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Call for Evidence on the future structure of the Local Government Pension Scheme (LGPS)

Dear Victoria:

State Street Corporation ("State Street") appreciates the opportunity to comment on the Call for Evidence on the future structure of the Local Government Pension Scheme ("LGPS"), issued by the Department for Communities and Local Government ("DCLG") and the Local Government Association ("LGA").

Headquartered in Boston, Massachusetts, with branches and subsidiaries throughout the European Union ("EU"), State Street specialises in providing institutional investors with investment servicing, investment management and investment research and trading. With USD 25.7 trillion in assets under custody and administration and USD 2.1 trillion in assets under management, State Street operates in 29 countries and in more than 100 markets worldwide.[1] Our European workforce of 9,000 employees provides services to our clients from offices in ten EU Member States.

The information contained within this paper has been produced with the aim of sharing our knowledge and experience of partnering with LGPS funds, whilst also contributing what we believe to be relevant intelligence and additional considerations to promote thought and debate during the review process.

We have not made any recommendations in relation to potential reforms of the structure of the LGPS – we are simply aiming to provide support to the LGPS and associated stake holders through our research and insights, and demonstrate how service providers like ourselves can continue to partner with and support the LGPS as it evolves.

In addition to responding to the five questions posed, we have included supplementary research within the accompanying attachments that we hope will be informative and beneficial in aiding the relevant parties in performing a holistic review of the LGPS, and in considering any potential future reforms.

The first section of this paper comprises our responses to questions one to five, bearing in mind the proposed objectives copied below:

<u>High level objectives</u>
1. Dealing with deficits
2. Improving investment returns

<u>Secondary objectives</u>
1. To reduce investment fees
2. To improve the flexibility of investment strategies
3. To provide for greater investment in infrastructure
4. To improve the cost effectiveness of administration
5. To provide access to higher quality staffing resources
6. To provide more in-house investment resource

[1] As of June 30, 2013.

Section 2 contains information pertaining to identified cost drivers from a custody, performance measurement and asset management perspective, whilst section 3 provides some additional thoughts / ideas that reviewing parties may wish to consider during the review process.

Section 1 - Questions.

Question 1 – How can the Local Government Pension Scheme best achieve a high level of accountability to local taxpayers and other interested parties – including through the availability of transparent and comparable data on costs and income - while adapting to become more efficient and to promote stronger investment performance.

Accountability to local taxpayers and other interested parties can be considered through a number of perspectives, for example through components such as service provision and performance.

From a service provision perspective, this could include accountability for ensuring that pension payments are correct and made in a timely manner, queries received from taxpayers and other interested parties (including individual scheme members and associated bodies) are responded to in a timely manner and appropriate engagement and communication is maintained with all parties. Due to our limited engagement with schemes relating to the service provision element, we feel that it is more appropriate for Schemes and other interested parties to provide their input here.

From a performance perspective, it could be viewed that the primary concern of both local taxpayers and other interested parties, such as scheme members, are that contributions remain consistent and contribution levels are minimised. They also share an interest in the requirement for the Scheme to have sufficient funds to fully satisfy its liabilities with regards to pension payments.

We have provided below thoughts on the goal of promoting stronger investment performance and increasing efficiency.

Promotion of stronger investment performance

To help promote stronger future investment performance, it is important to analyse available data to determine the key drivers behind strong historical performance and those factors that can have a negative impact on this.

- Scheme size & in-house vs third party management

There has recently been much discussion around this topic, for example 'do large schemes outperform small schemes' and will merging smaller/medium schemes result in improved performance?

Analysis of data relating to the relative performance of large vs smaller Schemes indicates that being 'large' does not, by itself, necessarily result in improved performance – other factors such as internal management would appear to be a major contributory factor in this regard.

That being said, larger fund sizes/investment mandates, be they large already or perhaps created following any future mergers or setting up of Common Investment Fund type arrangements, may confer a number of benefits that facilitate improved returns by offering the following:

- Potential to reduce investment management costs - larger funds/investment mandates can access investment management at lower levels of fees than their smaller peers. This cost saving may only be realised if the structure of any merged schemes is not heavily skewed towards alternative investment.[2] [1]
- Potential to consider more internal management - internal management has a successful track record of delivering excellent risk adjusted returns at low cost. This may be practical to implement for funds with a value of approximately GBP 2bn upwards.[3]
- Potential for better governance.

The largest fund in the UK is currently around GBP 35bn in value. We have no evidence to pinpoint an optimal fund size but we are of the belief that a fund beyond that size may present challenges for effective management.

- Negative impacts on performance & active vs passive management

Irrespective of the size of the scheme, all investment returns are eroded by the level of fees paid to fund managers, transaction costs, taxes and commissions. Long term investment strategies will reduce the impact of transaction costs, taxes and commissions.

[2] See attachment A – Do Larger Funds Perform Better?, SSIA Sep 2013
[3] See attachment B – Lessons From Internal Management, SSIA March 2013

- Passive management offers the largest opportunity to reduce fund management fees paid. Passive management reduces costs and relative risk – currently around a quarter of LGPS assets are managed on this basis. Our evidence has shown that active management fails to add value for most funds, especially over the longer term, therefore a greater move towards passive would likely improve the level of relative returns.[4] [3]
- Curtailing the use of expensive alternative strategies, particularly where the amounts invested have little overall bearing of returns at total asset level, could also help reduce fee levels.
- Internal management can provide the opportunity for a particular type of active management at lower fee levels than clients experience using external active managers. Internal investment management, as currently practiced within UK defined benefit plans, can be characterised as a low activity discipline carried out to meet non-aggressive targets over the long-term. The performance histories of many of these internal funds would suggest that this is a successful approach.[5]

Funds should be clear that the external active management they are paying for is worthwhile. High conviction investing, i.e., attempting to add significant value to a fund or an active quantitative approach may be rewarded, but more traditional 'active' management which plays at the margins of benchmarks is almost certainly poor value.

Increasing efficiency

Efficiency might be increased by a number of means, including:

- Increased pooling of resource for governance, pensions management and reporting (we have already seen a number of shared servicing arrangements utilising these means).
- Enabling service provider change more efficiently, possibly achieved by reviewing procurement process requirements to streamline the current process (OJEU requirements). The current Framework for Custody Services is such an example, whereby any schemes utilising the framework can sign up to a standardised contract, aware that due diligence of providers has already been performed. The performing of fee competitions to determine each Scheme's provider of choice can help reduce the sometimes significant resource and costs incurred to both schemes and service providers themselves through such a procurement process. Similar agreements facilitating pre-approved 'panels' of service providers could also be further extended to Asset Management mandates and Transition Management services.
- Utilising transition management services to minimise transition costs and risk when effecting manager change or portfolio restructuring, plus the usage of tools such as asset overlays to enable prompt exposure to be gained to appropriate markets/asset classes/benchmarks very quickly following decisions being made by the Investment Committee/Panel to change the allocation or structure of the investments held by the Scheme, without waiting for the 6-12 months this can typically take at present. The utilisation of such transition management tools can also have a positive impact in reducing costs incurred by Schemes who 'park' un-invested or realised cash into a pooled vehicle for the short-medium term until a decision has been made regarding a new investment manager, without necessarily realising the inherent material costs incurred in doing so (spreads incurred on both the cash investment and disinvestment).

When considering potential changes to the future structure of the LPGS, we believe it would also be appropriate to consider whether there is a need for a change in behaviours, as any amendment to the set-up of the LGPS which fails to address a number of perceived negative biases may subsequently be viewed as a missed opportunity. Examples of such biases are as follows:

Impetus for Action

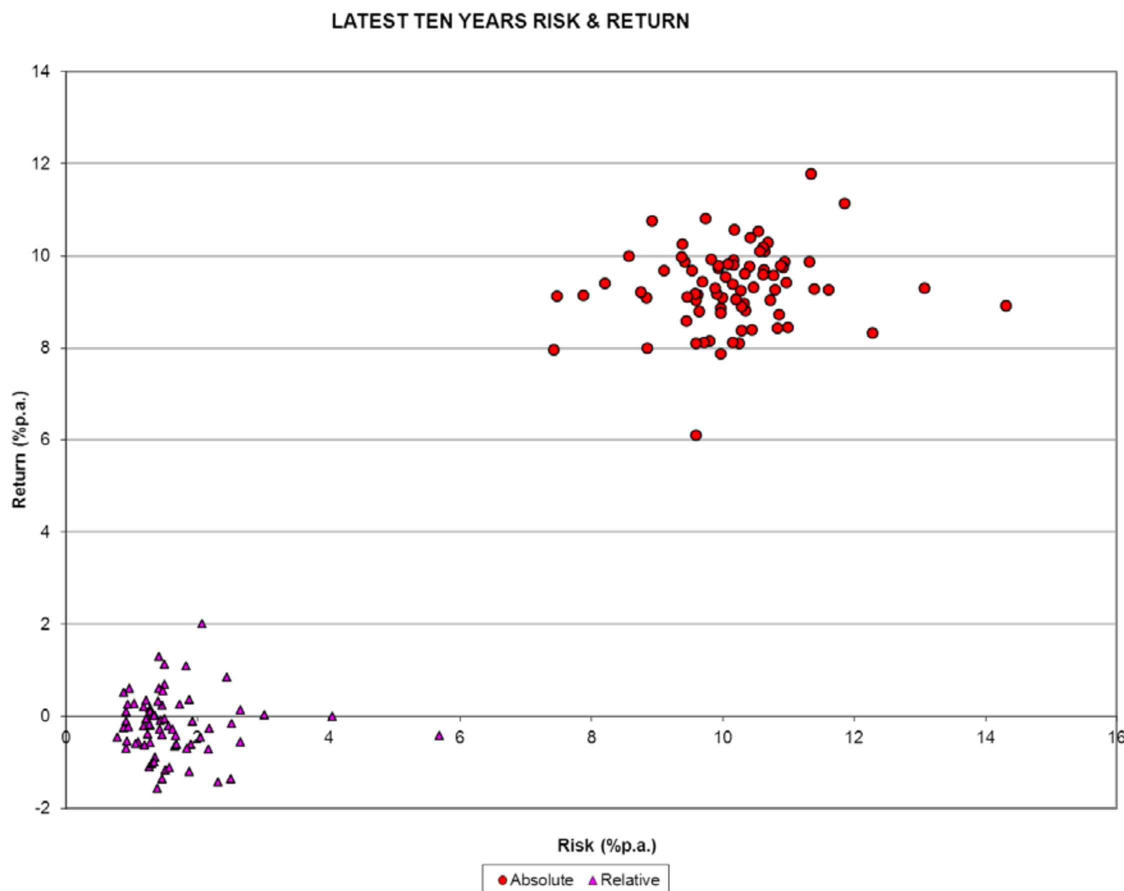
There is perhaps a tendency for a need to be seen to change, which is at odds with the long term nature of the pension fund liabilities. Manager changes are often based on short term recent underperformance, and as a result funds frequently lock in losses. We believe consideration should be given to managers being appointed for longer term periods than the current three year norm. A five to seven year period is, in our opinion, more appropriate as this will give the manager the opportunity to demonstrate genuine skill.

Short term performance vs. strategy

We believe that a disproportionate amount of time and effort is focused on short-term (and by definition more available) data, e.g. manager performance, than more important long-term considerations such as asset strategy.

[4] See attachment C – Active and Passive Management, SSIA July 2012
[5] See attachment D – Investment Management Running Costs, SSIA Nov 2010

The investment strategy will have a substantially greater impact on returns over the long term than the fund structure. This is illustrated in the chart below – the performance of the schemes within the LGPS over the last decade – the overall risk and return is only marginally impacted by the performance relative to benchmark, and yet this appears to have been largely omitted from discussions to date.



The asset strategy will be of primary importance and the key element within the asset strategy will be the proportion of growth assets to matching assets held. As the liabilities of the participants in the Schemes become increasingly diverse, it will be increasingly difficult to maintain a single asset strategy to fit all.

In recent years we have seen a great deal of what we would term 'tinkering' around the edges of asset allocation – tweaking allocations within equities and bonds or adding small elements of a variety of alternative assets.

Many of these changes are likely to have very little impact on either the overall return or on the risk profile of the Fund. Change at this level will also not resolve the issues of differing liabilities within the Schemes.

Adding complexity will always increase the administrative and governance overheads and almost always increases costs (including transition costs).[6]

Herding

This has been prevalent within the pension fund industry and, perhaps particularly so, within the LGPS. Whilst in nature the safety of the herd confers benefits, this does not necessarily stack up in terms of investing. Examples of this include the appointment of Alliance Bernstein in the early 2000's, the move into active currency at around the same time and more recently the move into Diversified Growth products. The first two decisions impacted extremely negatively on the herd's performance.

Deference to experts

The key behavioural factor influencing committees, particularly where a depository of expertise is lacking, would appear to be deference to experts. The influence of some consultants on investment committees is, in our view, not necessarily always positive. For example, schemes with differing liability profiles and size may have very similar portfolio structures which may not be an entirely appropriate situation. One possible way to avoid issues of this nature would be through the setting up of dedicated investment committees with greater investment resource.

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[6] See attachment E - Is Complexity Adding Value, SSIA April 2010

This may prove to be simpler to enact for larger schemes, whether this be through mergers or where there is greater collaboration on the investment decision making process, such as through a pooling of assets through a Common Investment Fund arrangement.[7]

Our final comments in response to question 1 concern the availability of transparent and comparable data.

To aid all interested parties in performing fair and meaningful comparisons on costs, income and performance, we have outlined below a number of points that we feel would be required to enable meaningful comparison:

- Consistent actuarial reporting methodology (mortality rates, discount factors and other assumptions)
- Consistent benchmarking across Schemes per mandate
- Consistent shortfall closure glide path/timeframe based on formulaic approach?
- Collation of performance data with reporting produced by a single source based on consistent data points and methodology

Question 2 – Are the high level objectives listed above those we should be focussing on and why? If not, what objectives should be the focus of reform and why? How should success against these objectives be measured?

Improving investment returns is a natural objective to contribute to the dealing of deficits, but is not the only means of doing so. The secondary objectives are a number of means to help facilitate this, so would it be preferable that there simply be a single high level objective ‘to have a Scheme with sufficient assets that equal or exceed liabilities’, i.e. aim for a Scheme/Schemes with fully funded status?

All secondary or other objectives/goals such as improving investment returns, reducing management fees, maintaining stable contribution levels etc. would be the main considerations or factors involved when implementing any changes to achieve the primary objective.

We would also question whether a provision for greater investment in infrastructure is appropriate here, as this could be viewed as more of an investment decision or asset allocation preference which may or may not be conducive at a particular point in time (depending on market conditions) to achieving the primary objective.

Question 3 – What options for reform would best meet the high level objectives and why?

There are a number of options for reform that can be developed or investigated with the aim achieving the high level objective/s. Whilst a number of these may be mutually exclusive, the majority of them can be operated in tandem with each other and could be used as interlinking tools to facilitate the primary goal of a fully funded scheme.

These include:

- Shared service arrangements and Framework Agreements
  Encourage the wider use of such initiatives to realise cost/expense (including but not limited to custody fees, investment management fees, transition management fees etc.) and resource efficiencies. More time and data is required to enable appropriate analysis to be performed to ascertain whether meaningful cost savings are being made and efficiencies realised in respect to those initiatives that have already been implemented.

- Scheme Mergers
  Additional options mooted have included the merging of Schemes, whether this be on a regional basis (e.g. all London LGPS) or even a single national Scheme. If mergers are to be considered, what would be the optimal model for the long term? Would it be logical to have a ‘big bang’ approach and have one single consolidated scheme, would it be more manageable to do this regionally, or could Schemes perhaps be allocated to funding level bands, for example where those with >90% funding levels are in one band, those 80-90% funded are in a second band etc.?

  We feel that the decision of whether to pursue the option of merging Schemes is one best made by the schemes and other stakeholders. However, it is our belief that further investigation and analysis of available data and liaison with market participants will be required to assist the decision-makers in how this could be best executed.

[7] See attachment F - Behavioural Aspects Of Changing Manager, SSIA May 2009

We are also aware of comments concerning the implementation, or transition, costs of merging Scheme assets, with initial estimated costs possibly equating to 2 to 3 years of performance returns. We feel that costs on this scale should not necessarily preclude such options from consideration, as any such changes are being implemented with a view to achieving the higher level objective over the medium to long term as opposed to this short term period, and the potential benefits for the longer term may well excessively outweigh the short term costs. Further investigation and data analysis would obviously be required prior to such an undertaking.

- Unitisation/Common Investment Fund ("CIF") Arrangements
  Another option available for consideration is the implementation of a common investment fund type arrangement. This would require the setting up of a legal CIF entity, with underlying participating Schemes pooling assets and achieving manager rationalisation where manager cross-over occurs. Individual Scheme investments could still be tracked for each Scheme, but the rationalisation of assets where the same manager is utilised by more than one Scheme may achieve the benefit of lower investment (and possibly custody) fees for the CIF. This could also enable the retention of the investment manager selection and tracking process by individual Scheme's investment committees, unless such decisions were 'centralised'.

  Another alternative would be the consolidation or reduction of managers for a given asset class, where we would anticipate possible greater savings, however this would then require the centralisation of investment decisions and manager appointment.

The review process also need to bear in mind the considerations discussed in question 1 that can be utilised in tandem with any of the above, for example:

Flexibility – the time taken between investment decisions being made and subsequent implementation can be lengthy. Possible solutions are frameworks with pre-approved managers, increased awareness and utilisation of interim management by transition managers, and the use of asset overlays to obtain exposure to desired allocations in a time and cost effective manner.

Increase in assets managed in-house to drive improved returns, whilst incurring lower administration and management costs etc.

One additional option that may merit consideration to assist Schemes in achieving the high level objective/s is an increase in the frequency of monitoring of Scheme assets (whether they remain as individuals or merged) vs liabilities, as opposed to the 'norm' of investment returns via a benchmark. This could promote more frequent and targeted engagement with Scheme advisors with the added benefit of enabling investment decisions to be made in a timely manner based on recent and current data, as opposed to the historical triennial valuation and annual strategic review basis.

In addition to enabling improved governance, this would enable 'trigger points' to be implemented with a view to taking advantage of market conditions or identifying opportunities to reduce risk through the performing of 'what if' scenarios. This would also enable schemes to project the effect of implementing strategic asset allocation changes which may be appropriate as funding levels increase (we have provided more information on this subject within Section 3).

Furthermore, if the desired result of Schemes increasing their funding levels to fully-funded status is achieved, consideration could then be given to options available to de-risk those pensions liabilities, for example through 'buy-ins' from the market (whether this be through one or a group of such providers), LDI investments etc.

Question 4 – To what extent would the options you have proposed under question 3 meet any or all of the secondary objectives? Are there any other secondary objectives that should be included and why?

We have summarised below how each of the options contained above may help meet the secondary objectives. Assuming that agreement is reached on a single higher objective of realising a fully funded scheme, we have included the objective of improving investment returns within this list of secondary objectives:

Options for reform - can they assist in meeting objectives?

Objectives	Framework Agreements	Scheme Mergers	CIF / unitisation arrangement	Increase in-house and passive investment management	Use of transition management / asset overlay tools	Assets vs liabilities monitoring and action
Improving Investment Returns	✓	✓	✓	✓	✓	✓
To reduce investment fees	✓	✓	✓	✓	✓	
To improve the flexibility of investment strategies	✓	✓	✓		✓	✓
To improve the cost effectiveness of administration	✓	✓	✓	✓		✓
To provide access to higher quality staffing resources	✓	✓	✓	✓		
To provide more in-house investment resource	✓	✓	✓	✓	✓	✓

We have not included the proposed objective for the provision for greater investment in infrastructure for the reason stated within our response to question 2.

Question 5 – What data is required in order to better assess the current position of the Local Government Pension Scheme, the individual Scheme fund authorities and the options proposed under this call for evidence? How could such data be best produced, collated and analysed?

A wide range of data on the LGPS is currently available but needs to be brought together in a meaningful and consistent basis.

One of the key datasets for this purpose is the SSIA/WM Local Authority Universe. We have been collating and publishing investment performance data for thirty years. The Universe has over the years provided highly representative coverage of local authority pension schemes; typically we have captured in excess of 80% by number of funds and by aggregate asset value.[8]

We are more than ready to make the information available to the appropriate authorities to help inform the debate. Indeed it may be that an exercise incorporating the missing funds may be desirable in order to provide the full set of historical performances by local authority funds.

A major theme that has been identified in any restructuring is the potential for cost savings, particularly in asset management fees, from fund mergers. A complete accounting of past performance would be extremely powerful if it could be married to accurate costs for the fund management that generated the performances.

Historically, performance numbers have been calculated, in the main, gross of investment management fees. The issue is muddied by funds' use of pooled investments where appropriate - these pooled investments are priced on a net of fee basis – and where performance related fee scales are employed.

The issue of the true cost of fund management to local authorities, although problematic, is one that we believe must be tackled in the ongoing deliberations regarding the future of the LGPS. There is currently a lack of agreed standards in the reporting of such costs within the authorities' annual pension fund reporting. This makes such numbers of limited value for comparison purposes, or for inclusion into net of fee performance reporting.

<u>Section 2 - Cost drivers</u>

In case useful, we have outlined below a number of key drivers that can impact the costs incurred by Schemes in relation to custody, performance measurement and asset management. These may be reduced depending on which, if any, of the options for reform are taken:

- Number of funds/accounts
- Value of assets under custody/management
- Markets of investment (i.e. UK, US, Euroclear, Japan, Hong Kong, China, Brazil etc.) / investment mandate
- Valuation frequency
- Number of transactions
- Manager changes – costs can vary greatly, although transition managers can reduce costs and risk during conversions

[8] Please see attachment G – the WM UK Local Authority Annual review 2012/13 for a review of LGPS performance over the last year, together with additional commentary.

- Unappreciated costs/charges of temporary cash placement into pooled funds (e.g. L&G)
- Reporting requirements

Section 3 - Additional considerations

In this last section of our response to the Call for Evidence, we have included some additional information on ideas/solutions for consideration during the review process, which may aid schemes in achieving their objectives:

1. How can a CIF structure help the LGPS reduce costs and achieve investment efficiencies whilst still enabling identification of individual scheme assets?

Within our response to Question 3 contained in Section 1, we touched on an option concerning the establishing of a Common Investment Fund ("CIF") structure. We have provided some detail below on how this could work:

The utilisation of a Common Investment Fund structure as an alternative to physically merging funds may enable the LGPS to

- obtain the benefits of larger investment mandates through reduced asset management fees, and
- realise lower custody and performance measurement fees via an overall reduced number of funds/accounts (where there is manager overlap between Schemes), whilst still enabling tracking and reporting segregation for individual Scheme holdings.

Accounting and performance measurement reporting can be provided at the manager, asset class, scheme and overall CIF levels enabling consolidated LGPS reporting and governance. This can also incorporate in-house and external 3rd party investment management, for both active and passive management mandates. We will now provide detail on how this could work in practice.

An example of such a portfolio hierarchy, as detailed in **Diagram A,** can be constructed to enable NAV consolidation of each of the respective fund manager valuations into the relevant asset class segments, and to track the respective ownership of each of the Schemes' investments within these segments. The hierarchy structure allows the addition/removal of Schemes/asset class segments/fund managers to/from the unitisation process.

The unitisation process for Schemes and asset class segments commence once the audited NAV is completed for the investment manager accounts. The unitisation process can be completed and delivered to any interested parties generally 3-5 business days following receipt of all relevant information and the completion of the investment manager audited NAV reconciliation.

An account is maintained for each beneficial owner (i.e. Scheme) with their record of segment holdings and creations/liquidations (e.g. contributions/withdrawals). This same data can then be used to generate details of year-end valuations and annual movements for SORP reporting purposes, as well as for monthly and/or quarterly performance reporting.

Diagram A

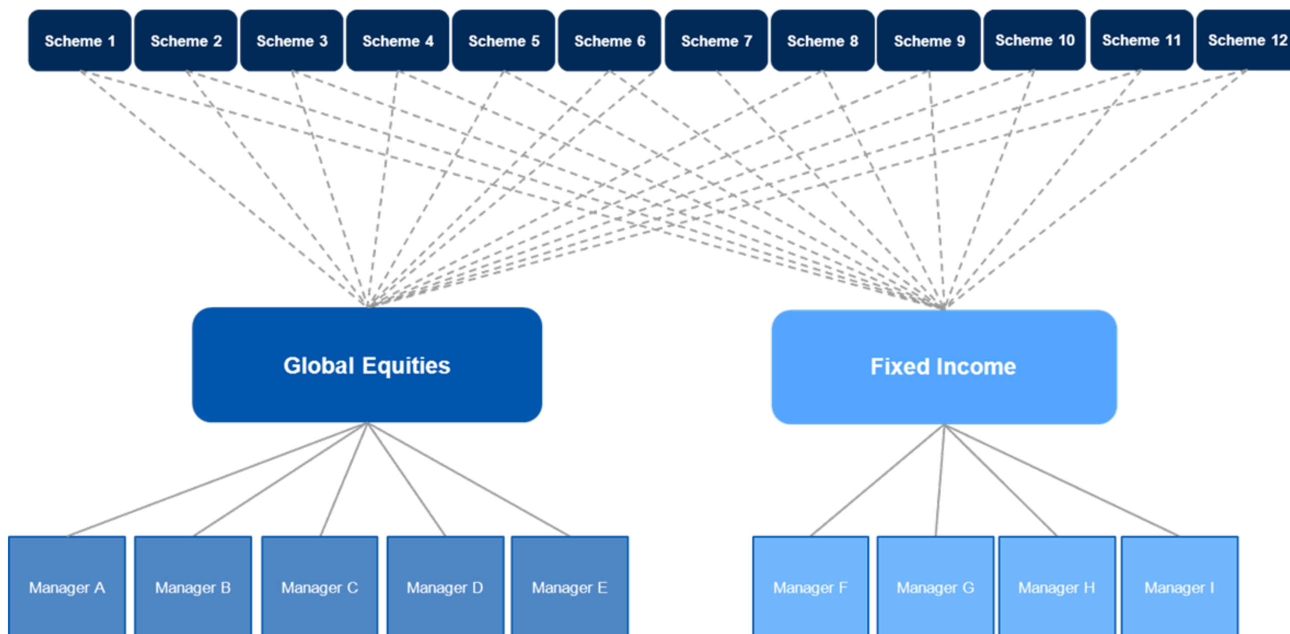


Diagram B shows an example of a Scheme level accounting trial balance, with unit balances, movement and prices shown on the foot of the page.

Diagram B

ABCD | EXAMPLE | PAGE: 4
GBP | COMPOSITE | AS OF DATE: 19SEP12
BASIS: T | PRIOR MONTH WORKING TRIAL BALANCE | TRIAL TIME: 10:17
AUGUST 1, 2012 TO AUGUST 31, 2012

	STARTING BAL	DEBITS	CREDITS	ENDING BAL
CAPITAL				
PRIOR YEARS NAV AT COST	637,207,072.86	.00	.00	637,207,072.86
NET INCOME - CURRENT YEAR	5,318,001.20	281,656.62	4,729,434.71	9,765,779.29
CONTRIBUTIONS	510,766.83-	198,219.00	190,282.64	518,703.19-
SUBSCRIPTIONS	291,833.16-	190,282.64	.00	482,115.80-
BENEFIT PAYMENTS	.00	.00	.00	.00
TRANSFERS IN	5,212,378.19	.00	23,145,666.11	28,358,044.30
TRANSFERS OUT	6,140,518.72-	23,131,948.85	.00	29,272,467.57-
INTERLEDGER CURRENCY TRANSFERS IN	287,694.97	.00	43,327.86	331,022.83
INTERLEDGER CURRENCY TRANSFERS OUT	287,694.97-	43,327.86	.00	331,022.83-
NET INTERLEDGER TRANSFERS	.00	43,327.86	43,327.86	.00
AVERAGE SECURITY GAIN/LOSS	5,487,158.16-	306,560.20	759,786.48	5,033,931.88-
AVERAGE CURRENCY GAIN/LOSS	.00	.00	.00	.00
NET AVERAGE GAIN/LOSS	5,487,158.16-	306,560.20	759,786.48	5,033,931.88-
REALIZED GAIN/LOSS ON FORWARDS	.00	.00	.00	.00
OTHER CAPITAL	.00	.00	.00	.00
REALISED UNSETTLED G/L FORWARD CONTRACT	.00	.00	.00	.00
EURO BASE ALIGNMENT CURRENCY GAIN/LOSS	.00	.00	.00	.00
TOTAL CAPITAL:	635,307,175.38	24,151,995.17	28,868,497.80	640,023,678.01
UNREALIZED APPRECIATION/DEPRECIATION	182,286,077.95	10,884.39	13,165,564.16	195,440,757.72
NET CAPITAL AT MARKET:	817,593,253.33	24,162,879.56	42,034,061.96	835,464,435.73
SHARES				
SHARES	242,635,735.973	56,469.699	.000	242,579,266.274
SHARES OUTSTANDING	242,635,735.973	56,469.699	.000	242,579,266.274
NAV				
NAV PER SHARE	3.3696	427.8911	0.0000	3.4441

Reporting can be provided at both legal entity (i.e. individual Scheme) and CIF level. SORP reporting for the CIF is also available in the same format as that provided for individual Schemes. Reporting can be consolidated at the appropriate levels depending on whether the data is be summarised at legal beneficiary or CIF level. Drill down information is available and the pooled funds would be categorised in the appropriate manner for the investment category.

Prior to the set-up of any CIF structure, we have highlighted below some areas that would require particular focus:

Architecture/process setup – It is crucial for the Schemes that the process set-up is suitable not only for the initial model, but also built to allow Schemes to benefit from a flexible open architecture. To ensure this modelling is completed effectively, engagement with the Schemes and their advisors would be required to understand the immediate requirements and those going forward. Ensuring this work is completed accurately is key to establishing the most effective CIF framework for the Schemes.

Timely receipt of external data – In order to complete the unitisation process, there are several pieces of information which are required from external parties, including but not limited to details of cash flows, valuations from pooled investment fund managers (including hedge funds, property etc.) and any other pieces of information required that is not freely available. It is important all parties are consistent in the prompt delivery of their information to ensure the timely delivery of unitisation data once the core investment accounting has been completed.

Ensuring the unitisation process does not result in assets being transferred from one section to another – An account would be maintained for each Scheme with their record of segment holdings and creations/liquidations. Opening balances are reconciled to the previous periods closing balances, creations and liquidations for each Scheme are validated to source data before the unitisation is finalised and checks are performed that the change in positions reconciles to the creations/liquidations for the period.
Fee and income accruals are included within each target funds price and are therefore passed on to each Scheme proportionately to the number of shares that are held in each target fund.

Unitisation Process Risks
We believe there are four material operational risks which we highlight below along with mitigations:

<u>Allocation of contributions/withdrawals and creations/liquidations to incorrect sections</u>

Once contributions/withdrawals and creations/liquidations are allocated to the relevant Schemes, a review of the cash flow source documentation is completed prior to the sign off of the prices. Additionally, a reconciliation is performed to the physical cash flow to ensure that all cash received or disbursed has been allocated.

Fees incorrectly accrued/allocated

The types of fees and the allocation of fees is agreed with the Schemes during setup. Fee accruals can be posted in one of two ways: for example, if State Street has been contracted to calculate the accruals, the accrual rules are loading into an expense posting tool which automatically posts the expenses to the mainframe accounting system. Where a third party supplier is contracted to calculate and supply expense accrual data, a standard template is agreed which feeds an automated upload into the mainframe accounting system. A reconciliation is performed between the postings and source documentation, being either the control report generated by the expense posting tool or the template provided by the third party. This check forms part of the sign off checklist and needs to be completed prior to the signing off of the unitisation prices.

Incorrect valuation/accounting of the underlying asset

Automated controls would be in place to highlight exceptions between custody and accounting records of cash, security, income and corporate action positions/entitlements. Preparation and review of investment accounting audit packs completed in accordance with standardised checklists which are subject to semi-annual SSAE16 control audits along with thorough internal audit checks.

Delays in issuing unitised prices

Daily calls are held with all parties involved, monitoring the accounting and unitisation progress for all Schemes. These calls highlight any potential delays at all steps in the process and are used to ensure appropriate escalation and resolution of any issues which may arise.

The unitisation process controls include a reconciliation of the automated flow of valuations between the levels in the unitisation hierarchy Eg. (investment manager funds, target/asset class funds and Plans), a reconciliation of units in issue between the target/asset class funds and Schemes, and the validation of movements in unit positions to source documentation.

2. Liabilities Analytics

In the UK Corporate Pension Plan sector, Plan sponsors are looking for new ways to measure and manage defined benefit plan funding and risk. They need a comprehensive approach to pension funding and risk management that empowers them with fast, accurate plan information, analytics and reporting that enables them to address the serious need to improve pension plan management in the face of increased market volatility, growing liabilities and widespread underfunding.

The LGPS is facing similar challenges, hence we have provided below an example of a tool that can aid Schemes in this regard – please note that we feel it appropriate and relevant to include this information with the aim of increasing awareness of available tools that can be utilised by the LGPS in relation to enhancing pensions management and engagement with scheme advisors and actuaries, as opposed to this being a ‘marketing piece’.

Facts and Factors

Specifically tailored for the risk management needs of defined-benefit pension plans, our Pensions Analytics Service integrates asset and liability risk management and analysis on a single, fast, easily accessible platform. Utilising What if? scenario testing, the solution makes it possible to see how different kinds of stresses can affect the net funding position of a pension plan and its cash flow requirements, among other financial measures.

Our solution combines our core asset data solutions with high end analytics and risk measurement solutions to simplify the underlying core data inputs and minimise the cost of first principle calculations while delivering the following:

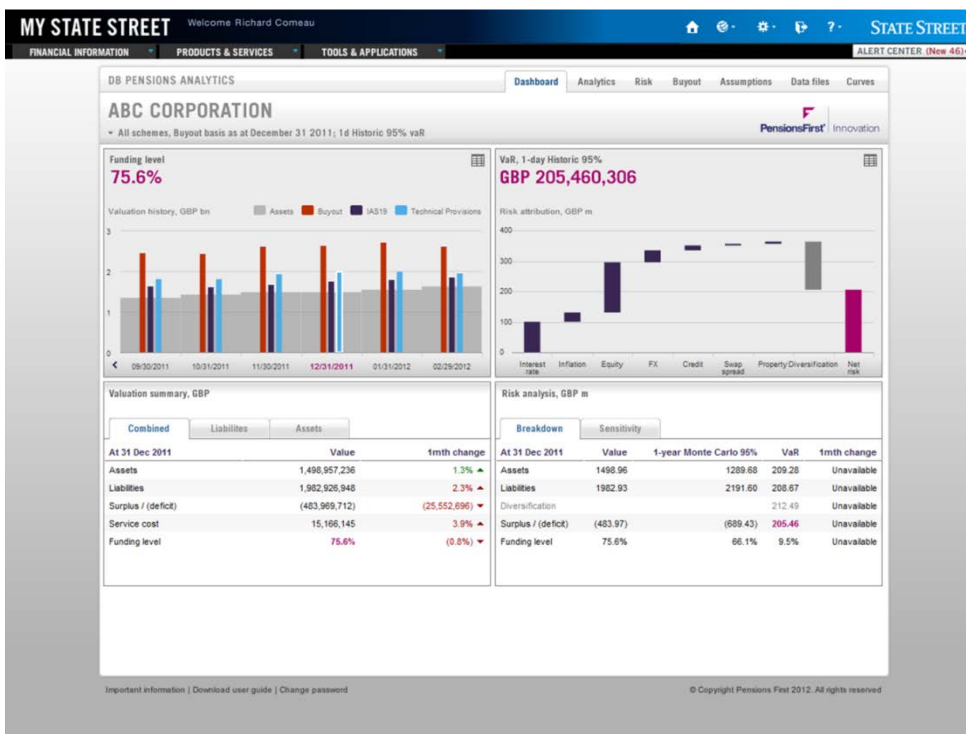
- Assets and liabilities in one consolidated view
- Plan funding level history
- Liability cash flows and monthly cash flows on proxy assets
- What If? stress testing across asset, liabilities and funding level
- Monte Carlo Value at Risk (“VaR”)
- VaR attribution by risk factor: interest rate, inflation, equity, FX, credit, swap spread, and property

Key Functionalities

Dashboard

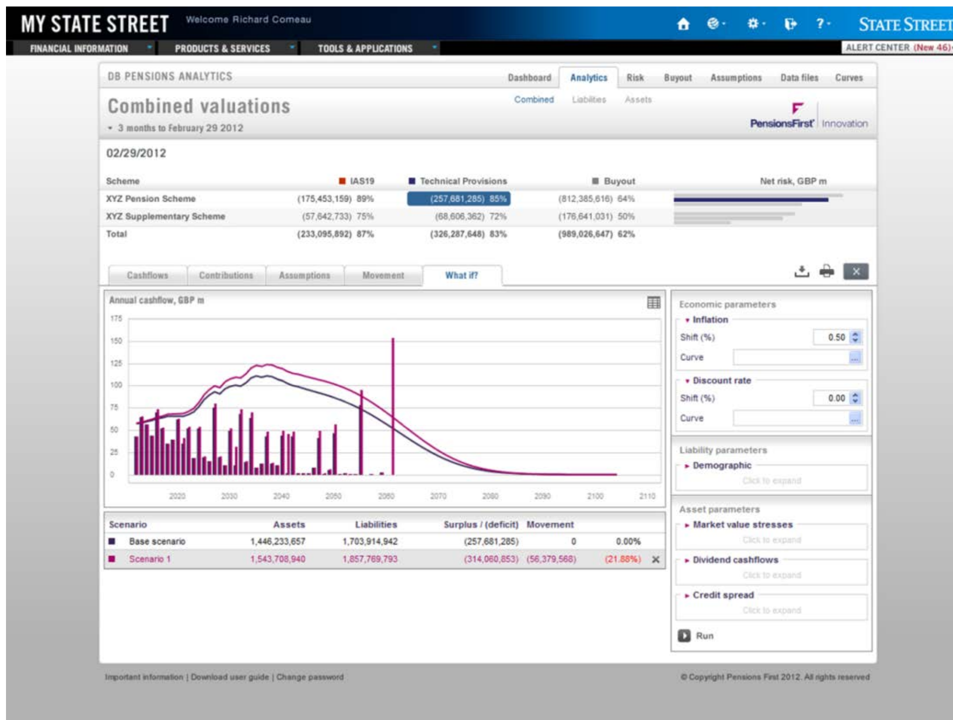
- Consolidated data on a common platform enabling sponsors and trustees to have more focused discussions

- View data across multiple schemes at-a-glance with a high level valuation summary of your combined assets and liabilities and the ability to drill-down into separate valuations, current funded status, and risk attribution
- Analytics consolidated on one easy-to use platform



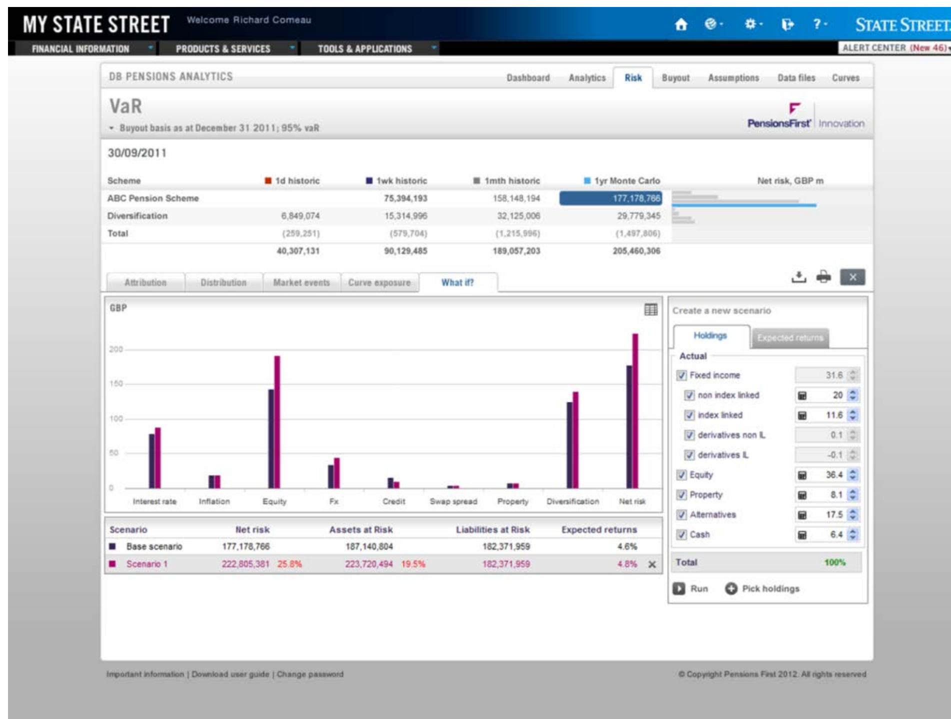
Data Quality and Governance

- Consistency of method to reporting pension risk, ensuring that all stakeholders are better informed
- A new level of transparency and granularity for pension scheme data
- Combines liability cashflow projections provided by the client's actuaries with a proxy for the client's fund assets (based on actual State Street data on custodied assets)
- Monthly analytics enable the client to maintain an integrated view of the entire portfolio, across managers and plans.



Risk Analysis

- Enables sponsors to understand drivers of volatility and funding issues to enable more informed decisions
- Real-time What-if? tool enables scenario testing through flexing key economic or asset parameters (e.g. inflation and discount rates, market value stresses, dividend cashflows, and credit spread)
- Facilitates easy monitoring of effectiveness of LDI strategy through asset-liability reporting What-if?
- Funding level history simply illustrates the change in past assets, liabilities and funding level
- Value-at-Risk analytics and quick and cost effective What-if? scenarios allow consideration of different asset strategies including LDI approaches.



Summary

Consolidation of Analytics

- Single view achieved simultaneously gives you an overall picture of your DB scheme risk – your net position
- Risk metrics and attribution details

Data Governance, Quality and Timeliness

- Automated data feeds based on a highly granular level of detail improves the future performance and health of the scheme by allowing for detailed cashflow-based analysis

Maintain Ownership

- Whether outsourced to a consultant or not, you still have the ability to manipulate scenarios and gauge your current risks
- Improves governance, allows you to make best use of your external advisors and allows you to work to your timescale

Transparency and Consistency

- Sponsors and trustees have an auditable and consistent way to analyse their scheme and make joint decisions about investments and contribution strategies.

Risk Mitigation

- Scenario analysis in real-time utilising What if? parameters
- Positions you to view your risk exposure clearly and effectively construct solutions to manage it

3. *Increasing income/revenue through products such as securities lending*

A number of LGPS schemes already participate in Securities Lending, typically through their custody provider. Many of the smaller schemes are unable to participate due to the fact the size of their segregated assets is not economically viable for the practice.

Any restructuring of the LGPS involving mergers/asset consolidation or CIF arrangements would likely result in larger pools of segregated assets that may enable an increased participation within lending programmes across the LGPS, thereby generating additional revenues that could improve returns or be used to offset custody/asset management fees.

4. *Investment strategy*

We are aware that there is an desire to provide for greater investment in infrastructure. Whilst it is up to reviewing parties to determine if this should be a specific objective, we would view this as an investment decision as opposed to a structural one.

As and when this topic is discussed, it may be appropriate to widen the discussion of investment considerations to include additional options that may benefit the LGPS over the long term, particularly where funding levels are improving, such as risk hedging tools such as LDI investments and longevity swaps (assuming use of the latter being/becoming permissible). We would be happy to share information on these options if required.

We hope that the above and accompanying information and commentary is helpful, and we will be happy to engage further to add our support to any arising discussion and initiatives.

Best regards

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