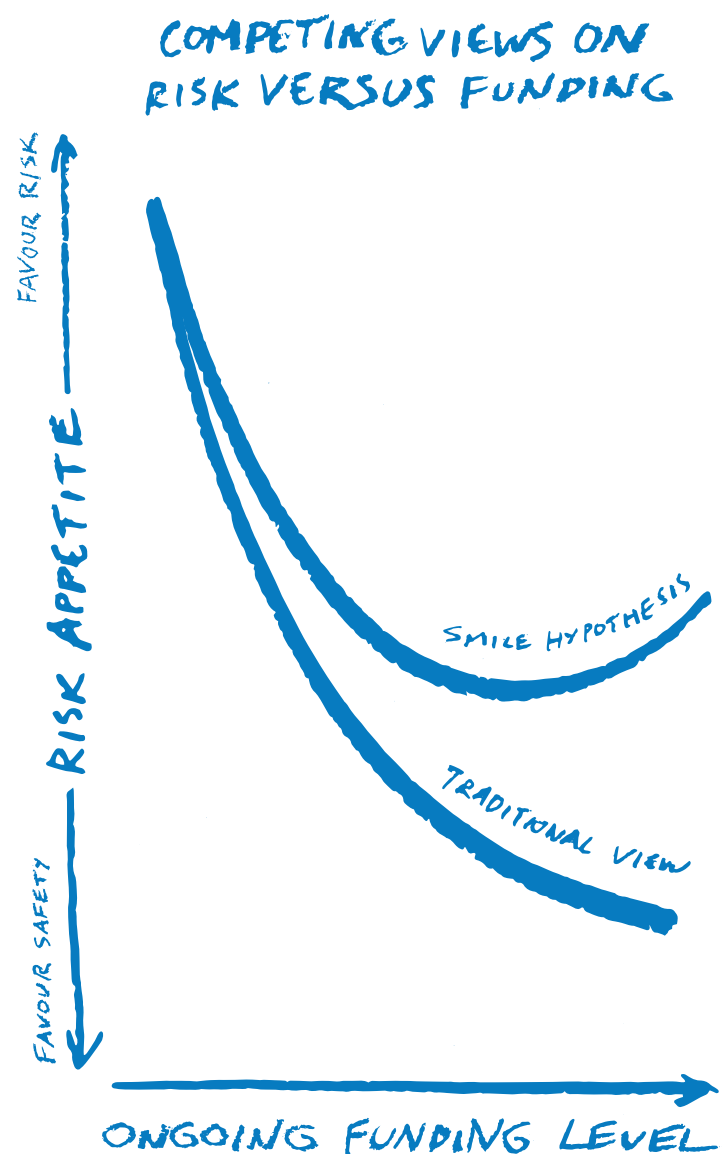


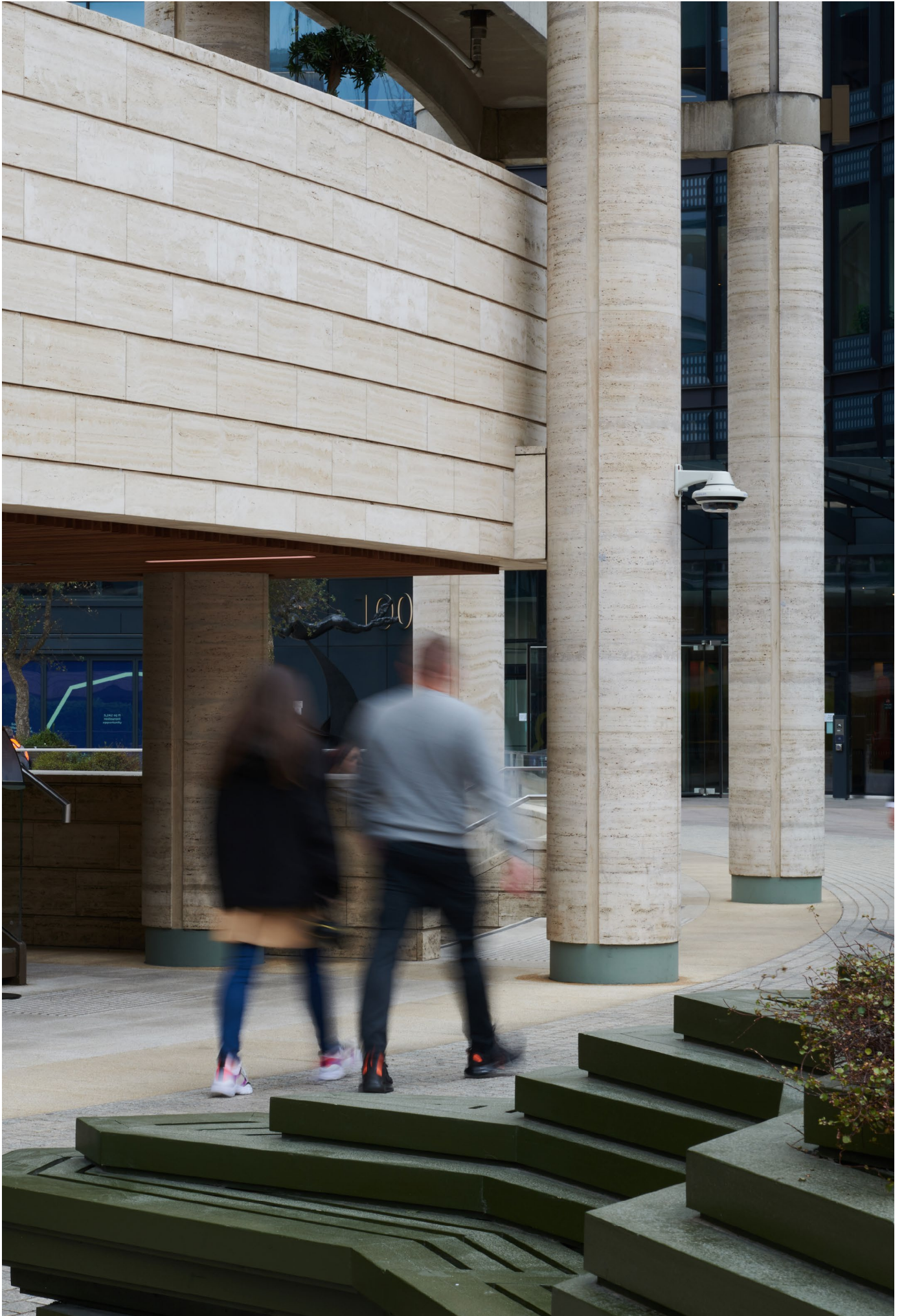
# Risk appetite in the LGPS: Can we smile?

Max Townshend, Head of Investment Strategy

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- The LGPS is uniquely placed to exploit risky-asset returns and make attractive member benefits affordable for employers.
- While the 2022 valuation showed little link between asset allocation and discount rate, suggesting that there may be little “cost” of de-risking at the 2025 Triennial Valuation, this ignores the potential long-term benefit of risk-asset returns and potential impact on long-term affordability.
- Affordability is not binary - lower contributions are more affordable for employers, even where this is driven by negative secondary rates.
- For some funds, as surpluses grow and provide a mechanism for greater contribution stability, this may enable their funding focus to revert to affordability, and make their funding risk appetite function “smile”.
- The concept of a “risk appetite smile” may help support funds who are thinking beyond the 2025 Triennial Valuation, as they weigh their strategic asset allocation and funding strategy options.





# Introduction

The Local Government Pension Scheme (LGPS) in England and Wales will shortly be entering its 2025 Triennial Valuation. Despite the elevated inflation experienced since the 2022 Triennial Valuation, reasonable asset returns and increased bond yields mean upcoming results are likely to show strong ongoing funding positions.

Even on a low-risk basis, the LGPS is estimated to be over 110% funded<sup>1</sup>, with a majority of funds in surplus today where in 2022 there were none. There are some commentators arguing that this may represent an opportunity to de-risk. We look at the trade-offs that funds may consider when setting risk appetite, analyse what we actually see in the LGPS, and introduce the idea that there may be a “risk appetite smile” in the LGPS.



<sup>1</sup> Source: Isio. The LGPS Low-Risk Funding Index showed a 112% aggregate funding level as at 30 June 2024.

**Part 1****Role of risk appetite**

What is the function of asset risk and return, and what might that mean in theory for our expectations for risk appetite across the LGPS?

We discuss the idea that risk appetite may increase with funding, creating a “risk appetite smile” – with less well funded funds needing to take risk to fund liabilities, and well-funded pensions being able to afford to take risk to reduce contributions.

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**Part 2****Funding and risk appetite**

How does risk appetite vary with funding status?

We look at the asset risk run by LGPS funds and compare it with their funding status.

We find no evidence of a smile – in fact there is no observable relationship between funding and risk today.

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**Part 3****Impact of risk appetite**

Has higher risk been rewarded with improved outcomes? We compare fund by fund estimates of asset risk against reported returns.

# Part 1: Role of risk appetite

LGPS funds are required to maintain Investment Strategy Statements (ISS) and Funding Strategy Statements (FSS), which may include a range of objectives.

Typically, we see two clear goals come through, that a fund's ISS and FSS should work to enhance:

1. **Affordability of contributions**
2. **Stability of contributions**

When setting Strategic Asset Allocation (SAA), there are times when these priorities may be at odds. Increasing risk appetite and expected return may lead to more affordable future employer contributions. Conversely, reducing SAA risk may reduce funding volatility and in turn provide greater short-term stability of contributions.

The LGPS has seen improving funding positions over the last decade. Into the 2025 Triennial Valuation we expect to see surpluses, not just on an ongoing (Triennial) basis but increasingly for many employers on a minimum risk basis too.

How should a pension scheme's funding status influence their objectives and risk appetite? A traditional argument is that under-funded pensions should share any burden of deficit recovery between employer contributions and asset risk.

Placing greater burden on asset performance to repair deficits may help keep employer contributions affordable. Accordingly, under-funded funds may be expected to pursue relatively high expected return "and risk" asset allocations.

It is also a common argument that, as funding positions improve, risk appetite may be dialled back with greater focus placed on contribution stability.

As funds approach the 2025 Triennial Valuation, we have sought to investigate theoretical considerations behind setting risk appetite and compare this with what we see in practice in the LGPS.

## Should funding and risk appetite be related?

The LGPS is a large, open, UK defined benefit (DB) pension scheme. It benefits from liabilities (and in turn funding level, contributions and deficit recovery plans) being primarily valued with a prudent discount rate derived from expected returns on assets.

While maturity varies between funds, and within funds there is diversity in employer horizons and covenants, LGPS funds typically have more freedom than the corporate sector to take investment risk and get assets to do some of the heavy lifting in funding. This is part of the reason why the LGPS enjoys lower service costs than many other UK DB pensions.

As noted earlier, traditionally people might expect assets to have to do more work (and funds take more risk) for less well funded pensions. As funding improves, required rates of return at a given contribution level reduce, and it might be expected that a fund needs to take less risk.

What is often left out of this traditional view is not what a fund needs to do, but what it can afford to do, and what is in the best interests of employers and the wider fund.

One of our hypotheses before writing this paper was that **there could be a risk appetite smile in the LGPS** – that is, at a certain point of surplus, funds might determine that they have enough "buffer" to take more risk. With enough of a cushion above full funding, could a fund's focus pivot from contribution stability back towards greater affordability?

We show a stylised graphic in Figure 1 below of the difference between this funding risk appetite “smile” philosophy and the traditional de-risking view.

**Quantifying the trade-off between affordability and stability**

One of the benefits of LGPS participation to employers could be simplified as the ability to **provide attractive employee pensions at an affordable cost**. Returns from risky assets are expected to contribute meaningfully, alongside contributions, to meeting future benefits.

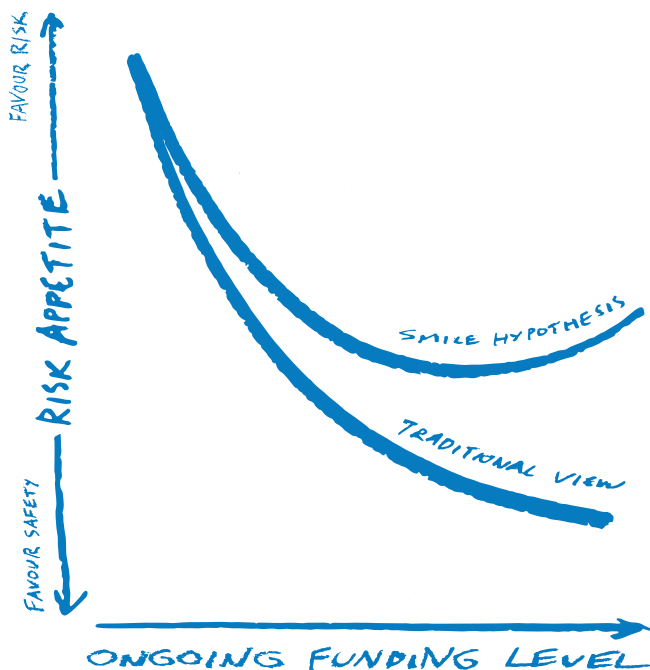
De-risking should for most funds **reduce funding and contribution volatility** but **increase expected future contribution costs**.

It remains to be seen whether at the coming 2025 Triennial Valuation funds could achieve a similar discount rate with a greater fixed income SAA bias, but this ignores the long-term impact of higher expected equity returns on long dated liability matching.

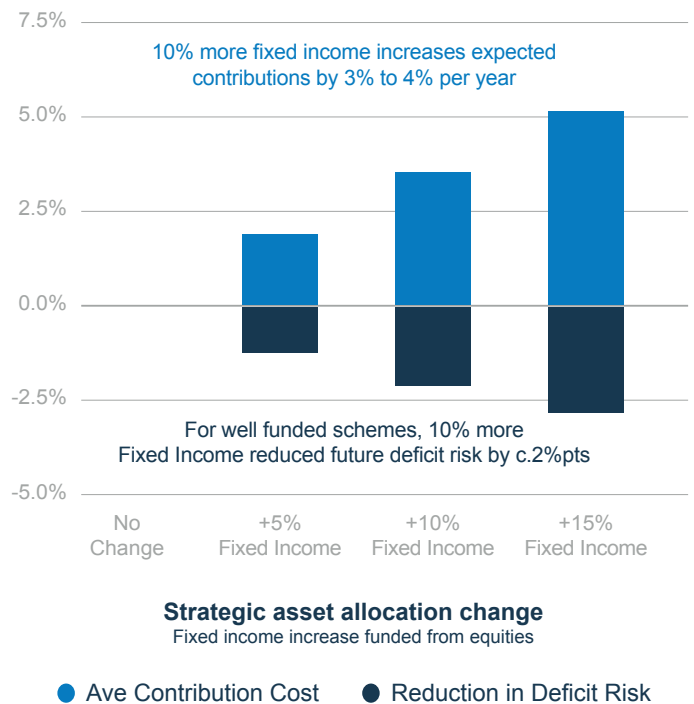
Our calculations suggest that for a typical LGPS fund today, shifting 10% of their SAA from equities to fixed income would be expected to increase contributions by around 3% per year.<sup>3</sup>

This is the expected cost paid to stabilise funding and contributions - the cost of forgoing returns from risky assets, a hallmark benefit of the LGPS.

**Fig 1. Competing views on risk versus funding<sup>2</sup>**



**Fig 2. De-risking: Reduce deficit risk at cost of higher expected contributions<sup>4</sup>**



<sup>2</sup> This chart is for illustrative purposes only to indicate how the hypothesis might compare against the traditional view.

<sup>3</sup> This analysis uses a conservative equity risk premium assumption and is the calculated average over the period 2024-34. According to the HORIZONactuarial Survey of capital market assumptions (CMAs), 2024, the CMAs used for this calculation represent an approximately median capital market assumption for fixed income and bottom quartile assumption for equities. Our analysis freezes future funding level to ensure that the contribution trade-off is not impacted by differences in funding outcomes.

<sup>4</sup> Deficit risk is the modelled likelihood of a fund being less than 100% funded on an ongoing basis in 2024. Source: LPPI, Ortec Finance. Indicative numbers based on three funds.

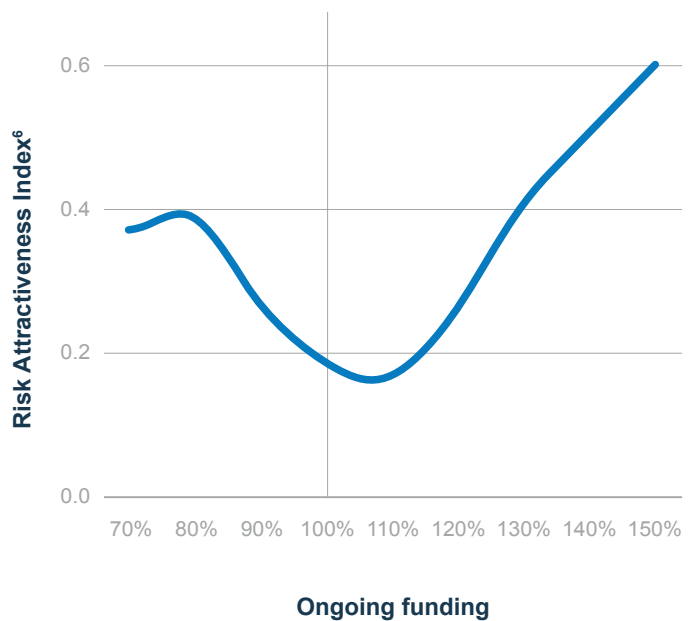
### Modelling risk appetite<sup>5</sup>

How can we model this trade-off? We have taken an example set of liability cash flows and looked at the impact of higher or lower equity allocations on future projected funding surplus relative to risk of under-funding. This ratio of surplus to under-funding risk mirrors the trade-off between stability and affordability that LGPS funds try to balance.

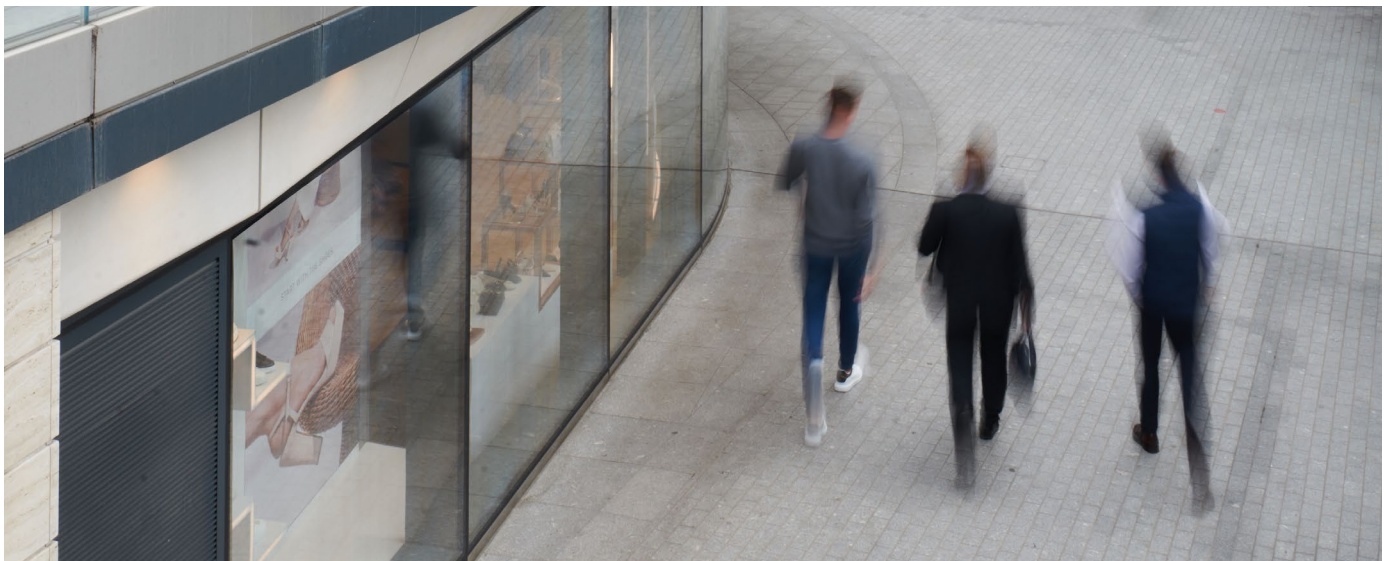
The modelled results, shown in Figure 3, support the “smile” hypothesis to risk appetite:

- At low levels of funding, funds may feel a need to allocate to the higher expected returns of equities to repair deficits.
- As funding moves above 100% and into small surplus, funds may be incentivised to “protect” their full funding position and allocate more to fixed income.
- Beyond approximately 110% funding, funds increasingly have a surplus buffer providing stability, which in theory could allow them to focus on long-term cost reduction through equity investment.

Fig 3. Modelled attractiveness of equity risk



In Part 2 we look at the data to see how risk appetite actually varies with funding status across the LGPS.



<sup>5</sup> Stochastic funding projections have been created using Ortec Finance.

<sup>6</sup> For a given funding level, the delta between equity heavy or fixed income heavy portfolio's projected 2034 funding surplus divided by 2034 risk of under-funding.

## Part 2: Risk appetite in the LGPS

Is there a risk appetite smile in the LGPS? Is there any relationship between funding and risk? Not an obvious one that we can see.

We attempted to estimate the risk run across the LGPS by interpreting asset allocation data from 86 LGPS fund annual reports. Using Ortec Finance to produce a risk estimate, we have regressed this against the 2022 SAB basis funding level<sup>7</sup>, from the Government Actuary’s Department’s (GAD) recently published Section 13 report.

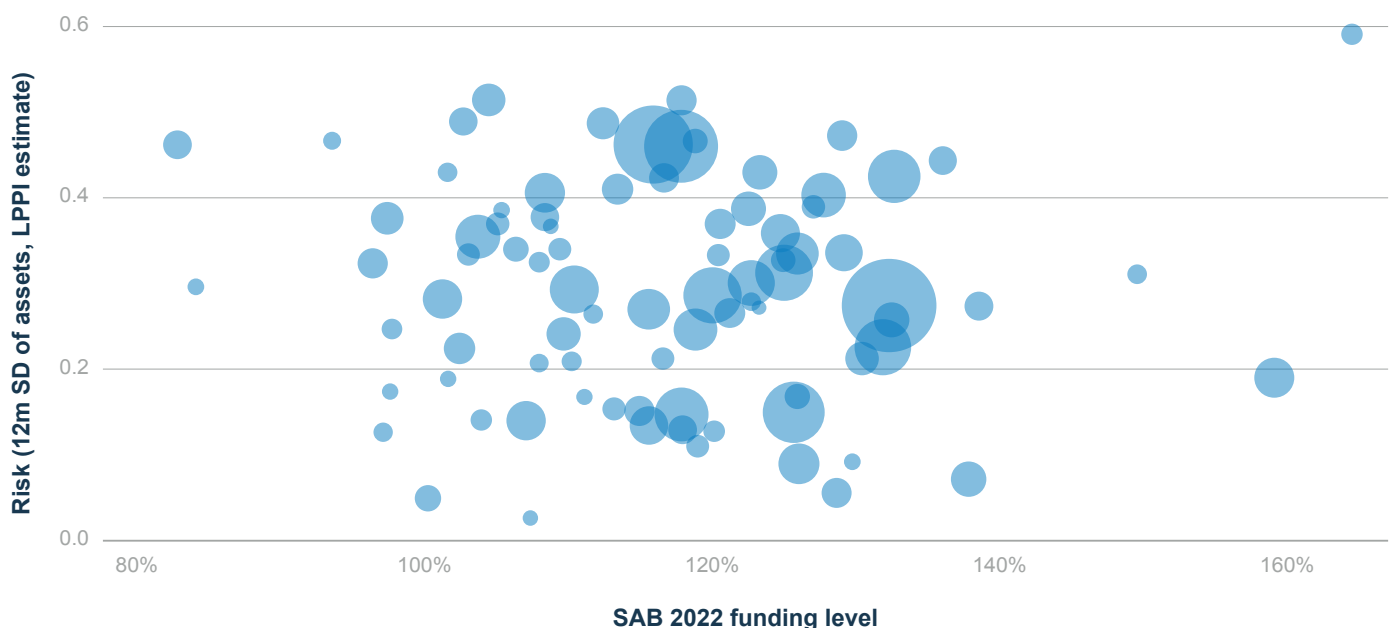
Clearly, funds have different considerations - different employers with varying covenant levels, different maturities, and cash flow considerations to name but a few. However, across such a broad sample, we would hope that the estimates used here are representative of the relationship between funding level and risk in the LGPS. We plot the results in Figure 4.

The results? We see **no apparent relationship between funding level and risk appetite**. This is similar to some of GAD’s findings<sup>8</sup> on actuarial practices, where they note that there “is no clear correlation between the proportion of return seeking assets and the discount rate adopted, suggesting that other factors (such as risk appetite) influence discount rates”. So it is with funding and risk. It may be that other considerations dwarf funding when funds set risk appetite and asset allocation. It could be linked to herding behaviour. It may be a result of a long and slow-moving history of asset allocation decisions unique to each fund.

Whatever the reason, arguments about whether the LGPS should reduce risk if 2025 delivers strong funding levels are somewhat surprising, given the apparent lack of relationship between funding and risk in the LGPS today.

In Part 3, we look to see whether funds that have pursued higher risk have been rewarded with greater return.

**Fig 4. Funding versus estimated risk - no apparent relationship<sup>9</sup>**



<sup>7</sup> The Local Government Pension Scheme Advisory Board - England and Wales.

<sup>8</sup> Review of LGPS fund valuations as at 31 March 2022 under Section 13 Appendix B11.

<sup>9</sup> Source: SAB, LPPI, Ortec Finance; bubble size represents assets under management.

# Part 3: Impact of risk appetite in the LGPS

We have discussed the expected trade-off between risk and return in the LGPS (England and Wales), and then looked at the relationship between risk appetite and funding status.

Here, we look at how different levels of asset risk have impacted funds' returns. In a simple regression of historical returns against asset risk, we would hope in the long run to see a positive relationship – that is, higher risk portfolios rewarded with higher returns.

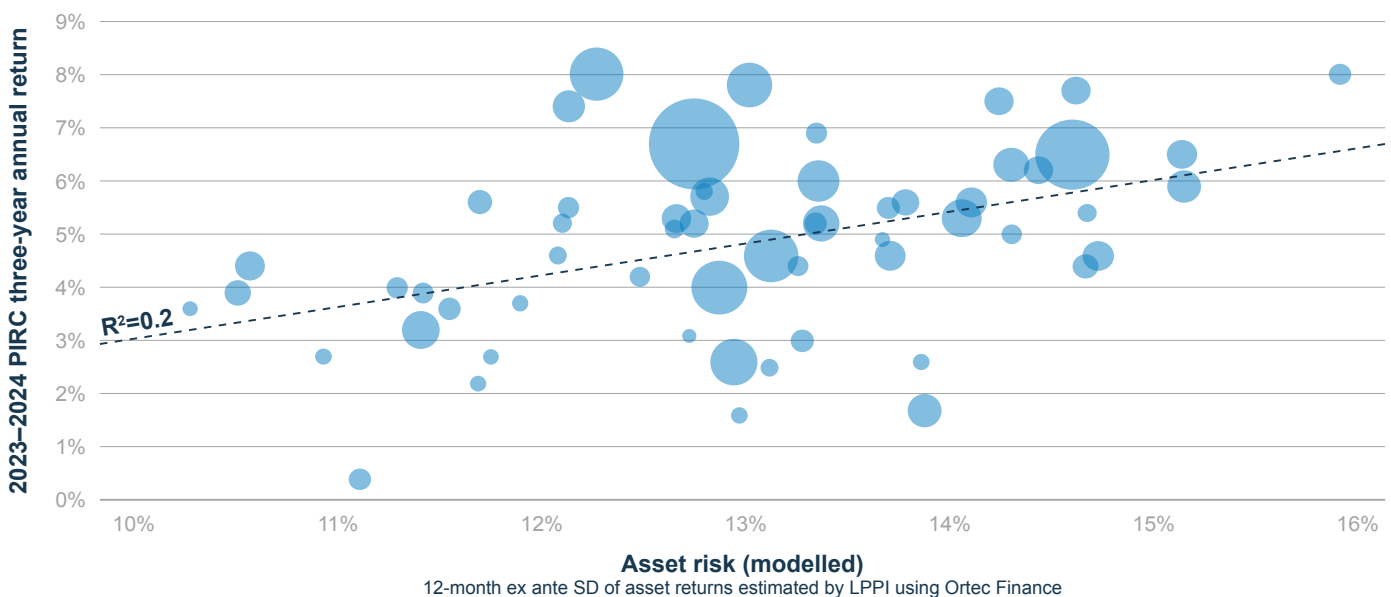
Figure 5 compares our asset risk estimate with PIRC's three-year fund return, where we do indeed see a strong positive relationship. While there is clearly more going on with returns than just the level of risk, it is encouraging that on the whole those that have been in a position to take more risk have seen it translate to an improved asset position. It's easy to identify the short sample period and risk estimation error as potential biases in our observations, however this is mitigated somewhat by the large sample size of the LGPS.

While future returns are uncertain, this empirical analysis supports our conviction in the trade-off between risk and return, between affordability and stability, and in turn the premise underlying our **funding risk appetite smile**.

There will always be more that the LGPS can do to improve its efficiency, and in turn its outcomes for employers. The high-level question of risk appetite, however, is often cossetted with short-term debates about downside risk that are at odds with the LGPS's long horizon and growth-centric actuarial framework. There are undoubtedly cohorts with short-term considerations where positioning conservatively on the risk spectrum may address specific constraints, however, for the broader LGPS, it is important to ask of de-risking: "at what cost?"

As a healthily funded 2025 Triennial Valuation comes closer, there is an opportunity for funds to remind employers of the advantages of the LGPS. Attractive member benefits are made affordable by a long-term view and in turn the ability to focus on a programme of growth investment. Should the 2025 Triennial Valuation reap the benefits of the last decade's risk asset performance, we would encourage the LGPS to think carefully before considering foregoing these benefits in the next decade.

**Fig 5. Asset allocation risk versus return<sup>10</sup>**



<sup>10</sup> Source: PIRC (61 funds) three-year return, SAB, LPPI, Ortec Finance; bubble size represents assets under management.

## Conclusions

- The nature and long horizon of the LGPS allows it to exploit risky asset returns and make attractive member benefits affordable for employers.
- De-risking is a trade-off: lower short-term volatility comes at a cost of higher expected long-term contribution rates. While the 2022 valuation showed little link between asset allocations and discount rates, suggesting that there may be little “cost” of de-risking at the 2025 Triennial Valuation, this ignores the long-term benefit of higher expected returns from risky assets, and in turn the significant expected impact on affordability.
- Affordability is not binary; lower contributions are more affordable for employers, including where this is driven by negative secondary rates (via return of surplus).
- For some funds, as surpluses grow and provide a mechanism for greater contribution stability, this may enable their funding focus to revert to affordability and make their funding risk appetite function “smile”.
- In introducing the concept of a “risk appetite smile”, we hope to add to the evidence supporting funds who are thinking beyond the 2025 Triennial Valuation, as they weigh their strategic asset allocation and funding strategy options.

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Renaissance Strategic Advisors

**Peter Ballard**  
Head of Trustee Delivery  
Railpen



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lppi.co.uk  
info@lppi.co.uk  
020 7369 2666

Local Pensions Partnership Investments  
1 Finsbury Avenue  
London EC2M 2PF

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