Update on funding position as at 30 September 2021

Executive summary

Since the 2019 valuation, as at 30 September 2021:

- **Past service funding position:** The past service funding position has improved from a deficit of £165m (88% funded) to a surplus of £102m (107% funded). This funding position is based on the Fund targeting an annual future investment return which has a 75% likelihood of being achieved. The improvement has been largely driven by strong investment performance since 31 March 2019.
- **Expected future investment returns:** Despite volatility in the markets since early 2020, the outlook for future investment returns remains similar to the 2019 formal valuation. At 30 September 2021, we estimate that the Fund's asset allocation has a 75% likelihood of achieving an annual return of at least 4.0% p.a. (at 31 March 2019, the equivalent return was also 4.0% p.a.).
- **Fully funded required rate:** The future investment return required to be notionally fully funded has fallen from 4.8% p.a. to 3.5% p.a. The likelihood of the Fund's assets achieving this required level of return has increased from 66% to 81%. Therefore, the Fund is now more likely to achieve the future returns needed to pay members benefits as they fall due.
- **Impact on future contributions (indicative)**
    - **Secondary rate contributions:** the improved past service funding position will have a positive impact on Secondary rate contributions, all else being equal.
    - **Future service cost (Primary rate contributions):** The cost of future benefit accrual has increased. Longer term future market conditions for valuing benefit costs are expected to be more challenging and are applying upward pressure to the future service cost (compared to March 2019).

The improved position presents funding strategy options, including:

1. **Reduce employer contributions** – the Fund might consider using the stronger funding position to relieve contribution pressure on employers i.e. use the funding surplus to offset some of the future cost of benefits.
2. **Review investment strategy** – consider reducing the risk in the investment strategy.
3. **Build up a risk reserve** – consider maintaining a risk reserve to mitigate any future adverse experience.

The decision will depend on the Fund's views and priorities, and could be a mixture of some or all of the above three options.

1 Purpose and scope

This paper has been commissioned by and is addressed to Croydon Council as Administering Authority of the London Borough of Croydon Pension Fund ("the Fund").

Its purpose is to provide the Fund with an update on the overall fund level funding position as at 30 September 2021, how it compares to the position at the last formal valuation of the Fund carried out as at 31 March 2019 and subsequent funding considerations.

Information regarding the data, assumptions, methodology and funding risks associated with the results in this paper is contained in the Appendix.

In particular it should be noted that the financial assumptions have been derived as per the Funding Strategy Statement in force as at the 31 March 2019 formal valuation of the Fund.

2 Valuations in the LGPS

Formal funding valuation

A funding valuation is required to be carried out by the LGPS Regulations every 3 years at a specified date. The most recent valuation was carried out as at 31 March 2019 and the next valuation will be at 31 March 2022. The purpose of the valuation is to review the current funding strategy and ensure the Fund has a contribution plan and investment strategy in place that will enable it to pay members' benefits as they fall due.

There is a requirement to report a single funding position at each formal valuation, based on a single set of assumptions. To do this we compare the value of the Fund's assets on that date against the expected cost (including an allowance for future investment returns) of all the future benefit payments accrued up to the valuation date (the liabilities). Using an assumption about the future investment return generated from the Fund's assets then allows a value to be placed on these payments in today's money. This is known as a "mark to market" approach. The higher the assumed investment return, the lower the liability value and therefore the higher the funding level.

Section 13 valuation

After each formal valuation, the Government Actuary's Department (GAD) carries out an analysis of all English & Welsh LGPS Funds under Section 13 of the Public Service Pensions Act 2013. This "Section 13" analysis presents metrics in a "like-for-like" fashion, so that reasonable comparisons can be made between Funds. For this comparison of actuarial valuation results, national best-estimate assumptions are used as opposed to each fund's local funding assumptions. The Section 13 valuation is not designed to be used to make any funding decisions i.e. setting contribution rates or asset allocation decisions.

Employer contribution reviews

From 23 September 2020, the LGPS Regulations allow the Fund to recalculate employer contributions outside of the triennial formal valuation under one of the following circumstances (i) a significant change to the liabilities of an employer; (ii) significant change in the employer's covenant; or (iii) at the request of the employer. In line with DLUHC guidance, any changes in market and demographic conditions/assumptions since the previous formal valuation are not allowed for in the review.

Funding valuation update

Funding update valuations can be requested at any time. These can either be carried out using full membership data or using approximate methods. These updates are good practice and allow the Fund to monitor funding progress and risks between formal funding valuations.

The rest of this paper forms a funding valuation update. Calculations are based on the methodology and assumptions from the 31 March 2019 funding valuation, but have been updated to reflect recent market conditions.

3 Change in funding position since 2019 valuation

The Fund's liabilities are the future benefit payments due to members in respect of their service accrued in the Fund. Future benefit payments will be in respect of both service accrued up to today ("past service") and service that will be accrued in the future ("future service").

To better understand the Fund's past service liabilities, we have detailed below in Chart 1 the projected annual future benefit payments due to all members in respect of service earned up to 30 September 2021:

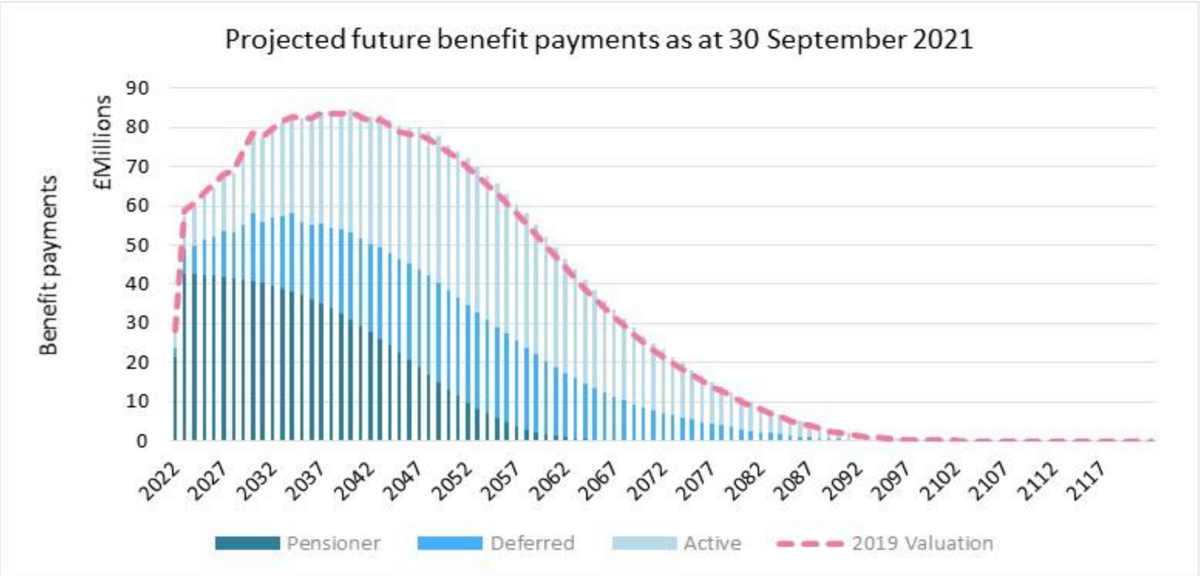
- **Pensioners**: those members currently in receipt of their benefits;
- **Deferreds**: those members who have left the Fund but are yet to retire; and
- **Actives**: those members who are still participating in the Fund and accruing service.

The member group classification is based on each individual member's status as at the last formal valuation (31 March 2019) and the figures are in nominal terms.

The projected benefit payments are based on the membership data and the financial and demographic assumptions used for the 2019 formal valuation and in line with the Funding Strategy Statement (FSS) dated April 2021. However, they have been updated to reflect actual pension increases since the valuation and changes in future long-term inflation expectations derived consistently with the approach in the current FSS. Actual pension increases at April 2020 and April 2021 were less than expected (1.7% vs. 2.3% and 0.5% vs 2.3% respectively) and market derived long-term inflation expectations have risen since 31 March 2019 *(noting that no allowance has been made for any changes resulting from RPI reform).*

The pink line on Chart 1 below shows the total projected annual future benefit payments as they were at 31 March 2019. As at 30 September 2021,the impact of lower than expected pension increases has resulted in a slight reduction in the projected benefit payments in the short term, but the impact of higher long-term inflation expectations has resulted in a slight increase in the projected benefits in the long term.

Chart 1



Asset Values and Projected Asset Returns

As at 30 September 2021, the Fund's asset value was £1,652m, increased from £1,258m at the last valuation. The Fund's assets are the accumulation of employer and member contributions and are there to pay all the member benefits accrued to date. The investment return since March 2019 has been c.31%.

At 30 September 2021, we estimate that the Fund's asset allocation has a 75% likelihood of achieving an annual return of at least 4.0% p.a. over the medium term (at 31 March 2019, the equivalent return was also also 4.0% p.a.). Therefore, despite volatility in the markets since early 2020, the outlook for future investment returns remains similar to the 2019 formal valuation.

Funding Level

The funding level is derived as the ratio of the value of the Fund's assets to the value of its accrued liabilities. Actual benefit payments in the future will be in respect of both service accrued up to today ("past service") and service that will be accrued in the future ("future service"). However, the funding level presented is only in respect of past service benefits.

The funding level is only a snapshot in time based on a single set of assumptions about the future and is therefore sensitive to the choice of assumptions, in particular the expected future investment return assumption.

Chart 2 below shows how the funding level varies with the future investment return assumption at 30 September 2021 (**green line**). For comparison, we have also shown the results of the same analysis as at 31 March 2019 (**blue line**). Along each line we have highlighted points which show the likelihood of the Fund's assets achieving the corresponding assumed future investment return. The likelihoods are those that were estimated at the relevant date i.e. 31 March 2019 or 30 September 2021.

Chart 2

The key conclusions from the above chart are:

- Regardless of the investment return assumption used, there has been an improvement in the funding position at 30 September 2021 compared to the 2019 valuation, reflecting an increase in assets held today per pound of benefit to be paid out in future.

- Based on the Fund targeting an annual future investment return which has a 75% likelihood of being achieved, the past service funding position has improved from a deficit of £165m (88% funded) to a surplus of £102m (107% funded). The improvement has been largely driven by strong investment performance since 31 March 2019.
- The future investment return required to be notionally fully funded has fallen from 4.8% p.a. to 3.5% p.a. The likelihood of the Fund's assets achieving this required level of return has increased from 66% to 81%. Therefore, the Fund is now more likely than not to achieve the future returns needed to be fully funded.

Summary of result

Reported funding position	31 March 2019	30 September 2021
Assets (£m)	1,258	1,652
Past service liabilities (£m)	1,423	1,550
Surplus/(Deficit) (£m)	**(165)**	**102**
Funding level	88%	107%
Assumed future investment return	4.0%	4.0%
Likelihood of achieving this return*	75%	75%
Fully funded target	**31 March 2019**	**30 September 2021**
Funding target	100%	100%
Future investment return required to be 100% funded	4.8%	3.5%
Likelihood of achieving this return*	**66%**	**81%**

** Based on the expected returns of the Fund's current portfolio of investments over the next 20 years.*

- **Past service funding position:** The past service funding position has improved from a deficit of £165m (88% funded) to a surplus of £102m (107% funded). This funding position is based on the Fund targeting an annual future investment return which has a 75% likelihood of being achieved. The improvement has been largely driven by strong investment performance since 31 March 2019.
- **Expected future investment returns:** The outlook for future investment returns is similar to the last formal valuation over the medium term. At 30 September 2021, we estimate that the Fund's asset allocation has a 75% likelihood of achieving an annual return of at least 4.0% p.a. over the next 20 years (at 31 March 2019, the equivalent return was also also 4.0% p.a.).
- **Fully funded required rate:** The future investment return required to be notionally fully funded has fallen from 4.8% p.a. to 3.5% p.a. The likelihood of the Fund's assets achieving this required level of return has increased from 66% to 81% Therefore, the Fund is now more likely than not to achieve the future returns needed to be fully funded.
- **Other factors to consider:** there is still a 19% chance that future investment returns would not be sufficient to fully fund all the accrued benefits. In addition to this investment risk, there are other major risks that are likely to be of important focus at the 2022 valuations, in particular life expectancy and climate change. We would recommend that these risks are analysed, understood and managed.

4 Outlook for 2022 valuation

Indicative impact on future contributions

The LGPS Regulations require employer contribution rates to be broken down into:

- the Primary contribution rate – defined as the actuarial cost of new benefits being earned by current employees (active members) expressed as a percentage of pensionable pay; and
- the Secondary contribution rate – any adjustment to the primary contribution rate (such as additional contributions to repair any deficits).

Employer contributions are reviewed and certified every 3 years at formal valuations. The next formal valuation of the Fund will be at 31 March 2022. Therefore, the impact on employer contributions described below is purely indicative based on the funding update at 30 September 2021. Any changes in markets before the next formal valuation will affect these projections.

Secondary rate contributions

Secondary rate contributions are paid by employers to target a funding position over an agreed time horizon (as detailed in the Fund's FSS). Employers have their own funding plans within the Fund with varying funding positions and time horizons.

It can be inferred that the improved past service funding position at 30 September 2021 is likely to have a positive impact on Secondary rate contributions at the next valuation for the average employer, all else being equal.

Of course, any changes in funding position (and any impact on contribution rates) will be varied across the Fund's employers and is dependent on each individual employer's membership.

Primary rate contributions

As discussed above, the past service funding position has improved. However, being 100% funded in a scheme like the LGPS which is open to future accrual and new entrants, is not the endgame. For the average fund, two-thirds of the benefit payments made over the next 50 years will be in respect of benefits yet to be earned. This will include benefits earned by existing members (new accrual) and benefits earned by new members who begin service in the LGPS after the valuation date (new joiners). The assets held today only cover past service benefits – we still need to fund those benefits yet to be earned.

As at 30 September 2021, longer term future market conditions for valuing benefit costs are expected to be more challenging and are applying upward pressure to the future service cost (compared to March 2019).

The increased cost of future accrual will lead to increased Primary contribution rates. For the average employer any increases in Primary contribution rates may be partially (or wholly) offset by reductions in Secondary contribution rates.

Important caveats

There are many moving parts and as such the following caveats apply to these results:

- the funding position and cost of future benefit accrual may change when an allowance is made for RPI reform and the resulting impact on future inflation expectations;
- the impact on the rates of different employers will vary depending on their membership profile;
- the judgements relating to McCloud and Goodwin will impact employers differently (the above analysis doesn't make any allowance for these matters); and
- any change to market conditions and the outlook for future returns will impact contribution requirements.

5 Funding considerations

As set out in Section 3, the position of the Fund (and its employers) has improved since the 2019 formal valuation and there is a past service funding surplus. This is a similar current position to most other LGPS funds, and it presents a different kind of challenge for the LGPS to the one that it has faced over the last two decades. In the past, a large focus has (rightly) been on plugging deficits and reaching 100% funding. The challenge now is to consider the options available to take advantage of the gains made in recent years. These options include:

1. **Reduce employer contributions** – the Fund might consider using the stronger funding position to relieve contribution pressure on employers i.e. use the funding surplus to offset some of the future cost of benefits.

2. **Review investment strategy** – for any pension fund, the way to solidify a strong funding position is to remove or reduce future sources of risk. Given investment risk is the most significant threat for the Fund, the improved current strong funding position might be considered an appropriate time to 'de-risk' the investment strategy. This is typically achieved in a number of different ways:

    - Cut the investment risk – this would involve selling growth assets and purchasing protection assets e.g. selling equities and purchasing gilts. Although gilts are priced high (at the moment), so too are equities.

    - Diversify the investment risk – this would involve increasing the allocation to asset classes which pay an alternative risk premium to equities, such as property, infrastructure and private debt. The income associated with the return on these assets could also be used to help manage the Fund's cashflow requirements.

    - Hedge the investment risk – implement strategies that involve derivatives or fixed income assets to explicitly hedge specific risks.

    However, one of the challenges when considering de-risking is the fact that the Fund is open to both new accrual and new joiners. This puts a natural brake on how far the Fund is able to remove investment risk. In considering the options available to the Fund on managing investment risk, the focus should be on simplicity and delivering the best outcomes for the lowest cost. In particular, de-risking the past service position leaves a greater cost relating to future service (i.e. higher Primary contribution rates for employers). This is a long-term balance which needs to be carefully struck.

3. **Build up a risk reserve** – the Fund may consider it to be appropriate to continue the current level of investment risk and employer contributions with the objective of maintaining a surplus as a risk reserve or cushion to mitigate any future adverse experience.

There is no right answer or correct route to follow around these options. The decision will depend on the Fund's views and priorities, and could be a mixture of some or all of the above three options.

6 Next steps

The paper has been provided for information purposes only and does not seek to propose any changes to the Fund's funding or investment strategy. The indicative contribution rate impact should not be taken as suggestions for rates that will payable at the next formal valuation or advice that contribution rates need to be amended before the next valuation.

7 Reliances and limitations

This paper has been prepared for Croydon Council as Administering Authority of the London Borough of Croydon Pension Fund for the purpose described above. It has not been prepared for use for any other purpose and should not be so used. The paper should not be disclosed to any third party except as required by law or regulatory obligation or with our prior written consent. We accept no liability where the paper is used by or disclosed to a third party unless we have expressly accepted such liability in writing. Where this is permitted, the paper may only be released or otherwise disclosed in a complete form which fully discloses our advice and the basis on which it is given.

Technical Actuarial Standard 100 is applicable in relation to this advice, and has been complied with where material and to a proportionate degree.

This report together with the formal valuation report for the Fund (issued March 2020) and the Fund's Funding Strategy Statement set out the aggregate of our advice.

Prepared by:-

Robert McInroy FFA Richard Warden FFA

November 2021

For and on behalf of Hymans Robertson LLP

Appendix

Assumptions and methodology

Liabilities

All demographic and financial assumptions underlying the benefit projections are as per the 31 March 2019 formal valuation with the exception of the future inflation assumption (which affects the rate of future pension increases, CARE revaluation and salary increases).

Further details about the assumptions can be found in the 2019 formal valuation report dated March 2020.

The future long-term inflation assumption used in the benefit projections as at 30 September 2021 is 2.5% p.a.. Therefore, as at 30 September 2021 we have assumed that:

- Future pension increases are 2.5% p.a.
- Future CARE pot revaluation is 2.5% p.a.
- Future salary increases are 2.5% p.a.

Note, no allowance has been made for RPI reform whereby it is expected that RPI will align with CPIH from 2030 onwards. As part of the 2022 valuation, the Fund will need to consider how this announcement is reflected in the assumption made for long term CPI inflation expectations (to which the majority of benefits are linked).

The benefit projections assume that membership experience since 31 March 2019 has been in line with the assumptions made. At a whole fund level, this assumption is reasonable to make and, for the purpose of this paper, we do not expect this to result in a material inaccuracy.

We have also allowed for additional benefit accrual between 1 April 2019 to 30 September 2021. This allows comparison with the Fund’s asset value as at 30 September 2021.

To calculate the expected future investment returns, we have used our proprietary Economic Service Scenario (“ESS”) model, and the same methodology used at the last formal valuation. Further details about the ESS model, and the calibration of the model as at 31 March 2019, can be found in the 2019 valuation formal report dated March 2020.

The calibration of the model as at 30 September 2021 is detailed below. The following figures have been calculated using 5,000 simulations of the ESS, calibrated using market data as at 30 September 2021. All returns are shown net of fees. Percentiles refer to percentiles of the 5,000 simulations and are the annualised total returns over 5, 10 and 20 years, except for the yields which refer to the simulated yields for at that time horizon. Only the overall Fund portfolio returns are shown, however similar information for separate asset classes is available on request.

		Portfolio returns	Inflation (RPI)	17 year real yield
5 years	16th %'ile	0.0%	2.5%	-2.5%
	50th %'ile	4.4%	4.1%	-1.6%
	84th %'ile	8.5%	5.7%	-0.8%
10 years	16th %'ile	1.7%	2.1%	-1.8%
	50th %'ile	4.9%	3.7%	-0.6%
	84th %'ile	8.1%	5.3%	0.6%
20 years	16th %'ile	3.2%	1.3%	-0.7%
	50th %'ile	5.9%	2.9%	1.0%
	84th %'ile	8.4%	4.5%	2.7%
	Dispersion (1 year)	9%	1.4%	

The current calibration of the model indicates that a period of outward yield movement is expected. For example, over the next 20 years our model expects the 17 year maturity annualised real (nominal) interest rate to rise from -2.4% (1.4%) to 1.0% (3.2%).

Assets

The asset value as at 30 September 2021 has been provided to us by the Fund. To derive the level of likelihood associated with certain level of expected future returns, we have used the ESS model as described above and the Fund's current strategic asset allocation:

% allocation	
Absolute return bonds	23%
Cash	1%
Global Equity	42%
Infrastructure (equity)	5%
Infrastructure debt	5%
Private equity	8%
Property	16%
Total	**100%**

Model limitations

The models used to calculate the results in the paper make some necessary simplifying assumptions. I do not consider these simplifications to be material and I am satisfied that they are appropriate for the purposes described in this report.

Funding Risks

Please see the FSS for details of the funding risks that apply to the future ability of the Fund to pay all members' benefits. These include, but are not limited to:

- Market risks – these include investment returns being less than anticipated or liabilities increasing more than expected due to changes in market conditions underlying the financial assumptions (e.g. inflation or pay increases above that assumed etc.).
- Demographic risks – these include anything that affects the timing or type of benefits (e.g. members living longer than anticipated, fewer members opting into the 50/50 option, etc.).

- Regulatory risks – the LGPS is a statutory scheme. There is a risk that central Government legislation could significantly change the cost of the scheme in future.

  In particular, the benefit structure of the LGPS is currently under review as a result of the consultation on the McCloud and Sargeant judgement, HM Treasury's and Scheme Advisory Board's cost-sharing valuations as well as the recent outcome of the Goodwin tribunal. Benefit changes as a result of these issues may materially affect the value of benefits earned by members both in the past and future. I have made no direct allowance for these changes and may need to review my calculations once the outcomes are known.

- Administration and Governance risks – failures in administration processes can lead to incorrect actuarial calculations. For example, where membership data is not up to date (e.g. leaver forms not being submitted in a timely matter) material inaccuracies in respect of the level of deficit and contributions may occur at future valuations.

- Resource and Environmental risks – i.e. risks relating to potential resource constraints and environmental changes, and their impact on Fund employers and investments: such risks exist and may prove to be material. Given the lack of relevant quantitative information available specifically relevant to the Fund, I have not explicitly incorporated such risks in this advice. The Administering Authority may wish to seek direct advice on these risks.

Sensitivity of results

The results in this report are dependent on factors including future market conditions, the membership details and demographic trends such as longevity. Changes in each of these factors can have a material impact on the results. I have not sought to quantify the impact of any changes other than the below. If further information about the sensitivity of the results to different data or assumptions is required, this can be provided on request.

The results are extremely sensitive to market conditions, in particular the future investment returns assumption and future inflation. The approximate impact of a 0.1% change in either assumption (i.e. lower investment returns or higher inflation) is noted below:

0.1% change in future investment return (or inflation) assumption	
Increase in liabilities (%)	2%
Impact on funding position (£m)	£25m loss