - Timber
- All of the above have direct or strong links to inflation and could be considered as part of a real portfolio, however some don't offer an attractive opportunity at present or are impractical to invest in before pooling. We have therefore proposed investing in the three asset classes in bold.

IMPLEMENTATION
CONSTRUCTING THE REAL ASSET PORTFOLIO

Asset Class	Implementation options
High Lease to Value 'HLV' Property	• CBRE are the Fund's property manager, the Fund could have discussions with CBRE to establish an HLV allocation • Alternatively L&G (one of the Fund's current managers) along with other managers have highly rated funds.
Private Rented Sector 'PRS' Property	• CBRE are the Fund's property manager, the Fund could have discussions with CBRE about establishing a PRS allocation. • Alternatively L&G have a highly rated fund and other ACCESS members have recently allocated to other PRS managers which Mercer also rate highly.
Infrastructure Debt	• New managers would need to be appointed, and assets allocated. • Other ACCESS members have allocated to Infrastructure Debt managers so the Fund would not be acting alone.

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IMPLEMENTATION
CONSTRUCTING THE REAL ASSET PORTFOLIO

- The easiest route would be to discuss with CBRE options to expand the property mandate with them. CBRE could be tasked with establishing a portfolio that would aim to invest in HLV & PRS that would target the desired return above inflation that the Fund requires.
  - We accordingly recommend setting up a call or meeting between officers, CBRE and Mercer as soon as possible to begin discussions.
- On account of LGIM's pooled HLV fund being highly rated by Mercer we also recommend that they are invited to a future meeting to provide training on this asset class and an overview of their fund and capabilities.
- Depending on the outcome of discussions with CBRE we would recommend engaging with the pooled PRS managers being used by other ACCESS members with a view to considering their appointment.
- The Fund could also, fairly easily, agree commitments with Infrastructure Debt managers that other ACCESS members have recently allocated following appropriate training on the asset class.
- We note however that in all cases, the Fund would need to complete due diligence on these opportunities before committing.

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IMPLEMENTATION
REDUCING THE EQUITY PORTFOLIO

<table>
<tr><th>Manager</th><th>Asset Class</th><th>Current Allocation</th><th>Current Benchmark</th><th>Over/ underweight</th><th>Future Benchmark</th><th>Overweight</th></tr>
<tr><td>Baillie Gifford</td><td>UK Equity</td><td>9.5</td><td>10.0</td><td>-0.5</td><td rowspan="2">10.0</td><td rowspan="2">7.6</td></tr>
<tr><td>Jupiter</td><td>UK Equity</td><td>8.1</td><td>6.0</td><td>+2.1</td></tr>
<tr><td>Allianz</td><td>Global Equity</td><td>11.2</td><td>10.0</td><td>+1.2</td><td rowspan="3">30.0</td><td rowspan="3">6.7</td></tr>
<tr><td>Baillie Gifford</td><td>Global Equity</td><td>4.6</td><td>4.0</td><td>+0.6</td></tr>
<tr><td>LGIM</td><td>Global Equity</td><td>20.9</td><td>20.2</td><td>+0.7</td></tr>
</table>

In practice LGIM allocation allowed to drift, the above assumes 16% allocation to UK equities in LGIM mandate

- Does the Committee have a preference for any of the above managers to be reduced more than any other? Do we continue to have a preference for Baillie Gifford over Jupiter for UK equities? Do we have a preference for Allianz over Baillie Gifford's LTGG (a new mandate for the Fund).
- We note rebalancing Jupiter's 2.1% overweight position alone would provide c.£85m to begin building the real asset portfolio.
- Or do we have a preference for active management over passive management and so would prefer to reduce the LGIM holdings?
- As a side note, the LGIM global equity allocation has some exposure to UK equities, and the composition of the passive mandate should be reviewed.

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IMPLEMENTATION PROPOSAL

- Now that the overall investment strategy has been agreed the composition of each asset class needs to be discussed and agreed upon, no easy task.
- We recommend that Fund’s officers and the Committee initially focus on which managers should be appointed to manage the HLV property, PRS property and infrastructure debt allocations in the real asset portfolio as these mandates will take some time to establish in view of the nature of the asset classes
- To start building the Real Assets portfolio c.£85m could immediately be allocated to property from Jupiter as an initial source of assets.
- We also recommend that the Committee delegates responsibility to the Fund’s officers to agree whether CBRE or LGIM or another managers are best placed to meet the Fund’s needs.
- We also recommend that the Committee meet Infrastructure Debt managers that other ACCESS members have recently allocated to.
- Lastly we propose that a full review of the private equity portfolio be undertaken, as well as discussions on the target composition of the listed equity portfolio for the next Committee meeting. This will establish where further funding of the real assets portfolio will come from.

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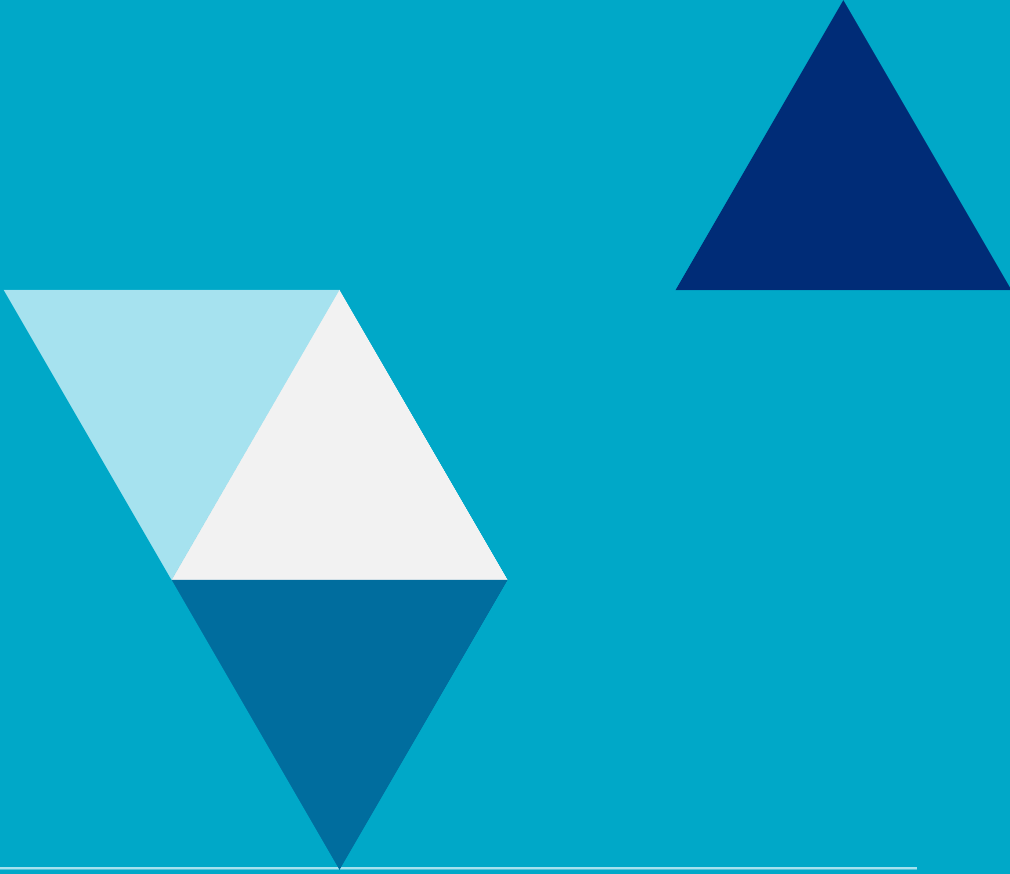
APPENDIX



IMPLEMENTATION
LGIM EQUITIES TIDY UP

Asset Class	Actual Asset Allocation			
	Start of Quarter (£m)	End of Quarter (£m)	Start of Quarter (%)	End of Quarter (%)
UK Equity	131.5	137.1	15.8	15.6
North America Equity	273.8	287.0	32.8	32.6
North America Equity (GBP Hedged)	66.6	70.4	8.0	8.0
Europe (ex-UK) Equity	111.9	120.1	13.4	13.6
Europe (ex-UK) Equity (GBP Hedged)	94.6	101.5	11.3	11.5
Japan Equity	4.4	4.5	0.5	0.5
Japan Equity (GBP Hedged)	45.4	45.6	5.4	5.2
Asia Pacific (ex-Japan) Equity	9.7	10.8	1.2	1.2
Asia Pacific (ex-Japan) Equity (GBP Hedged)	40.1	43.2	4.8	4.9
Middle East/Africa Equity	1.7	1.7	0.2	0.2
Emerging Markets Equity	54.4	59.3	6.5	6.7
Total	**833.9**	**881.2**	**100.0**	**100.0**

- A secondary concern but the current LGIM structure a result of previous transitions (e.g. GTP) weights derived from efficient transition from previous mandates
- Are these ad hoc weightings appropriate? Can be tailored to provide overall exposure to global and UK equities if we have strong views on active managers (e.g. should we wish to keep both UK equity managers and retain confidence but wish to trim a global equity manager to a greater extent, the above could be reorganised to remove UK equities)
- Hedging levels inconsistent across regions

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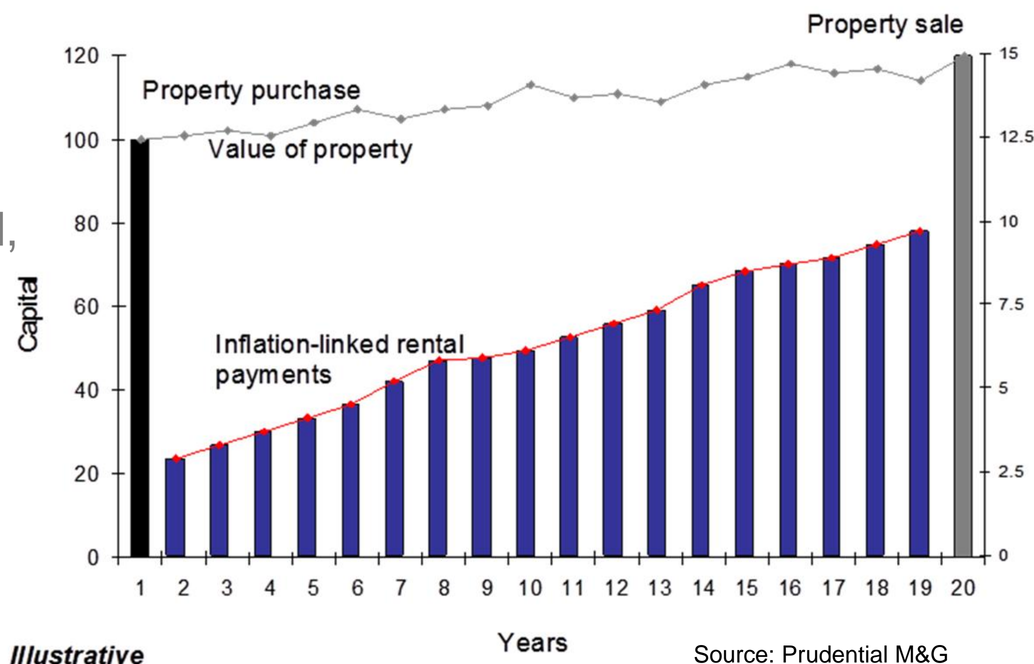
REAL ASSETS
HIGH LEASE VALUE PROPERTY (HLV)

- Long lease UK property with fixed income characteristics.
- Focus on income, not capital gains.
- Long leases with upward, often inflation-linked, rental growth:
  - Ideally over 20 years outstanding;
  - Unusual to have leases under 15 years outstanding.
- High tenant quality:
  - Government; high quality corporates.



- Secure, long-term, predictable cash flows:
  - The long leases and high tenant quality mean a significant part of the property value is in the income;
  - Less exposure to property market capital fluctuations than other sectors of the market.

REAL ASSETS
HIGH LEASE VALUE PROPERTY (HLV)

INVESTMENT THESIS

- HLV Property is long term UK property with fixed income characteristics, high credit quality tenants
- Displays lower volatility than 'core' property
- Secure, long-term, predictable cashflows with some inflation protection inherent in the rental uplifts
- The rent received is a significant proportion of the overall return from the property
- **Real** yields 3.5%-4% p.a. currently available (compared with -1.5% real yields on index-linked gilts) so expected returns are, say, 4% plus inflation over the longer term (6%-7% p.a.)

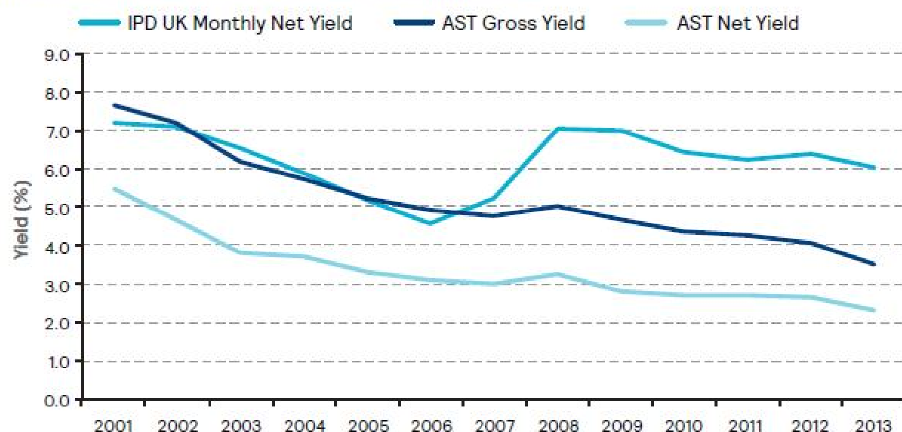
RISKS

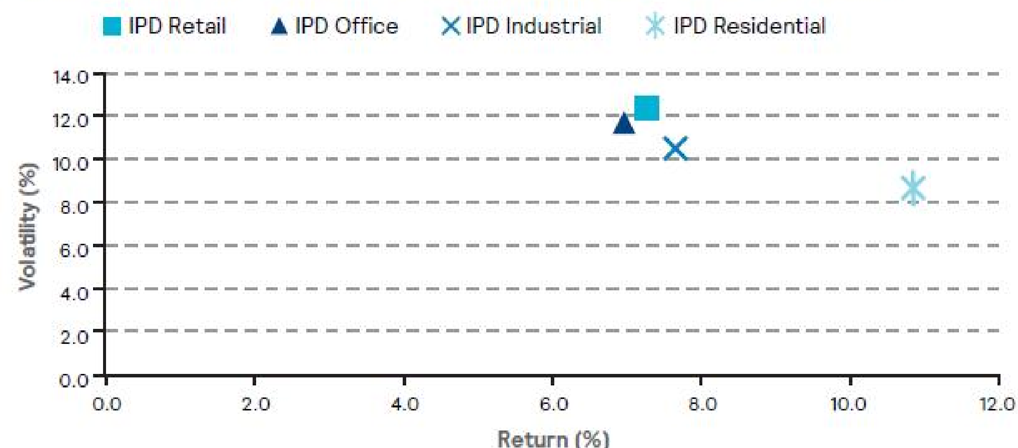
- Risk Profile: Moderate
- Due to longer leases, credit and default risk are higher
- Illiquid
- Mark-to-market pricing implicated by wider property market
- Transactions of this type and in these sectors can be complex
- Still an investment in property so there still will be some risks associated with lease renewal, supply/demand etc.

Note: number of managers offer HLV funds highly rated by Mercer, including Legal & General, M&G, Aviva and Standard Life

REAL ASSETS
PRIVATE RESIDENTIAL PROPERTY (PRS)

- We would expect the returns on PRS to be less than those from commercial property, however we would also view the risk as slightly lower
- Leases are generally structured as 12 month assured shorthold tenancies (ASTs), compared to leases on commercial properties which are generally much longer, around seven to nine years





Performance from 2001 - 2013

- Given strong capital appreciation PRS has outperformed over the period shown, however with lower yields it is difficult to argue that in the future PRS will outperform commercial property

REAL ASSETS
PRIVATE RESIDENTIAL PROPERTY (PRS)

- In theory, there are a variety of ways to access PRS with opened-ended and closed-ended funds available, although there are only a few rated by Mercer. Possible managers Legal & General, M&G.

INVESTMENT THESIS

- Introduces additional sources of return to the Fund
- Provides diversification from other asset classes, low correlation to traditional assets
- Inflation linkage with rent increase
- Potential for real added value from managers
- Expected return made up of say 2%-3% net initial yield plus 3%-4% growth in income, perhaps 5%-7% p.a. overall

RISKS

- Risk: Low-medium
- Are prospective returns attractive enough?
- Regulation/government changes to tax/rent
- Asset class still in its infancy
- Residential property market has cooled but it is demographics (demand for rented properties) not capital values (house prices) that drive returns

Note: As institutional-quality stock generally needs to be built from scratch (rather than existing assets acquired), the time taken to actually invest may be 12 months or possibly more, depending on the particular fund's pipeline of properties.

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REAL ASSETS
INFRASTRUCTURE DEBT

- Two main forms:
  - public (e.g. Network Rail bonds);
  - but more commonly, private.
- Private (often unlisted and unrated) issued by infrastructure businesses to finance:
  - Capital expenditure;
  - Acquisitions;
  - Ongoing asset ownership.
- Pricing and wider terms are tailored to each transaction. Current pricing for high quality infrastructure debt perhaps gilts +c2% p.a.
- High portfolio concentration. Often only 8 – 12 individual investments, especially in early years.
- Stable cash flows and high operating margins from infrastructure support relatively high debt levels:
  - Means risk levels are lower than other sectors of private debt for a given degree of leverage;
  - Commensurate reduction in expected returns compared to other private debt; but
  - ‘trades off ‘credit risk for liquidity risk.
- Few managers offer infrastructure debt funds, Allianz and Macquarie are two specialists in this field

Infrastructure Characteristics
Barriers to Market Entry
Inelastic Demand
Economies of Scale
Long Useful life

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REAL ASSETS
INFRASTRUCTURE DEBT

Investment Thesis

- Infrastructure can be thought of as the physical assets and their associated services that are essential for the functioning of modern society
- Relatively stable and predictable income stream over time, with some linkage to inflation (either explicit or implicit)
- Returns on the underlying infrastructure assets weakly correlated to traditional equity and bond markets
- Typically backed by a first security position that allows lenders to take control of asset in default:
  - As assets are stable and income-producing, default rarely occurs

Risks

- Risk Profile: Low/Moderate
- Infrastructure is very illiquid and difficult to value
- Gearing is often deployed and varying degree of control over assets
- Environmental (impaired value, legal damages)
- Regulatory (changed pricing rules) and/or political (nationalisation / regime change)
- Agency risk

Note: Ability to invest will depend on a manager raising a fund of suitable quality, which will occur from time-to-time.

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REAL ASSETS
SUMMARY

HLV PROPERTY

- Return c4% p.a. real
- Investment grade quality
- Several managers/funds available including Legal & General, Standard Life
- Could take up to 12 months to be invested

PRS PROPERTY

- Return 5%-7% p.a. with some inflation linkage
- Small number of funds available including Legal & General, M&G
- Could take 12 months to be invested

INFRASTRUCTURE DEBT

- Return Gilts +c2% p.a.
- Investment grade quality
- Funds raised by high quality managers from time to time
- Managers include Allianz and Macquarie

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