Appendix 2

Treasury Management Strategy Statement

Warwickshire County Council
2022/23

1.0 Introduction

Background

1.1 The Chartered Institute of Public Finance and Accountancy (CIPFA) defines treasury management as:

"The management of the local authority's borrowing, investments and cash flows, its banking, money market and capital market transactions; the effective control of the risks associated with those activities; and the pursuit of optimum performance consistent with those risks."

1.2 The Council is required to operate a balanced budget, which broadly means that cash raised during the year will meet cash expenditure. Part of the treasury management operation is to ensure that this cash flow is adequately planned and managed with cash being available when it is needed. Surplus monies are invested in low-risk counterparties or instruments commensurate with the Council's low risk appetite, providing adequate liquidity initially before considering investment return.

1.3 The second main function of the treasury management service is the funding of the Council's capital plans. These capital plans provide a guide to the borrowing need of the Council, essentially the longer-term cash flow planning, to ensure that the Council can meet its capital spending obligations. This management of longer-term cash may involve arranging long or short-term loans or using longer-term cash flow surpluses. On occasion, when it is prudent and economic, any debt previously drawn may be restructured to meet Council risk or cost objectives.

1.4 The contribution the treasury management function makes to the authority is critical, as the balance of debt and investment operations ensure cash liquidity and the ability to meet spending commitments as they fall due, either on day-to-day revenue or for larger capital projects. The treasury operations will see a balance of the interest costs of debt and the investment income arising from cash deposits affecting the available budget. Since cash balances generally result from reserves and balances, it is paramount to ensure adequate security of the sums invested, as a loss of principal will in effect result in a loss to the General Fund Balance.

Treasury Management reporting

1.5 The Council is currently required to receive and approve, as a minimum, three main treasury reports each year, which incorporate a variety of policies, estimates and actuals:

a.) **Prudential and treasury indicators and treasury strategy** (this report) - The first, and most important report is forward looking and covers:

- the capital plans, (including prudential indicators);
- a minimum revenue provision (MRP) policy, (how residual capital expenditure is charged to revenue over time);
- the treasury management strategy, (how the investments and borrowings are to be organised), including treasury indicators; and
- an investment strategy, (the parameters on how investments are to be managed).

b.) **A mid-year treasury management report** – This is primarily a progress report and will update members on the capital position, amending prudential indicators as necessary, and whether any policies require revision.

c.) **An annual treasury report** – This is a backward-looking review document and provides details of a selection of actual prudential and treasury indicators and actual treasury operations compared to the estimates within the strategy.

Capital Strategy and Investment Strategy

1.6 The Treasury Management Strategy Statement (TMSS) interacts with both the Capital Strategy and the Investment Strategy.

a.) **Capital Strategy -** The CIPFA 2017 Prudential and Treasury Management Codes require all local authorities to prepare a capital strategy report which will provide the following:

- a high-level long-term overview of how capital expenditure, capital financing and treasury management activity contribute to the provision of services;
- an overview of how the associated risk is managed; and
- the implications for future financial sustainability.

The aim of the capital strategy is to ensure that there is a robust strategy that meets organisational objectives with appropriate governance arrangements, and that the strategy is transparent and understandable to elected members. The Capital Strategy is reported separately, and the headline capital financing requirements (the need to borrow) feed into this Treasury Management Strategy.

b.) **Investment Strategy -** The Council is required to set out separately an Investment Strategy (IS) in relation to non-treasury investments. Non-treasury investments must consider security, liquidity, and yield, however the relative priority of these 3 factors does not have to follow treasury management principles as non-treasury investments are by their nature not intended to deliver treasury management objectives. The Council's Investment Strategy is a separate document, however it does interrelate with the Treasury Management Strategy and Capital Strategy.

1.7 The table below summarises these different strategies.

Capital Strategy	Treasury Management Strategy – including Treasury Investment Strategy	Investment Strategy
Traditional capital expenditure to directly meet service objectives.	Management of cash and debt to service the delivery of day to day operations and the long-term financing of investments.	Non-treasury investments with the primary objective of meeting service objectives.

Treasury Management Strategy for 2022/23

1.8 The strategy for 2022/23 covers two main areas:

a.) Capital considerations -
- Capital expenditure plans and the associated prudential indicators; and
- Minimum revenue provision (MRP) policy.

b.) Treasury Management considerations -
- The current treasury position;
- Treasury indicators which limit the treasury risk and activities of the Council;
- Prospects for interest rates;
- Borrowing Strategy;
- Policy on borrowing in advance of need;
- Debt rescheduling;
- Investment Strategy;
- Creditworthiness policy; and
- The policy on use of external service providers.

1.9 These elements cover the requirements of the Local Government Act 2003, the CIPFA Prudential Code, Ministry of Housing, Communities and Local Government (MHCLG) MRP Guidance, the CIPFA Treasury Management Code and MHCLG Investment Guidance.

1.10 The Treasury Management scheme of delegation, and responsibilities of the Section 151 officer are set out in Annex 6 and 7 respectively.

CIPFA Treasury Management Code and Prudential Code Changes Impact

1.11 CIPFA recently completed the second round of consultation on the proposed changes to the current editions of the Treasury Management Code and Prudential Code. The revised editions of these Codes were published on the 20 Dec 2021. The Council has to have regard to these codes of practice when we prepare the Treasury Management Strategy Statement and related in-year reports taken to Full Council for approval. CIPFA has agreed a soft launch approach with formal reporting requirements deferred until 2023/24 financial year. We will ensure that we implement these new requirements on or before the 1 April 2023.

1.12 As part of these changes, the Council is required to adopt a new Liability Benchmark treasury indicator to support Capital Financing Requirement financing risk management.

1.13 There will also be further changes to clarify what CIPFA expect a local authority to borrow for and what they do not view as appropriate. This will include -
- the requirement to set a proportionate approach to Commercial and Service capital investment and to implement the relevant reporting of these;
- addressing ESG issues within Capital Strategy;
- require implementation of a policy to review Commercial Property with a view to divest where appropriate;
- creation of new Investment Practices to manage risks associated with non-Treasury investment;

- a recommendation that any long term treasury investment is supported by a business model and requirement to effectively manage liquidity and longer term cash flow requirements;
- an amendment to address ESG policy within the treasury management risk framework;

1.14 Members will be updated on how these changes will impact our current approach and any changes required will be formally adopted within the 2023/24 TMSS and associated reports.

Training

1.15 The CIPFA Code requires the responsible officer to ensure that members with responsibility for treasury management receive adequate training in treasury management. This especially applies to members responsible for scrutiny. The training needs of treasury management officers are periodically reviewed and carried out with both formal and on the job training.

Treasury Management Consultants

1.16 The Council currently contracts Link Group, Treasury solutions as its external treasury management advisors.

1.17 The Council recognises that responsibility for treasury management decisions remains with the organisation at all times and will ensure that undue reliance is not placed upon the services of our external service providers. All decisions will be undertaken with regards to all available information, including, but not solely, our treasury advisers.

1.18 It also recognises that there is value in employing external providers of treasury management services in order to acquire access to specialist skills and resources as and when required. The Council will ensure that the terms of their appointment and the methods by which their value will be assessed are properly contracted, agreed and documented and subjected to regular review.

2.0 The Capital Prudential Indicators 2022/23 – 2024/25

2.1 The Council's capital expenditure plans are the key driver of treasury management activity. The output of the capital expenditure plans are reflected in the prudential indicators (Annex 1), which are designed to assist members' overview and confirm capital expenditure plans.

Capital Expenditure and Financing

2.2 This prudential indicator is a summary of the Council's capital expenditure plans, both those agreed previously, and those forming part of this budget cycle. Members are asked to approve the capital expenditure forecasts:

Table 1 – Total Capital Programme

£m	2021/22 Estimate	2022/23 Estimate	2023/24 Estimate	2024/25 Estimate	2025/26 Estimate	2026/27 Estimate
Capital Expenditure	98,527.07	100,944.15	100,004.41	100,969.13	100,758.30	101,386.30
Non-Treasury Investment WPDG*	-	4,071.07	11,511.22	8,903.78	22,127.03	21,125.70
Non-Treasury Investment WRIF*	2,400.00	30,000.00	30,000.00	30,000.00	30,000.00	7,600.00
Total	**100,927.07**	**135,015.22**	**141,515.63**	**139,872.91**	**152,885.33**	**130,112.00**

***WPDG Warwickshire Property and Development Group**

***WRIF Warwickshire Recovery and Investment Fund**

2.3 The table below summarises the above capital expenditure plans and how these plans are being financed by capital or revenue resources. Any shortfall of resources results in a need to borrow to fund the shortfall.

Table 2 – Financing of Capital Expenditure

£m	2021/22 Estimate	2022/23 Estimate	2023/24 Estimate	2024/25 Estimate	2025/26 Estimate	2026/27 Estimate
Capital receipts	13,619.05	22,583.18	3,648.00	-	-	-
Capital grants	86,249.02	44,534.81	29,405.73	32,617.75	24,230.36	22,739.00
Self Financed Borrowing	-	-	-	-	-	-
Revenue	1,059.00	111.00	-	-	-	-
Capital Programme Funding/Income	100,927.07	67,228.99	33,053.73	32,617.75	24,230.36	22,739.00
WPDG Receipts	-	-	14,532.80	2,029.80	19,841.03	15,440.10
WRIF Receipts	-	-	12,462.32	16,374.57	19,697.82	17,053.64
Non Treasury Investment Funding/Income	-	-	26,995.11	18,404.37	39,538.85	32,493.74
Total Funding/Income	**100,927.07**	**67,228.99**	**60,048.84**	**51,022.12**	**63,769.21**	**55,232.74**
Total Capital Expenditure	100,927.07	135,015.22	141,515.63	139,872.91	152,885.33	130,112.00
Net financing need for the year	**-**	**67,786.23**	**81,466.79**	**88,850.79**	**89,116.12**	**74,879.26**
Minimum Revenue Provision (MRP)	- 10,940.53	- 10,502.91	- 12,794.24	- 15,541.15	- 18,473.53	- 21,299.24
Borrowing Requirement	**- 10,940.53**	**57,283.32**	**68,672.55**	**73,309.64**	**70,642.59**	**53,580.02**

2.4 The net financing need split between capital expenditure and non-treasury investments is shown below, to help show the relative scale of non-treasury investments.

Table 3 – Financing of Non-Treasury Investments

£m	2021/22 Estimate	2022/23 Estimate	2023/24 Estimate	2024/25 Estimate	2025/26 Estimate	2026/27 Estimate
WPDG Capital Investment	0.000	4,071.070	11,511.220	8,903.780	22,127.030	21,125.700
Less: WDPG Related Receipts and Repayments	0.000	0.000	14,532.795	2,029.800	19,841.030	15,440.100
WRIF Capital Investment	2,400.000	30,000.000	30,000.000	30,000.000	30,000.000	7,600.000
Less: WRIF Related Receipts and Repayments	0.000	0.000	12,462.317	16,374.567	19,697.815	17,053.644
Net financing need for the year	**2,400.000**	**34,071.070**	**68,506.332**	**57,308.147**	**91,665.875**	**61,219.444**
Percentage of total net financing need %		50.3%	84.1%	64.5%	102.9%	81.8%

2.5 Further details in respect of non-treasury investments are set out in the separate Investment Strategy document.

The Council's Borrowing Need (Capital Financing Requirement)

2.6 The Capital Financing Requirement (CFR) represents capital expenditure financed by external debt and not by capital receipts, revenue contributions, capital grants or third-party contributions at the time of spending. The CFR measures the Authority's underlying need to borrow externally for a capital purpose.

Table 4 – Capital Financing Requirement

£m	2021/22 Estimate	2022/23 Estimate	2023/24 Estimate	2024/25 Estimate	2025/26 Estimate	2026/27 Estimate
CFR – Capital Programme	264,956.79	288,169.04	342,325.48	395,135.71	453,190.11	510,538.18
CFR - WPDG	0.00	4,071.07	1,049.50	7,923.47	10,209.48	15,895.07
CFR - WRIF	2,400.00	32,400.00	49,937.68	63,563.12	73,865.30	64,411.66
Total CFR	**267,356.79**	**324,640.11**	**393,312.66**	**466,622.30**	**537,264.89**	**590,844.91**
Movement in CFR - Capital Programme		33,715.16	66,950.68	68,351.37	76,527.94	78,647.30
Movement in CFR - WPDG		4,071.07	(3,021.58)	6,873.98	2,286.00	5,685.60
Movement in CFR - WRIF		30,000.00	17,537.68	13,625.43	10,302.18	(9,453.64)
Movement in CFR - Total		**67,786.23**	**81,466.79**	**88,850.79**	**89,116.12**	**74,879.26**
Movement in CFR represented by						
Net financing need for the year	0.00	67,786.23	81,466.79	88,850.79	89,116.12	74,879.26
Less MRP and other financing movements	(10,940.53)	(10,502.91)	(12,794.24)	(15,541.15)	(18,473.53)	(21,299.24)
Movement in CFR net of MRP	**(10,940.53)**	**57,283.32**	**68,672.55**	**73,309.64**	**70,642.59**	**53,580.02**

Core Funds and Expected Investment Balances

2.7 The application of resources (capital receipts, reserves etc.) to either finance capital expenditure or other budget decisions to support the revenue budget will have an ongoing impact on investments unless resources are supplemented each year from new sources (asset sales etc.). Detailed below are estimates of the year-end balances for each resource and anticipated day-to-day cash flow balances.

Table 5 – Expected Investments

£m	2021/22 Estimate	2022/23 Estimate	2023/24 Estimate	2024/25 Estimate	2025/26 Estimate	2026/27 Estimate
Fund balances / reserves	220,200.00	198,700.00	174,300.00	158,200.00	142,000.00	142,000.00
Capital receipts	3,037.00	0.00	0.00	0.00	0.00	0.00
Other	7,100.00	7,100.00	7,100.00	7,100.00	7,100.00	7,100.00
Total core funds	**230,337.00**	**205,800.00**	**181,400.00**	**165,300.00**	**149,100.00**	**149,100.00**
Working capital	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00	125,000.00
(Under)/over borrowing	54,049.21	(3,234.11)	(71,906.66)	(135,216.30)	(155,858.89)	(159,438.91)
Expected treasury investments	**409,386.21**	**327,565.89**	**234,493.34**	**155,083.70**	**118,241.11**	**114,661.09**

* Working capital balances shown are estimated year-end; these may be higher mid-year

Minimum Revenue Provision (MRP) Policy Statement

2.8 Capital expenditure is generally expenditure on assets which have a life expectancy of more than one year e.g. buildings, vehicles, machinery etc. It would be impractical to charge the entirety of such expenditure to revenue in the year in which it was incurred and so such expenditure is spread over several years so as to try to match the years over which such assets benefit the local community through their useful life. The manner of spreading these costs is through an annual Minimum Revenue Provision (MRP).

2.9 The MRP should be designed to make prudent provision to redeem debt liabilities over a period which is reasonably commensurate with the associated capital expenditure benefits.

2.10 Having regard to these requirements, the MRP provision will be calculated as set out below.

MRP for Capital Programme Expenditure.

2.11 The MRP provision will be calculated on the average remaining useful life of the Council's asset portfolio. We will calculate and apply the remaining useful life over two categories of asset:

- Land, buildings and infrastructure; and
- Vehicles, plant and equipment and intangible assets.

2.12 The proportion of debt outstanding in each category of asset will be determined by the value of assets included in the balance sheet at the end of each financial year.

2.13 The 2020 review shows that the remaining useful life of our assets is now 22 years. By using an average life of 25 years for our assets equates to an annual provision of 4% straight line MRP.

2.14 For vehicles, plant and equipment, the remaining useful life is assumed to be 6 years e.g. 5 years average remaining useful life will result in 20% straight line MRP.

MRP for the Warwickshire Property Development Group (WPDG)

2.15 Unlike mainstream capital spending where provision for purchase of replacement assets has to be made in order to have funding available for replacement assets, expenditure (investment) in the WPDG will at a later date be repaid in full.

2.16 It is possible to assume that these repayments of principal amount to the necessary revenue provision. However, there is a risk that repayment of principal is not made, or not made in full. In order to mitigate this risk, the MRP policy for the WPDG will be to make a provision as follows

- No MRP will be charged to the revenue account on any equity land or asset transfers into Wholly Owned subsidiaries.
- No MRP will be charged on working capital loans. Any anticipated impairments will be treated following the relevant accounting standards (namely IFRS9 - Financial Instruments), and not charged through the capital financing regime.
- MRP on development loans made to DevCo (a subsidiary of WPDG) will be charged over 25 years of equivalent to 4% per year, in line with the existing MRP policy for the capital programme.
- MRP on loans to ManCo (a subsidiary of WPDG for purchase of assets from DevCo) will be charged to the revenue account over 25 years (4% per year) in order to match the repayment profile of senior lending and operating life of those assets.
- Any capital receipts then received as repayment of the loan principal from ManCo and Dev Co will be used to offset “traditional” borrowing requirements for financing the wider capital programme.

MRP for the Warwickshire Recovery Investment Fund (WRIF)

2.17 Unlike mainstream capital spending where provision for purchase of replacement assets has to be made in order to have funding available for replacement assets, expenditure (investment) in the WRIF will at a later date be repaid in full.

2.18 It is possible to assume that these repayments of principal amount to the necessary revenue provision. However, there is a risk that repayment of principal is not made, or not made in full. In order to mitigate this risk the MRP policy for the WRIF will be to make a provision as follows:

- MRP on WRIF loans that are capital in nature will be 4% per year. This aligns with the intention for MRP to be associated with the underlying asset life rather than the duration of the loan.
- Any capital receipts then received as repayment of the loan principal from WRIF will be used to offset “traditional” borrowing requirements for financing the wider capital programme.

MRP Calculation

2.19 The actual calculation of MRP will be based on the [Total Capital Financing Requirement x 4%]. This is deemed to be a prudent overall level of provision based upon the requirements set out above.

2.20 The Council has the option to directly and specifically link internal borrowing to specific investments and where this is the case a MRP would not be made. This would mean that repayments associated with the loan would not be capital and would therefore not be ringfenced to financing capital spending. Any anticipated impairments will be treated following the relevant accounting standards (namely IFRS9 - Financial Instruments), and not charged through the capital financing regime. However, the default position is that specific funding sources are not directly linked to specific investments therefore an express decision to link specific funding to a specific investment would need to be made for this to happen.

3.0 BORROWING

3.1 Capital expenditure plans are set out in detail in the Capital Strategy. The treasury management function ensures that the Council's cash is managed in accordance with the relevant professional codes, so that sufficient cash is available to meet the Council's capital strategy and revenue service activity. This will involve both the organisation of the cash flow and, where capital plans require, the organisation of appropriate borrowing facilities. The strategy covers the relevant treasury / prudential indicators, the current and projected debt positions and the annual treasury investment strategy.

3.2 The council currently holds an over borrowed position (meaning external borrowing is greater than the total capital financing requirement), however this is forecast to change based on capital expenditure plans in the coming years. The need for further borrowing will be kept under review.

Current Portfolio Position

3.3 The overall treasury management portfolio as at 31st March 2021 and 31st December 2021 are shown below for both borrowing and investments.

Table 6 – Current Portfolio Position

Treasury Portfolio				
	Actual 31.03.2021 £m	Actual 31.03.2021 %	**Actual 30.12.2021 £m**	**Actual 30.12.2021 %**
Treasury investments				
Banks	20.021	5%	20.000	5%
Building Societies	50.004	13%	80.000	19%
Local Authorities	128.157	32%	160.000	38%
DMADF (H.M.Treasury)	-	0%		0%
Lloyds Secondary Account and Cash	5.004	1%	7.060	2%
Subtotal - managed in house	**203.186**	**51%**	**267.060**	**64%**
Money Market Funds	148.702	38%	105.628	25%
CCLA Property Fund	10.211	3%	11.474	3%
Threadneedle Social Bond Fund	33.520	8%	33.219	8%
Subtotal - managed externally	**192.433**	**49%**	**150.321**	**36%**
Total treasury investments	**395.619**	**100%**	**417.381**	**100%**
Treasury external borrowing				
PWLB	321.406	100%	321.406	100%
Total external borrowing	**321.406**		**321.406**	
Net treasury investments / (borrowing)	**74.213**		**95.975**	

3.4 Annex 2 sets out the current maturity profile of investments held, and the borrowing portfolio. Currently there is a significant concentration of debt maturities across the period 2050-2060.

3.5 The Council's forward projections for borrowing are summarised below. The table shows the actual external debt, against the underlying capital borrowing need, (the Capital Financing Requirement - CFR), highlighting any over or under borrowing.

Table 7 – External Debt Forecast

£m	2021/22 Estimate	2022/23 Estimate	2023/24 Estimate	2024/25 Estimate	2025/26 Estimate	2026/27 Estimate
External Debt						
Debt at 1 April	321.406	321.406	321.406	321.406	331.406	381.406
New Debt				10.000	50.000	50.000
Actual gross debt at 31 March	**321.406**	**321.406**	**321.406**	**331.406**	**381.406**	**431.406**
The Capital Financing Requirement	267.357	324.640	393.313	466.622	537.265	590.845
Under / (over) borrowing	**- 54.049**	**3.234**	**71.907**	**135.216**	**155.859**	**159.439**

Internal Debt

3.6 The Council will seek to hold efficient levels of cash and will therefore run down external investment balances and use cash to finance a share of the Capital Financing Requirement. This is referred to as internal borrowing and when implemented it will improve our annual net interest costs, as the loss of interest on investment is currently lower than the cost of interest on external loans. The level of internal borrowing will be kept under review to ensure that the level of total treasury investments (a liquidity buffer) does not fall below £125m.

Table 8 – Internal Debt Forecast

£m	2021/22 Estimate	2022/23 Estimate	2023/24 Estimate	2024/25 Estimate	2025/26 Estimate	2026/27 Estimate
External Debt	321.406	321.406	321.406	331.406	381.406	431.406
Internal Debt (internal borrowing)	-	3.234	71.907	135.216	155.859	159.439
Internal borrowing as % of CFR	**0.0%**	**1.0%**	**18.3%**	**29.0%**	**29.0%**	**27.0%**

3.7 Where it is deemed appropriate to add to the level of current external loan finance, any risks associated with such borrowing will be subject to prior appraisal (including borrow now or borrow later analysis) and subsequent reporting through the mid-year or annual reporting mechanism.

3.8 Within the range of prudential indicators there are a number of key indicators to ensure that the Council operates its activities within well-defined limits. One of these is that the Council needs to ensure that its gross debt does not, except in the short term, exceed the total of the CFR in the preceding year plus the estimates of any additional CFR for 2022/23 and the following two financial years. This allows some flexibility for limited early borrowing for future years but ensures that borrowing is not undertaken for revenue or speculative purposes.

3.9 The Assistant Director - Finance reports that the Council complied with this prudential indicator in the current year and does not envisage difficulties for the future. This view takes into account current commitments, existing plans, and the proposals in this budget report.

Treasury Indicators: Limits to Borrowing Activity

3.10 **The operational boundary** – This is the limit beyond which external debt is not normally expected to exceed. In most cases, this would be a similar figure to the CFR, but may be lower or higher depending on the levels of actual debt and the ability to fund under-borrowing by other cash resources.

Table 9 – Operational Boundary

£m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
External Debt	321.406	357.104	432.644	513.285	590.991	649.929
Total	**321.406**	**357.104**	**432.644**	**513.285**	**590.991**	**649.929**

The Authorised Limit for External Debt

3.11 This is a key prudential indicator and represents a control on the maximum level of borrowing. This represents a legal limit beyond which external debt is prohibited, and this limit needs to be set or revised by the full Council. It reflects the level of external debt which, while not desired, could be afforded in the short term, but is not sustainable in the longer term.

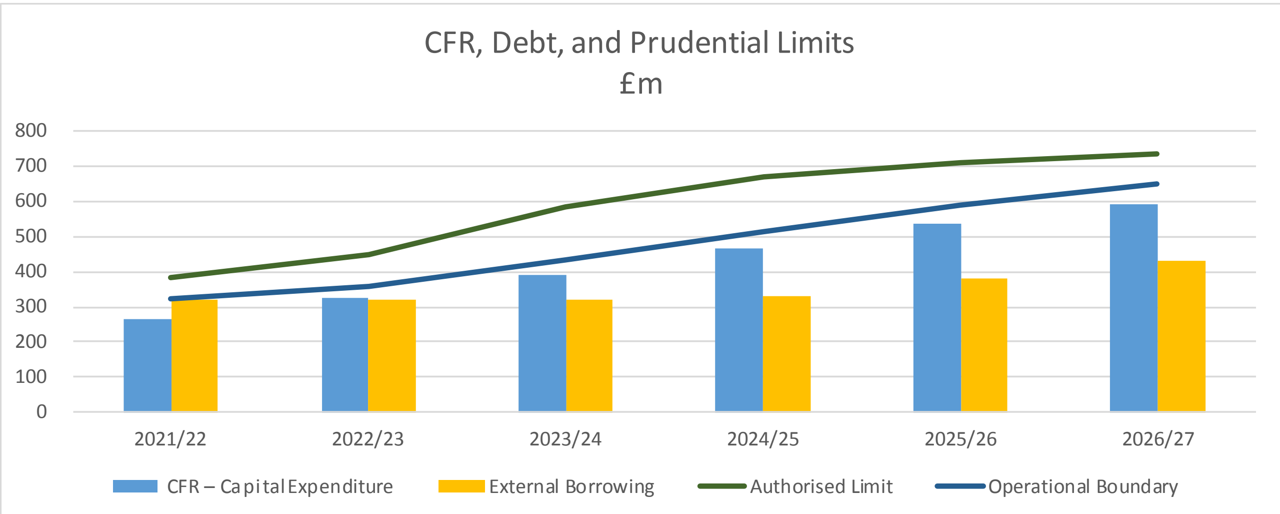
3.12 This is the statutory limit determined under section 3 (1) of the Local Government Act 2003. The Government retains an option to control either the total of all councils' plans, or those of a specific council, although this power has not yet been exercised.

3.13 The Council is asked to approve the following authorised limit.

Table 10 – Authorised Limit

£m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
External Debt	386.000	449.000	585.000	673.000	713.000	739.000
Total	**386.000**	**449.000**	**585.000**	**673.000**	**713.000**	**739.000**

Chart 1 - Capital Financing Requirement, Debt and Prudential Limits



Prospects for Interest Rates

3.14 The Council has appointed Link Group as its treasury advisor and part of their service is to assist the Council to formulate a view on interest rates. Link provided the following forecasts on 8 November 2021. These are forecasts for certainty rates, gilt yields plus 80 bps.

Table 11 – Interest Rate Forecasts

Link Group Interest Rate View 8.11.21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24	Mar-25
BANK RATE	0.25	0.25	0.50	0.50	0.50	0.75	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.25
3 month ave earnings	0.30	0.40	0.50	0.50	0.50	0.60	0.80	0.90	1.00	1.00	1.00	1.00	1.00	1.00
6 month ave earnings	0.40	0.50	0.60	0.60	0.70	0.80	0.90	1.00	1.10	1.10	1.10	1.10	1.10	1.10
12 month ave earnings	0.50	0.60	0.70	0.70	0.80	0.90	1.00	1.10	1.20	1.20	1.20	1.20	1.20	1.20
5 yr PWLB	1.50	1.50	1.60	1.60	1.70	1.70	1.70	1.80	1.80	1.80	1.90	1.90	2.00	2.00
10 yr PWLB	1.80	1.90	1.90	2.00	2.00	2.10	2.10	2.20	2.20	2.20	2.30	2.30	2.30	2.40
25 yr PWLB	2.10	2.20	2.30	2.40	2.40	2.40	2.50	2.50	2.60	2.60	2.60	2.60	2.70	2.70
50 yr PWLB	1.90	2.00	2.10	2.20	2.20	2.20	2.30	2.30	2.40	2.40	2.40	2.40	2.50	2.50

3.15 The coronavirus outbreak has done huge economic damage to the UK and to economies around the world. After the Bank of England took emergency action in March 2020 to cut Bank Rate to 0.10%, it left Bank Rate unchanged at its subsequent meetings.

3.16 As shown in the forecast table above, the forecast for Bank Rate now includes five increases, one in December 2021 to 0.25%, then quarter 2 of 2022 to 0.50%, quarter 1 of 2023 to 0.75%, quarter 1 of 2024 to 1.00% and, finally, one in quarter 1 of 2025 to 1.25%.

3.17 Significant risks to interest rates forecast include:

- **Labour and supply shortages** prove more enduring and disruptive and depress economic activity.
- **Mutations** of the virus render current vaccines ineffective, and tweaked vaccines to combat these mutations are delayed, resulting in further national lockdowns or severe regional restrictions.
- **The Monetary Policy Committee** acts too quickly, or too far, over the next three years to raise Bank Rate and causes UK economic growth, and increases in inflation, to be weaker than we currently anticipate.
- **The Monetary Policy Committee** tightens monetary policy too late to ward off building inflationary pressures.
- **The Government** acts too quickly to cut expenditure to balance the national budget.
- **UK / EU trade arrangements** – if there was a major impact on trade flows and financial services due to complications or lack of co-operation in sorting out significant remaining issues.

- **German general election** in September 2021. Germany faces months of uncertainty while a new coalition government is cobbled together after the indecisive result of the election. Once that coalition is formed, Angela Merkel's tenure as Chancellor will end and will leave a hole in overall EU leadership.
- **Longer term US treasury yields** rise strongly and pull gilt yields up higher than forecast.
- **Major stock markets** e.g., in the US, become increasingly judged as being over-valued and susceptible to major price corrections. Central banks become increasingly exposed to the "moral hazard" risks of having to buy shares and corporate bonds to reduce the impact of major financial market selloffs on the general economy.
- **Geopolitical risks,** for example in Iran, North Korea, but also in Europe and Middle Eastern countries; on-going global power influence struggles between Russia/China/US. These could lead to increasing safe-haven flows.

The Balance of Risks to the UK Economy

3.18 The overall balance of risks to economic growth in the UK is now lessening, including residual risks from Covid and its variants - both domestically and their potential effects worldwide.

Forecasts for Bank Rate

3.19 It is not expected that Bank Rate will go up fast after the initial rate rise as the supply potential of the economy is not likely to have taken a major hit during the pandemic. The economy should, therefore, be able to cope well with meeting demand after supply shortages subside over the next year, without causing inflation to remain elevated in the medium-term, or to inhibit inflation from falling back towards the MPC's 2% target after the spike up to around 5%. The forecast includes five increases in Bank Rate over the three-year forecast period to March 2025, ending at 1.25%. However, it is likely that these forecasts will need changing within a relatively short timeframe for the following reasons:

- There are increasing grounds for viewing the economic recovery as running out of steam during the summer and now into the autumn. This could lead into stagflation which would create a dilemma for the MPC as to whether to focus on combating inflation or supporting economic growth through keeping interest rates low.
- Will some current key supply shortages spill over into causing economic activity in some sectors to take a significant hit?
- Rising gas and electricity prices in October and next April and increases in other prices caused by supply shortages and increases in taxation next April, are already going to deflate consumer spending power without the MPC having to take any action on Bank Rate to cool inflation.
- On the other hand, consumers are sitting on over £160bn of excess savings left over from the pandemic so when will they spend this sum, in part or in total?
- It is estimated that there were around 1 million people who came off furlough at the end of September; how many of those would not have had jobs on 1st October and would therefore be available to fill labour shortages which are creating a major headache in many sectors of the economy? So, supply shortages which have been

driving up both wages and costs, could reduce significantly within the next six months or so and alleviate one of the MPC's key current concerns.

- We also recognise there could be further nasty surprises on the Covid front, on top of the flu season this winter, and even the possibility of another lockdown, which could all depress economic activity.

3.20 In summary, with the high level of uncertainty prevailing on several different fronts, it is likely that these forecasts will be revised again over the next few months as things evolve and clarify.

3.21 It should also be borne in mind that the bank rate being cut to 0.10% was an emergency measure to deal with the Covid crisis hitting the UK in March 2020. At any time, the MPC could decide to simply take away that final emergency cut from 0.25% to 0.10% on no other grounds than it being no longer warranted and as a step forward in the return to normalisation. In addition, any Bank Rate under 1% is both highly unusual and highly supportive of economic growth.

Forecasts for PWLB Rates and Gilt and Treasury Yields

3.22 As the interest forecast table for PWLB certainty rates above shows, there is likely to be a steady rise over the forecast period, with some degree of uplift due to rising treasury yields in the US.

3.23 There is likely to be **exceptional volatility and unpredictability in respect of gilt yields and PWLB rates** due to the following factors:

- How strongly will changes in gilt yields be correlated to changes in US treasury yields (see below). Over 10 years since 2011 there has been an average 75% correlation between movements in US treasury yields and gilt yields. However, from time to time these two yields can diverge. Lack of spare economic capacity and rising inflationary pressures are viewed as being much greater dangers in the US than in the UK. This could mean that central bank rates will end up rising earlier and higher in the US than in the UK if inflationary pressures were to escalate; the consequent increases in treasury yields could well spill over to cause (lesser) increases in gilt yields. There is, therefore, an upside risk to forecasts for gilt yields due to this correlation. The Link Group forecasts have included a risk of a 75% correlation between the two yields.
- Will the US Federal Bank (Fed) take action to counter increasing treasury yields if they rise beyond a yet unspecified level?
- Would the MPC act to counter increasing gilt yields if they rise beyond a yet unspecified level?
- How strong will inflationary pressures actually turn out to be in both the US and the UK and so put upward pressure on treasury and gilt yields?
- How will central banks implement their new average or sustainable level inflation monetary policies?
- How well will central banks manage the withdrawal of QE purchases of their national bonds i.e., without causing a panic reaction in financial markets as happened in the "taper tantrums" in the US in 2013?

- Will exceptional volatility be focused on the short or long-end of the yield curve, or both?

3.24 The forecasts are also predicated on an assumption that there is no break-up of the Eurozone or EU within the forecasting period, despite the major challenges that are looming up, and that there are no major ructions in international relations, especially between the US and China / North Korea and Iran, which have a major impact on international trade and world GDP growth.

3.25 **Gilt and Treasury Yields** – Since the start of 2021, there has been a lot of volatility in gilt yields, and hence PWLB rates. During the first part of the year, US President Biden's, and the Democratic party's, determination to push through a $1.9trn (equivalent to 8.8% of GDP) fiscal boost for the US economy as a recovery package from the Covid pandemic was what unsettled financial markets. However, this was in addition to the $900bn support package already passed in December 2020. This was then followed by additional Democratic ambition to spend $1trn on infrastructure, which has just been passed by both houses, and an even larger sum on an American families plan over the next decade; this is still caught up in Democrat / Republican haggling. Financial markets were alarmed that all this stimulus was happening at a time when:

- A fast vaccination programme has enabled a rapid opening up of the economy.
- The economy has been growing strongly during 2021.
- It started from a position of little spare capacity due to less severe lockdown measures than in many other countries.
- And the Fed was still providing stimulus through monthly QE purchases.

3.26 These factors could cause an excess of demand in the economy which could then unleash strong inflationary pressures. This could then force the Fed to take much earlier action to start increasing the Fed rate from near zero, despite their stated policy being to target average inflation.

3.27 At its 3rd November meeting, the Fed decided to make a start on tapering QE purchases with the current $80bn per month of Treasury securities to be trimmed by $10bn in November and a further $10bn in December. The $40bn of MBS purchases per month will be trimmed by $5bn in each month. If the run-down continued at that pace, the purchases would cease entirely next June but the Fed has reserved the ability to adjust purchases up or down. This met market expectations. These purchases are currently acting as downward pressure on treasury yields and so it would be expected that Treasury yields would rise as a consequence over the taper period, all other things being equal.

3.28 However, on the inflation front it was still insisting that the surge in inflation was "largely" transitory. In his post-meeting press conference, Chair Jerome Powell claimed that "the drivers of higher inflation have been predominantly connected to the dislocations caused by the pandemic" and argued that the Fed's tools cannot address supply constraints. However, with the Fed now placing major emphasis on its mandate for ensuring full employment, (besides containing inflation), at a time when employment has fallen by 5 million and 3 million have left the work force, resignations have surged due to the ease of getting better paid jobs and so wage pressures have built rapidly.

3.29 With wage growth at its strongest since the early 1980s, inflation expectations rising and signs of a breakout in cyclical price inflation, particularly rents, the FOMC's insistence that this is still just a temporary shock "related to the pandemic and the reopening of the economy", does raise doubts which could undermine market confidence in the Fed and lead to higher treasury yields.

3.30 As the US financial markets are, by far, the biggest financial markets in the world, any upward trend in treasury yields will invariably impact and influence financial markets in other countries. Inflationary pressures and erosion of surplus economic capacity look much stronger in the US compared to those in the UK, which would suggest that Fed rate increases eventually needed to suppress inflation, are likely to be faster and stronger than Bank Rate increases in the UK. This is likely to put upward pressure on treasury yields which could then spill over into putting upward pressure on UK gilt yields.

3.31 There is a balance of upside risks to forecasts for medium to long term PWLB rates.

A New Era, a Fundamental Shift in Central Bank Monetary Policy

3.32 One of the key results of the pandemic has been a fundamental rethinking and shift in monetary policy by major central banks like the US Federal Bank (Fed), the Bank of England (BoE) and the European Central Bank (ECB), to tolerate a higher level of inflation than in the previous two decades when inflation was the prime target to bear down on so as to stop it going above a target rate. There is now also a greater emphasis on other targets for monetary policy than just inflation, especially on ‘achieving broad and inclusive “maximum” employment in its entirety’ in the US, before consideration would be given to increasing rates.

- The Fed has gone furthest in adopting a monetary policy based on a clear goal of allowing the inflation target to be symmetrical, (rather than a ceiling to keep under), so that inflation averages out the dips down and surges above the target rate, over an unspecified period of time.
- The BoE has also amended its target for monetary policy so that inflation should be ‘sustainably over 2%’ before starting on raising Bank Rate and the ECB now has a similar policy.

3.33 For local authorities, this means that investment interest rates and very short term PWLB rates will not be rising as quickly or as high as in previous decades when the economy recovers from a downturn and the recovery eventually runs out of spare capacity to fuel continuing expansion.

3.34 Labour market liberalisation since the 1970s has helped to break the wage-price spirals that fuelled high levels of inflation and has now set inflation on a lower path which makes this shift in monetary policy practicable. In addition, recent changes in flexible employment practices, the rise of the gig economy and technological changes, will all help to lower inflationary pressures.

3.35 Governments will also be concerned to see interest rates stay lower as every rise in central rates will add to the cost of vastly expanded levels of national debt; (in the UK this is £21bn for each 1% rise in rates). On the other hand, higher levels of inflation will help to erode the real value of total public debt.

Investment and Borrowing Rates

3.36 **Investment returns** are expected to improve in 2022/23. However, while markets are pricing in a series of Bank Rate hikes, actual economic circumstances may see the Monetary Policy Committee (MPC) fall short of these elevated expectations.

3.37 **Borrowing interest rates** fell to historically very low rates as a result of the COVID crisis and the quantitative easing operations of the Bank of England and still remain at historically low levels. The policy of avoiding new borrowing by running down spare cash balances has served local authorities well over the last few years.

3.38 On 25.11.20, the Chancellor announced the conclusion to the review of margins over gilt yields for PWLB rates which had been increased by 100 bps in October 2019. The standard and certainty margins were reduced by 100 bps but a prohibition was introduced to deny access to borrowing from the PWLB for any local authority which had purchase of assets for yield in its three-year capital programme. The current margins over gilt yields are as follows:

- **PWLB Standard Rate** is gilt plus 100 basis points (G+100bps)
- **PWLB Certainty Rate** is gilt plus 80 basis points (G+80bps)
- **PWLB HRA Standard Rate** is gilt plus 100 basis points (G+100bps)
- **PWLB HRA Certainty Rate** is gilt plus 80bps (G+80bps)
- **Local Infrastructure Rate** is gilt plus 60bps (G+60bps)

3.39 **Borrowing for capital expenditure** – Our long-term (beyond 10 years), forecast for Bank Rate is 2.00%. As some PWLB certainty rates are currently below 2.00%, there remains value in considering long-term borrowing from the PWLB where appropriate. Temporary borrowing rates are likely, however, to remain near Bank Rate and may also prove attractive as part of a balanced debt portfolio. In addition, there are also some cheap alternative sources of long-term borrowing if an authority is seeking to avoid a "cost of carry" but also wishes to mitigate future re-financing risk. (*Amend as appropriate).*

3.40 While this authority will not be able to avoid borrowing to finance new capital expenditure, to replace maturing debt and the rundown of reserves, there will be a cost of carry, (the difference between higher borrowing costs and lower investment returns), to any new borrowing that causes a temporary increase in cash balances.

Borrowing Strategy

3.41 The Council is currently maintaining an over-borrowed position. This means that more external borrowing exists than is necessary which results in higher cash balances being held by the council. However, the borrowing position is forecast to change based on the capital expenditure planned over the next 5 years and beyond, switching to an "under-borrowed" position. This is planned in order to make efficient use of cash balances. By, in effect, borrowing from internal balances the cost of borrowing is lower than borrowing from an external lender.

3.42 Against this background and the risks within the economic forecast, caution will be adopted with the 2022/23 treasury operations. The Assistant Director - Finance will monitor interest rates in financial markets and adopt a pragmatic approach to changing circumstances:

- if it was felt that there was a significant risk of a sharp FALL in borrowing rates, then borrowing will be postponed.

- if it was felt that there was a significant risk of a much sharper RISE in borrowing rates than that currently forecast, perhaps arising from an acceleration in the rate of increase in central rates in the USA and UK, an increase in world economic activity, or a sudden increase in inflation risks, then the portfolio position will be re-appraised. Most likely, fixed rate funding will be drawn whilst interest rates are lower than they are projected to be in the next few years.

3.43 Any decisions will be reported to the appropriate decision-making body at the next available opportunity.

3.44 With the current over-borrowed position, but also being mindful of the economic outlook for 2022/23 (annex 8) the following assumptions will be adopted in the borrowing strategy:

- The cheapest borrowing will be internal borrowing by running down cash balances and foregoing interest earned at historically low rates.
- Internal borrowing will be weighed against potential long-term costs that will be incurred if market loans at long term rates are higher in future years.
- Long term fixed rate market loans at rates significantly below PWLB rates will be considered where available, to ensure the best rates and to maintain an appropriate balance between PWLB and market debt in the debt portfolio.
- PWLB borrowing for periods under ten years will be considered where rates are expected to be significantly lower than rates for longer periods. This offers a range of options for new borrowing which will spread debt maturities away from a current concentration in longer dated debt.
- To ensure that the Council considers all options to secure long-term certainty, the Council may also look to make use of forward starting loans as this will allow us to lock into a known financing rate out of a future date. These loans tend to be offered by Financial institutions (primarily insurance companies and pension funds but also some banks, where the objective is to use the forward loan with a mix of internal loans/temporary borrowing to avoid a “cost of carry” or to achieve refinancing certainty over the next few years).

Policy on Borrowing in Advance of Need

3.45 The Council will not borrow more than or in advance of its needs purely in order to profit from the investment of the extra sums borrowed. Any decision to borrow in advance will be within forward approved Capital Financing Requirement estimates and will be considered carefully to ensure that value for money can be demonstrated and that the Council can ensure the security of such funds.

3.46 However, the Council may borrow in advance of need for risk management or borrowing efficiency purposes. In determining whether borrowing will be undertaken in advance of need, the Council will:

- Ensure that there is a clear link between the capital programme and maturity profile of the existing debt portfolio which supports the need to fund in advance of need;
- Ensure the ongoing revenue liabilities created, and the implications on future plans and budgets have been considered;

- Evaluate the economic and market factors that might influence the manner and timing of any decision;
- Consider the merits and demerits of alternative forms of funding;
- Consider the alternative interest rate bases available, the most appropriate time periods and repayment profiles; and
- Consider the impact of temporarily increasing cash balances until cash is required to finance capital expenditure, and the consequent increase in exposure to counterparty and other risks.

Debt Rescheduling

3.47 As short-term borrowing rates are cheaper than longer term rates, there may be opportunities to generate savings by switching from long term debt to short term debt. However, these savings will need to be considered in the light of their short-term nature and the cost of debt repayments. Reasons for debt rescheduling would include:

- The generation of cash savings and/or discounted cash flow savings;
- Helping to fulfil the strategy; and
- Enhancing the balance of the portfolio, for example reducing concentration of the debt maturity profile.

3.48 The option to make repayment of some external debt to the PWLB in order to reduce the difference between its gross and net debt position will be kept under review. However, the penalty premiums that would be incurred by doing so means there currently is no net financial benefit from such early repayment.

New Financial Institutions as a Source of Borrowing and / or Types of Borrowing

3.49 Currently the PWLB Certainty Rate is set at gilts + 80 basis points for both Housing Revenue Account and non-Housing Revenue Account borrowing. However, consideration may still need to be given to sourcing funding from the following sources for the following reasons (for full list see annex 3):

- Local authorities (primarily shorter dated maturities out to 3 years or so – still cheaper than the Certainty Rate).
- Financial institutions (primarily insurance companies and pension funds but also some banks, out of forward dates where the objective is to avoid a “cost of carry” or to achieve refinancing certainty over the next few years).
- Municipal Bonds Agency (possibly still a viable alternative depending on market circumstances prevailing at the time).

3.50 Our advisors will keep us informed as to the relative merits of each of these alternative funding sources.

4.0 ANNUAL INVESTMENT STRATEGY

Investment Policy – Management of Risk

4.1 The Department of Levelling Up, Housing and Communities (DLUHC - this was formerly the Ministry of Housing, Communities and Local Government (MHCLG)) and CIPFA have extended the meaning of 'investments' to include both financial and non-financial investments. This report deals solely with treasury (financial) investments, (as managed by the treasury management team). Non-financial investments, essentially the purchase of income yielding assets, are covered in the Capital Strategy, (a separate report).

4.2 The Council's investment policy has regard to the following:

- DLUHC's Guidance on Local Government Investments ("the Guidance")
- CIPFA Treasury Management in Public Services Code of Practice and Cross Sectoral Guidance Notes 2017 ("the Code")
- CIPFA Treasury Management Guidance Notes 2018

4.3 The Council's investment priorities will be security first, portfolio liquidity second and then yield (return). The Council will aim to achieve the optimum return (yield) on its investments commensurate with proper levels of security and liquidity and within the Council's risk appetite. In the current economic climate, it is considered appropriate to keep investments short term to cover cash flow needs. However, where appropriate (from an internal as well as external perspective), the Council will also consider the value available in periods up to 12 months with high credit rated financial institutions, as well as wider range fund options.

4.4 The above guidance from the DLUHC and CIPFA places a high priority on the management of risk. This authority has adopted a prudent approach to managing risk and defines its risk appetite by the following means:

a.) Minimum acceptable **credit criteria** are applied in order to generate a list of highly creditworthy counterparties. This also enables diversification and thus avoidance of concentration risk. The key ratings used to monitor counterparties are the short term and long-term ratings.

b.) **Other information:** ratings will not be the sole determinant of the quality of an institution; it is important to continually assess and monitor the financial sector on both a micro and macro basis and in relation to the economic and political environments in which institutions operate. The assessment will also take account of information that reflects the opinion of the markets. To achieve this consideration the Council will engage with its advisors to maintain a monitor on market pricing such as **"credit default swaps"** and overlay that information on top of the credit ratings.

c.) **Other information sources** used will include the financial press, share price and other such information pertaining to the financial sector in order to establish the most robust scrutiny process on the suitability of potential investment counterparties.

d.) This authority has defined the list of **types of investment instruments** that the treasury management team are authorised to use. There are two lists in annex 4 under the categories of 'specified' and 'non-specified' investments -

- **Specified investments** are those with a high level of credit quality and subject to a maturity limit of one year or have less than a year left to run to maturity if originally, they were classified as being non-specified investments solely due to the maturity period exceeding one year.
- **Non-specified investments** are those with less high credit quality, may be for periods in excess of one year, and/or are more complex instruments which require greater consideration by members and officers before being authorised for use.

e.) **Non-specified and loan investment limits.** The Council has determined that it will set a limit to the maximum exposure of the total treasury management investment portfolio to non-specified treasury management investments of £80m.

f.) **Lending limits**, (amounts and maturity), for each counterparty will be set through applying the matrix table in Annex 4.

g.) **Sector Limits.** The Council has determined that it will limit the maximum exposure within difference sectors of investments. These are set out in Annex 4

h.) **Transaction limits** are set for each type of investment in Annex 4.

i.) Investments will only be placed with counterparties from countries with a specified minimum **sovereign rating**, (see paragraph 4.10).

j.) This authority has engaged **external consultants**, (see paragraph 1.11), to provide expert advice on how to optimise an appropriate balance of security, liquidity and yield, given the risk appetite of this authority in the context of the expected level of cash balances and need for liquidity throughout the year.

k.) As a result of the change in accounting standards for 2022/23 under IFRS 9, this authority will consider the implications of investment instruments which could result in an adverse movement in the value of the amount invested and resultant charges at the end of the year to the General Fund. (In November 2018, the MHCLG, concluded a consultation for a temporary override to allow English local authorities time to adjust their portfolio of all pooled investments by announcing a statutory override to delay implementation of IFRS 9 for five years ending 31.3.23.

4.5 However, this authority will also pursue **value for money** in treasury management and will monitor the yield from investment income against appropriate benchmarks for investment performance. Regular monitoring of investment performance will be carried out during the year.

4.6 The above risk management policy criteria are **unchanged** from last year.

Creditworthiness Policy

4.7 The primary principle governing the Council's investment criteria is the security of its investments, although the yield or return on the investment is also a key consideration. After this main principle, the Council will ensure that it:

- Maintains a policy covering both the categories of investment types it will invest in, criteria for choosing investment counterparties with adequate security, and monitoring their security. This is set out in the specified and non-specified investment sections below; and

- Has sufficient liquidity in its investments. For this purpose, it will set out procedures for determining the maximum periods for which funds may prudently be committed. These procedures also apply to the Council's prudential indicators covering the maximum principal sums invested.

4.8 The Assistant Director – Finance will maintain a counterparty list in compliance with the following criteria and will revise the criteria and submit them to Council for approval as necessary. These criteria are separate to that which determines which types of investment instrument are either specified or non-specified as it provides an overall pool of counterparties considered high quality which the Council may use, rather than defining what types of investment instruments are to be used.

4.9 Credit rating information is supplied by the Link Group, our treasury advisors, on all active counterparties that comply with the criteria below. Any counterparty failing to meet the criteria would be omitted from the counterparty (dealing) list. Any rating changes, rating Watches (notification of a likely change), rating Outlooks (notification of the longer-term bias outside the central rating view) are provided to officers almost immediately after they occur, and this information is considered before dealing. For instance, a negative rating Watch applying to counterparty at the minimum Council criteria will be suspended from use, with all others being reviewed in light of market conditions.

4.10 The criteria for providing a pool of high-quality investment counterparties, (both specified and non-specified investments) is:

a.) **Banks of good credit quality –** the Council will only use banks which are:
- UK banks; or
- non-UK and domiciled in a country which has a minimum sovereign Long Term rating of A-

and have, as a minimum, the following Fitch Ratings:
- Short Term – F1
- Long Term – A-

b.) **Council's own Bank** – The Council's own banker for transactional purposes if the bank falls below the above criteria, although in this case balances will be minimised in both monetary size and time invested.

c.) **Building Societies** - The Council will use all societies which meet the ratings for banks outlined above;

d.) **Money Market Funds (MMFs)**:
- CNAV (constant net asset value) – AAA rated
- LVNAV (low volatility net asset value)– AAA rated
- VNAV (variable net asset value) – AAA rated

e.) **Property Funds** - CCLA (refer to table D and E in annexes)

f.) **Social Bond Funds** - Threadneedle (refer to table D and E in annexes)

g.) **Ultra-Short Dated Bond Funds** – at least AA rated

h.) **Local Authorities and Parish Council Loans -** both spot and forward dates

i.) Housing Association Loans

4.11 **Use of additional information other than credit ratings** – Additional requirements under the Code require the Council to supplement credit rating information. Whilst the above criteria relies primarily on the application of credit ratings to provide a pool of appropriate counterparties for officers to use, additional operational market information will be applied before making any specific investment decision from the agreed pool of counterparties. This additional market information (for example Credit Default Swaps, rating Watches/Outlooks) will be applied to compare the relative security of differing investment opportunities.

4.12 **Time and monetary limits applying to investments** – The time and monetary limits for institutions on the Council's counterparty list are as follows (these will cover both specified and non-specified investments):

4.13 **Creditworthiness** – Significant levels of downgrades to short- and long-term credit ratings have not materialised since the crisis in March 2020. In the main, where they did change, any alterations were limited to Outlooks. However, as economies are beginning to reopen, there have been some instances of previous lowering of Outlooks being reversed.

4.14 **Credit Default Swaps (CDS) prices** – Although bank CDS prices (these are market indicators of credit risk) spiked upwards at the end of March / early April 2020 due to the heightened market uncertainty and ensuing liquidity crisis that affected financial markets, they have returned to more average levels since then. However, sentiment can easily shift, so it will remain important to undertake continual monitoring of all aspects of risk and return in the current circumstances. Link monitor CDS prices as part of their creditworthiness service to local authorities and the Council has access to this information via its Link-provided Passport portal.

Other Limits

4.15 Due care will be taken to consider the exposure of the Council's total investment portfolio to non-specified investments, countries, groups and sectors:

a.) **Country limit** – The Council has determined that it will only use approved counterparties from the UK and from countries with a **minimum sovereign credit rating of *A-*** from Fitch Ratings. The list of countries that qualify using this credit criteria as at the date of this report are shown in Annex 5. This list will be added to, or deducted from, by officers should ratings change in accordance with this policy.

b.) **In-house funds** – Investments will be made with reference to the core balance and cash flow requirements and the outlook for short-term interest rates (i.e., rates for investments up to 12 months). Greater returns are usually obtainable by investing for longer periods. While most cash balances are required in order to manage the ups and downs of cash flow where cash sums can be identified that could be invested for longer periods, the value to be obtained from longer term investments will be carefully assessed:

- If it is thought that Bank Rate is likely to rise significantly within the time horizon being considered, then consideration will be given to keeping most investments as being short term or variable.

- Conversely, if it is thought that Bank Rate is likely to fall within that time period, consideration will be given to locking in higher rates currently obtainable, for longer periods.

Investment Returns Expectations

4.16 The current forecast shown in paragraph 3.3, includes a forecast for a first increase in Bank Rate in December 2021 though there is a high risk that it could be delayed until quarter 1 or 2 of 2022.

4.17 The suggested budgeted investment earnings rates for returns on investments placed for periods up to about three months during each financial year, (based on a first increase in Bank Rate in quarter 2 of 2022), are as follows:

Table 12 – Estimated Investment Returns for Budgeting Purposes

Average earnings in each year	Now	Previously
2022/23	0.50%	0.25%
2023/24	0.75%	0.50%
2024/25	1.00%	0.50%
2025/26	1.25%	1.00%
Long term later years	2.00%	2.00%

Investment Performance / Risk Benchmarking

4.18 **Benchmarks** are guides to risk, they may be breached depending on movements in interest rates and counterparty criteria. The purpose of the benchmark is so that officers can monitor the current and trend position and amend the operational strategy to manage risk as conditions change. Current advice suggests using the investment benchmark – ‘returns above the 7-day SONIA compounded rate’.

Non-Treasury Investment Strategy

4.19 A separate document entitled “Investment Strategy” covers the Council’s position in **respect of non-treasury management investments held for service reasons or commercial reasons.**

End of Year Investment Report

4.20 At the end of the financial year, the Council will report on its investment activity as part of its Annual Treasury Report.

External Fund Managers

4.21 The County Council uses a number of external managers to spread risk and obtain maximum market exposure. Current external fund managers actively used during the last year are listed below. This list is not exhaustive and new fund managers may be engaged if necessary. Officers will periodically review the position, performance, and costs of external fund managers, and may meet with client relationship managers or fund managers as appropriate.

- Blackrock
- Deutsche Bank
- Goldman Sachs
- Insight
- Aberdeen
- Federated Hermes
- CCLA
- Threadneedle

Environmental, Social, and Governance Policy

4.22 As a responsible investor, the Council is committed to considering environmental, social, and governance (ESG) issues, and has a particular interest in taking action against climate change and pursuing activities that have a positive social impact.

4.23 However, the treasury management function is controlled by statute and by professional guidelines and the first priorities of treasury must remain security, liquidity, and yield. With those priorities kept in place, the following activity will be undertaken in respect of climate change and responsible investing. Steps will be taken to:

- Ensure an understanding of the degree to which investments may contribute towards climate change. This may take the form of measuring the carbon footprint or some similar measure.
- Where appropriate, move cash balances to funds that have are ESG driven targets, or “green funds”, to ensure our investment is contributing towards tackling ESG issues.
- Identify and understand the extent to which investments which are exposed to risks driven by climate change, for example investments in assets at risk of weather change (e.g. property or infrastructure at risk of flooding), assets at risk of becoming stranded (e.g. fossil fuel investments), or assets at risk from geopolitical risks driven by climate change (e.g. water access, the capacity for food production, or economic conflict).
- Keep abreast of new investment opportunities that have regard to ethical investing and climate change as this is a quickly developing arena.
- Understand the ESG policies of funds when considering new investment opportunities.

Pension Fund Cash

4.24 This Council will comply with the requirements of The Local Government Pension Scheme (Management and Investment of Funds) Regulations 2009, implemented 1 January 2010. With effect 1 April 2010, the Council does not pool pension fund cash with its own cash balances for investment purposes. Any investments made by the pension fund directly with this local authority after 1 April 2010 must comply with the requirements of SI 2009 No 393. The council has a separate statement for Pension Fund investment purposes.

ANNEXES

1. Prudential and Treasury Indicators
2. Treasury Management - Portfolio
3. Approved Sources of Long and Short Term borrowing
4. Treasury management - Practice
5. Approved Countries for Investments
6. Treasury Management - Scheme of Delegation
7. Treasury management - Role of the Section 151 Officer
8. Economic background

Annex 1

Prudential and Treasury Indicators

The Council's capital expenditure plans are the key driver of treasury management activity. The output of the capital expenditure plans is reflected in the prudential indicators, which are designed to assist members' overview and confirm capital expenditure plans.

The following indicators are set out in the main body of the report:

Prudential Indicator	Reference
Capital Expenditure	Table 1
Gross Debt	Table 2
Capital Financing Requirement	Table 4
Over/Under Borrowing	Table 5
Borrowing - Operational Boundary	Table 9
Borrowing - Authorised Borrowing Limit	Table 10

In addition, the prudential indicators below will be applied.

TREASURY MANAGEMENT PRUDENTIAL INDICATORS	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Upper limit for fixed interest rate exposure						
Net principal re fixed rate borrowing / fixed term investments	100%	100%	100%	100%	100%	100%
Upper limit for variable rate exposure						
Net principal re fixed rate borrowing / fixed term investments	25%	25%	25%	25%	25%	25%
Upper limit for total principal sums invested for over 365 days	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**
(per maturity date)	80,000	80,000	80,000	80,000	80,000	80,000

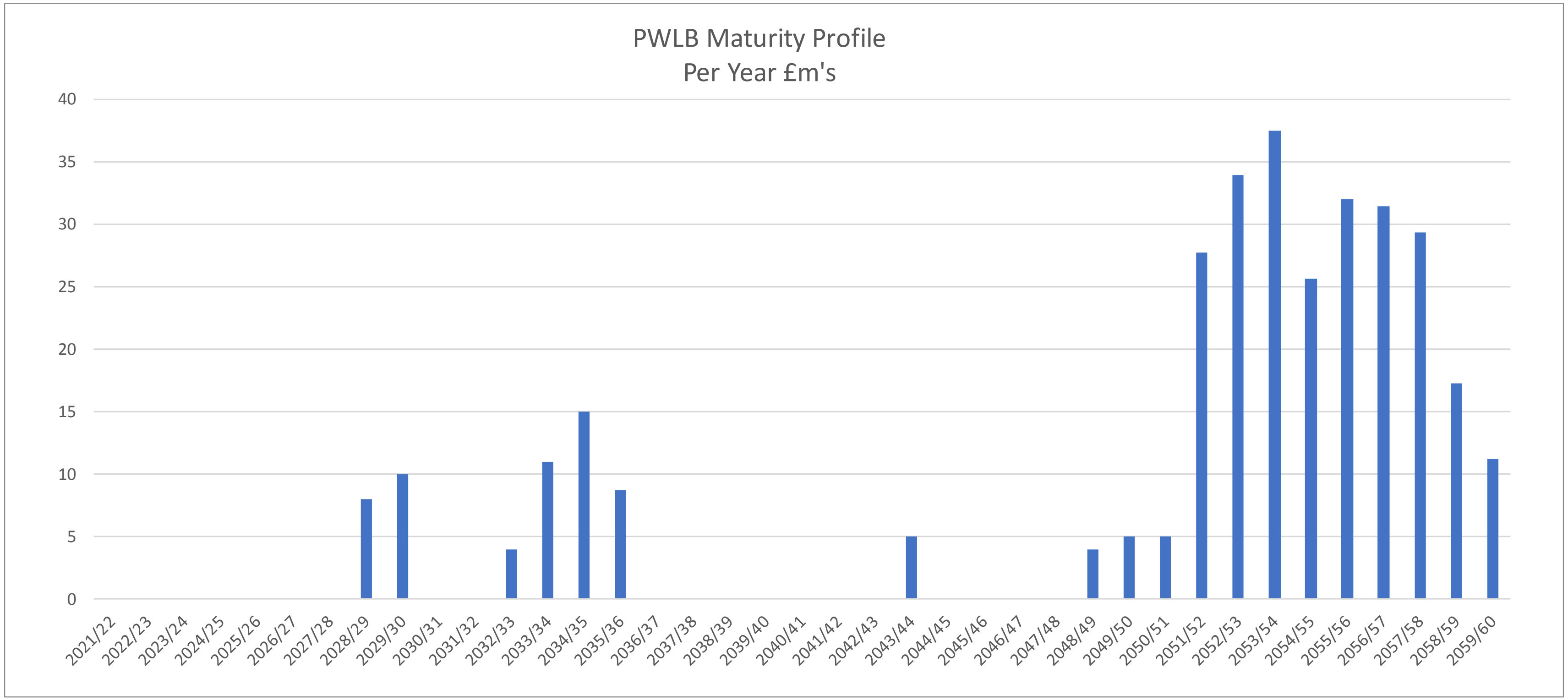
Maturity structure of new fixed rate borrowing during year	upper limit	lower limit
under 12 months	20%	0%
12 months and within 24 months	40%	0%
24 months and within 5 years	60%	0%
5 years and within 10 years	100%	0%
10 years and above	100%	0%

Maturity structure of new external borrowing during year	upper limit	lower limit
under 12 months	35%	0%
12 months and within 24 months	45%	0%
24 months and within 5 years	65%	0%
5 years and within 10 years	100%	0%
10 years and above	100%	0%

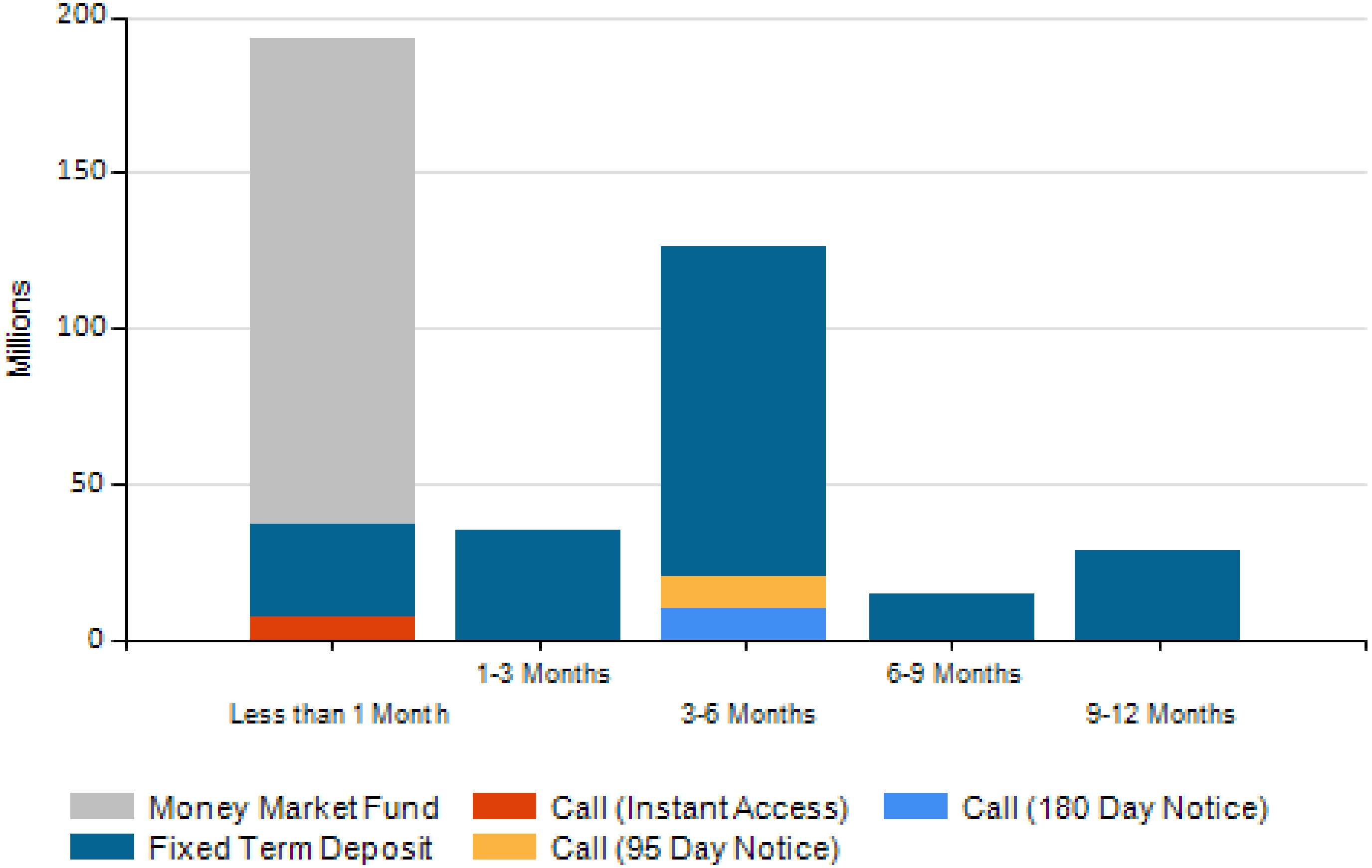
Annex 2

Treasury Management Portfolio

1. Debt Schedule



2. Investment Portfolio as at 30th November 2021



3. Balance Sheet Forecast

Warwickshire County Council
Balance Sheet Projections

2021/22* (£'000)		2022/23 (£'000)	2023/24 (£'000)	2024/25 (£'000)	2025/26 (£'000)	2026/27 (£'000)
	CAPITAL FINANCING REQUIREMENT					
267,357	CFR Relating to General Fund	324,640	393,313	466,622	537,265	590,845
267,357	Total CFR	324,640	393,313	466,622	537,265	590,845
-	Finance Lease Liabilities		-	-	-	-
267,357	Underlying Borrowing Requirement	324,640	393,313	466,622	537,265	590,845
321,406	External Borrowing c/fwd	321,406	321,406	321,406	331,406	381,406
	Loan Maturities					
-	New Loans	-	-	10,000	50,000	50,000
321,406	External Borrowing	321,406	321,406	331,406	381,406	431,406
(54,049)	Under / (Over) Borrowing	3,234	71,907	135,216	155,859	159,439
-20%	*Borrowing as a % of Requirement*	*1%*	*18%*	*29%*	*29%*	*27%*
	RESERVES / BALANCES, INVESTMENTS & WORKING CAPITAL (£'000)					
21,400	General Fund Balance	21,400	21,400	21,400	21,400	21,400
(12,100)	Collection Fund Adjustment Account	-	-	-	-	-
210,900	Earmarked reserves	177,300	152,900	136,800	120,600	120,600
3,037	Capital Receipts Reserve	-	-	-	-	-
7,100	Provisions	7,100	7,100	7,100	7,100	7,100
-	Capital Grants Unapplied	-	-	-	-	-
54,049	Over / (Under) Borrowing	(3,234)	(71,907)	(135,216)	(155,859)	(159,439)
125,000	Working Capital	125,000	125,000	125,000	125,000	125,000
409,386	Expected Treasury Investments	327,566	234,493	155,084	118,241	114,661

*Year end balances currently estimated for 2021/22

Annex 3

Approved Sources of Long and Short-Term Borrowing

On Balance Sheet	Fixed	Variable
PWLB	●	●
Municipal bond agency	●	●
Local authorities	●	●
Banks	●	●
Pension funds	●	●
Insurance companies	●	●
Market (long-term)	●	●
Market (temporary)	●	●
Market (LOBOs)	●	●
Stock issues	●	●
Local temporary	●	●
Local Bonds	●	
Local authority bills	●	●
Overdraft		●
Negotiable Bonds	●	●
Internal (capital receipts & revenue balances)	●	●
Commercial Paper	●	
Medium Term Notes	●	
Finance leases	●	●

Annex 4

Treasury Management – Practice

4.1 Counterparty Limits

	Fitch Long term Rating	Money Limit	Transaction limit	Time Limit
Banks	*A-*	£20m	£20m	1yr
Building Societies	*A-*	£20m	£20m	1yr
Local authorities	N/A	£10m	£10m	18 months
DMADF	UK sovereign	unlimited	unlimited	6 months
Other Institutions limit	N/A	£10m	£10m	1yr
	Fund rating**	**Money Limit**	**Transaction Limit**	**Time Limit**
Money Market Funds CNAV	AAA	£60m	£60m	liquid
Money Market Funds LVNAV	AAA	£60m	£60m	liquid
Money Market Funds VNAV	AAA	£60m	£60m	liquid
Ultra-Short Dated Bond Funds	AA	£60m	£60m	liquid
Property Fund	N/A	£15m	£15m	90 day
Social Bond Funds	N/A	£40m	£40m	90 day

4.2 Sector Limits

Sector Type	Limit Applied
Money Market Funds (overnight funds) and Instant Access funds	£250m aggregate
Money Market Funds (overnight funds) and Instant Access funds	Maximum holding in any one fund should not represent more than 5% of that funds total asset value (this has increased from 2% last year)
Short Term Investments 7-95 day (deposits, call and notice accounts, property and social bond funds)	£200m aggregate
Medium Term Investments 95-365 day (lending, deposit, call and notice accounts)	£100m aggregate
Lending to Local Authorities	Maximum £200m total
Lending to Local Authorities	Forward deals (deals agreed in advance of the loan issue date) allowed up to a total of 18 months to include both notice and loan term
Deposits with Building Societies	Maximum £100m total

4.3 Specified Investments

Investment Type	Credit Criteria (Fitch Ratings)	Limits (per institution)	Use
DMO Deposit Facility	--	No Limit	In-house
Term deposits: Local Authorities	--	£10m	In-house
Nationalised Banks	Short-term F1, Support 1	£20m	In-house and External Manager
Term deposits: UK Banks	Short-term F1, Long-term A, Viability a, Support 3	£20m	In-house and External Manager
Term deposits: Bank Council uses for current account	--	£20m	In-house and External Manager
Term deposits: UK Building Societies	Top five largest societies as reported annually. (To be continually monitored)	£20m	In-house and External Manager
Term deposits: Overseas Banks	Short-term F1+, Long-term AA- Viability aa, Support 1	£20m	In-house and External Manager
Certificates of deposits issued by UK banks and building societies	Short-term F1, Long-term A, Viability a, Support 3	£20m	External Manager
Money Market Funds	AAA	£60m	In-house and External Manager
Ultra Short Dated Bond Funds	AA	£40m	In-house and External Manager
UK Government Gilts, Treasury Bills	--	No Limit	External Manager
Gilt Funds and Bond Funds	Long-term A	No Limit	External Manager

(All such investments will be sterling denominated, with **maturities up to a maximum of 1 year**, meeting the minimum 'high' rating criteria where applicable)

4.4 Non-Specified Investments

Investment Type	Credit Criteria (Fitch Ratings)	Limits (per institution)	Use
Term deposits: UK banks and building societies with maturities in excess of one year with a maximum of three years allowed for in-house deposits	Short-term F1, Long-term A, Viability a, Support 3	£15m	In-house and External Manager
Fixed Term Deposit with Variable Rates and Variable Maturities	Short-term F1, Long-term A, Viability a+, Support 3	£15m	In-house and External Manager
Certificates of Deposits issued by UK banks and building societies	Short-term F1, Long-term A, Viability a, Support 3	£15m	External Manager
UK Government Gilts with maturities in excess of 1 year	--	£15m	External Manager
Local Government Association Municipal Bond Agency	--	£15m	--
CCLA Property Fund	--	£15m	--
Threadneedle Social Bond Fund	--	£40m	--
Local Authority wholly owned trading company	--	£3.9m	In-house

Annex 5

APPROVED COUNTRIES FOR INVESTMENTS

This list is based on those countries which have sovereign ratings of AA- or higher, (we show the lowest rating from Fitch, Moody's and S&P) and also, (except - at the time of writing - for Hong Kong, Norway and Luxembourg), have banks operating in sterling markets which have credit ratings of green or above in the Link credit worthiness service.

Based on lowest available rating

AAA

- Australia
- Denmark
- Germany
- Luxembourg
- Netherlands
- Norway
- Singapore
- Sweden
- Switzerland

AA+

- Canada
- Finland
- U.S.A.

AA

- Abu Dhabi (UAE)
- France

AA-

- Belgium
- Hong Kong
- Qatar
- **U.K.**

Annex 6

Treasury Management - Scheme of Delegation

(i) Council

- approval of annual strategy.
- budget consideration and approval.
- approval of the division of responsibilities.

(ii) Cabinet

- scrutinise the proposed annual strategy.
- approval of/amendments to the organisation's adopted clauses, treasury management policy statement and treasury management practices.
- Receiving and reviewing monitoring reports and acting on recommendations.

(iii) Resources and Fire & Rescue Overview and Scrutiny Committee

- Overview and scrutiny of treasury management policy, practice, and activity as required.

Annex 7

Treasury Management - Role of the Section 151 Officer

The S151 (responsible) officer

- recommending clauses, treasury management policy/practices for approval, reviewing the same regularly, and monitoring compliance;
- submitting regular treasury management policy reports;
- submitting budgets and budget variations;
- receiving and reviewing management information reports;
- reviewing the performance of the treasury management function;
- ensuring the adequacy of treasury management resources and skills, and the effective division of responsibilities within the treasury management function;
- ensuring the adequacy of internal audit, and liaising with external audit;
- recommending the appointment of external service providers.
- preparation of a capital strategy to include capital expenditure, capital financing, non-financial investments and treasury management, with a long term timeframe.
- Recommending the MRP policy.

ECONOMIC BACKGROUND

MPC meeting 4th November 2021

- The Monetary Policy Committee (MPC) voted 7-2 to leave Bank Rate unchanged at 0.10% with two members voting for an increase to 0.25% and made no changes to its programme of quantitative easing purchases due to finish by the end of this year at a total of £895bn by a vote of 6-3.
- After the Governor and other MPC members had made speeches prior to the MPC meeting in which they stressed concerns over inflation, (the Bank is now forecasting inflation to reach 5% in April when the next round of capped gas prices will go up), thus reinforcing the strong message from the September MPC meeting, financial markets had confidently built in an expectation that Bank Rate would go up from 0.10% to 0.25% at this meeting. However, these were not messages that the MPC would definitely increase Bank Rate at the first upcoming MPC meeting as no MPC member can commit the MPC to make that decision ahead of their discussions at the time. The MPC did comment, however, that Bank Rate would have to go up in the short term. It is, therefore, relatively evenly balanced as to whether Bank rate will be increased in December, February or May. Much will depend on how the statistical releases for the labour market after the end of furlough on 30th September 2021 turn out.
- Information available at the December MPC meeting will be helpful in forming a picture but not conclusive, so this could cause a delay until the February meeting. At the MPC's meeting in February it will only have available the employment figures for November: to get a clearer picture of employment trends, it would, therefore, need to wait until the May meeting (although it also meets in March) when it would have data up until February. At its May meeting, it will also have a clearer understanding of the likely peak of inflation expected around that time. If the statistics show the labour market coping well during the next six months, then it is likely there will be two increases in these three meetings.
- Over the next year the MPC will be doing a delicate balancing act of weighing combating inflation being higher for longer against growth being held back by significant headwinds. Those headwinds are due to supply shortages (pushing prices up and holding back production directly), labour shortages, surging fuel prices and tax increases. However, those headwinds could potentially be offset – at least partially - by consumers spending at least part of the £160bn+ of "excess savings" accumulated during the pandemic. However, it is also possible that more affluent people may be content to hold onto elevated savings and investments and, therefore, not support the economic recovery to the extent that the MPC may forecast.
- The latest forecasts by the Bank showed inflation under-shooting the 3 years ahead 2% target (1.95%), based on market expectations of Bank Rate hitting 1% in 2022. This implies that rates don't need to rise to market expectations of 1.0% by the end of next year.
- It is worth recalling that the MPC pointedly chose to reaffirm its commitment to the 2% inflation target in its statement after the MPC meeting in September yet at its August meeting it had emphasised a willingness to look through inflation overshooting the target for limited periods to ensure that inflation was 'sustainably over 2%'. On balance, once this winter is over and world demand for gas reduces - so that gas prices and electricity prices fall back - and once supply shortages of other goods are addressed, the MPC is forecasting that inflation would return to just under the 2% target.

- **The MPC's forward guidance on its intended monetary policy** on raising Bank Rate versus selling (quantitative easing) holdings of bonds is as follows: -
    1. Raising Bank Rate as "the active instrument in most circumstances".
    2. Raising Bank Rate to 0.50% before starting on reducing its holdings.
    3. Once Bank Rate is at 0.50% it would stop reinvesting maturing gilts.
    4. Once Bank Rate had risen to at least 1%, it would start selling its holdings.

- **COVID-19 vaccines.** These have been the game changer which have enormously boosted confidence that **life in the UK could largely return to normal during the summer** after a third wave of the virus threatened to overwhelm hospitals in the spring. With the household saving rate having been exceptionally high since the first lockdown in March 2020, there is plenty of pent-up demand and purchasing power stored up for services in hard hit sectors like restaurants, travel and hotels. The big question is whether mutations of the virus could develop which render current vaccines ineffective, as opposed to how quickly vaccines can be modified to deal with them and enhanced testing programmes be implemented to contain their spread. There is also a potential for the winter flu season combined with Covid to overwhelm NHS hospitals so the UK is not entirely in the clear yet.
- **Since the September MPC meeting**, the economy has been impacted by rising gas and electricity prices which are now threatening to close down some energy intensive sectors of industry – which would then further impact the supply chain to the rest of the economy. Ports are also becoming increasingly clogged up with containers due to a shortage of lorry drivers to take them away. The labour market statistics for August released in mid-October showed a sharp rise in employment but also a continuing steep rise in vacancies. The combination of all these factors is a considerable headwind to a recovery of economic growth in the months ahead.

US. Shortages of goods and intermediate goods like semi-conductors, are fuelling increases in prices and reducing economic growth potential. It now also appears that there has been a sustained drop in the labour force which suggests the pandemic has had a longer-term scarring effect in reducing potential GDP. Economic growth may therefore be reduced to between 2 and 3% in 2022 and 2023 while core inflation is likely to remain elevated at around 3% in both years instead of declining back to the Fed's 2% central target. This could well cause the Fed to focus on supporting economic growth by delaying interest rate rises, rather than combating elevated inflation i.e., there may be no rate rises until 2023.
See also comments in paragraph 3.3 under PWLB rates and gilt yields.

EU. The slow role out of vaccines initially delayed economic recovery in early 2021 but the vaccination rate then picked up sharply. After a contraction of -0.3% in Q1, Q2 came in with strong growth of 2%. With Q3 at 2.2%, the EU recovery is nearly complete although countries dependent on tourism are lagging. Recent sharp increases in gas and electricity prices have increased overall inflationary pressures but the ECB is likely to see these as being only transitory after an initial burst through to around 4%, so is unlikely to be raising rates for a considerable time.
German general election. With the CDU/CSU and SDP both having won around 24-26% of the vote in the September general election, the composition of Germany's next coalition government may not be agreed by the end of 2021. An SDP-led coalition would probably pursue a slightly less restrictive fiscal policy, but

any change of direction from a CDU/CSU led coalition government is likely to be small. However, with Angela Merkel standing down as Chancellor as soon as a coalition is formed, there will be a hole in overall EU leadership which will be difficult to fill.

China. After a concerted effort to get on top of the virus outbreak in Q1 2020, economic recovery was strong in the rest of the year; this enabled China to recover all the initial contraction. During 2020, policy makers both quashed the virus and implemented a programme of monetary and fiscal support that was particularly effective at stimulating short-term growth. At the same time, China's economy benefited from the shift towards online spending by consumers in developed markets. These factors helped to explain its comparative outperformance compared to western economies during 2020 and earlier in 2021. However, the pace of economic growth has now fallen back after this initial surge of recovery from the pandemic and China is now struggling to contain the spread of the Delta variant through sharp local lockdowns - which will also depress economic growth. There are also questions as to how effective Chinese vaccines are proving. Supply shortages, especially of coal for power generation, which is causing widespread power cuts to industry, are also having a sharp disruptive impact on the economy. In addition, recent regulatory actions motivated by a political agenda to channel activities into officially approved directions, are also likely to reduce the dynamism and long-term growth of the Chinese economy.

Japan. 2021 has been a patchy year in combating Covid. However, recent business surveys indicate that the economy is rebounding rapidly now that the bulk of the population is fully vaccinated and new virus cases have plunged. The Bank of Japan is continuing its very loose monetary policy but with little prospect of getting inflation back above 1% towards its target of 2%, any time soon: indeed, inflation was actually negative in July. New Prime Minister Kishida had promised a large fiscal stimulus package after the November general election which his party has now won.

World growth. World growth was in recession in 2020 but recovered during 2021 until starting to lose momentum more recently. Inflation has been rising due to increases in gas and electricity prices, shipping costs and supply shortages, although these should subside during 2022. It is likely that we are heading into a period where there will be a reversal of **world globalisation** and a decoupling of western countries from dependence on China to supply products, and vice versa. This is likely to reduce world growth rates from those in prior decades.

Supply shortages. The pandemic and extreme weather events, followed by a major surge in demand after lockdowns ended, have been highly disruptive of extended worldwide supply chains. At the current time there are major queues of ships unable to unload their goods at ports in New York, California and China. Such issues have led to a misdistribution of shipping containers around the world and have contributed to a huge increase in the cost of shipping. Combined with a shortage of semi-conductors, these issues have had a disruptive impact on production in many countries. The latest additional disruption has been a shortage of coal in China leading to power cuts focused primarily on producers (rather than consumers), i.e., this will further aggravate shortages in meeting demand for goods. Many western countries are also hitting up against a difficulty in filling job vacancies. It is expected that these issues will be gradually sorted out, but they are currently contributing to a spike upwards in inflation and shortages of materials and goods on shelves.