Cashflow planning

Introduction

This paper is addressed to the Officers and Pensions Committee of the London Borough of Hackney Pension Fund ("the Fund"). This paper considers the Fund's long-term cashflow position and the near term cashflow requirements, taking into account the cashflow requirement for the private markets mandates which the Fund has committed to invest in over the coming years. Please note we have relied upon the information within the 2019 valuation report and investment data provided by the managers in helping to project cashflow requirements.

The paper should not be released or otherwise disclosed to any third party except as required by law or regulatory obligation or without our prior written consent. We accept no liability where the report is used by, or released or otherwise 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.

Executive Summary

From the analysis and projections set out in this paper we draw the following conclusions:

In the absence of investment income, the Fund is currently cash flow positive but is projected to become modestly cashflow negative over the coming years, with the benefit outflow estimated to exceed contribution income in around 2 years. Beyond this point the negative cash flow position is expected to grow as the Fund matures. This is based on the membership data and assumptions adopted for the 2019 triennial valuation.

If the Fund were to see a reduction in contribution income after the next triennial valuation this would adversely impact the cashflow position of the Fund.

The near term liquidity requirements to meet capital calls for the Fund's private market mandates need to be considered given the new investments in the LCIV Renewables Infrastructure and Private Debt mandates. Based on the estimated drawdown requirements provided by each of the Fund's managers, we recommend continuing to ensure that a balance of £50m maintained in the BlackRock Ultra Short Bond mandate and delegating authority to the Officers to periodically review the manager projections on a six monthly basis for the investment period and report on progress and recommended changes to the Committee over this period.

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For and on behalf of Hymans Robertson LLP

Principles of cashflow management

The aim of cashflow management is to ensure the Fund has sufficient income to meet the cashflow requirements of the Fund in future years. The principle objective is to avoid being a forced seller of assets through having sufficient sources of "natural" cashflow to meet the ongoing cashflow obligations.

In this paper we consider the main cash flows in and out of the Fund. The Fund's primary sources of income are:

- Contributions from employers in the Fund;
- Contributions from employee members in the Fund; and
- Income and distributions generated from the Fund's investments.

The Fund's primary outflows include:

- Retirement lump sums paid to active and deferred members on retirement;
- Retirement pensions paid to pensioners and their dependents;
- Death in service benefits and ill health benefits;
- Investment management fees and expenses; and
- Capital calls from the Fund's private markets investments.

Transfers in and out of the Fund by individual members are not usually a significant source of income or outflow for the Fund and are typically broadly balanced over time. Although significant bulk transfers of members in or out of the Fund as a result of structural changes in local or national government can materially impact the cashflow position of the Fund this is not considered in this paper.

What is cashflow negativity and does it matter?

A fund can be considered "cashflow negative" when the outflows exceed its contributions and income. For the purpose of the initial analysis we have considered the Fund's income to consist of employer and employee contributions but to exclude investment requirements, we consider this aspect later in the paper when focusing on the near term cashflow requirements. The Fund's outflows are the benefits payable to the members and their dependants (pensions, retirement lump sums, death in service benefits etc).

Historically, LGPS Funds have been cashflow positive as active member numbers were large in comparison to retired members. However, due to the maturing of the LGPS membership profile, increasing life expectancies and the impacts of redundancies from council cuts due to austerity measures, pensioners have become an ever-increasing proportion of the fund members. This has caused many funds to become cashflow negative or near cashflow negativity.

This situation is potentially worsened by the increasing funding levels many LGPS funds have been seeing, due to strong asset returns ever since the financial crisis in 2008/09. Reaching full funding means employers' contribution rates are often reduced, as they no longer need to provide additional money to help the fund out of deficit.

Becoming cashflow negative has an impact on the optimal investment strategy and, when significant, can force a long-term investor, such as the Fund, into needing to focus on month-to-month cashflows. When cashflow negative, an investor can become a forced seller of assets at market lows, meaning when the assets recover, the Fund does not benefit as they have already been sold. This can significantly hamper future funding when the cashflow negativity is large. Changes to the investment strategy to avoid this generally include investing in cashflow-generative assets, whereby the income from the assets can be used to meet outgoings, reducing or removing the need to disinvest from assets through considered cashflow planning.

Knowing when the Fund is likely to pay out more in benefits than it receives in contributions is important because it may in due course have implications for both the funding strategy and the investment strategy of the Fund.

In addition, for many fund's income is automatically reinvested so the balance between contributions and benefits will have cashflow management implications.

Scenarios

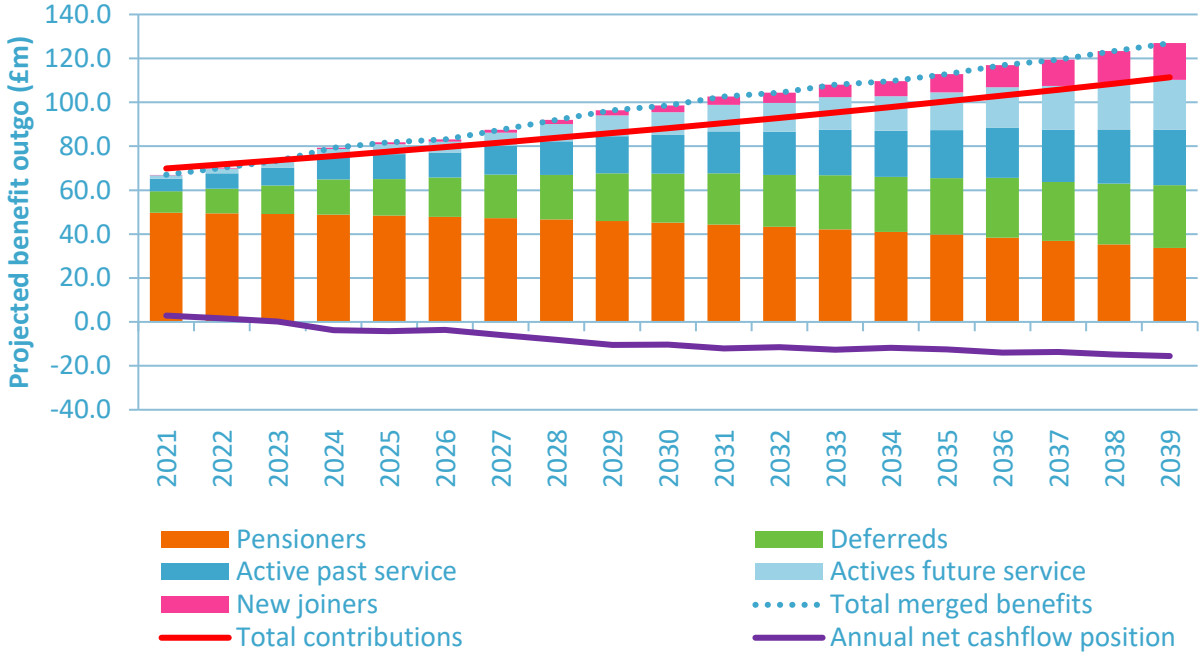
We have modelled two separate scenarios as follows.

1 Continue to pay the same rate from 2021/22 onwards and no reduction in active membership; and

2 Allowance for council rate to reduce by 1% p.a. for 6 years from 2023/24 with the remaining rates being unchanged and no reduction in active membership.

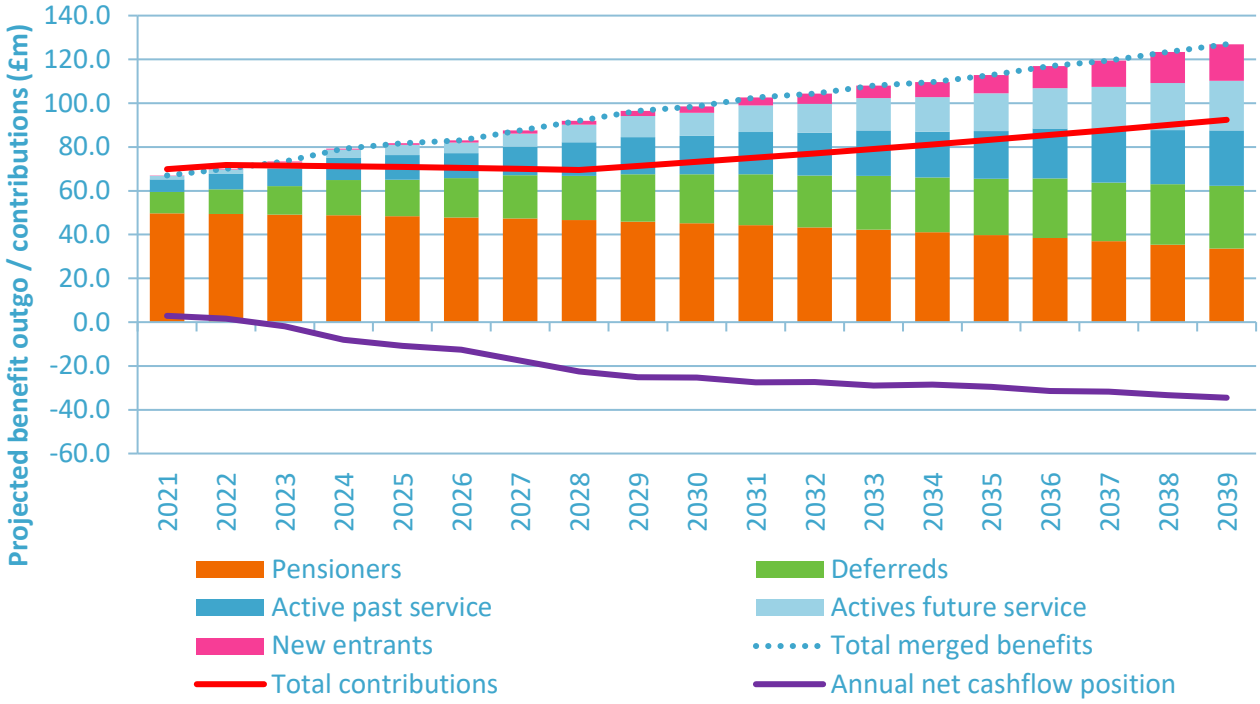
The graphs below show the results of the modelling analysis.

Scenario 1 (Same rate paid from 2022/23 onwards and no reduction in active membership)



From the cashflow graph above it can be seen that the estimated contributions paid into the Fund are higher than the benefit outflow until 2023. Subsequently the contributions are estimated to fall short of the outflows resulting in a moderately cashflow negative position for the Fund. By 2039 the Fund's net cash outflow is projected to be c£15m.

Scenario 2 (Council rate to reduce from 2022/23 by 1% p.a. for 6 years with the remaining rates remaining unchanged and no reduction in active membership)



With the council rate reduced by 1% p.a. for 6 years you can see, from the chart above, that the estimated contributions paid into the Fund fall short of the benefit outflow from 2023 onwards. The Fund is considered cashflow negative from this point and by 2039, the net annual cash outflow is projected to grow from c£15m to c£35m.

Summary

The analysis above shows that total contributions are expected to fall short of benefit outflow by 31 March 2022 in both scenarios. It should be noted that this model doesn't account for investment income provided from the Fund's assets which will help bridge the gap.

Recent cashflow experience

Allowing for transfers in and out of the Fund, the cashflow experience over the past 2 financial years has been net positive. The key components are summarised in the table below.

£m	2019/20	2020/21
Contributions	£78.8	£76.3
Transfers in	£5.3	£4.6
Total cash inflow	£84.1	£81.0
Benefit payments	(£65.4)	(£63.5)
Transfers out	(£8.0)	(£6.4)
Total cash outflow	(£73.5)	(£69.9)
Net cash in(out)flow	£10.6	£11.0

Source: draft Fund accounts 2020/21

Near Term Cashflow Projections and Requirements

As mentioned previously the scenario analysis above doesn't take into account investment income or requirements. At present, as the Fund has historically been comfortably cashflow positive, all current investment mandates are set up to reinvest any income received.

As part of the 2017 strategy review, the Fund made its first commitment to private markets mandates, with a 10% allocation to private lending via Churchill and Permira direct lending mandates. In addition, the Committee recently made commitments to LCIV Renewables Infrastructure and LCIV Private Debt mandates.

The nature of these investments requires the Fund to make a capital commitment which is drawn down by the managers over time. These mandates typically drawdown capital for a period of 1-5 years then distribute capital over the remaining life (typically 5-7 years). As a result, it is necessary for the Committee to plan for near term capital requirements and the impact this may have on the Fund's cashflow positioning. Similarly, these mandates will also distribute income over time.

A summary of the cash committed to private markets mandates and current drawdowns status is shown below.

	Capital commitment	Funds drawn as at August 2021
Permira	£95m	£47m
Churchill	£62m	£55m
LCIV Private Debt	£180m	£57m
LCIV Renewable Infrastructure	£90m	£7m

The below table is a summary of the Fund's estimated quarterly cashflow requirements until 31 December 2022.

It is important to note that the drawdowns and distributions for private markets mandates are estimated based on projections provided by the Fund's investment managers and actual experience may vary from that shown in the table below. This is intended to support cashflow planning for the Fund based on the information available at the time of preparing these projections.

Table 2 – Estimated cashflow (£m)

Outgoing Total	**-£53.1**	**-£41.2**	**-£36.8**	**-£36.0**	**-£30.3**
Projected benefit payments	**Q4 2021**	**Q1 2022**	**Q2 2022**	**Q3 2022**	**Q4 2022**
Total benefit payments	£16.7	£17.5	£17.5	£17.5	£17.5
Projected capital calls					
Churchill	£0.7	£0.7	£0.7	£0.7	£0.7
Permira	£5.0	£6.9	£1.2	£6.9	£1.2
LCIV Renewable Infrastructure [1]	£2.5	£2.5	£3.8	£4.6	£4.6
LCIV Private Debt [2]	£28.0 [3]	£13.5	£13.5	£6.2	£6.2
Incoming Total	**£20.0**	**£19.9**	**£23.3**	**£19.9**	**£20.1**
Projected Contributions	**Q4 2021**	**Q1 2022**	**Q2 2022**	**Q3 2022**	**Q4 2022**
Total Contributions	£17.5	£17.9	£17.9	£17.9	£17.9
Projected distributions					
Churchill	£0.9	£0.9	£0.9	£0.9	£0.9
Permira	£1.6	£1.0	£4.5	£1.0	£1.2
LCIV Renewable Infrastructure					
LCIV Private Debt					
Net Cashflow	-£33.1	-£21.3	-£13.5	-£16.1	-£10.2

Please note the capital call and distribution figures quoted above are estimates and may change as lumpy capital calls may occur especially in the case of the Renewable Infrastructure Fund. This figure does not include any secondaries or co-investments which could increase the capital drawn for investors considerably

[1] Capital calls for Q3 2022 and Q4 2022 have been estimated by Hymans Robertson. All other calls have been estimated by LCIV

[2] Capital calls for Q3 2022 and Q4 2022 have been estimated by Hymans Robertson. All other calls have been estimated by LCIV

[3] £28m LCIV Private Debt drawdown was made on 09 September 2021.

As part of ongoing discussions over funding of the Permira and Churchill mandates, we have previously advised the Committee to target maintaining a £50m holding in the BlackRock Ultra Short Bond Fund. The purpose of this holding is to ensure there is sufficient liquidity for investment drawdowns for the Fund's private markets mandates and benefit payments (if required).

Based on the above estimates, maintaining a £50m cash balance in the BlackRock Ultra Short Bond Fund appears to still be sufficient to meet quarterly capital requirements for mandate calls. The Committee may wish to consider increasing their target holding to the liquidly mandate to ensure all capital requirements are comfortably met if estimates increase later.

Conclusions and next steps

We recommend that the Committee continue to maintain a £50m holding in the BlackRock Ultra Short Bond Fund and that Officers and advisors receive 6-monthly updates from the Fund's private markets managers to ensure the agreed cash balance remains appropriate. Initially this will focus on ensuring there are sufficient funds for future expected drawdowns. And in the future, this will switch to ensuring there is no surplus cash in the investment strategy. A suitable target cash balance can be considered in 12-18m when the mandates are well through the drawdown phase of their investment.

Risk warning

Please note the value of investments, and income from them, may fall as well as rise. This includes equities, government or corporate bonds, and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets. Exchange rates may also affect the value of an investment. As a result, an investor may not get back the amount originally invested. Past performance is not necessarily a guide to future performance.

Appendix 1 Modelling Assumptions

Data

The starting point for each scenario was the membership data as at the latest 2019 formal actuarial valuation. No changes were made to this data.

The membership for scenario 3 was obtained by assuming a 10% reduction at the end of 2019/20 in the Fund's active membership. Since details of the actual leavers are uncertain, a random sample of active leavers has been chosen.

No allowance has been made for any additional retirement benefits being paid in the short term (e.g. redundancy) for these members as the circumstances which would result in a fall in membership of 10% are unknown. Further, more extensive calculations could be carried out if it was considered to be appropriate to assume the leaving members were likely to be from a particular age group.

It should be noted the graphs contained in this report are purely illustrative, and not necessarily indicative of likely outcomes.

Benefit outgo

The assumed benefits outgo allows only for benefit payments in line with the valuation assumptions, i.e. expected lump sums and pensions on retirement and death. We do not anticipate transfers out (or in) in the valuation so no allowance is made for either of these in our projections.

The annual cash flows are shown for each year following 31 March 2019 (so the year 1 cash flows are payable during the period 1 April 2019 to 31 March 2020). The cashflows are assumed to be paid midway through their respective period.

We have shown cashflows separately for members who were active, deferred and pensioners at 31 March 2019. No allowance is made for members changing category after 2019, e.g. pension payments for active members assumed to retire after 2019 continue to be shown as active benefit payments.

Contribution income

We have included estimates of contribution income assuming that members contribute 6.6% of pay from 31 March 2019 in line with the rate calculated for the 2019 valuation. Employers are assumed to contribute as disclosed in the 2019 valuation. We have also allowed for lump sum deficit repayment contributions to be paid in line with the Rates and Adjustments Certificate prepared following the 2019 valuation.

Note that we have assumed that the total of employer and employee contributions would remain the same should employee contributions be increased. In practice there is currently no power to reduce employer contributions between valuations and the extent of any reduction from the next valuation would be dependent on a number of other factors. However, in the absence of any firm details on member contribution increases, we believe the approach we have taken is reasonable and should not materially affect the results of our analysis.

New entrants

During the modelling period we would expect natural membership reductions through voluntary leavers and retirals. To keep the membership stable we have assumed new entrants would join the Fund and replace the departing active members. We have assumed a 100% replacement ratio over the next 20 years which results in a stable salary roll over this period. The projected cashflow position could be markedly different if a different replacement ratio was assumed.

For scenarios 3 where 10% reduction in active membership are applied, we make no allowance for replacement of the 10% reduction but do allow for replacement in respect of the leavers, retirements etc among the remaining active membership.

The demographic and salary assumptions that apply to the new entrants are based on those for the existing members but have been simplified. Despite the simplifications, we believe that these assumptions are reasonable given the highly significant uncertainty associated with the level and profile of new entrants.

Assumptions

The financial and demographic assumptions used to project the benefit payments from the Fund are those underlying the final results of the 2019 actuarial valuation. For further details of these assumptions please see the 2019 formal valuation report dated 30 March 2019.

Appendix 2 - Reliance's and Limitations

This document should not be released or otherwise disclosed to any third party without our prior consent, in which case it should be released in its entirety. Hymans Robertson LLP accepts no liability to any other party unless we have expressly accepted such liability.

The cash flow projections are based on a specific set of deterministic assumptions, which are highly unlikely to be borne out exactly, but which were deemed appropriate for funding purposes. They do not represent all possible cashflows; in particular no allowance is made for transfers in or out.

Any party must accept full responsibility for establishing that the cashflows are appropriate for the purpose to which they want to put them and any decisions that are taken based on their analysis. We cannot be held responsible for any losses sustained as a result of third parties relying on the cashflows provided, or if the cashflows are used for any inappropriate purpose, for instance:

- directly for investment strategy changes, or
- at individual employer level.

The extent of the deviations from the assumptions underpinning the cashflow projections depends on uncertain economic events as well as other factors that are not known in advance such as members' decisions, variations in mortality rates, retirement rates and withdrawal rates, fluctuations and rates of salary increase, changes in the regulatory environment and possible changes in retirement benefits. These other uncertainties are often not related to any particular investment and economic eventualities.

Two of the important uncertainties are the rate of pension increases, the vast majority of which increase at the annual increase in CPI inflation, and the extent to which members elect to exchange pension for cash at retirement. The cash flows provided assume that 50% of members retiring will opt to take the maximum permissible amount of tax-free cash (equivalent to 75% for service from 1 April 2019).

In summary, it should be noted that there is significant uncertainty in the cash flows both into and out of the Fund, particularly the benefit outflow, which are largely unrelated to investment conditions.

The following Technical Actuarial Standards[1] are applicable in relation to this report:

Pensions TAS

TAS M - Modelling

TAS R – Reporting; and

TAS D – Data

[1] Technical Actuarial Standards (TASs) are issued by the Board for Actuarial Standards (BAS) and set standards for certain items of actuarial work, including the information and advice contained in this report.

Appendix 3- Fund asset holdings and agreed transitions

Mandate	LCIV Pooled/Non-Pooled	Active/ Passive	Current target Benchmark	Phase 1
London CIV Sustainable World Equity	Pooled	Active	13.0%	13.0%
BlackRock World Equity	Pooled	Passive	13.0%	
BlackRock Low Carbon	Pooled	Passive	10.0%	10.0%
BlackRock UK Equity	Pooled	Passive	10.0%	
RBC Emerging Markets	Non-Pooled	Active	4.5%	
LCIV Emerging Markets	Pooled	Active		4.5%
LCIV Equity/Carbon Focused Mandate	Pooled	Active/passive		13.0%
Invesco DGF	Non-Pooled	Active	5.0%	
GMO DGF	Non-Pooled	Active	7.5%	
LCIV Multi Asset	Pooled	Active		7.5%
Total Growth			**63.0%**	**48.0%**
Columbia Threadneedle Pension Property	Non-Pooled	Active	7.5%	7.5%
Columbia Threadneedle Low Carbon Property	Non-Pooled	Active	2.5%	2.5%
Churchill Senior Loans	Pooled	Active	4.0%	4.0%
Permira Senior Loans	Pooled	Active	6.0%	6.0%
LCIV Infrastructure	Pooled	Active		5.0%
LCIV private lending	Pooled	Active		10.0%
Total Income			**20.0%**	**35.0%**
BMO Bonds	Non-Pooled	Active	17.0%	17.0%
BlackRock Short Bond	Pooled	Passive		
Total Protection			**17.0%**	**17.0%**
Total Scheme			**100.0%**	**100.0%**