Policies

Long Term Council Community Plan
incorporating the Annual Plan 2003/04

Waitakere City Council
Te Taiao o Waitakere

Liability Management and Investment Policy

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1 INTRODUCTION

1.1 Purpose of Policy

The purpose of the Liability Management and Investment Policy is to outline approved policies and procedures in respect of all treasury activities undertaken by Waitakere City Council ("the Council") and the management of other liabilities that are incurred in the normal course of Council business. The formalisation of such policies and procedures will enable financial risks within the Council to be prudently managed.

As circumstances change, the policies and procedures outlined in this policy will be modified to ensure that treasury risks within the Council continue to be well managed. Reviews will be conducted when necessary, at least annually to test the existing policy against the following criteria:

- Industry "best practices" for a Council the size and type of Waitakere City Council.
- The risk bearing ability and tolerance levels of the underlying revenue and cost drivers.
- The effectiveness and efficiency of the Liability Management and Investment Policy and treasury management function to recognise, measure, control, manage and report on the Council's financial exposure to market interest rate risks, funding risk, liquidity risks and other associated risks.
- The operation of a pro-active treasury management in an environment of control and compliance.
- The robustness of the policy's risk control limits and risk spreading mechanisms against normal and abnormal interest rate market movements and conditions.
- Assist the Council in achieving strategic objectives relating to ratepayers.

It is intended that the policy be distributed to all personnel involved in any aspect of the Council's financial management. In this respect, all staff must be completely familiar with their responsibilities under the policy at all times.

2 Scope and Objectives

2.1 Scope

- This document identifies the policy and procedures of the Council in respect of treasury management and other financial management activities.
- The policy has not been prepared to cover other aspects of the Council's operations, particularly transactional banking management, systems of internal control and financial management practices. Other policies and procedures of the Council cover these matters.
- Planning tools and mechanisms are also outside of the scope of this policy.

2.2 Objectives

The objective of this Liability Management and Investment Policy is to control and manage costs that can influence operational budgets and public equity. Specifically:

2.2.1 Statutory Objectives

- All borrowing, investments and incidental financial arrangements (eg. use of interest rate hedging financial instruments) will be approved by resolution of the Council in accordance with the Local Government Act 2002. (ref Schedule 7, clause 32)
- All legal documentation in respect to borrowing and financial instruments will be approved by the Council's solicitors prior to the tabling of the resolution.
- The Council will not enter into any borrowings or incidental agreements denominated in a foreign currency. (ref Sect. 113)
- The Council will not transact with any Council controlled organisations on terms more favourable than that which the Council would achieve without pledging rates revenue. (ref Sect. 63)
- A resolution of the Council is not required for hire purchase, credit or deferred purchase of goods if:
  - the period of indebtedness is less than 91 days (including rollovers); or
  - the goods or services are obtained in the ordinary course of operations on normal terms for amounts not exceeding in aggregate, an amount determined by resolution of the Council.

(ref. Sect. 112)

2.2.2 General Objectives

- Minimise the Council's costs and risks in the management of its borrowings and maximise its return on investments.
- Minimise the Council's exposure to adverse interest rate movements.
- Monitor, evaluate and report on treasury performance.
- Borrow funds and transact risk management instruments within an environment of control and compliance under the Council approved Liability Management and Investment Policy so as to protect the Council's financial assets and costs.
- Arrange and structure long term funding for the Council at the lowest achievable interest margin from debt lenders. Optimise flexibility and spread of debt maturity within the funding risk limits established, where possible, by this policy.
- Monitor and report on financing/borrowing covenants and ratios under the obligations of the Council's lending/security arrangements.

- Monitor the Council’s return on investments in Council controlled organisations, property and other shareholdings.
- Ensure the Council, management and relevant staff are kept abreast of latest treasury products, methodologies, and accounting treatments through training and in-house presentations.
- Maintain liquidity levels and manage cash flows within the Council to meet known and reasonable unforeseen funding requirements.
- Ensure that all statutory requirements of a financial nature are adhered to.
- Develop and maintain relationships with financial institutions

3 MANAGEMENT RESPONSIBILITIES

3.1 Delegations of Authorities

Pursuant to clause 32 (2), schedule 7, of the Local Government Act 2002, the Council may make delegations to officers of the Council in order to allow for the efficient conduct of Council business. Clause 32 (3), schedule 7 of this Act allows officers to delegate those powers to other officers.

No withstanding clause 32 (1)(c), schedule 7 the power to borrow money, or purchase or dispose of assets, other than in accordance with the long term council community plan remains the sole responsibility of the Council. This responsibility cannot be delegated.

The limits of approved delegation limits to Officers are contained within the Councils Delegations to Officers – Responsibilities policy.

3.2 Overview of Management Structure

- The Council will operate the treasury management function as a cost centre.
- All treasury management activities are to be undertaken by that function.

3.3 The Council

The Council has ultimate responsibility for ensuring that there is an effective policy for the management of its risks. In this respect the Council decides the level and nature of risks that are acceptable, given the underlying objectives of the Council.

The Council is responsible for approving all policy, as detailed in this Liability Management and Investment Policy and any changes required from time-to-time. While the policy can be reviewed and changes recommended by other persons, the authority to make or change policy cannot be delegated. Further, any changes to this policy with respect to Section 102 (2) will require the use of the special consultative procedure as specified within the Local Government Act 2002.

In this respect, the Council has responsibility for approving:

- The long term financial position of the Council through the 10 year long term council community plan and the adopted annual plan.
- New debt/funding facilities.
- Liability Management and Investment Policy including the following delegated authorities:
  - borrowing, investment and dealing limits and the respective authority levels delegated to the Chief Executive and other management.
  - Interest rate exposure limits and incidental arrangements that can be entered into.
  - Liquidity, and specific borrowing limits.
  - Provisions for the repayment of debt.
  - counterparties and credit limits.
  - risk management methodologies and benchmarks.
  - guidelines for the use of financial instruments.

- The issuance of securities.
- receive an annual review report on the policy.

The Council must also ensure that:

- It receives regular information from management on risk exposure and financial instrument usage in a form, that is understood, and that enables it to make informed judgements as to the level of risk undertaken.
- Issues raised by auditors (both internal and external) in respect of any significant weaknesses in the treasury function are resolved immediately.
- Submissions are received from management requesting approval for one-off transactions falling outside policy guidelines.

The Finance and Operational Performance Committee of Council is currently delegated to undertake this monitoring role, where the Committee is not empowered to act, the Committee shall report to Council and make a recommendation as required.

3.4 Chief Executive

While the Council has final responsibility for the policy governing the management of the Council's risks, it delegates overall responsibility for the day-to-day management of such risks to the Chief Executive.

The Chief Executive's responsibilities include:

- Delegate authority to other officers in accordance with Council's Delegations Policy.
- Ensure the Council's policies comply with existing and new legislation.
- Approve authorised signatories in respect to bank accounts and funding facilities

3.5 Director: Finance

The Chief Executive has delegated to the Director: Finance day-to-day responsibility for management of the Council's financial risks.

The Director: Finance's responsibilities are as follows:

- Delegate authority to other officers ensuring appropriate segregation of duties.
- Report to the Chief Executive.
- Approve authorised signatories in respect of bank accounts and funding facilities.
- Authorise the opening and closing of any bank accounts.
- Approve re-financing of existing debt.
- Approve treasury transactions in accordance with policy parameters outside of the delegated authority limits of other officers, so delegated by the Director: Finance.
- Report all treasury activities on a timely basis.
- Advise of significant treasury events to the Finance and Operational Performance Committee.
- Authorise interest rate hedge transactions (swaps, FRA's and options) with bank counterparties to change the fixed/floating mix to re-profile the Council's interest rate risk.

- Decisions and authorisations to raise and lower fixed rate (interest rate market price re-set >12 months) percentage of total debt within interest rate policy risk control limits.
- Recommend authorised signatories and delegated authorities in respect of all treasury dealing and banking activities.
- Propose new funding requirements for consideration and submission to the Council.
- Review and make recommendations on all aspects of the Liability Management and Investment Policy including dealing limits, approved instruments, counterparties, working capital policies and general guidelines for the use of financial instruments.
- Conduct an annual review of the Liability Management and Investment Policy, treasury procedures and all dealing and counterparty limits.
- Receive advice of breaches of the Liability Management and Investment Policy and significant treasury events from other delegated officers.
- Manage the long term financial position of the Council in accordance with the Council's requirements.
- Ensure that all borrowing and financing covenants to lenders are adhered to.
- Design, analyse, evaluate, test and implement risk management strategies to position the interest rate risk profile to be protected against adverse market movements within the approved policy limits.
- Ensure management procedures and policies are implemented in accordance with this Liability Management and Investment Policy.
- Ensure all financial instruments are valued and accounted for correctly in accordance with current best practice standards.
- Monitor credit ratings of approved counterparties.
- Investigate financing alternatives to minimise borrowing costs, margins and interest rates, making recommendations to the Finance and Operational Performance Committee as appropriate.
- Negotiate bank funding facilities and manage bank and other financial institution relationships, including the debenture trust deed and stock register.
- Monitor and review the performance of the treasury function in terms of achieving the objectives of minimising and stabilising funding costs year-to-year.
- Issue cheques and approve direct debt authorities for money market, interest rate risk management, or capital market transactions.

3.6 Director: Finance duties delegated to other officers

The Director: Finance may delegate certain transactional limits to other officers. However, such delegations should ensuring appropriate segregation of duties. Such delegations include, but are not limited to the following:

- Execute treasury transactions in accordance with set limits.
- Monitor treasury exposure on a regular basis, including current and forecast cash position, interest rate exposures and borrowings.
- Provide written evidence of executed deals on an agreed form immediately to the Accountant.
- Complete daily and weekly reports covering cash/liquidity, interest rate risk position, transaction activity and performance.

- Co-ordinate the compilation of cash flow forecasts and cash management.
- Manage the operation of all bank accounts including arranging group offsets, automatic sweeps and other account features.
- Handle all administrative aspects of bank counterparty agreements and documentation such as loan agreements and ISDA swap documents.
- Prepare treasury reports.
- Account for all treasury transactions in accordance with generally accepted accounting principles and the Council's internal policies.
- Monitor all treasury exposures daily.
- Forecast future cash requirements.
- Provide regular short term and long term cash flow and debt projections to the Director: Finance.
- Report any policy breaches in a timely fashion to the Director: Finance.
- Check all treasury deal confirmations against deal documentation and report any irregularities immediately to the Director: Finance.
- Review monthly reconciliations and summaries of outstanding financial contracts from banking counterparties to internal records.
- Complete all treasury transaction confirmations and settlements on a daily basis.

3.7 Delegation of Authority Limits

Treasury transactions entered into by the Council without the proper authority are difficult to cancel given the legal doctrine of "apparent authority". Also, insufficient authorities for a given bank account or facility may prevent the execution of certain transactions (or at least cause unnecessary delays).

To prevent these types of situations, the following procedures must be complied with:

- All delegated authorities and signatories must be reviewed at least annually to ensure that they are still appropriate and current.
- A comprehensive letter must be sent to all bank counterparties at least every year that details all relevant current delegated authorities of the Council and contracted personnel empowered to bind the Council.

Whenever a person with delegated authority on any account or facility leaves the Council, all relevant banks and other counterparties must be advised in writing immediately to ensure that no unauthorised instructions are to be accepted from such persons.

The Council has the following responsibilities, either directly itself, or via the following stated delegated authorities.

Activity	Delegated Authority	Limit
Approving and changing policy	The Council	Unlimited (subject to legislative and other regulatory limitations)
Borrowing new debt	The Council	Unlimited (subject to legislative and other regulatory limitations)
Overall day-to-day risk management	Chief Executive (delegated by Council)	Subject to policy

	Director: Finance (delegated by Chief Executive)	
Re-financing existing debt	Chief Executive (delegated by Council) Director: Finance (delegated by Chief Executive)	Subject to policy
Approving transactions outside policy	The Council	Unlimited (subject to legislative and other regulatory limitations)
Adjust interest rate risk profile	Director Finance delegating to the Funds Accountant each adjustment individually signed off by the Director: Finance and one other authorised signatory	Agreed Fixed/floating ratio Agreed Fixed rate maturity profile limit as per risk control limits
Managing funding maturities in accordance with Council approved facilities	Director: Finance	Per risk control limits
Maximum daily transaction amount (borrowing, investing, interest rate risk management	The Council	Unlimited (subject to legislative and other regulatory limitations)
	Director: Finance (delegated by Chief Executive)	Unlimited (subject to legislative and other regulatory limitations) subject to countersigning by one other authorised signatory.
	Director: Finance	30 Million short term borrowing.
	Delegated finance officer (delegated by Director: Finance)	$5 million subject to two authorised signatories.
Authorising lists of signatories	Director: Finance	Unlimited
Opening/closing bank accounts	Any two Authorised Signatories	Unlimited
Annual review of policy	Director: Finance	N/A
Ensuring compliance with policy	Director: Finance	N/A

4 LIABILITY MANAGEMENT POLICY AND LIMITS

4.1 Debt Ratios and Limits

Debt will be managed within the following macro limits.

Ratio	
Net debt as a percentage of equity	<20%
Net debt as a percentage of income	<150%
Net Interest as a percentage of income	<15%
Net Interest as a percentage of annual rates income	<20%
Liquidity (Undrawn Committed loan facilities / Next quarters maturity portion of net debt)	>100%

Income is defined as earnings from rates, government grants and subsidies, user charges, interest and other revenue.

'Rates' exclude regional levies but include general and water rates.

In addition to the above limits, net debt per capita will also be monitored with the intention of containing this to within an agreed parameter not greater than $1800 in the long term.

Debt will be repaid as it falls due in accordance with the applicable loan agreement. Subject to the debt limits, a loan may be rolled over or re-negotiated as and when appropriate. Council will set the amount of debt that will be repaid through the annual plan, and long term council community plan.

4.2 Security

The Council's borrowings and interest-rate risk management instruments will generally be secured by way of a charge over the Council's Debenture Trust Deed. However, if it is considered advantageous, the Council's borrowings and other financial arrangements may be on an unsecured basis, or secured by way of a charge over physical assets.

Physical assets will be charged only where:

- There is a direct relationship between the debt and the purchase or construction of the asset, which it funds (e.g. an operating lease, or project finance).
- The Council considers a charge over physical assets to be appropriate.
- The Director: Finance ensures that the required register of charges and any associated documents are provided, filed and kept in accordance with the provisions of the Local Government Act 2002 and any other relevant legislation.

4.3 Debt Repayment

The Council will manage debt on a netting basis at all times. From 1 July 1998, the Council will only make the statutory minimum contributions to these sinking funds. Under the enactment of section 299 of the Local Government Act 2002, the Council may borrow from the Commissioners of any sinking fund. Exemptions may apply to other funds vested to the Council for specific purposes as dictated by legislation.

The funds from all asset sales and operating surpluses will be applied to the reduction of debt and/or a reduction in borrowing requirements, unless the Council specifically directs that the funds will be put to another use.

Whilst the Council will generally raise loans on a portfolio basis, interest expenses arising on the existing debt portfolio and future borrowings will be allocated (at the Council's actual weighted average cost of funds for the period concerned) to specific assets and activities as determined by the Council.

Interest will be allocated to internally borrowed funds and funds borrowed from the Commissioners of any sinking funds on a basis of the investment rate that such funds would have achieved had they been invested independently for the term and period that the funds were used internally.

5 RISK RECOGNITION/IDENTIFICATION/MANAGEMENT

The definition and recognition of interest rate, liquidity, funding, counterparty credit, market, operational and legal risk of the Council will be as detailed below.

5.1 Interest Rate Risk

5.1.1 Risk Recognition

Interest rate risk is the risk that funding costs (due to adverse movements in market interest rates) will materially exceed adopted annual plans and strategic 10 year plan interest cost projections, so as to adversely impact cost control, capital investment decisions/returns/and feasibilities.

Given the Council has significant debt, and is likely to increase debt substantially over the next ten years, it has a large exposure to interest rate movements (a 1% interest rate movement on $50 million of debt over 12 months = $500,000). Accordingly, the primary objective of interest rate risk management is to reduce uncertainty to interest rate movements through fixing of funding costs. However, a secondary objective is to minimise the net funding costs for the Council within acceptable risk parameters. Both objectives are to be achieved through the active management of underlying interest rate exposures.

5.1.2 Approved Financial Instruments

Dealing in interest rate products must be limited to financial instruments approved by the Council.

Current approved interest rate instruments are as follows:

Category	Instrument
Cash management and borrowing	Bank overdraft Committed cash advance and bank accepted bill facilities (term facilities) Uncommitted money market facilities Bond issuance
Investments	Short term bank deposits Bank bills Bank certificates of deposit (CD's) Treasury bills Local Authority stock or State Owned Enterprise (SOE) bonds Corporate bonds Promissory notes/Commercial paper
Interest rate risk management	Forward rate agreements ("FRA's") on: – Bank bills – Government bonds Interest rate swaps including: – Forward start swaps (start date <24 months) – Amortising swaps (whereby notional principal amount reduces) Interest rate options on: – Bank bills (purchased caps and one for one collars) – Government bonds Interest rate swaptions (purchased only)

Any other financial instrument must be specifically approved by the Council on a case-by-case basis and only be applied to the one singular transaction being approved.

5.1.3 Interest Rate Risk Control Limits

Debt/Borrowings

The Council's debt/borrowings should be managed within the following fixed/floating interest rate risk control limit:

Master Fixed/Floating Risk Control Limit	
Minimum Fixed Rate	Maximum Fixed Rate
55%	95%

"Fixed Rate" is defined as an interest rate repricing date beyond 12 months forward on a continuous rolling basis.

"Floating Rate" is defined as an interest rate repricing within 12 months.

The percentages are calculated on the rolling12 month projected net debt level calculated by management (signed off by the Director: Finance). Net debt is the amount of total debt net of liquid financial assets/investments (including sinking funds). This allows for pre-hedging in advance of projected physical drawdowns of new debt. When approved forecasts are changed, the amount of fixed rate cover in place may have to be adjusted to comply with the policy minimums and maximums.

The fixed rate amount at any point in time should be managed within the following maturity bands:

Fixed Rate Maturity Profile Limit		
Period	Minimum Cover	Maximum Cover
1 to 3 years	15%	50%
3 to 5 years	15%	50%
5 years plus	15%	65%

- Floating rate debt may be spread over any maturity out to 12 months. Bank advances may be for a maximum term of 12 months.
- FRA's outstanding at any one time must not exceed 75% of the total floating rate debt. FRA's may be "closed out" before maturity date by entering an equal and opposite FRA to the same maturity date or, alternatively, by purchasing an option on a FRA for the equal and opposite amount to the same date.
- Interest rate options must not be sold outright. However, 1:1 collar option structures are allowable whereby the sold option is matched precisely by amount and maturity to the simultaneously purchased option. During the term of the option, one side of the collar cannot be closed out by itself, both must be closed simultaneously. The sold option leg of the collar structure must not have a strike rate "in-the-money".
- Purchased borrower swaptions mature within 12 months.

- Interest rate options with a maturity date beyond 12 months, that have a strike rate (exercise rate) higher than 2.00% above the current 90-day Bank Bill interest rate, cannot be counted as part of the fixed rate cover percentage calculation.

Liquid Investments

For the foreseeable future, the Council will have a permanent net debt/borrowing position and will use flexible short term working capital money market funding lines. Accordingly, it would not have any requirement to be in a surplus cash situation apart from the management of historical sinking funds.

Therefore, outside of the above mentioned exceptions, any liquid investments must be restricted to a term that meets future cash flow projections.

Sinking Fund/Special Funds/Other Investments

Sinking Funds

- The Council is no longer required to use sinking funds as a mechanism for loan repayments. Where practical, the Council will actively pursue the cessation of contributions to existing sinking funds. Accordingly, the existing sinking funds established pre 1 July 1998, will run down over their attributable life to zero.
- A statement of sinking funds is prepared half yearly and annually by the Sinking Fund Commissioners.
- The Sinking Fund Commissioners, if they chose to maintain cash investments, will manage those investments as per the following investment policy and within the prescribed credit limits outlined in section 5.3 of this policy document.
- Given that the Council will be a net borrower for the remaining life of the existing sinking funds, the sinking funds should be either invested in short term bank deposits and be maturity matched with equivalent borrowings, or invested within Council in accordance with Section 299 of the Local Government Act 2002.

Special Funds

- Liquid assets will not be required to be held against special funds, instead, such commitments to future specified releases will be covered by a committed standby line of credit. Such a facility will be for an amount equivalent to the maximum release commitments over a 12 month period and, will be reviewed annually.
- Accounting entries representing the annual interest accrual allocations will be made using an average monthly investment rate.
- Such a mechanism is subject to a Council resolution, which will supersede previous Council resolutions pertaining to the funding of specific special funds.

- Trust Funds
  - Represent funds administered by the Council in terms of a Bequest Trust Deed, document etc, that has been created by a third party. Such funds are to be separately invested and used for the express purpose for which they are intended.

- Shares
  - The Council holds shares in the following companies:
    Watercare Services Limited
    Waitakere City Holdings Limited
    New Zealand Local Government Insurance Corporation Limited – T/A Civic Assurance
    Auckland Regional Transport Network Limited
  - Council will consider selling its non-strategic share holdings where the rate of return from owning the asset is lower than the financial benefit to ratepayers of selling and of using the proceeds of sale to repay debt. In its considerations the Council will take into account the risks associated with continuing to own the asset and the risks associated with the Council's total debt.
  - Proceeds from share sales will go to repay existing debt, unless the Council specifically directs that the funds be put to another use.
- Investment Properties
  - All buildings and fittings on investment properties are insured for material damage and skilled property personnel monitor pricing trends in the area for potential price variations.
  - Investment properties will only be purchased in the future where such acquisition will strategically fit the Council's core activities.
  - Any funds received from the sale of investment properties will be used to repay existing debt, unless the Council specifically directs that the funds be put to another use.
  - Any rental funds received for investment properties held by the Council will be used to offset costs incurred within the appropriate financial division of the property activity.
- Foreign Currency
  - The Council shall not borrow or enter into incidental arrangements, within or outside New Zealand, in currency other than New Zealand currency as required under the Local Government Act 2002, section 113.
- Loans and Advances
  - The Council has adopted a Community Assistance Policy to cover procedures and guidelines encompassing loans and guarantees.
  - The Council does not normally give out loans or guarantee loans to Community groups and will only consider doing so in exceptional circumstances.
  - Guarantees will only be given after the receipt and the satisfactory analysis of the requesting entities financial statements. Annual Financial Statements will continue to be presented to the Council as long as the Guarantee exists.
  - Council will maintain a register of all guarantees it has undertaken.

Other Liabilities

Creditors and Employee Benefits

- Creditors will be paid when due, notwithstanding that all creditor invoices must complete the agreed authorisation procedures.

- Employee Benefits will be provided for and recognised as a liability in respect of benefits earned by employees but not yet paid at balance date. The provision will be calculated and accrued as required by legislation and generally accepted accounting practices.

Contingent Liabilities

- Unless the possibility of an outflow is remote, contingent liabilities must be identified and reported within the Councils financial statements. Such liabilities will be valued based on an accepted basis, and such a valuation will be provided for within the financial statements.
- Contingent Liabilities include but are not limited to the following:
    - Redundancies
    - Guarantees
    - Rating apportionments

Landfill Aftercare

- Council recognises a liability to provide for the estimated future costs of aftercare for sites it is responsible for. The liability is calculated based on a prioritised 30 year aftercare programme and incorporates estimated future costs associated with the resource consents process, reparation works, and monitoring costs. Requirements of the Resource Management Act 1991 are also taken into consideration when calculating the liability.

- The recognised liability is measured on the discounted (present) value of the future cash flows expected to be incurred in accordance with the Councils risk management plan.

5.2 Liquidity Risk/Funding Risk

5.2.1 Risk Recognition

Cash flow deficits in various future periods based on long term financial forecasts are reliant on the maturity structure of loans and facilities. Liquidity risk management focuses on the ability to borrow at that future time to fund the gaps. Funding risk management centres on the ability to re-finance or raise new debt at a future time at the same or more favourable pricing (fees and borrowing margins) and maturity terms of existing facilities.

Managing the Council's funding risks is important as several risk factors can arise to cause an adverse movement in borrowing margins, term availability and general flexibility including:

- Local Government risk is priced to a higher fee and margin level.
- The Council's own credit-standing or financial strength as a borrower deteriorates due to financial, regulatory or other reasons.
- A large individual lender to the Council experiences their own financial/exposure difficulties resulting in the Council not being able to manage their debt portfolio as optimally as desired.
- New Zealand investment community experiences a substantial “over supply” of Council investment assets.

A key factor of funding risk management is to spread and control the risk to reduce the concentration of risk at one point in time so that if any of the above events occur, the overall borrowing cost is not unnecessarily increased and desired maturity profile compromised due to market conditions.

5.2.2 Liquidity/Funding Risk Control Limits

- The Council must approve all new loans and borrowing facilities.
- Alternative funding mechanisms such as leasing should be evaluated with financial analysis in conjunction with traditional on-balance sheet funding. The evaluation should take into consideration, ownership, redemption value and effective cost of funds.
- Term debt and committed debt facilities must be maintained at an amount that averages 110% of projected peak net debt maturity levels over the next two years (per long term cash and debt forecasts).
- An allocated amount of the committed credit facility will be put in place to cover special funds as outlined in Section 5.1.3 and other legislative requirements.
- Treasury provides comprehensive daily and weekly cash management reporting, together with monthly (rolling 12 month forecast), and long term debt forecasts.
- The Director: Finance has the discretionary authority to re-finance existing debt on more favourable terms. Such action is to be ratified and approved by the Council at the earliest opportunity.
- The maturity profile of the total committed funding in respect to all loans and committed facilities, should be controlled by the following system:

Period	Minimum	Maximum
0 to 3 years	10%	50%
3 to 5 years	20%	60%
5 years plus	15%	60%

Not withstanding the overall intentions of this policy, a maturity schedule outside these limits maybe required from time to time in order to effectively manage the portfolio at the least cost. Such a position will be reported to the delegated Committee of Council at the earliest convenience.

5.3 Counterparty Credit Risk

Counterparty credit risk is the risk of losses (realised or unrealised) arising from a counterparty defaulting on a financial instrument where the Council is a party. The credit risk to the Council in a default event will be weighted differently depending on the type of instrument entered into. Credit risk will be regularly reviewed by the Council. Treasury related transactions would only be entered into with organisations specifically approved by the Council.

Counterparties and limits can only be approved on the basis of long term credit ratings (Standard & Poor's or Moody's) being A- and above.

Where Council has investments, limits should be spread amongst a number of counterparties to avoid concentrations of credit exposure.

The following matrix guide will determine limits.

Counterparty/Issuer	Minimum long term credit rating – stated and possible	Investments maximum per counterparty ($m)	Interest rate risk management instrument maximum per counterparty ($m)	Total maximum per counterparty ($m)
NZ Government	A-	unlimited	none	unlimited
State Owned Enterprises: · Nil approved	A-	5.0	none	5.0
NZ Registered Bank: · Bank of New Zealand · National Bank of NZ Ltd · ANZ Banking Group · Westpac Trust · ASB Bank Ltd · Commonwealth Bank Of Australia	A-	15.0	10.0	25.0
Corporate Bonds: · Nil approved	A-	5.0*	none	5.0
LABT		5.0	none	5.0
Local Government Finance Corporation		5.0	none	5.0
Local Government Stock	A- (if rated)	5.0**	none	5.0
	Unrated	5.0**	none	5.0

* *Subject to a maximum of $20.0m investment in corporate/securitised bonds at any one point in time.*

** *Subject to a maximum of $30.0m investment in Local Government stock at any one point in time, including Local Government Finance Corporation.*

In determining the usage of the above gross limits, the following product weightings will be used:

- Investments (eg. Bank Deposits) – Transaction Notional × Weighting 100%.
- Interest Rate Risk Management (eg. swaps, FRA's) – Transaction Notional × Maturity (years) × 4%.

Each transaction should be entered into a reporting spreadsheet and a monthly report prepared to show assessed counterparty actual exposure versus limits.

Credit ratings should be reviewed by the Director: Finance on an ongoing basis and in the event of material credit downgrades, below the minimum long term credit rating, the investment will cease. Future investments assessed against exposure limits. Counterparties exceeding limits should be reported to the Council.

Risk Management

To avoid undue concentration of exposures, a range of financial instruments must be used with as wide a range of counterparties as possible. The approval process to allow the use of individual financial instruments must take into account the liquidity of the market the instrument is traded in and repriced from.

5.4 Operational Risk

Operational risk is the risk of loss as a result of human error (or fraud), system failures and inadequate procedures and controls.

Operational risk is very relevant when dealing with financial instruments given that:

- Financial instruments may not be fully understood.
- Too much reliance is often placed on the specialised skills of one or two people.
- Most treasury instruments are executed over the phone.
- Operational risk is minimised through the adoption of all requirements of this policy

5.4.1 Dealing Authorities and Limits

Transactions will only be executed by those persons and within limits approved by the Council. These limits are detailed in the schedule of delegated authorities table in section 3.9 of this policy.

5.4.2 Segregation of Duties

Separation and division of responsibilities is the responsibility of the Director: Finance.

5.4.3 Procedures

All treasury products must be recorded and diarised on an appropriate system, with appropriate controls and checks over journal entries into the general ledger. Deal capture and reporting must be done immediately following execution/confirmation. Details of procedures including templates of deal tickets, reconciliations, and reports should be compiled in a treasury systems documentation manual separate to this policy.

5.5 Legal Risk

Legal and regulatory risks relate to the unenforceability of a transaction due to an organisation not having the legal capacity or power to enter into the transaction usually because of prohibitions contained in legislation. While legal risks are more relevant for banks, the Council may be exposed to such risks. In the event that the Council is unable to enforce it's rights due to deficient or inaccurate documentation.

The Council will seek to minimise this risk by adopting policy regarding:

- The use of standing dealing and settlement instructions (including bank accounts, authorised persons, standard deal confirmations, contacts for disputed transactions) to be sent to counterparties.
- The matching of third party confirmations and the immediate follow-up of anomalies.
- The use of expert advice for any non-standardised transactions

5.5.1 Agreements

Financial instruments can only be entered into with banks that have in place an executed ISDA Master Agreement with the Council. All ISDA Master Agreements for financial instruments must be signed under seal by the Council. Such documentation will be held in Treasury.

5.5.2 Financial Covenants and Other Obligations

The Council must not enter into any transactions where it would cause a breach of financial covenants under existing contractual arrangements.

The Council must comply with all obligations and reporting requirements under existing funding facilities and legislative requirements.

Council must maintain a register of charges relating to any commitment which is specifically relating to any asset.

6.0 MEASURING TREASURY PERFORMANCE

In order to determine the success of the Council's treasury management function, the following benchmarks and performance measures have been prescribed.

6.1 Operational Performance

All treasury limits must be complied with.

All treasury deadlines are to be met, including reporting deadlines.

6.2 Management of Debt and Interest Rate Risk

The actual funding cost for the Council (taking into consideration costs of entering into interest rate risk management transactions) must be below the budgeted interest cost. When budgeting forecast interest costs, the actual physical position of existing loans and swaps/swaptions/FRA's must be incorporated.

Since the Directorate is granted discretion by the Council to manage debt and interest rate risk within specified limits, the actual funding rate achieved must be compared against an appropriate external benchmark interest rate that assumes a risk neutral position within existing policy. Note: in this respect, a risk neutral position is one that is always precisely at the mid-point of the minimum and maximum percentage limits specified within the policy.

Given current fixed/floating risk control limits and fixed rate maturity profile limits as defined in Section 5.1.3 of this manual, the market benchmark (composite) indicator rate will be calculated as follows:

Composite Benchmark Indicator Rate	
Weighting	**Rate**
20%	Average 90-day bank bill bid-rate for the reporting month
16%	5 year interest rate swap bid-rate, end of reporting month
16%	5 year interest rate swap bid-rate, 1 year ago
16%	5 year interest rate swap bid-rate, 2 years ago
16%	5 year interest rate swap bid-rate, 3 years ago
16%	5 year interest rate swap bid-rate, 4 years ago
100%	

The micro-benchmark rate used to measure performance is the aggregate of the composite benchmark indicator rate calculated above and the margin that applies to existing funding facilities.

Accordingly, the actual weighted average interest rate for the financial year to date (that incorporates all issuance margins and derivative settlements) must be compared against the micro-benchmark rate on a monthly basis, with historical comparison reported graphically over the previous 12 months to the Chief Executive.

6.3 Adequacy of Liability Management and Investment Policy

As part of the annual review of the Borrowing and Investment Policy, it is necessary to compare the actual interest rates achieved for the financial year against an appropriate benchmark interest rate, based on the assumption that the Council had no treasury function, no Liability Management and Investment Policy and did not seek to manage the risks at all.

For the purposes of this performance measure, a "no policy, no management" approach is one where:

- 50% of total is fixed for 12 months on the first day of the financial year.
- 50% of total debt is protected from an increase in interest rates by the purchase of a 12-month interest rate option (strike rate at market rates) on the first day of the financial year.

Accordingly, the underlying benchmark rate to apply is calculated as follows:

Underlying Benchmark Rate	
Weighting	**Rate**
50%	1 year swap bid-rate on the first day of the financial year (quarterly resets).
50%	Effective annual rate based on a 1-year at-the-money interest rate option (a strip of 90-day FRA options with quarterly expiry dates) on the first day of the financial year. Note: The annual rate is based on the average rate for each quarter calculated by adding the premium to: – the 90-day bank bill bid-rate at the end of the quarter if 90-day rates fell during the quarter. – the strike (cap) rate if 90-day rates increased during the quarter.

The macro-benchmark rate used to measure the adequacy of the Liability Management and Investment Policy is the aggregate of the above benchmark rate and the margin that applies to existing funding facilities. In this respect, the actual weighted-average interest rate for the entire financial year is to be compared against the macro-benchmark rate as part of the annual review and reported to the Chief Executive. It is important to view the comparison of the above 'macro' benchmark on a long term basis (i.e. over a minimum period of five years).

7.0 CASH MANAGEMENT

The Director: Finance has the responsibility to carry out the day-to-day cash and short term debt management activities. This responsibility is delegated by the Director: Finance to any other financial officer or officers as deemed appropriate by the Director: Finance.

- The delegated officer will calculate and maintain comprehensive cash flow projections on a daily (one week forward), weekly (four weeks forward), monthly (estimated 12 months forward).
- On a daily basis, electronically download all the Council bank account information.
- Co-ordinate the Council's operating units to determine daily cash inflows and outflows with the objective of managing the cash position within approved parameters.
- Undertake short term borrowing functions as required, minimising overdraft costs.
- Ensuring efficient cash management through improvement to accurate forecasting using spreadsheet modelling.
- Minimise fees and bank/Government charges by optimising bank account/facility structures.
- Monitor the Council's usage of cash advance facilities.
- Match future cash flows to smooth overall timeline.
- Provide reports detailing actual cash flows during the month compared with those budgeted.
- Maximise the return from available funds by ensuring significant payments are made within the vendor's payment terms, but no earlier than required, unless there is a financial benefit from doing so.

8.0 REPORTING – PERFORMANCE MEASUREMENT

8.1 Treasury Reporting

8.1.1 Reporting

The monthly Finance and Operational Performance Committee reporting package must achieve coverage of the following major information/reporting objectives:

- **Cash/Debt position:** Including a summary of values including debt raised from all sources, fixed/floating rate interest mixes, financial leases, individual investments and investment interest rates. A summary of committed funding facilities and amounts drawn against those facilities.
- **Forecasted Borrowing Profile:** A profile of future loan funded expenditure both budgeted and forecasted. Such profiles will encompass current forecasts, and long term financial strategies.
- **Interest Rate Profile:** A current representation of the Councils fixed/floating interest rate mix, with recognition of that mix to future borrowing requirements.
- **Risk Management:** A profile of both interest rate repricing risk and funding risk. Interest rate risk will be inclusive of future borrowing requirements, funding maturity profile will only recognise existing borrowings.
- **Material Transactions:** Disclosure of significant transactions over the month covered by the report. Such transactions are new borrowings, refinanced borrowings, derivatives and specific investments.
- **Market Commentary:** A brief commentary of existing financial market conditions, and short to medium term out look of the direction that the financial market is likely to take.

8.2 Accounting Treatment of Financial Instruments

The Council uses financial instruments risk for the primary purpose of reducing its exposure to fluctuations in interest rates.

The accounting treatment for such financial instruments will comply with Generally Accepted Accounting practices (GAAP).

8.3 Valuation of Treasury Instruments

All treasury financial instruments must be revalued (marked-to-market) every three months for risk management purposes. This includes those instruments that are used only for hedging purposes.

Note: For accounting purposes, financial instruments used for hedging will not be marked-to-market but will merely be highlighted in the notes to the accounts.

Underlying rates to be used to value treasury instruments are as follows:

- Official daily settlement prices for established markets.
- Official daily market rates for short term treasury instruments (eg. FRA settlement rates calculated by Reuters from price maker quotations as displayed on the BKBM page).
- Relevant market mid-rates provided by the company's bankers at the end of the business day (5.00pm) for other over-the-counter treasury instruments.
- For markets that are illiquid, or where market prices are not readily available, rates calculated in accordance with procedures approved by the Director: Finance.

9.0 POLICY REVIEW

This Liability Management and Investment Policy is to be formally reviewed on an annual basis but sooner if circumstances warrant.

The Director: Finance has the responsibility to prepare a review report that is presented to the Financial and Operational Performance Committee. The report will include:

- Recommendations as to changes, deletions and additions to the policy.
- Any amendment to this policy requires the adoption of the special consultative procedures as outlined in the Local Government Act 2002.

ATTACHMENT I - DEFINITION OF FINANCIAL INSTRUMENTS

1.0 FORWARD RATE AGREEMENTS (FRAS)

1.1 Definition

A forward rate agreement ("FRA") is a synthetic contract between two parties in which one party agrees to pay to the other an agreed interest rate on a notional principal amount, for a fixed period of time, commencing on a specific date in the future (settlement date).

A borrowers FRA provides protection against rising interest rates whereas an investor FRA provides protection against falling rates.

FRAs are available from any specific date but contract periods are generally quoted for 90-day periods. FRAs are usually referred to by the number of calendar months from the current month to the settlement date against the number of months from the current month to the maturity date. For example, a 3 month borrowing rate in 4 months time would be quoted as a 4 against 7 FRA (4 x 7 FRA).

FRAs are valued (and settled) on the relevant FRA settlement rates shown on the Reuters BKBM page each morning at 10:45am. FRA settlement rates are calculated from the 7 Bank Bill price maker bid/offer quotations provided to Reuters at 10:30 am. The settlement rate is the average mid-rate of the quotes after excluding the highest and lowest quotes.

1.2 Characteristics

- FRAs are generally used to hedge short term exposures.
- Because the transaction is synthetic, no movement of principal amounts is necessary.
- On settlement date, only the net settlement amount representing profit or loss changes hands, thereby requiring minimal utilisation of credit lines.
- A FRA can be closed out at any time by taking an opposite FRA with the same settlement date.
- FRAs attract no deposit requirements, margin calls or brokerage fees.
- FRAs can be customised according to individual requirements in terms of amount, maturity settlement date and counterparty.
- FRAs are off-balance sheet transactions with credit risk limited to the interest rate variation over the term of the FRA.

1.3 Recommended Usage

FRAs should be used where the Council has a view on interest rate trends that may adversely affect future borrowing rates.

They are ideally suited for the following applications:

- Where uncertainty exists coming up to a rollover date for term borrowings, buying a borrower FRA will effectively "lock in" a rate over a pre-determined period of time.
- Where additional funding is required and it is anticipated that interest rates will rise, buying a borrower FRA will "lock in" a rate today and neutralise the effect of interest rate increases.

1.4 Example

The Council wishes to borrow additional funds of $2 million in a month's time for 90-days. It is concerned about the effect on interest rates of a Reserve Bank statement to be announced this week.

The Council decides to hedge the amount by purchasing a 1 x 4 borrower FRA for $2 million (with a settlement date of one month hence and a maturity date of four months hence). The agreed FRA rate is 5.20%. Note: current 90-day rates are 5.00%.

In one month's time, 90-day rates have risen by 40 basis points with the rate now 5.40%. The 3 month FRA settlement rate per BKBM page is 5.40%.

The Council receives $1,000 for the FRA settlement and borrows the $2 million at a rate of 5.40%. The effective borrowing rate is 5.20% ie. the Council borrow at the rate they budgeted for.

2.0 INTEREST RATE SWAPS

2.1 Definition

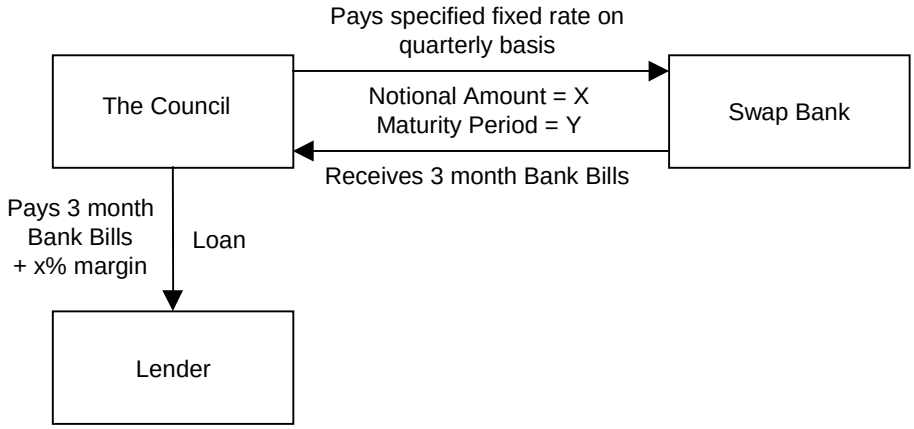
An interest rate swap is an agreement between two parties to exchange interest payments at regular intervals over a period of time based on a notional principal amount. Generally, one party will pay interest at a fixed rate while the other will pay interest at a floating rate.

Like FRAs, the intervals between swap payments can be for any specified period (and the floating period need not be the same as the fixed period). However, the period between payments will generally be 90-days. The floating rate is set at the beginning of each swap period and will normally be a specified margin over the 3 month rate shown on the Reuters BKBM page on the day (much the same as the settlement of the Council's 90-day Bank Bill rate from its bank lenders).

The swap agreement is a separate paper contract, the physical debt remains unchanged.
A "payers" swap, as its name suggests, allows a corporate borrower to swap its underlying interest rate exposures from a floating to fixed basis to protect against rising interest rates.
For the purposes of the Council, the counterparties to all swaps will be banks. The Council's credit risk will always be with the bank and vice-versa.

The following diagram illustrates payment flows for each swap period for an interest rate swap (from the point of view of a corporate borrower who has an underlying floating exposure and who wishes to fix it):

Illustration Swap



The operation of a swap is determined by the underlying swap confirmation. This will define the swap periods, the fixed interest rate and the floating rate as appropriate.

The variations of an interest rate swap include the following:

- **Forward start swaps:** A swap that has a future start date. Often used to hedge future debt drawdowns in anticipation of a rise in interest rates.
- **Amortising swaps:** A swap where the notional principal reduces on a straight-line basis over the life of the swap. Such swaps are useful in hedging the funding of depreciating assets especially when the loans require regular principal repayments during their life.
- **Arrears reset swap:** A swap where the floating rate is set a couple of days prior to payment rather than at the beginning of the interest period.
- **Basis swap:** A floating/floating swap where both parties exchange interest payments based on different floating rate indexes ie. the Council could pay interest on a monthly basis against receiving interest on a quarterly basis.
- **Zero coupon swap:** A swap where the fixed payer only makes one lump sum payment on maturity rather than regular payments throughout the life of the swap (the floating payer continues to pay as normal).

2.2 Characteristics

- Swaps will typically cover a period in excess of one year. Maturities of less than one year generally use FRAs.
- Because the transaction is synthetic, no exchange of principal amounts is necessary.
- On each settlement date, only the net settlement amount representing the interest differential changes hands.
- Swap agreements may allow early termination. This would normally require settlement of the net present value of all future cash flows based on the current market settlement rates.
- A swap can be closed out at any time by taking an opposite swap position with the same settlement periods (referred to as a reverse swap) or by assigning the obligations under the swap to a different counterparty where the swap agreement permits (which would require a lump sum payment of the value of the swap to the appropriate counterparty).
- Swaps attract no deposit requirements, margin calls or brokerage fees.

- Swaps can be customised according to individual requirements ie. the Council can perfectly tailor interest payment dates to match those of underlying loan advances.
- Swaps are off-balance sheet transactions.
- Swaps are governed by comprehensive agreements called ISDA documents.

2.3 Recommended Usage

Payer swaps should be used where the Council has a view on interest rate trends that may adversely affect future borrowing rates.

They are ideally suited for the following applications:

- Where uncertainty exists on medium to long term interest rates and the impact this will have on term loans, entering into a swap will effectively "lock in" a rate for the entire term of the swap.
- Where additional core funding is required and it is anticipated that interest rates will rise, entering into a payers swap will "lock in" a rate today and neutralise the effect of interest rate increases.
- When it is widely forecast that 90-day Bank Bill rates will rise and average above current 1-5 year fixed swap rates over the term.

2.4 Example

The Council has a new borrowing of $5 million under a revolving credit facility that is rolled every 90-days. There is widespread concern that rates will be considerably higher in the next six months and that this will most likely continue for the following 12 to 18 months.

The Council decides to hedge by entering into a 3 year, $5 million payers swap (with settlement dates coinciding with rollover dates for the underlying borrowings). The 3 year swap rate is 7.20%.

- The Council pays fixed interest at 7.20%.
- The Council receives floating interest at 5.50% (assuming current 90-day Bank Bill rate) for the first settlement date (in 90-days).
- The Council receives floating interest at the 90-day Bank Bill rates for each subsequent interest period (this rate being set on the first day of each interest period).

In three months time (on the first rollover date), 90-day Bank Bill rates have risen by 100 basis points (assumption) with the 90-day Bank Bill rate now 6.50%. The swap floating rate cash flow is accordingly set at 6.50% for the second roll period.

Interest rate calculations for the first roll period

- The Council pays $5 million x 7.20% x 90/365 = $88,767.12
- The Council receives $5 million x 6.50% x 90/365 = $80,136.99
- The Council pays net difference = $8,630.13

The Council is meanwhile paying its lenders 90-day Bank Bills plus 0.25% therefore, the full cost of funds =

5,000,000 x Bank Bills (6.50%) x 90/365 =	$ 80,136.99
Plus 5,000,000 x 0.25% margin x 90/365 =	3,082.19
Plus net difference of swap payments =	8,630.13
	$ 91,849.31

Effective annualised cost of funds = 7.45% (7.20%fixed rate +0.25% loan margin)

3.0 INTEREST RATE OPTIONS

3.1 Definition

An interest rate option provides protection against adverse future interest rate movements while still allowing some benefit where rates move favourably.

The buyer (holder) has the right (but is not obligated) to exercise the option should rates be favourable whereas the seller (grantor) has no rights but is obligated to pay cash to the buyer where the option is exercised. The buyer pays a premium to the seller on the execution of the option. As the buyer can let an option expire worthless where rates are unfavourable, the premium is the maximum loss that the buyer will incur and conversely the maximum profit the seller will receive. In other words, the buyer of an option has limited loss potential while unlimited profit potential. The seller on the other hand has limited profit potential while having unlimited loss potential.

Caps and Floors

A "floor" provides the buyer protection against falling interest rates whereas an interest rate "cap" provides protection against rising interest rates. A floor might be used by an investor to establish a minimum rate on floating rate deposits and a cap might be used by a corporate borrower who wanted to set a maximum funding rate for borrowings. The floor and cap levels will sometimes be referred to as the strike rate, strike price or exercise price (consistent with other option products).

Swaptions

Swaptions are an option to enter into a pre-determined swap contract. Options are said to be "in the money" at a given point in time where the strike rate is more advantageous to the buyer of the option than the corresponding Bank Bill rate. Conversely, options are said to be "out of the money" where the strike rate is less advantageous to the buyer of the option than the corresponding Bank Bill rate. Where the strike rate and the corresponding Bank Bill rate are the same, options are said to be "at the money".

Interest rate options that are exercised on maturity are cash-settled with the settlement amount payable to the buyer. As the underlying instrument is not physically delivered, it will still be necessary for the buyer to borrow or invest funds at current market rates. However, the settlement of the option (if exercised) will partially offset the rate obtained.

The cost of an option (premium) is generally calculated using technical mathematical models based on lognormal probability distributions. While many option pricing models exist, the most widely used is the Black & Scholes model.

This model uses the following variables in determining the option price:

- Time to maturity of the option.
- Underlying Bank Bill (current and forward Bank Bill rates).
- Strike rate.
- Volatility of the underlying Bank Bill market.

Clearly an option that has a long time to maturity will be more expensive than one that has a short term to maturity. This portion of the cost is often described as the time decay effect. Also, an option that is "in the money" will be more expensive than one that is "out of the money" (as measured by the difference between the strike rate and the underlying Bank Bill rate). Finally, the more volatile the underlying market is, the more expensive the option. As will be evident, options are considerably more complicated to price and value than forward-based products. However, options are much more flexible with the strike rate able to be chosen to suit individual requirements.

One of the major benefits of options is that with so many variables affecting the pricing, combinations of floors and caps at different strike rates can allow very effective risk management strategies at tailored cost. The most common combination is referred to as an interest rate collar, which in the case of a corporate borrower involves simultaneously buying a cap and selling a floor. The premium received from selling the floor partially offsets the cost of buying the cap. In return, profits are fixed at a level. The effect of this strategy is that the corporate borrower can minimise its funding rates at very low cost.

3.2 Characteristics

- Options are used to insure against adverse market movements while still providing the ability to benefit from favourable movements.
- The option premium is payable up-front by the buyer and represents the maximum loss payable. Sometimes this premium can be deferred until the option expiry date.
- Because the transaction is synthetic, no movement of principal amounts is necessary.
- On maturity, if the option is "in the money" it can be exercised with the buyer receiving the profit. If the option is either "out of the money" or "at the money" the option will expire worthless with no settlement required.
- Options can be closed-out at any time by taking an opposite option with the same settlement date and strike rate.
- Combinations of options can provide sophisticated risk management at minimal cost.
- Options attract no deposit requirements, margin calls or brokerage fees.
- Options are able to be customised according to individual requirements in terms of amount, strike rate, maturity settlement date and counterparty.
- It is considered dangerous and imprudent for corporate borrowers to sell options for long terms in isolation. Such a transaction produces unknown risk and unlimited potential loss. The premium received may only be a minor offset to the end loss if market rates shift significantly.

3.3 Recommended Usage

An interest rate cap will provide a worst case interest rate in the event of short term interest rates (90-day Bank Bills) rising in the future.

Options are at their most economic value when they are needed, and are therefore best used when financial budgeting requires certainty or "a worst case" insurance against a rise in interest rate however, the view may be that rates will not rise. Usually swaps represent the most cost effective form of **actual** hedge in the event of rising interest rates due to the relatively high cost of interest rate options.

Options are best purchased when:

i) they are not intended to be exercised;
ii) volatility in the market is low; or
iii) the underlying debt being hedged is uncertain.

3.4 Example

The Council has purchased a swaption ie. an option to enter into a swap with pre-determined pricing of 7.20% and a maturity of 3 years. The option expires in July of 2000. The notional is $5 million.

Should the 3 year swap rate be higher than 7.20% next July, the Council will exercise the swaption and enter into a swap with the seller of the swaption where the Council will exchange the following cash flows each quarter for 3 years.

- The Council pays 5,000,000 x 7.20% x 90/365 = $88,767.12.
- The Council receives 5,000,000 x (90-day Bank Bills) x 90/365.

The net difference is paid by the Council if the 90-day Bank Bill rate is below 7.20% and paid by the swap counterparty if the 90-day Bank Bill rate is above 7.2%.