eNews from GAD

Supporting effective decision-making and robust reporting

Issue 29, October 2017

Welcome to eNews – GAD's regular newsletter. In my foreword to the GAD 2015-2020 strategic plan, I set out how the support GAD provides would need to adapt and change to keep pace with our clients' evolving needs. In this issue, Matt Wood reports back on how this has been unfolding in practice with one of our established central government clients, the Department for Education.

Our approach is to work closely with our clients ensuring the work we do meets their needs. This includes transparent and effective communication of details that impact on decision making and reporting. Frances McGowan provides clarity for an example that has recently become more common: discount rates that have fallen below expectations of future inflation, for example the Personal Injury Discount Rate (the Ogden rate).

Transparency and effective communication, and moreover effective oversight, are important goals of the reform of public service pension schemes. John Bayliss reports how GAD is supporting this aim by providing a risk management framework enabling straightforward comparisons between sub-funds of the extensive Local Government Pension Scheme.

I hope that you enjoy this issue. As always, previous issues of eNews are available on our website www.gov.uk/gad.

MARTIN CLARKE, GOVERNMENT ACTUARY

NEWS FROM GAD

GAD-supported research on disaster risk finance

A GAD-supported research paper on how developing country governments could evaluate disaster risk finance strategies has just been published in the prestigious *Geneva Papers on Risk and Insurance*. This research is an output from a research project funded by the Department for International Development, and was co-authored with experts from the World Bank and the London School of Economics. It complements a recently published World Bank report where GAD work was used to illustrate how the evaluation methodology could be implemented.

Actuarial profession personal injury discount rate debate

Aidan Smith, Chief Actuary of GAD's Insurance and Investment team, spoke at a recent Institute and Faculty of Actuaries discussion on the discount rate for personal injury claims. Aidan was a member of the panel for this meeting in August and explained the impact of the personal injury discount rate on public finances.

DEVELOPMENTS

Personal Injury Discount Rate

The Lord Chancellor has announced proposals to reform how compensation pay-outs for personal injury victims should be calculated in England & Wales. If enacted, the draft legislation will affect how the Personal Injury Discount Rate, also known as the 'Ogden' rate, is set in future. Please see GAD's Technical Bulletin for further details of the proposals, which include a role for the Government Actuary as chair of an independent expert advisory panel. This edition's discount rate article discusses some of the implications of the most recent change in Ogden rate in February this year.

Data Protection Reform

The General Data Protection Regulation (GDPR) is designed to harmonise data privacy laws across Europe. The new legal framework will come into force on 25 May 2018, supported in the UK by the Data Protection Bill, which is currently under consideration by Parliament. The Information Commissioner's Office (ICO) website contains more information including an overview of the GDPR and myth-busting blogs. To meet the new requirements, it is expected that additional disclosures will be needed in contracts with service providers (such as actuarial advisers). GAD will be in touch with our clients in due course.

State Pension age

In July, the Secretary of State for Work and Pensions published his report on the government's first periodic review of State Pension age (SPa). The government intends to follow the recommendation made in John Cridland's Independent Report to increase the universal SPa from age 67 to 68 between 2037 and 2039, bringing forward the increase to age 68 by seven years. The government will, however, wait to carry out another SPa review before legislating for this change. Please see GAD's Technical Bulletin for a summary of the latest report.

OBR Fiscal risk report

The Office for Budget Responsibility has published its first Fiscal risk report, as required by Parliament in the Charter for Budget Responsibility. OBR seek to identify specific shocks or pressures that could push the public finances away from their latest medium-term forecast or threaten fiscal sustainability over the longer term. An aging population is one example as set out in my Government Actuary's blog.

Whole of Government Accounts

The Whole of Government Accounts have been published for the year ended 31 March 2016. These consolidate the audited accounts of over 6,000 organisations across the public sector and have a broader scope than other National Accounts measures.

HOW WE ARE IMPROVING OUR SUPPORT FOR CLIENTS

In the GAD strategic plan 2015-2020 we anticipated significant change over time in the services our clients need from us. Our ambition is to develop the advice and support we offer to meet these needs through ongoing and comprehensive improvement. In this article I look at how this is happening in practice with one of GAD's established clients, the Department for Education (DfE).

Matt Wood

GAD is fortunate to have longstanding relationships with many Government departments and other organisations in the sphere of the UK public sector. For many years we have provided actuarial advice that has helped our clients to take effective decisions to develop policy and manage public finances. That's not changed but in recent years we've looked to provide our specialised advice in more intelligent and efficient ways and across a wider range of areas.

We now try to work with our clients as partners. We want to get to know them and understand their needs. This helps us tailor the expert advice we provide in our traditional areas of work to ensure they remain relevant and deliver value for money. In many cases this has also identified new areas where we can help out. The range of actuarial work we now carry out for DfE is a good example of our new approach.

Our traditional relationship with DfE

I've been at GAD for about 15 years and through much of that I've been part of GAD's main established engagement with DfE supporting their pension team based in Darlington. We help by advising on all aspects of the Teachers' Pension Scheme (TPS) including:

- Valuations of the scheme to determine the contribution rates to be paid
- The impact of changes to the benefit or contribution structures
- Determining actuarial factors used in the administration of the scheme, for example on early retirement
- Providing disclosures for the TPS accounts

In the early years, DfE would usually send through requests by letter or email. We would carry out the work and send our advice back. We didn't interact much. Sometimes there would be a phone call to discuss the work but it certainly wasn't standard and face to face meetings were rare.

How our traditional areas of work have changed

The range of work has remained broadly the same but we now operate very differently. We try to get up to Darlington and work from there once a month so that we get to know the team well. We also have regular meetings to keep up to date in London and by phone. We talk through the work that's required, considering alternative approaches to ensure that the DfE pension team have the information they need. For major projects we participate in the boards overseeing the work, which provides additional context for our work. We are much more pro-active in highlighting issues that the team should consider.

Word cloud of GAD's vision, mission and values

Source: www.wordclouds.com

We have also introduced a new role of Client Director who complements the main public service pensions advisory team. The Client Director is responsible for the overall client relationship and meets with the client regularly to review the relationship and help ensure GAD is providing good value for the client's spend. The Client Director also explores issues affecting the wider public sector pension environment with a view to promoting consistency of approach, and discusses wider issues relevant to DfE.

HOW WE ARE IMPROVING OUR SUPPORT FOR CLIENTS

An example of the wider pension scheme work is the advice we provide to support DfE regarding the participation of academy schools in another public sector pension scheme. Support staff (such as administrators, and cleaners) in schools are members of the Local Government Pension Scheme (LGPS). When a school converts from a locally maintained school to an academy, it becomes a participating employer in the LGPS, and will be responsible for paying LGPS employer contributions (which vary from employer to employer). GAD has advised on processes for LGPS pensions arrangements on conversion to an academy, the impact on individual academies, and a DfE guarantee that, should an academy close, outstanding liabilities will not fall back on other LGPS employers.

New areas and ways of collaboration

Secondments of GAD staff to clients, or simple regular days working in clients' offices, have been an important new way of working, enabling us to quickly connect with their staff and use our skills to add value in new areas away from our longstanding areas of work.

I have recently started a secondment at DfE as their Director of Modelling Strategy and Quality Assurance. This is an exciting new role operating across DfE. We will be considering how best to get the most out of the vast amount of data DfE hold and the talents of their analytical community, and to provide a robust evidence base for policy making.

> *"Secondments ... have been an important new way of working enabling us to quickly connect ... and use our skills to add value in new areas"*

Other staff have worked as part of the team developing the National Funding Formula (NFF) which will be used to allocate funding to schools in England. Separately from this, other GAD advisors provided objective review and quality assurance (QA) of the data, analysis and processes making up the NFF. This ensured the final system was fit for purpose and robust and was a key step for DfE to get the new system ready for launch.

QA of analysis and implications for decision making has been a GAD service that has been useful to DfE in a wide range of contexts from high-level methodology reviews to detailed checking of spreadsheets.

Helping manage risks

Another significant area GAD has supported the DfE with for the last few years is the Risk Protection Arrangement (RPA). This scheme covers the costs to academies from risks such as property damage, claims from staff for injuries or illness due to work and from others including pupils. The scheme aims to make considerable savings against the alternative of academies using commercial insurance.

Our initial work was focussed purely around assessing whether the pay-outs from the scheme were in line with original expectations. As our insurance team got to know the RPA better they were able to provide wider advice and guidance:

- Support the RPA in using insurance industry best practice. For example gathering together stakeholders and experts to consider catastrophic scenarios, and how to control and mitigate them.
- Advise on the feasibility of expanding to cover more risks, for example motor insurance, and centralising other services that academies require.
- Conduct deep dives on areas of interest identified by higher level regular claim reviews. For example how the actual expenses for investigator reports and legal advice compared to first expectations.

How DfE view our evolving relationship

Tim Leunig, recent DfE Chief Analyst, summed up DfE's view of their working relationship with GAD as follows:

"GAD have become a trusted partner to us across our organisation. They have the expertise to help us understand the difficult technical issues. GAD is also home to some of the government's best modellers and led much of the cross-government work on quality assurance after the Macpherson review. We value that extra level of assurance they provide us with."

The future

I am looking forward to working with DfE on the challenges they and all of us in the public sector face to deliver continued efficiencies, and more intelligent and innovative services. Both I and my GAD colleagues, in established and new areas of work, aim to work flexibly with DfE and all of our clients to support them in their aims where we can use our expertise to add value.

UNDERSTANDING REAL DISCOUNT RATES IN TODAY'S ENVIRONMENT

Discount rates are widely used to convert future transactions into a 'today value'. When these rates are lower than expected future inflation, confusion can easily arise. This article explores how discount rates work in practice including how these 'negative real rates' arise, and recent examples such as the Ogden rate used by courts in personal injury cases.

Frances McGowan

How discount rates work

Discount rates are a fundamental concept within the world of finance. They allow us to put comparable values on financial transactions occurring at different times to practically express our 'time preference' between these different events.

This is related to the example of money deposited in a savings account being increased over time by the interest rate applying. £100 invested in an account paying 3% each year would rise to £103 after 12 months. Discounting applies this in reverse to determine how much money would need to be set aside now in order to meet expected future payments.

Boxes A and B to the right provide an example for a future payment in fixed price or nominal terms*.

Perhaps of more importance and relevance is the situation when we know that future transactions will be affected by price inflation. This means that the amounts actually exchanged in the future will be different from equivalent values applying today. For example, a good or service costing £100 now would cost £101 in a year's time if inflation is 1% each year.

For clarity, future payments subject to inflation are often expressed in current or real terms, that is with the expected effect of inflation excluded or stripped out of them. To properly account for the effect of inflation we need to discount amounts in real terms with a real discount rate. A real discount rate takes account of the impact of inflation. Box C provides an illustration*.

If the expected rate of inflation is higher than the nominal discount rate then the money to set aside now will be greater than the amount of the future payment in current or real terms, though it will still be less than the actual amount we expect to pay once inflation is included. This will lead to a negative real discount rate, as Box D illustrates*.

* The examples are simplified and rounded to the nearest £1 or 1%. For example £97 increased by exactly 3% is £99.91.

A) Amount of future payment: £100

Assume that we need to make a payment of £100 in one year's time.

B) Nominal discount rate: 3%
Value of future payment: £97

£97 invested in an account paying 3% each year would yield £100 in a year's time.

So if the discount rate is 3% pa then the amount needed to be set aside now is £97.

C) Inflation expected at: 1%
Value of future payment: £98
Real discount rate is: 2%

Suppose we have learned that our future payment is subject to inflation that is expected to be 1% each year. So the payment we need to make will actually be £101.

£98 invested in an account paying 3% each year would yield £101 in a year's time.

Excluding inflation, ie in real terms, the payment is still £100. This amount is only £2, or 2%, higher than the £98 needed today. So the real discount rate is 2%: our 3% rate adjusted down by 1% for the effect of inflation.

D) Inflation expected at: 4%
Value of future payment: £101
Real discount rate is: -1%

If inflation is instead expected to be 4% each year, then the actual amount of the expected payment is £104 in a year's time.

We would need to invest £101 in the account paying 3% each year to fund this expenditure at the end of the year.

In current (real) terms the cost is still £100. This amount is 1% lower than the £101 we need to put aside today. So the real discount rate is -1%: our 3% rate adjusted down by 4% for the effect of inflation.

UNDERSTANDING REAL DISCOUNT RATES IN TODAY'S ENVIRONMENT

Why negative real discount rates arise

The previous page considered how discounting could be used to place a value on a future payment subject to price inflation. This can equally be applied to sequences of expected future payments and receipts. However before this can be done we need to decide on what discount rate to use. The choice of a discount rate needs to reflect the circumstances in which it is to be used, including the objectives of those involved. In our example of using a bank account to save for a future outgoing the sensible choice would be the rate of interest offered on the account (possibly adjusted for inflation). If we use another rate, then we risk either having insufficient money to make our payment or having set aside more than was eventually needed.

"a discount rate needs to reflect the circumstances in which it is to be used, including the objectives of those involved"

The values of financial assets are often used to set discount rates (or more precisely the interest rate or yield which equates the market value of these assets with the discounted value of the expected future income from the asset). These market consistent rates may be needed to reflect the actual assets involved, rules dictating which asset yields to use (such as accounting regulations), or because the income from the assets is judged to have relevant properties in the context of the transactions being considered. For example:

- Nominal discount rates may be set with reference to yields on government bonds (gilts) because they pay fixed, nominal, amounts of income.
- Real discount rates may be set with reference to yields on government index-linked gilts because they pay income that reflects a measure of price inflation. This income is certain only in real terms. Hence the yield includes an allowance for future levels of price inflation.

However at present yields on index-linked gilts are negative (for example see GAD's investment and risk monthly updates). This has resulted in negative real discount rates being used in some circumstances.

Fully accounting for the circumstances under which a discount rate is to be used also involves wider consideration such as the levels of (un)certainty around the financial transactions and the aims and attributes of the parties involved.

Recent examples

The Personal Injury Discount Rate (or Ogden rate) is used to calculate the lump sum an insurer or other party should pay to a claimant in a personal injury case. The purpose of this lump sum is to provide the claimant with compensation for damages and enough funds to meet expected future costs due to an accident or injury.

Personal injury compensation elements, such as long-term care costs or loss of income, are often agreed in today's terms, but would be expected to increase with inflation. Therefore a real discount rate is needed to convert these real cashflows into a lump sum amount of money which should be paid now to settle the claim.

By current law the Ogden rate must be set assuming that claimants invest their award in a portfolio of index-linked government stocks that will have a very low chance of suffering losses. As a result of this and current market values, earlier this year the Ogden discount rate was reduced from 2.5% a year to - 0.75% a year, ie becoming negative.

A reduction in the real discount rate will result in higher discounted values, ie higher compensation lump sum payments. The reduction in the Ogden rate is expected to have a significant impact on insurance costs and policy premiums, and the costs of other personal injury liabilities. An example of an organisation particularly affected within the public services is the NHS.

The current negative Ogden rate does not mean that claimants receive more than the expected actual amount of their future costs. Under the new rate the lump sums will reflect that returns on low risk stocks are expected to be less than the rate at which claimants costs grow.

Another example is the real discount rates set by HM Treasury for valuing public service pension scheme future obligations for annual accounts. Payments from these schemes are closely related to the earnings of members. The long-term discount rate adjusted for the expected level of members' future earnings growth is thus important for valuing future scheme outgoings. As at 31 March 2017 the long-term real discount rate adjusted for earnings growth was negative at -1.7% a year, a fall from the previous year's value of - 0.6% a year. The long-term discount rate adjusted for expected future increases to pensions in payment had also fallen by around 1%. These reductions tended to increase the value of schemes' future obligations recorded in their accounts compared against the previous year's returns.

If you would like to discuss any of the topics raised in this article, please contact your usual GAD contact.

AIDING TRANSPARENCY FOR LOCAL GOVERNMENT PENSION FUNDS

A key conclusion from Lord Hutton of Furness's 2011 final report on the reform of public service pension schemes was that "Transparency and effective oversight of public service schemes is required for public service workers and taxpayers to have confidence in the system". For the Local Government workforce scheme, he recommended publishing information to allow simple comparisons between the scheme's sub-funds. We report how GAD is implementing 'Section 13' to achieve this.

John Bayliss

What is Section 13?

Section 13 of the Public Service Pensions Act 2013 was introduced following Lord Hutton's review. It provides for transparency and oversight by requiring the Government Actuary to review the funding valuations and employer contribution rates for each of the 91 separate Local Government Pension Scheme (LGPS) funds in England and Wales. This review has to report on whether funds are achieving the four main aims of Section 13, shown to the right. If problems are found, then a remedial action plan needs to be put in place.

Who is involved?

Besides the 91 pension funds for Local Authorities spread from Cornwall to Northumberland, interested parties include the Department for Communities and Local Government (DCLG), HM Treasury, the LGPS Scheme Advisory Board (SAB), the Pensions Regulator and the four actuarial consultancy firms preparing valuation reports for each fund. Effective communication is of paramount importance.

What is the timetable?

Section 13 will apply for the first time to the 2016 round of valuations in England and Wales. GAD has now collected all the necessary data from the 91 pension schemes and their actuaries and is currently in the process of analysing this data, and commencing the review against the four main aims. This will culminate with initial results being shared with funds in early 2018.

To ensure that all interested parties are fully briefed on the implications, following these initial results a range of communication with administering authorities is planned. This will cover any actions identified and will include direct meetings and a series of roadshows round the country.

GAD's final report is expected to be published in the summer of 2018 .

The four main aims of Section 13

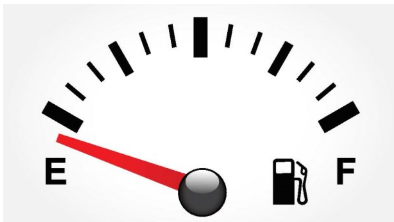
Compliance

Does each fund's valuation correctly reflect the scheme regulations?

Consistency

Is it possible to compare each fund's valuation with the other fund valuations within the LGPS?

Solvency



Are employer contributions set at a level to ensure the solvency of the fund?

Long term cost-efficiency

Are contributions set at a level to ensure cost-efficiency

AIDING TRANSPARENCY FOR LOCAL GOVERNMENT PENSION FUNDS

How will the project meet the Hutton report aims?

GAD's work on this project provides transparency and enables oversight for LGPS funds by delivering a risk monitoring and management framework for LGPS funds. This goes beyond simply acting as professional advisors to DCLG and SAB, as we will actively engage with individual funds to explain our conclusions and support funds in planning any remedial actions.

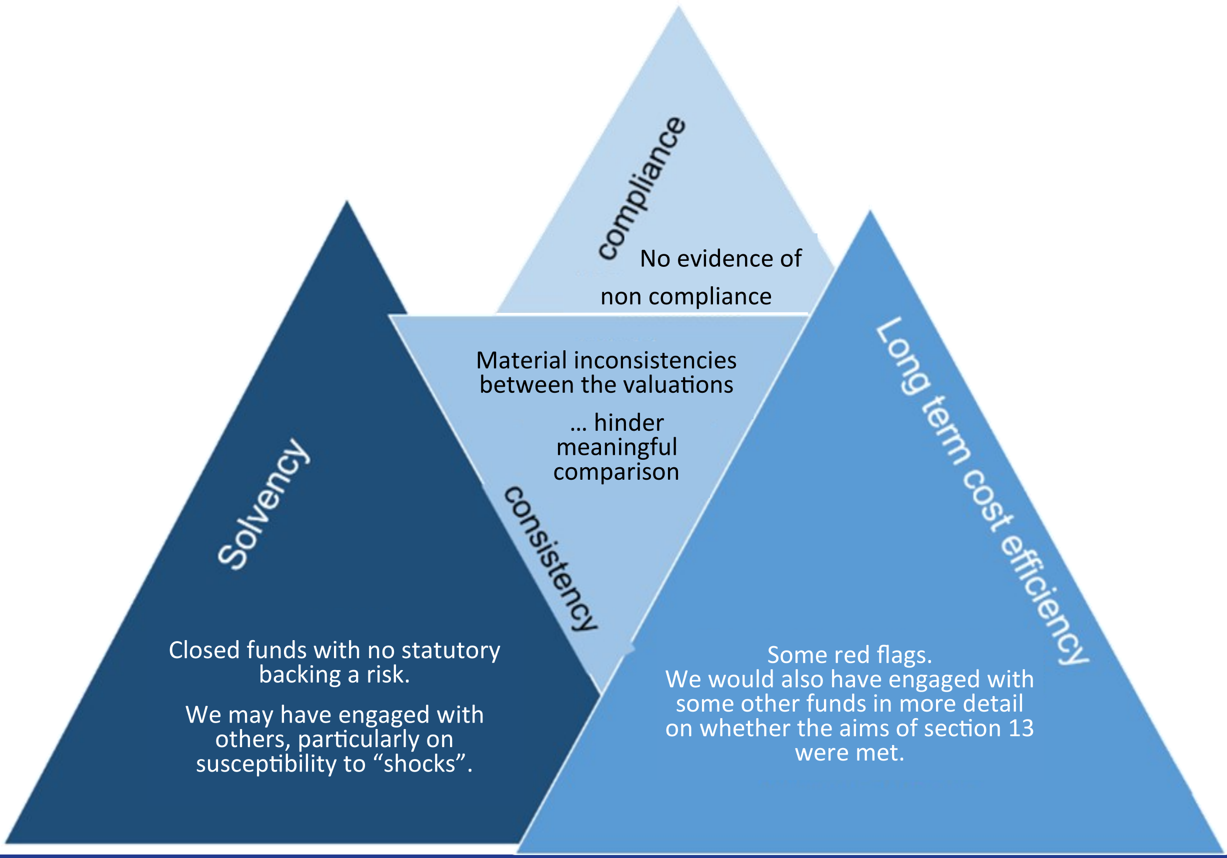
Our work on the data from funds and their advisors will result in a dashboard for each fund to clearly see their position in terms of a number of measures that will illuminate areas where risk may exist. We will also be using statistical modelling to project the possible future range of funding level and contribution rates. This will enable schemes and other stakeholders to understand the range of potential outcomes and make suitable plans.

What other preparations have been made?

GAD was commissioned by DCLG to review the 2013 valuations as a "dry run". The dry run enabled GAD, DCLG, LGPS SAB, the local actuaries and the participating administering authorities to assess whether the four aims of Section 13 were being met. This also allowed funds the opportunity to make adjustments before the 2016 valuation round.

The conclusions of the dry run were as shown in the graphic below.

If you have questions about the Section 13 project please contact John Bayliss. If you are interested in the wider implications of the Hutton reforms or risk monitoring and management for public sector pension schemes please contact your usual GAD contact.



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