TransGrid's Debt Management Practice

STATEMENT OF BOON THIOW

AFFIRMED ON 12 January 2015

I, Boon Thiow, General Manager/Finance at TransGrid, of 180 Thomas Street, Sydney of the State of New South Wales, affirm:

1. **BACKGROUND**

1.1 I am responsible for leading and managing the treasury, taxation, corporate reporting, financial planning and insurance functions at TransGrid. My role involves the management of TransGrid's finances, budgets and financial exposure and directing the development and monitoring of financial strategies and policies to achieve the required return to the shareholder.

1.2 A copy of my curriculum vita is attached as Annexure **BT-1**.

1.3 I am authorised to give this statement on behalf of TransGrid.

2. **GOVERNANCE OF TRANSGRID'S DEBT ARRANGEMENTS**

2.1 TransGrid's approach to debt management is set out in the "Debt and Investment Risk Management Policy" (**Policy**). The Policy sets out a prudential framework within which TransGrid manages its financial market risks in relation to debt and investments. It has been approved by TransGrid's Board of Directors with reference to the New South Wales Treasury's (**NSW Treasury**) document "Commercial Policy Framework - Treasury Management Policy (TPP 07-7)" (**TPP 07-7**) and to be consistent with the *Public Authorities (Financial Arrangements) Act 1987* (**PAFA**). A copy of the Policy and TPP 07-7 are attached as Annexures **BT-2** and **BT-3** respectively.

2.2 TPP 07-7 sets out the "fundamental objective" of financial risk management as being "to maintain financial returns and liabilities within tolerable limits". It goes on to note that the level of exposure that is acceptable will vary among the agencies that are owned by the New South Wales Government (like TransGrid) depending on firm-specific and industry factors. The policies agreed by TransGrid's Board in relation to the management of financial risks must be agreed with TransGrid's Shareholding Ministers in the context of TransGrid's Statement of Corporate Intent.

2.3 Under this governance framework, the Policy requires TransGrid's treasury activities to be positioned towards the conservative end of the risk profile and to be consistent with the PAFA with the objective of:

(a) minimising TransGrid's interest expense over the long term;

(b) minimising the impact on TransGrid that interest expense has on the volatility of annual profit by managing the costs of debt;

(c) taking into account the regulatory regime within which TransGrid operates;

(d) seeking to keep debt costs below the regulated revenue allowance for the cost of debt;

(e) ensuring that TransGrid always has sufficient funds available to meet its financial obligations as they fall due; and

(f) prudently invest surplus cash with credit worthy counterparties.

2.4 I understand that TransGrid's approach to its risk position has not been amended through the Statement of Corporate Intent process with TransGrid's shareholding Minister since its initial adoption.

2.5 Consistent with TransGrid's risk position and the Policy's objectives, the Policy permits TransGrid to obtain the following types of debt funding:

(a) bank overdraft with a maximum maturity of 1 year;

(b) floating rate borrowings with a maximum maturity of 15 years;

(c) fixed interest loans/bonds with a maximum maturity of 15 years;

(d) CPI linked bonds with a maximum maturity of 30 years; and

(e) year on year CPI linked bonds with a maximum maturity of 30 years.

2.6 These types of debt funding are subject to approved limits set under the PAFA, which currently permit TransGrid to have borrowings of up to $3.0 billion with the NSW Treasury Corporation (TCorp), the Come and Go facility of up to $450 million with TCorp, and an overdraft with Westpac of up to $30 million.

2.7 The Policy also permits TransGrid to enter into financial derivative instruments with the approval of the Board Audit and Risk Committee.

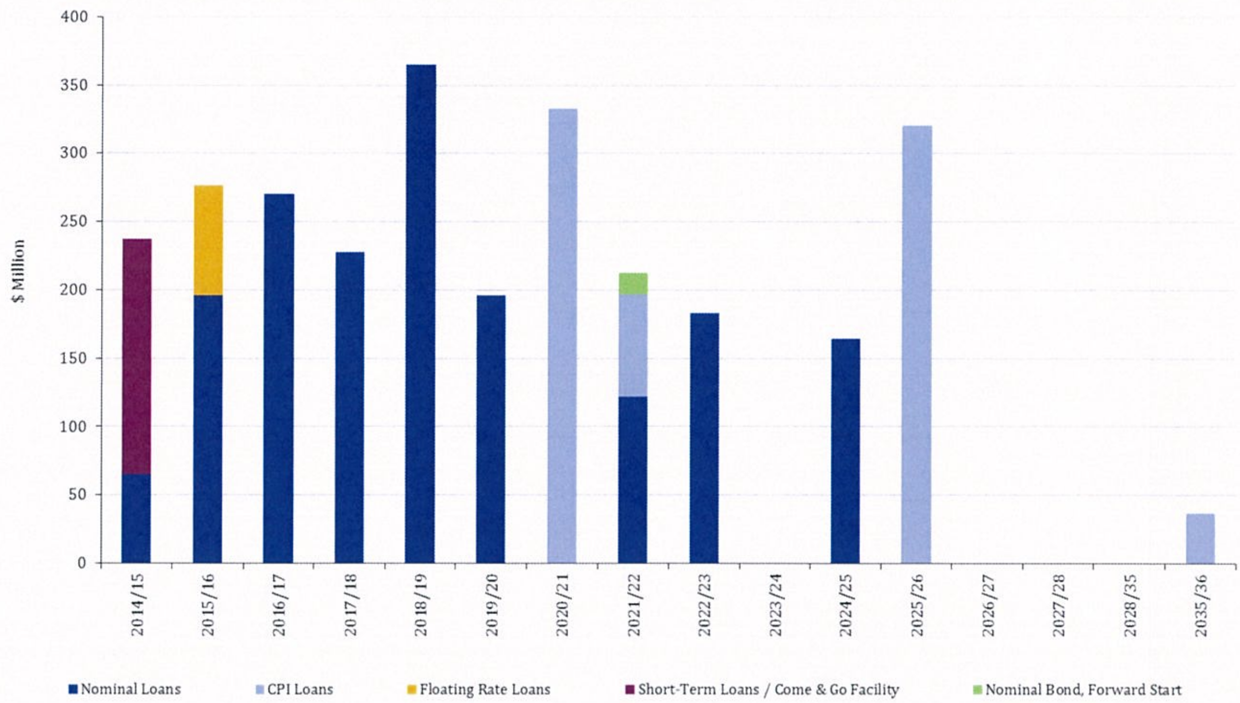
3. TRANSGRID'S APPROACH TO DEBT ARRANGEMENTS

3.1 TransGrid presently structures its debt in an efficient manner which is broadly consistent with the trailing average approach proposed by the Australian Energy Regulator. In particular, TransGrid issues debt periodically, to ensure it holds a portfolio of debt with staggered maturity dates with the Policy requiring TransGrid to not have any more than 20% of its total projected debt maturing in any 12 month period.[1] The periodic issuance of debt means TransGrid can efficiently manage increases in overall debt and also ongoing working capital requirements, and in most instances avoid disruptive market conditions and/or times of abnormal pricing.

3.2 Figure 1 shows that, as at 29 September 2014, the applicable maturity dates of TransGrid's debt portfolio range between FY2014/15 and FY2035/36.

[1] Policy, section 5. The projected debt is referenced from the latest corporate plan financial projections. The calculation of the debt maturity limit does not include short term funding in the TCorp Come and Go Facility.

Figure 1 – TransGrid's Debt Maturity Profile (as at 29 September 2014)



3.3 TransGrid has adopted this approach to its debt arrangements to efficiently and prudently manage its interest rate and funding risks, being the risk from an adverse movement in interest rates and risk that TransGrid will face high borrowing costs compared to that faced previously, or will not be able to obtain the required funds at all at the time it requires new debt funding or must refinance its existing funding. While TransGrid predominantly sources debt via TCorp, a funding risk still remains, which was highlighted during both the early days of the global financial crisis and again in 2011 during the European debt crisis, when for a short period of time TransGrid had limited, or no access, to term debt.

3.4 TransGrid does not and has not previously entered into hedge contracts to lock in rates to the previous "on the day" approach used to determine the return on debt (ie entering into hedging arrangements to replicate a borrowing cost structure that would arise if TransGrid refinanced the entirety of its debt at the beginning of the regulatory control period).

3.5 While I consider TransGrid's approach to be broadly consistent with the trailing average approach to debt that the AER proposes to apply going forward, it does not exactly replicate it. Instead, TransGrid manages its debt based on interest rates faced in the market and its expectations of those rates into the future. In particular, TransGrid does not issue debt every year with a tenor of 10 years and may issue debt for shorter or slightly longer periods taking into account factors such as the interest rates expected over that timeframe and the shape of the yield curve. This is illustrated by drawdown and maturity dates for TransGrid's nominal portfolio of debt set out below (as at 29 September 2014):

Drawdown Date	Maturity Date	Face Value
03-Feb-14	01-Apr-15	80,339,505
01-Feb-06	01-Feb-16	66,000,000

Drawdown Date	Maturity Date	Face Value
16-Jul-10	01-Apr-16	130,500,000
03-Mar-14	20-Feb-17	48,910,757
01-Aug-14	20-Feb-17	96,077,762
01-Aug-06	01-Mar-17	17,979,800
01-Aug-06	01-Mar-17	10,101,000
01-Aug-06	01-Mar-17	25,032,458
14-Nov-06	01-Mar-17	16,821,500
14-Nov-06	01-Mar-17	3,908,254
02-Apr-07	01-Mar-17	21,026,957
02-Feb-09	01-Mar-17	30,000,000
08-Sep-10	01-Feb-18	50,000,000
27-Jul-11	01-Feb-18	25,000,000
02-Aug-11	01-Feb-18	71,250,000
01-Feb-12	01-Feb-18	71,250,000
01-May-12	01-Feb-18	10,009,910
01-Aug-07	01-Aug-18	76,750,000
03-Sep-14	03-Sep-18	100,000,000
01-Apr-08	01-Apr-19	52,958,248
02-Feb-09	01-Apr-19	90,000,000
02-Feb-09	01-Apr-19	45,000,000
27-Jul-11	01-May-20	71,250,000
01-May-13	01-May-20	60,000,000
01-May-13	01-May-20	64,873,565
01-Aug-13	01-Mar-22	50,000,000
01-Aug-13	01-Mar-22	50,000,000
01-Aug-13	01-Mar-22	22,077,692
01-Nov-07	01-May-23	118,952,945
02-Feb-09	01-May-23	63,490,087

Drawdown Date	Maturity Date	Face Value
13-Mar-13	20-Aug-24	73,000,000
01-Aug-13	20-Aug-24	91,379,279

3.6 The remainder of TransGrid's debt portfolio of forward start loans, CPI linked loans, floating rate loans, short term loans and the Come and Go facility have a similar structure. I consider this flexible approach to the issue of debt that responds to market conditions to be consistent with best practice debt management.

4. **NO HEDGING**

4.1 TransGrid has not entered into other financial derivatives to hedge the interest rate paid on its debt portfolio. I am also not aware of any proposals to enter into interest rate hedging being made to the Board Audit and Risk Committee for approval as required by the Policy.

4.2 I consider TransGrid, as with most network businesses, to be a relatively lower risk business when compared to the market of all stocks. Entering into hedge contracts to manage the risk of unfavourable movements in the cost of debt may theoretically reduce this risk. However, entering into such arrangements could also result in additional costs for TransGrid (ie transaction costs, such as fees and charges by the arranger of the trades, as well as exposure to the risk posed by the counter party). I do not consider that it would be appropriate for TransGrid to enter into hedges given TransGrid's low risk profile and the additional costs that would be incurred.

4.3 Furthermore, given that the total NSW Government portfolio of regulated assets (including TransGrid) is in excess of $22 billion, to the best of my knowledge the financial markets would struggle to place this quantity of interest rate swaps in the time required without material distortions in the market.

4.4 While the Policy refers to seeking to keep the debt costs below the regulated revenue allowance for the cost of debt and requires TransGrid to take into account the regulatory regime, these are not the sole objectives and do not take precedence over maintaining TransGrid's flexibility in managing its debt on issue. I understand that this is broadly in line with NSW Treasury's expectation that TransGrid manages its debt to minimise the effective interest rate through more flexible debt financing around drawdown timing and tenor resets.

4.5 The approach of not hedging debt has not been questioned by NSW Treasury, or by TransGrid's Shareholding Ministers through the annual Statement of Corporate Intent process.

Affirmed at 180 Thomas Street, Sydney of the State of New South Wales, this 12 January 2015

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Boon Thiow

Before me:

Signature of witness:

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Name of witness:

DAVID FAYYAD

Qualification of witness: Australian Legal Practitioner

ANNEXURE BT-1

Curriculum Vita

BOON THIOW

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PROFESSIONAL SUMMARY

- Certified Practising Accountant (FCPA) with 17+ years of experience in strategic financial modelling and analysis, budgeting, financial reporting and taxation in the Australian electricity transmission industry.
- Strong knowledge of the accounting and taxation legislative requirements governing TransGrid's business environment.
- Good working knowledge of the electricity transmission regulatory framework and rules with an informed understanding of the business impacts from recent changes in the regulatory environment.
- Good understanding of TransGrid's business processes, key cost drivers and revenue-generating levers for driving performance and process efficiencies.
- Experienced in assessing the financial impacts from changes in TransGrid's business environment and advising the Executive leadership team on strategies to address associated opportunities and challenges.
- Experienced in the development of financial strategies and the medium and longer-term financial plans for TransGrid to support the achievement of Corporate Plan objectives.
- Proficient at managing financial performance forecasting, monitoring and action plans to meet organisational financial targets and deliver shareholder return.
- Experience of 12+ years in leading diverse teams to effectively deliver financial and reporting services for TransGrid.
- Experienced in managing internal stakeholder relationships to secure co-operation and support in the achievement of financial targets and commercial outcomes.
- Experienced at managing the investment and information requirements of the Shareholder for an informed view on the organisation's ability to deliver shareholder return and value.

WORK HISTORY

11/2013 to Current **General Manager/Finance**
TransGrid *– Sydney NSW*

- Manage and review TransGrid's finances, budgets and financial exposure to minimise risk, meet statutory requirements, enhance financial and business performance and achieve financial integrity.
- Oversee capital investment plans and manage TransGrid's debt portfolio to minimise debt costs and refinancing risks
- Direct the development and monitoring of financial policies, strategies, business development and financial reporting for TransGrid to enhance its overall objectives and to meet its obligations to its owners and other stakeholders.
- Provide high quality financial modelling, scenario planning and analytical advice to the Managing Director and the Board.

12/2008 to 11/2013 **Manager / Management Accounting and Systems**
TransGrid *– Sydney NSW*

- Lead the budgeting and financial planning functions in TransGrid in the development and implementation of the organisation's budgeting framework and procedures.
- Manage the development of financial models and the financial modelling and analysis process for scenario planning.
- Manage the review and analysis of TransGrid's capital program expenditure and operational costs for efficiencies and cost savings opportunities.
- Responsible for the financial month-end close and performance monitoring and reporting to the Executive, Board and Shareholder.
- Management of TransGrid's financial system and global system administration functions, including system integrity, user support and upgrades.
- Management of the business reporting system administration function to meet corporate and business units' reporting requirements.

06/2001 to 12/2008 **Manager / Corporate Accounting**
TransGrid *– Sydney NSW*

- Formulation of TransGrid's accounting and taxation procedures for compliance with legislative requirements in an efficient and effective manner.
- Managed the preparation of TransGrid's annual financial accounts within required timeframes and delivered a clear set of accounts with positive audit outcomes.
- Managed the preparation and submission of TransGrid's taxation returns including income tax equivalent, business activity statements and fringe benefits tax.
- Development of TransGrid's annual capital expenditure and operating expenditure budgets.
- Preparation of monthly management reports for the Executive, Board and Shareholder.

ANNEXURE BT-2

Debt and Investment Risk Management Policy

Debt and Investment Risk Management Policy

Summary:

The purpose of this document is to set out a prudential framework within which the financial market risks in relation to TransGrid's Debt and Investments are managed.

Revision No: 3		Date: 4 June 2012
Business Function: Manage Finance		Document Type: Policy
Process Owner: EGM/Finance & Information Systems		
Author:	Ron Dutta, Treasurer; Tony Meehan, EGM/Finance & Information Systems; Barrington Treasury Services	
Reviewer:	Peter McIntyre, Managing Director	
Approver:	The Board of Directors at the meeting held on 12 June 2012	

When referring to TransGrid's policies, frameworks, procedures or work instructions, please use the latest version published on the intranet.

Table of Contents

1. Purpose

The purpose of this document is to set out a prudential framework within which the financial market risks in relation to TransGrid's Debt and Investments are managed. It has been prepared with reference to the NSW Treasury's document, *Commercial Policy Framework – Treasury Management Policy (TPP 07-7)*. It reflects the requirement that treasury activities are to be positioned towards the conservative end of the risk profile and must be consistent with the Public Authorities (Financial Arrangements) Act 1987 (PAFA).

The document includes:

1.1. Objectives

This section details TransGrid's overall objectives in relation to managing its debt and investment risks and specific debt and investment management strategies to assist in meeting these objectives.

1.2. Specific Debt and Investment Risk Management Policies

The policy contains specific objectives, policies and reporting requirements for the management of:

- Credit Risk
- Approved Instruments
- Liquidity and Funding Risk
- Interest Rate Risk
- Investment Risk
- Operational Risk

1.3. Reporting

This section details the reporting requirements of the Debt and Investment Risk Management Policy.

1.4. Accountability

This section details the roles and responsibilities of officers performing key functions for debt and investment management activities.

2. Objectives

2.1. Debt and Investment Risk Management Objectives

TransGrid's overall debt and investment management objectives are as follows:

- Minimise interest expense over the long term;
- Minimise the impact that interest expense has on the volatility of annual profit by managing the cost of gross debt (i.e. total borrowings);
- Take into account the regulatory regime within which TransGrid operates;
- Seek to keep debt costs below the regulated revenue allowance for cost of debt;
- Ensure TransGrid always has sufficient funds available to meet its financial obligations as they fall due; and
- Prudently invest surplus cash with credit worthy counterparties.

TransGrid's specific debt and investment management strategies to assist in meeting these objectives are:

- Identify financial market risks in relation to TransGrid's debt and investment activities and manage them within the control features detailed in this Policy;
- Manage financial market risks faced by TransGrid by only using approved financial market instruments as detailed in this Policy;
- Provide appropriate reporting and control features to meet information needs of management and allow the Board to meet its overall governance obligations;
- Ensure appropriate delegations and related controls are in place and reporting identifies compliance; and
- Measure performance against appropriate benchmarks.

3. Credit Risk Management

Credit Risk is the risk that TransGrid suffers financial loss due to the inability of a counterparty to meet its financial obligations.

The policy objective is to ensure that TransGrid does not suffer any material loss due to credit risk.

Debt management credit risk (including related investment risk) will be managed by only undertaking transactions (which give rise to credit exposure) with the NSW Treasury Corporation (TCorp) and the four major Australian banks, ANZ, Commonwealth Bank, National Australia Bank and Westpac ("the majors"). Monetary limits for each institution are:

The Majors	$200 million
T-Corp	Unlimited

The exposure calculation includes all Treasury related exposures with the counterparty. In the event that a counterparty credit limit is exceeded, the Managing Director is to be advised immediately and the Board advised at the first practical opportunity, including remedial action proposed.

In the event that one of the majors credit rating drops below A or is placed on credit watch that would lead to a drowngrade below A, that counterparty's credit limit will be reviewed.

4. Approved Instruments

The borrowing and investment instruments approved for use by TransGrid are detailed in this section.

All of the current approved debt instruments are provided by the NSW Treasury Corporation (TCorp). Short term investments and an overdraft facility are approved with Australian Banks.

Investments

Instrument	Description	Maximum Maturity
TCorp Hourglass facility	Investment managed fund of TCorp which is invested in various asset classes	1 year
Deposits with Banks	Includes Term Deposits for fixed time periods and "At Call" Investment Accounts	1 year

Borrowings and Liquidity

Instrument	Description	Maximum Maturity
Bank Overdraft	Standard bank overdraft facility	1 year
Floating Rate Borrowings	Borrowings where interest rates are reset periodically to the official Cash Rate and/or the Bank Bill Swap Rate (BBSW)	15 years
Fixed Interest Loans/Bonds	Bonds where the yields are fixed for the entire tenure of the instrument. Coupons are usually paid semi-annually.	Maximum maturity 15 years
CPI Linked Bonds	Inflation linked bonds which are linked to the All-groups CPI index. The indexation component accretes into the Principal, Coupons are paid on indexed face value of the bond at quarterly intervals.	Maximum maturity 30 years
Year on year CPI Linked bonds	Inflation linked bonds which are linked to the All-groups CPI index. The indexation component is worked on a fixed year on year movement of the index. The indexation component is paid out along with half yearly coupons	Maximum maturity 30 years

Financial derivative instruments may only be used with the approval of the Board Audit and Risk Committee. Any request for use of derivative instruments must include an evaluation of the likelihood of achieving hedge accounting.

5. Liquidity and Funding Risk Management

The main objective of liquidity risk management is to ensure that TransGrid has sufficient funds available to meet its financial obligations, working capital and potential investment expenditure requirements in a timely manner. It is also associated with planning for unforeseen events which may curtail operating cash flows and cause pressure on TransGrid's liquidity.

The policy objective is to ensure that TransGrid meets its financial commitments in a timely manner.

TransGrid will maintain cash flow forecasts and use approved instruments within approved liquidity limits to maintain adequate cash flow. Minimum cash balance requirements will be reviewed on at least an annual basis.

TransGrid will operate TCorp's "Come and Go" cash management facility up to its approved limit to maintain liquidity and to meet its working capital requirements. This facility also allows temporary deferral of draw-downs of longer term debt and thereby reduces the overall cost of funds. Any surplus cash must first be applied to reduce the balance of the Come and Go facility.

To further mitigate liquidity risk, TransGrid will maintain a committed overdraft facility with its principal banker.

In the medium to long term, TransGrid is exposed to funding risk. Funding risk is the risk that when the organisation requires new funding or is refinancing existing funding, it will be confronted with excessive borrowing costs compared to that faced previously or at worst will not be able to obtain the required funds. To manage this potential risk TransGrid will not have any more than 20% of its total projected debt maturing in any 12 month period. The projected debt is referenced from the latest corporate plan financial projections. The calculation of the debt maturity limit does not include short term funding in the TCorp Come and Go Facility.

In order to ensure that TransGrid is able to meet its payment obligations when they fall due, contract commitments are monitored to ensure that these obligations can be fulfilled within the organisations borrowing limit. The overall TransGrid borrowing limit must be reviewed at least annually in the annual funding plan approved by the Board Audit and Risk Committee.

TransGrid's borrowings limits are determined by the NSW Treasury in accordance with the Public Authorities (Financial Arrangements) Act 1987. The current approvals under this Act (May 2012) are:

- Borrowings to $2.9 billion;
- Come and Go facility to $170 million;
- Overdraft with a commercial bank to $30 million; and
- Execution of financial derivatives.

6. Interest Rate Risk Management

6.1. Interest Rate Risk

Interest rate risk is the risk of a material change in the profitability of the organisation as a consequence of adverse movements in interest rates.

The primary objectives of interest rate risk management within this policy are to:

- Minimise interest expense over the long term;
- Minimise the impact that interest expense has on the volatility of annual profit by managing the cost of gross debt (i.e. total borrowings);
- Take into account the regulatory regime within which TransGrid operates; and
- Seek to keep debt costs below regulated revenue for cost of debt.

TransGrid proactively works with the NSW Treasury Corporation on the development of financing instruments to achieve the debt and investment policy objectives. The TransGrid debt management capability has progressively been enhanced with the introduction of the following new instruments:

- CPI linked borrowings first made available to TransGrid in 2009. The funding dashboard approach was introduced into the debt policy at this time;
- The TCorp short term debt facility "Come and Go" adopted in 2010;
- Year on year interest payment CPI bonds were introduced in late 2011 as an addition to CPI linked borrowings made available in 2009; and
- Long term floating rate bonds were first made available at the end of 2011 and the use of this instrument has been incorporated into the May 2012 revision of the debt policy.

The TransGrid debt portfolio is managed in the following categories:

- The legacy nominal portfolio. This portfolio consists of the nominal debt lines outstanding before the adoption of the funding dashboard approach to debt management in April 2009. This portfolio will decline as existing loans mature;
- A nominal debt portfolio of lines borrowed since April 2009;
- A CPI linked debt portfolio consisting of the two types of CPI linked bonds;
- A floating rate portfolio of bonds; and
- Come and Go floating rate short term facility.

6.2. Composition of the Debt Portfolio

Having regard to the above parameters, TransGrid's overall debt portfolio will comprise of a mix of nominal fixed rate, CPI linked debt and floating rate debt. This section sets out the overall targets on the composition of the debt portfolio. The process for making debt placement decisions is set out in Section 6.3.

Floating rate debt is available as fixed term floating rate bonds and the "Come and Go" facility. The maximum amount of floating rate debt in the portfolio is 20%. The Come and Go facility is used to provide easily accessible funds and is priced at the short end of the funding curve. Floating rate debt provides exposure to current interest rates in the market place which balances the majority of the portfolio which is primarily fixed rate, either 100% through nominal loans or substantially fixed through the fixed real interest rate portion of CPI linked debt.

The major instruments in the portfolio are fixed interest nominal bonds and CPI indexed bonds. Nominal bonds with a range of durations placed at appropriate times in the interest rate cycle can provide low and stable interest expense over the long term. CPI linked bonds placed at appropriate times in the interest rate cycle will also provide low interest expense over the long term but also provide a stabilising factor in the profitability of the organisation due to the regulatory regime. As TransGrid's revenue is linked to CPI and its Regulated Asset Base is inflation adjusted, the CPI bond interest payments that rise and fall with inflation provide a natural hedge and reduce profit volatility.

The characteristics of the nominal and CPI linked bonds provide diversity in the overall nature of the TransGrid debt portfolio. In a range of economic situations a combination of their characteristics will help to provide low interest and volatility of profits. Due to their complimentary nature equal targets are to apply to the amount of nominal and CPI linked bonds in the portfolio. The target of either type of bond is to be determined by deducting the amount of floating rate debt in portfolio at a point in time and fifty percent of the remaining amount is considered the target.

6.3. Determination of Borrowing Type and Term

The level of floating rate debt in the TransGrid portfolio will be considered in the annual funding plan approved by the Board Audit and Risk Committee. The Board Audit and Risk Committee will take into account the following factors in approving the annual funding plan:

- Projected capital expenditure, quantum and timeframes over next 12 months;
- Size and frequency of debt maturities over funding period;
- Outlook for interest rates and shape of yield curve;
- Dashboard signals in relation to short or long term borrowings; and
- Regulatory regime including proximity to regulatory reset.

A funding dashboard approach is used to determine whether to borrow nominal or CPI linked funds and for what term. The two factors in the dashboard are:

- Break Even Inflation;
- Risk Free Rate.

Break Even Inflation

The Break Even Inflation (BEI) is the nominal interest rate for a specific period less the coupon of the comparable duration CPI linked bond. For example if TransGrid could borrow at 7.00% for 10 years by way of a nominal bond and the coupon for an equivalent CPI linked bond was 2.70%, then the BEI would be 4.30%. In accordance with the Reserve Bank of Australia's current inflation target policy of between 2.00% and 3.00% TransGrid assumes that average long run inflation will be 2.50%.

Risk Free Rate

The funding dashboard has been developed in consultation with NSW TCorp. TCorp have used economic parameters to determine that the long term average nominal Risk Free Rate is 5.6%. This is made up of the expected long run level of labour force growth of 1.24%, expected productivity growth of 1.86% and the assumed long run inflation average of 2.50%. This implies an average real rate of 3.10%.

The Risk Free Rate is also often defined as the interest rate that can be obtained by investing in financial instruments with no default risk. The Australian Competition and Consumers Commission and the Australian Energy Regulator have historically used the yield on a ten year Commonwealth Government Security as a proxy for the Risk Free Rate when determining the weighted average cost of capital for regulated industries. Over the last 10 years the 10 year Commonwealth Government Security yield has averaged 5.50% closely in line with the 5.60% determined by TCorp.

TransGrid currently assumes that the Risk Free Rate will average 5.6% implying a breakeven real rate of 3.1%.

Using these two parameters the funding dashboard is used to determine the type and duration of debt placements.

The current parameters for determining whether to access nominal or CPI linked debt are:

- Issue CPI linked debt when BEI is above 2.5%;
- Issue nominal debt when BEI is below 2.5%.

The parameters for determining what duration for new debt are:

- Borrow short duration when the implied real rate is above fair value of 3.1%;
- Borrow long duration when the implied real rate is below fair value at 3.1%.

The application of these two factors results in the decision making framework represented in the following table, referred to as the funding dashboard.

REAL RATE	High >3.1%	Shorten duration Nominal yield	Shorten duration Inflation linked yield
	Low <3.1%	Lengthen duration Nominal yield	Lengthen duration Inflation linked yield
		Low <2.50%	High>2.50%
		BREAK EVEN INFLATION RATE	

A short duration bond, CPI or nominal will have a term of 6 years or less.

Changes in macroeconomic factors and federal government policy including Reserve Bank policy will be kept under review. The appropriateness of the break even inflation and the implied real rate as they determine placement of debt will be factored into each debt placement. These two parameters will be formally reviewed at least each six months.

6.4. Debt Placement Decision Making

When there is a requirement for new debt or refinancing maturing debt the approach to be taken is:

- Application of guidelines set out in the annual funding plan particularly in regard to floating rate debt; and
- Application of the funding dashboard for type and duration of nominal and CPI linked instruments.

Debt transactions may have to be undertaken outside the control parameters of this policy in exceptional circumstances including placement of CPI bonds instead of nominal bonds or vice versa. There may also be circumstances created by the financial marketplace in which the early repayment of maturing lines of debt may be advantageous to TransGrid or the market outlook in terms of the volatility of liquidity and interest rates may lead to a view that financing should be carried out in advance of the funding requirement.

The Policy delegates authority to the Managing Director and the Board Audit and Risk Committee within limits as outlined in Section 9 of this Policy to approve such transactions on a case by case basis.

6.5. Performance Benchmarks

The performance benchmarks used to monitor the performance of the debt portfolio are:

- Performance for the nominal portfolio will be compared to the implied yield of a TCorp nominal bond with the same duration including any execution costs charged by TCorp;
- Performance for the CPI portfolio will be compared to the implied yield of a TCorp CPI linked bond with the same duration including any execution costs charged by TCorp; and
- Performance of the floating rate portfolio will be compared to the average 36 month BBSW rate for the period being reported.

The existing portfolio of nominal bonds in place before the April 2009 policy changes is expected to be left to decline over time and will not be separately benchmarked.

Other indicators on the performance of the debt portfolios that are reported are:

- Interest expense as a percentage of revenue;
- Weighted average cost of debt compared to the cost of debt applied in the currently prevailing regulatory determination; and
- The weighted average duration of each of the portfolios.

7. Investment Risk Management

The key investment risk faced is the risk that TransGrid suffers loss due to the failure of the counterparty to return the invested funds.

The policy objective is to ensure that all TransGrid's funds are invested in a prudent way so as to maximise the likelihood of principal being preserved. To achieve this all excess funds, after reducing the balance in the “Come and Go” or other overdraft facility, are only to be invested with Approved Counterparties as outlined in Section 3 of this policy and the instruments specified in Section 4.

As a general rule, all excess funds are to be deposited or invested only until the next debt maturity except for normal working capital requirements.

In any case no investment can be made for a period in excess of 1 year.

8. Operational Risk

Operational risk is the risk that TransGrid suffers financial loss due to mismanagement, error, fraud or unauthorised use of techniques and/or financial products.

The policy objective is to minimise the risk that TransGrid suffers any financial loss arising from operational risk.

TransGrid must have in place appropriate operational risk management procedures to ensure that TransGrid:

- Maintains appropriate risk segregation between dealing and other functions including settlements, deal confirmations and reconciliations; and
- Maintains control systems of a superior standard incorporating:
  - procedures documentation for all treasury operational activities;
  - effective transaction processing, recording of instruments and performance reporting systems;

- only entering into approved transactions; and
- business continuity or disaster recovery plans to ensure the continued effective operation of the treasury function in the event of a disruption to business.

9. Accountability

Role	Responsibility
Board	Is responsible for: • Approving the Debt and Investment Management Policy on recommendation from the Board Audit and Risk Committee; • Reviewing the reports outlined in Section 10 of this Policy; and • Considering recommendations submitted on specific matters.
Board Audit and Risk Committee	Is responsible for: • Reviewing this Policy at least every two years and recommending any changes to the Board for approval • Reviewing the operational application of this Policy on a regular basis; • Approving amendment to the credit counterparty limits as set out in Section 3; • Approving the use of financial derivative instruments as set out in Section 4; • Approving maturity of more than 20% of the total projected debt portfolio in any 12 month period as set out in Section 5; • Approving the annual funding plan; and • Reviewing and approving debt and investment transactions outside the control parameters set out in this Policy when referred by the Managing Director.
Managing Director	The Board's guidance to the Managing Director is to exercise delegation in the review and approval of debt management transactions set out in Section 6; by approving the restructure of the debt portfolio of up to 10% of the value of the portfolio in any financial year through early repayment of maturing lines, prefunding of debt and placement of debt outside of the risk dashboard recommended parameters. In exercising this delegation the following limits apply: • Approval of restructuring of the portfolio through early repayment, prefunding and placement of debt outside of the dashboard is limited to decisions where the quantifiable net present value of the future interest savings is greater than the cost of other funding alternatives; and • The approval of prepayment or prefunding is limited to six months before the projected cashflow drawdown program.

	Under normal circumstances, the Managing Director would approve transactions within the parameters set out above. Under special circumstances, the Managing Director can exercise discretion to approve transactions outside these limits. Should this discretion be exercised, the Board Audit and Risk Committee must be advised within one business day of the decision. The Managing Director is responsible for approving any investments by TransGrid for a period in excess of one year as set out in Section 7.

10. Reporting

This section outlines the reporting provided under this Policy.

Any breaches of Policy will be reported to the Managing Director immediately, and to the Board at the first meeting following the breach.

10.1. Credit Risk

Reporting of credit risk will be on an affirmative compliance basis against policy parameters.

10.2. Liquidity and Funding Risk

Liquidity levels and TransGrid's funding profile will be reported to the Board monthly.

In the event of TransGrid being unable to meet its liquidity requirements, the Managing Director is to be advised immediately and the Board advised at the first practical opportunity.

10.3. Interest Rate Risk

The Board will be provided with a monthly report detailing:

- Debt balances with maturity profile;
- Weighted Average cost of Debt;
- Benchmark of performance of the Debt portfolio as outlined in Section 6.5 of this Policy;
- Interest expense as a percentage of revenue; and
- Six month review of break even inflation and implied real rate.

10.4. Approved Instruments

Reporting of approved instruments will be on an affirmative compliance basis against policy parameters.

10.5. Investment Risk Management

Reporting of investment risk management will be on an affirmative compliance basis against policy parameters.

10.6. Operational Risk

Reporting of operational risk will be on an exception basis.

11. Change history

Revision no:	Approved by	Amendment
2	The Board of Directors at the meeting held on 12 June 2012	Reformat of Policy to revised template with the following amendments: • Introduction of Floating Rate Loans as Approved Debt instrument; • Debt placement decision making includes application of guidelines set out in the Annual Funding Plan; • Numbering for internal section references updated to reflect new template format; • In 1.4, the heading 'Roles and Responsibilities' was changed to 'Accountability' to reflect new template wording; • References section added to this policy.

12. References

NSW Treasury document - Commercial Policy Framework – Treasury Management Policy (TPP 07-7)

Public Authorities (Financial Arrangements) Act 1987 (PAFA)

ANNEXURE BT-3

Commercial Policy Framework –

Treasury Management Policy (TPP 07-7)

july07

New South Wales
TREASURY

tpp
07-7

Commercial Policy Framework: Treasury Management Policy

OFFICE OF FINANCIAL MANAGEMENT

Policy & Guidelines

Preface

The *Treasury Management Policy* is a component of the NSW Government's policies aimed at ensuring that best practice financial management and accountability frameworks are applied in the State sector.

The purpose of the policy is to strengthen the existing framework for managing the risks associated with public sector agencies' treasury functions. These functions include borrowings, investments, derivative transactions, debt and investment management and structured finance transactions. The framework applies to all public sector agencies but is of greater relevance to Government businesses, given the extent of their involvement in treasury functions.

This policy supersedes the previous NSW Treasury policy document on this matter, *Treasury Management Policy*, (TPP02-5), September 2002.

John Pierce
Secretary
NSW Treasury
July 2007

Treasury Ref: **TPP07-7**
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Note
General inquiries concerning this document should be directed to:
Commercial Sector Performance and Reform Branch (Tel: (02) 9228 3095).

This publication can be accessed from the Treasury's Office of Financial Management Internet site [http://www.treasury.nsw.gov.au/].
For printed copies contact the Publications Officer on Tel: (02) 9228 4426.

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Policy Application and Objectives

The *Treasury Management Policy* applies to the treasury functions of all public sector agencies, incorporating both General Government agencies and Government businesses. The policy is of greater relevance to Government businesses, given the extent of their treasury functions.

Treasury functions include borrowings, investments, derivative transactions, debt and investment management and structured finance transactions.

The objective of this policy is to provide an overarching framework for managing the risks associated with treasury functions. Specifically the policy aims to:

- minimise the cost of gross debt (i.e. total borrowings), within prudent risk parameters
- identify and effectively manage financial risk, and
- ensure professional interaction with financial markets.

Policy Statement

The following principles underlie the *Treasury Management Policy*:

- centralised market interaction but decentralised strategic decisions
- identification and effective management of financial risks
- clear accountability
- contracting out of treasury functions, and
- conservative approach to derivatives.

Treasury Management Framework

Public sector agencies that are authorised to undertake treasury functions are required to prepare policies approved by the board (or the highest level of management where a board does not exist) based on the framework outlined in the policy. Establishing successful frameworks involves articulating objectives, strategies and tactics and defining how performance will be measured. Policies need to be formulated on a case-by-case basis with consideration of the nature, size and complexity of financial market activities, particularly the quantitative limits.

The fundamental objective of financial risk management is to maximise returns from the agency’s core operations while controlling exposures consistent with the agency’s risk tolerance, which should be determined with regard to the Government’s preferences. Agencies are not permitted to operate their treasury functions as profit centres as financial risk is not to be undertaken solely for the purpose of obtaining a market return. The elements of financial risk which are to be managed on an aggregate net exposure basis are:

- Credit risk
- Market risk, and
- Operational risk.

1. Introduction

The NSW Government has implemented a number of policies aimed at ensuring that best practice financial management and accountability frameworks are applied in the State sector. The State sector is comprised of public sector agencies that are subject to the *Financial Management Framework* (in the case of most General Government agencies) or the *Commercial Policy Framework* (in the case of Government businesses[1]). The *Treasury Management Policy* covers all public sector agencies but is of greater relevance to Government businesses, given the extent of their treasury functions.

1.1 The Government's risk tolerance

The owners of any business expect their investments to earn a return that rewards them for bearing risk. This return is expected to be at least commensurate with the perceived risk of the investment. Effective management requires all risks to be identified and managed so that, irrespective of outcomes, unaffordable losses are not incurred.

The Government, in its capacity as owner, recognises that boards and management of public sector agencies need to effectively manage and mitigate risks associated with their operations. The fundamental objective of financial risk management is to maintain financial returns and liabilities within tolerable limits, in line with the Government's preferences, without adversely interfering with agency operations.

The level of exposure that is acceptable will vary among agencies depending upon firm-specific and industry factors. The policies approved by the board (or the highest level of management where a board does not exist) need to be agreed with Shareholding Ministers in the context of the Statement of Corporate Intent (for State Owned Corporations (SOCs)) and the Treasurer in the context of the Statement of Business Intent or the Results and Services Plan (for other public sector agencies).

1.2 Purpose of the policy

The objective of the *Treasury Management Policy* is to provide an overarching framework for managing the risks associated with public sector entities undertaking treasury functions. Specifically the policy aims to:

- minimise the cost of gross debt (i.e. total borrowings), within prudent risk parameters
- identify and effectively manage financial risk, and
- ensure professional interaction with financial markets.

1.3 Definition of terms

Treasury Functions

Treasury functions of public sector agencies include borrowings, investments, derivative transactions, debt and investment management, and structured finance transactions. The capacity of agencies to undertake such functions is governed by the *Public Authorities (Financial Arrangements) Act 1987*, and other Acts, such as constituting legislation.

[1]The generic term 'Government business' includes:

- Public Trading Enterprises (or Public Non-Financial Corporations under ABS classifications). State Owned Corporations are included in this classification but are distinguished by their corporatised status.
- Public Financial Enterprises (or Public Financial Corporations under ABS classifications); and
- General Government businesses (or General Government agencies under ABS classifications, which are non-Budget dependent and operate under the *Commercial Policy Framework*).

Financial Risk

Financial risk is defined as the potential for gain or loss arising from financial assets and liabilities. This exposure takes the form of credit, market and operational risks.

Credit risk

the potential for gain or loss arising from a counterparty's failure to meet its contractual obligations.

Market risk

the potential for gain or loss arising from changes in financial and physical market prices such as interest rates, foreign exchange, equity values and commodity prices.

Operational risk

the potential for loss resulting from inadequate or failed internal processes, people and systems, or from external events.

1.4 Legislative Provisions

The *Public Authorities (Financial Arrangements) Act 1987* (NSW) (the *'PAFA Act'*) provides the legislative basis for public sector entities that are prescribed to be authorities[2] to undertake treasury functions.

Borrowing Requirements

Sections 7 and 8 of the *PAFA Act* provide that authorities can obtain financial accommodation subject to approval from the Treasurer and the Governor. Financial accommodation as defined in the *PAFA Act* typically includes debt instruments such as promissory notes, debentures, bonds and discounted securities.[3] In some cases, structured financing transactions will also qualify as financial accommodation. Section 10 of this Act requires authorities to obtain all financial accommodation from the NSW Treasury Corporation (TCorp) unless the financial accommodation is by way of an advance or the Treasurer grants an exemption by order in writing.

Investment Powers of Authorities

Section 24 of the *PAFA Act* provides for the conferring of investment powers on authorities through regulations if recommended by the Treasurer and the Minister for the authority. The specific investment powers that may be conferred are contained in Schedule 4 to the *PAFA Act*.

Both the Treasurer and the Minister for the authority in accordance with section 24(2A), have regard to the general criteria approved by the Treasurer for determining the appropriate investment powers to be conferred on authorities. The Treasurer's general criteria, in accordance with section 24(2B) refer to the:

- class of the authority within any official government classification of authorities
- volume of funds to be invested by the authority, and
- expertise of, and facilities available to, the employees of the authority undertaking the investments.

[2] The definition of authority includes all general government agencies, public trading enterprises, public finance enterprises, ministers and their controlled entities, *PAFA Act*, s 3
[3] *PAFA Act*, s 4 contains a full definition.

Derivative Transactions

Under section 16 of the *PAFA Act*, authorities can effect financial adjustments subject to the approval of the Treasurer. Financial adjustments as defined under the *PAFA Act* include a wide range of derivative transactions such as swaps, forward rate agreements, futures and options in respect of interest rates, foreign exchange and commodities, and includes combinations of these instruments.[4]

Debt and Investment Management

Section 8 of the *Annual Reports (Statutory Bodies) Act 1984* requires statutory bodies to provide an annual operations report. In addition, sections 12 and 13 of the *Annual Reports (Statutory Bodies) Regulation 2005* prescribe that the operations report includes comparisons of investment and liability management along with guidelines issued by the Treasurer.[5] The latest guidelines are outlined in NSW Treasury Circular *Guidelines on Reporting of Investment and Liability Management Performance* (NSWTC 03/09).

Approval of Funds Manager

Under section 25 of the *PAFA Act*, authorities that have been granted investment powers can engage a funds manager, subject to the approval of the Treasurer on the recommendation of the Minister for the Authority. In accordance with section 25(4) and common law agency principles, the investment powers exercisable by the funds manager cannot be more extensive than those granted to the authority.

1.5 Structured finance and asset acquisition transactions

Agencies from time to time are involved in complex, structured finance or asset acquisition transactions. Examples of such transactions include build-own-operate (BOO) contracts, build-own-operate-transfer (BOOT) contracts and, offshore, large operating and financial leases.

Such transactions are complex, infrequent, require expert financial knowledge and can involve significant financial and transactional risks.[6] Most transactions require the approval of the Treasurer under the *PAFA Act*[7] and, in addition, some transactions must be approved by the Cabinet Standing Committee on the Budget (eg Projects of State Significance).[8]

Accordingly, Treasury will review all transactions at the inception stage and then prior to final commitment (and where applicable in accordance with the *Guidelines for Assessment of Projects of State Significance*). TCorp will act as the Treasury's financial adviser in such transactions and their involvement at an early stage may expedite the overall approval process.

[4] *PAFA* Act, s 5.contains a full definition
[5] Certain statutory SOCs operating in competitive markets are exempt from these requirements.
[6] NSW Treasury Circular 98/7: *Structured Finance Transactions* outlines the requirements to be observed by agencies considering such transactions.
[7] For example, s 5
[8] Refer to NSW Treasury, *Guidelines for Assessment of Projects of State Significance*, TPP02-4, June 2002

1.6 Application of the policy

The *Treasury Management Policy* applies to all public sector treasury functions which includes both General Government agencies and Government businesses. This policy is, however, of greater relevance to Government businesses given the extent of their treasury functions.

The following documents provide more detailed guidance on aspects of treasury management:

- *Accounting for Financial Instruments*, TPP06-4, June 2006, NSW Treasury
- *Energy Trading Policy for Retailers*, TPP99-5, October 1999, NSW Treasury
- *Energy Trading Policy for Generators*, TPP99-6, October 1999, NSW Treasury
- Public Authorities (Financial Arrangements) Act 1987
- *Reporting and Monitoring Policy for Government Businesses*, TPP05-2, November 2005, NSW Treasury
- Treasury Circular 03/09: *Guidelines on Reporting of Investment and Liability Management Performance*
- Treasury Circular 98/7: *Structured Finance Transactions*
- Treasury Circular 05/11 *Accounting for dividends*, and
- *Working with Government – Guidelines for Privately Financed Projects*, December 2006, NSW Government.

2. Treasury Management Policy

2.1 Policy statements

The following principles underlie the *Treasury Management Policy*:

Centralised market interaction but decentralised business decisions

A consistent, professional approach is required to integrate core treasury transactions with financial markets. Economies of scale and concentration of expertise can provide substantial cost savings through finer pricing and the opportunity to net existing exposures.

To ensure a consistent and professional approach, agencies are required to utilise TCorp to assist with borrowing and derivative transactions unless otherwise authorised. Agencies will, however, remain responsible for strategic treasury decisions such as the maturity structure and positioning of debt and financial asset portfolios, timing of borrowings and the use of structured finance. Where appropriate, agencies are encouraged to contract out treasury functions providing the tender documents prescribe that services must be carried out in accordance with *Treasury Management Policy* principles.

Identification and effective management of financial risks

Financial risks can be divided into credit, market and operational risks. Exposures to financial risk arising outside of agencies' core operations are considered speculative activity and are expressly prohibited. Effective risk management requires all risks to be identified, quantified, assessed and actively managed in accordance with prudent risk management policies and limits. Agencies are responsible for applying this approach to existing and proposed activities to ensure that financial risk exposures will not result in unaffordable losses irrespective of potential changes in operational circumstances.

Clear accountability

Boards and agency management are responsible for adopting clear and objective treasury performance measures and transparent accountability mechanisms. This occurs through:

- Statement of Corporate Intent, Statement of Business Intent or Results and Services Plan (RSP) processes
- accounting standard requirements to recognise, measure and disclose financial instruments in general purpose financial reports (refer AASB 132 *Financial Instruments: Presentation* and AASB 139 *Financial Instruments: Recognition and Measurement*)
- regulations issued under the *Annual Reports (Statutory Bodies) Act 1984* regarding reporting of investment and debt management performance, or
- contracting out treasury functions.

The fundamental objective of Government businesses is to maximise shareholder value. This requires strong performance from both a financial and service delivery perspective. Similarly, other public sector agencies are required to achieve value for money in the provision of Government programs and service delivery.

With the exception of public financial enterprises, treasury functions are not part of core agency operation. Significant economies of scale can occur through comprehensive technical expertise and complex support system requirements. To ensure policy requirements are met, agencies are encouraged to fully explore treasury function contracting options subject to the Treasurer's approval under the *PAFA Act* (as detailed in section 1.4). It is mandatory for these terms of engagement to comply with the *Treasury Management Policy* and related requirements.

Conservative approach to using derivatives, swaps, futures, warrants and options

Adopting a conservative approach to derivatives can reduce financial risks faced by Government agencies.

Agencies must obtain the Treasurer's approval in accordance with the *PAFA Act* to use derivatives to hedge underlying financial risks. The following principles apply for agencies' derivative dealings subject to the Treasurer granting this approval.[9]

- Agencies are not permitted to operate as a profit centre for their derivative activity.
- Each agency that transacts derivatives must have a comprehensive set of guidelines on authorised instruments, parameters for transacting, credit risk monitoring procedures and risk reporting.
- Options transactions are limited to:
  i. Purchased options which hedge underlying exposures (i.e. down-side risk is limited to the premium cost);
  ii. Sold options providing the risk created does not exceed an existing exposure; and
  iii. Options strategies used as part of the debt management mandate (subject to the agency approving the use of options in its permitted instruments policy) where an agency has contracted out its debt management function to TCorp.
- An agency's treasury policies must include precise limits for the use of derivatives. These limits are to be based on the size of the agency's debt portfolio where the derivatives are used for interest rate risk management and should be based on the maximum size of the exposure being managed. In particular, there should never be a greater volume of derivatives in place than is necessary to perfectly hedge exposures.

Agencies must also ensure that the recognition, measurement and disclosure requirements under the Australian Equivalents to International Financial Reporting Standards (AEIFRS) are followed (refer AASB 132 *Financial Instruments: Presentation* and AASB 139 *Financial Instruments: Recognition and Measurement*). Among other things, these standards require derivatives to be recognised on the balance sheet at fair value and disclosures to be made regarding the financial risk management objectives and policies.

Consideration may also be given to adopting hedge accounting. Hedge accounting matches the timing of profit or loss recognition on the derivative with that of the item being hedged. To qualify for hedge accounting, however, strict criteria must be satisfied including designation, documentation and effectiveness requirements (refer *Accounting for Financial Instruments* (TPP 06-4)[10], section 8).

Market values of derivative positions are to be calculated at least monthly and monitored to evaluate portfolio risks.

A conservative approach to derivatives requires policies that specify permitted instruments, unambiguous trading and counterparty limits, specific staff authorisation to enter into contracts, effective internal controls, regular portfolio valuation, stress testing and frequent reporting. Agencies are required to adopt these practices when formulating risk management policies based on the nature, size and complexity of their derivative activities.

Generic templates for the Permitted Instrument and Investment Management Policies are attached at Appendix 1.

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[9] Public financial enterprises are excluded from these requirements. These principles also apply to interest rate and currency derivative transactions related to debt and treasury management. The use of energy derivatives should be treated separately and are covered in the 'Commodity Risk Policy' section.

[10] NSW Treasury, *Accounting for Financial Instruments*, TPP 06-4, June 2006

3. Treasury Management Framework

Public sector agencies that are authorised to undertake treasury functions are required to prepare policies approved by the Board (or the highest level of management where a Board does not exist) based on the *Treasury Management Policy* framework. Establishing successful policies involves articulating objectives, strategies and tactics and defining how performance will be measured. This process requires understanding and commitment throughout the organisation to attain these central goals.

Treasury unit policies need to be formulated on a case-by-case basis with consideration of the nature, size and complexity of financial market activities, particularly the quantitative limits. More detailed requirements, in the form of generic templates, are contained in Appendix 1.

3.1 Risks associated with treasury functions

The fundamental objective of financial risk management is to maximise returns from the agency's core functions while controlling exposures consistent with the agency's risk tolerance, which should be determined with regard to the Government's preferences. Agencies are not permitted to operate their treasury functions as profit centres as financial risk is not to be undertaken solely for the purpose of obtaining a market return. Financial risk must be managed on an aggregate net exposure basis.

Credit Risk

The Basel Committee on Banking Supervision[11] found that credit risk problems generally originate through:

- a lack of understanding between credit, market and liquidity risk interaction
- poor procedures for monitoring credit, and
- excessive risk concentrations

Agencies are required to adhere to the following guidelines:

- individual counterparties, limits and instruments are to be established and approved by the Board (or if there is not a Board, by the highest level of management), and
- transactions executed for the sole purpose of earning a premium in exchange for exposing a business to credit risk are prohibited (eg credit default swaps).

Additional credit risk requirements, including limits based on counterparty credit rating and agency debt levels, can be found in the 'Credit Risk Policy' attachment at Appendix 1.

Market Risk

Specifically market risk can be considered as interest rate, foreign exchange and commodity risks. While agencies have considerable scope in determining their exposure to market risk, current exposures must be closely monitored. Businesses should seek to minimise their exposures to illiquid or volatile markets by ensuring that contracts are only entered if they are able to be easily unwound.

[11] Basel Committee on Banking Supervision "Principles for the Management of Credit Risk" July 1999.

Interest rate risk

To address interest rate risk, agencies that have debt exceeding $20 million are required to:

- establish an appropriate 'neutral' benchmark or 'core' portfolio against which to measure performance and risk levels for gross interest rate exposures;
- define risk limits in relation to the structure of the actual debt portfolio as compared with its benchmark and any derivative instruments used to manage the debt; and
- monitor debt portfolio risk exposure and performance.

This approach is aimed at minimising unfavourable interest rate movements on the market value of debt and financial asset holdings. Any agencies who consider that the approach outlined above is not entirely suited to their circumstances can apply to NSW Treasury for a modified approach. Reasons for such application could include:

- relatively small size of portfolio and/or fixed maturity date,
- specific project financing not amenable to the approach, or
- circumstances / risks peculiar to a particular industry or agency.

Any applications will be considered on their own merits.

If a modified approach is approved, this would not in itself remove any obligation the agency may have under section 13 of the *Annual Reports (Statutory Bodies) Regulation 2005* to report details of the performance of its liability portfolio relative to the performance of its benchmark portfolio. However, some agencies may already have requested and obtained an exemption from this obligation under section 19 of the regulation.

Derivative instruments (eg interest rate futures, options, swaps and forward rate agreements) must comply with the Permitted Instruments Policy list, and approval for the use of these instruments must be ratified by the Board (or the highest level of management where a board does not exist). The use of derivative instruments must not be disproportionate to the size of the debt portfolio, recognising that derivative instruments can vary in value considerably as interest rates rise or fall. Derivative use should be limited to prudent levels as derivatives, in many cases (e.g. interest rate swaps), also incur additional State and agency credit risk.

Derivative usage limits should take market-related volatility into account as derivative values will be affected by this factor to differing degrees (for example 10 year bond futures have considerably higher volatility than 90 day bill futures). An appropriate means of achieving this is to relate maximum derivatives usage directly to the maximum allowable difference between the modified duration of the total actual debt portfolio and benchmark or 'core' portfolio.

Foreign Exchange Risk

As a matter of policy agencies are not to be exposed to unhedged foreign exchange rate risk. Agencies will need to identify their key sources of foreign exchange risk and address how these risks are to be managed in the context of the overriding aim of neutralising foreign exchange exposures. TCorp, while raising borrowings from time to time in foreign currency markets, will always convert these exposures into Australian dollars. Agencies will therefore not have any foreign exchange exposure in respect of such borrowings or debt.

Commodity Risk

Some agencies will have exposure to movements in the price of commodities (e.g. base metals, fuel, and electricity) as a direct consequence of their activities. Commodity risk management will need to occur where price risk management or availability of supply is essential for ongoing agency operation.[12]

Specific market risk requirements can be found in the Interest Rate, Foreign Exchange and Commodity Risk Policy attachments at Appendix 1.

Operational Risk

The Board and/or Executive management are responsible for ensuring that impact controls (e.g. insurance policies or cash reserves) are adequate to guard against Operational risk losses. Preventive controls will also need to be in place to reduce the incidence of Operational risk.

In preparing preventative controls agencies:

- should have a good understanding of where risks occur
- will need effective risk reporting and disclosure, and
- will need to foster a culture which encourages employees to act in the best interest of the organisation.

The Board of Directors (or the highest level of management where a board does not exist) should be aware of major Operational risks and periodically review the Operational risk strategy. This risk strategy will be implemented by Senior Management but should be approved by Directors and/or the Chief Executive/Director General.

Operational risk controls can also prevent business illiquidity by:

- developing a minimum required level of liquidity
- articulating treasury and core business cash forecasting responsibilities
- conducting detailed cash flow planning and assigning daily cash management responsibilities
- identifying working capital guidelines and targets
- adopting liquidity support arrangements, including surplus cash or access to on-demand funding, and
- implementing prudential limits on maturing debt in any one year period.

Since TCorp manages the liquidity of the State and provides short term finance to agencies through Come & Go Facilities, agencies will only need to independently manage cash and investments which are necessary to meet their current obligations.

Additional Operational risk requirements can be found in the Operational Risk Policy attachment in Appendix 1.

[12] More detailed guidance for electricity businesses is contained in NSW Treasury, *Energy Trading Policy for Retailers,* TPP 99-5, October 1999, and NSW Treasury, *Energy Trading Policy for Generators*, TPP 99-6, October 1999.

Benchmarks

Agencies are required to report on the performance of their treasury management functions, measured against appropriate benchmarks. These benchmarks are to be developed in consultation with Treasury and TCorp and should be formally expressed in the context of the SCI/SBI and RSP processes and monitored in the context of the existing reporting regimes. Agencies are required to establish a neutral benchmark and explicitly state acceptable risk boundaries where the portfolio is managed away from its risk-neutral position to increase returns or lower costs. The key to assessing the agency's risk neutral maturity profile is identifying how the income stream generated by the assets is produced and how debt varies over the asset life.

The application of modified duration provides a mechanism for assessing the degree of mismatch between the assets and the benchmark or liabilities of a portfolio and the portfolio's price sensitivity. In addition, agencies may need to apply supplementary benchmarks to reflect accounting and cash flow objectives. Benchmarks should be created for:

- total debt
- debt/(debt + equity)
- interest cost
- modified duration of benchmark portfolio
- investment income
- foreign currency exposure
- credit rating

4. Roles and Responsibilities

Boards and management perform a stewardship role and are responsible for gaining approval and developing business strategies and operational management. This involves:

- developing treasury management policies consistent with the framework;
- general purpose financial reporting, including recognition, measurement and disclosure of financial instruments, in accordance with Accounting Standards;
- continuous disclosure as outlined in the *Reporting and Monitoring Policy for Government Businesses*;
- operational management (including prudent risk management); and
- notifying NSW Treasury:
    - if new or renewed approvals under the *PAFA Act* are desired
    - existing approvals are no longer required, or
    - the terms and conditions are no longer appropriate.

TCorp, on behalf of public sector entities, is responsible for:

- obtaining financial accommodation on the most cost effective basis possible;
- managing outstanding liabilities so as to ensure ongoing cost effectiveness within acceptable risk limits;
- advising on and coordinating structured financing for client authorities in respect of special assets or projects; and
- managing funds to maximise returns, subject to security and liquidity restraints.

NSW Treasury is responsible for developing the *Treasury Management Policy* and its administration. The policy-making role involves:

- developing, promulgating and promoting the policy
- engaging stakeholders in consultative processes; and
- updating and revising the policy where necessary.

Agencies are responsible for risk administration in relation to treasury functions. This involves:

- ensuring that the *Treasury Management Policy* is applied as an overarching framework to manage risks associated with treasury functions
- monitoring risk management performance, and
- reporting any losses and their cause in quarterly exception reports and/or on a continuous basis, where appropriate.

4.1 Further Information

General inquiries concerning this document should be initially directed to:
Commercial Sector Performance and Reform Branch
NSW Treasury
Telephone: (02) 9228 3095
Internet: www.treasury.nsw.gov.au.

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Appendix 1: Treasury Management Template Policies

Permitted Instruments Policy

Purpose

The Permitted Instruments Policy describes the instruments that can be transacted under legislative requirements and the potential risks faced by the agency and inherent in these instruments.

Rationale

The approved agency instrument lists is governed by the operation of the *Public Authorities (Financial Arrangements) Act 1987 (PAFA Act)* and subsequent approvals granted by the Treasurer in relation to 'financial adjustments' (derivatives).

Policy Statement

The Board (or the highest level of management) resolves that:

- Only financial market instruments, to the extent provided under Part 3 of *PAFA Act* (in relation to investments) and as approved by the Treasurer (in relation to 'financial adjustments'), will be entered into subject to those instruments being legally binding and enforceable by law.
- Treasury will be notified if the power to enter into investments and/or financial adjustments is no longer required.
- Approved financial market instruments (or some subset) and delegations of authority will be deemed appropriate by the Board (or the highest level of management where a board does not exist).
- The agency will not undertake speculative transactions and only engage in instruments where an underlying exposure needs to be managed under the *PAFA Act*.
- Breaches of policy are to be reported to the Chief Executive Officer immediately and to the Board monthly with action proposed or undertaken. Where a board does not exist, breaches of the policy are to be reported to the highest level of management immediately and to the next management meeting for ratification of the action proposed or undertaken.
- Compliance issues and the strategy and timing for resolution are to be reported to NSW Treasury in the context of the *Reporting and Monitoring Policy for Government Businesses* for Government businesses or under the *Financial Management Framework* for other agencies.

Policy adopted:	**[ ]**	**2007**
To be reviewed (no later than):	**[ ]**	**2008**

Investment Management Policy[13]

Purpose

The Investment Management Policy establishes appropriate benchmarks for performance measurement and prudent limits for surplus fund[14] management.

Rationale

The investment management objective is to achieve an appropriate return for the level of risk assumed. Investments will be based on the nature and term of the underlying liability or cash flow requirements of the particular funds.

Where investment funds are managed by an agency or an outsourcing provider, a benchmark index is to be established. Management limits on the actual investment portfolio are to be established in terms of modified duration, maximum maturity, or asset sector allocation limits where applicable.

Policy Statement

The Board (or the highest level of management where a board does not exist) resolves that:

- All investments are to be in accordance with Treasury Management Policies.
- Investments in risk-leveraged derivative instruments are not permitted.
- Long-term investments are to be made on the basis of underlying liabilities relating to the funds.
- Funds held for particular purposes are to be managed in accordance with the recommendations set out in NSW Treasury Circular 03/09 *'Guidelines on Reporting of Investment and Liability Management Performance'*.
- Income relative to budget and returns relative to the appropriate TCorp Hour-Glass Facility (where investments other than Hour-Glass investments are made) are to be reported to the Board (or the highest level of management where a board does not exist) on a monthly basis.
- Breaches of prudential limits are to be reported to the Chief Executive Officer immediately and to the Board monthly with the action proposed or undertaken. Where a board does not exist, breaches of prudential limits are to be reported to the highest level of management immediately and to the next management meeting for ratification of action proposed or undertaken.
- Compliance issues and the strategy and timing for resolution are to be reported to NSW Treasury in the context of the *Reporting and Monitoring Policy for Government Businesses* or under the *Financial Management Framework* for other agencies.

Policy adopted:	**[**	**]**	**2007**
To be reviewed (no later than):	**[**	**]**	**2008**

[13] Under AASB 139 *Financial Instruments: Recognition and Measurement*, an investment strategy is required before certain financial instruments can be designated at fair value through profit or loss. See section 5.3 NSW Treasury, *Accounting for Financial Instruments*, TPP 06-4, June 2006.

[14] Surplus funds in this instance refer to cash balances exceeding the businesses requirements for working capital and an appropriate contingency for financial flexibility.

Credit Risk Policy

Purpose

The Credit Risk Policy establishes eligible counterparties with limits based upon counterparty credit rating and total agency debt.

Rationale

The objective of the Credit Risk Policy is to minimise the potential for counterparty default on investment transactions. Where an agency has significant credit exposures arising out of its other activities, the Credit Risk Policy will need to be more comprehensive to ensure that those credit risks are appropriately controlled in accordance with best practice. This is particularly important for agencies involved with electricity trading.

A ratings based approach will be the prime method by which credit risk will be assessed. This allows the use of external independent credit assessments and eliminates the need for the agency to allocate its scarce resources to perform credit evaluation. The ratings based policy results in a simple, easy to implement and highly prudent structure. Counterparty credit risk is spread through the operation of rating percentage exposure limits.

Credit policies may need to be expanded where credit risks flow from construction contracts. In this instance credit policies will require greater sophistication as counterparties may not have published ratings. Agencies entering construction contracts must ensure that their private sector counterparts have:

- a credit rating of at least A (Standard and Poor’s (S&P) and Fitch Ratings (Fitch)) or A2 (Moody’s), or
- a guarantee from a financial institution with a long term rating of A (S&P and Fitch) or A2 (Moody’s), or above.

It is strongly advised that agencies seek expert advice with regard to the development of a credit policy to cover these broader credit risks.

Policy Statement

The Board (or the highest level of management where a board does not exist) resolves that:

Investments may only be made with an Eligible Counterparty

An eligible counterparty is a counterparty which:

- is domiciled in an A+ or better (S&P) rated OECD country; and
- has a long term rating of at least A (S&P or Fitch) or at least A2 (Moody's), or a short term rating of at least A2 (S&P), P1 (Moody’s) or F2 (Fitch).

Short term exposure of less than one year:

- May be incurred to the limit set out below where the long-term rating is unavailable or ineligible, but there is a Fitch, S&P or Moody's short term rating of:

	Short Term Rating	**Long Term Rating Limit**	
Tier	**S&P/Moody's/Fitch**	**S&P and Fitch**	**Moody's**
1	A1+/P1/F1+	AA	Aa2
2	A1/ P2 /F1	A+	A1
3	A2/P2/F1	A	A2

Rating Reviews are to be acted upon:

- Counterparties placed on credit watch positive are to maintain current ratings and limits until a new rating is available.
- Counterparties placed on credit watch negative are to have long and short term ratings reduced by one notch (except where the short term rating is affirmed), with the appropriate reduction in limits applied, until a new rating is available.

Limit determination:

- TCorp investments and Hour-Glass Facilities are eligible investments without limits.
- Where an unrated counterparty receives the benefit of an unlimited and unrestricted parent guarantee, the limit is to be determined on the parent's rating.
- Credit limits are to be applied on a group basis. The total exposure to entities that are owned or guaranteed by a single entity is not to exceed the maximum credit limit of any entity in the group.
- Where a parent guarantee is limited by amount, the limit will be no higher than this level.
- Limits for individual counterparties are to be determined based on the value of the agency's outstanding debt and the rating of the counterparty. An example of credit limits for an agency with $200 million in outstanding debt is shown below:

Long Term Rating of Counterparty	Percentage of total Agency debt	Credit Limit per Counterparty ($m)
AAA/Aaa	[20%]	[40]
AA+/Aa1	[15%]	[30]
AA/Aa2	[10%]	[20]
AA-/Aa3	[8%]	[16]
A+/A1	[4%]	[8]
A/A2	[2%]	[4]

Calculation of the utilisation of limits

- Limit utilisation for a particular investment instrument is to be calculated based on market value (see previous table). Where this value is neither available nor consistent with standard practice in a particular market, face value or a percentage of the face value, of the securities held may be used.

Spread of Risks

- Limits should be established on the short term Tier 3 credit exposure maximum and Tier 1 minimum exposures. As a guide, the Tier 3 paper maximum should be 15 per cent of total credit exposures and the Tier 1 minimum exposure should be 20 per cent.

Documentation

- Where appropriate (eg for over-the-counter transactions such as interest rate and currency swaps), agencies will use documentation provisions[15] to mitigate credit risk and ensure transaction enforceability.
- The agency will explore the possibility of inserting early termination triggers in financial contracts to reduce counterparty default risk (eg in swap contracts). Appropriate early termination triggers could include inaccurate representations by counterparties, mergers and credit downgrades.
- The agency will, where possible, enter into netting agreements with counterparties with whom they regularly transact (eg in ISDA documentation) to reduce business credit risk exposures in the event of a default or a counterparty entering into liquidation.

Reporting

- Breaches of prudential limits are to be reported to the Chief Executive immediately and to the Board monthly for ratification of the action proposed or undertaken. Where a board does not exist, breaches of prudential limits are to be reported to the highest level of management immediately and to the next management meeting for ratification.
- The agency will endeavour to reduce any overexposure provided no significant costs are incurred. If this is not possible the transaction should be allowed to mature where it is not greater than 180 days.
- Longer dated transactions should be liquidated unless otherwise specifically approved by the Board or where a Board does not exist the Chief Executive or Director General.

Details of compliance issues and the strategy and timing for resolution are to be reported to NSW Treasury in the context of the *Reporting and Monitoring Policy for Government Businesses* for Government businesses or under the *Financial Management Framework* for other agencies.

Policy adopted:	**[**	**]**	**2007**
To be reviewed (no later than):	**[**	**]**	**2008**

[15] Applicable provisions include the market-standard International Swaps and Derivatives Association (ISDA) documentation.

Interest Rate Policy

Purpose

To establish a ‘neutral’ benchmark portfolio for measuring performance on liability management and set predetermined limits for benchmark variance and parameters for the use of hedging instruments.[16]

Rationale

Interest rate risk can be measured by the following separate components:

- *Economic effect* - focuses on the market value of an agency's debt portfolio, as reflected by the net present value of future cash flows, and the potential for this to be reduced by interest rate changes. That is, to manage the debt portfolio to achieve a lower cost of funds than the ‘neutral’ benchmark portfolio.
- *Accounting effect* - is the risk that movements in interest rates can adversely impact the reported periodic accounting result, e.g. the refinancing of maturing debt at higher interest rates or the realisation of losses as a result of liability management transactions.

A ‘neutral’ benchmark portfolio is to be established to enable comparison of the actual cost of funds for debt with the cost of the ‘neutral’ debt position.

The performance of the total debt portfolio (including any derivatives) should be measured against the benchmark on an economic basis, i.e. measuring the change in portfolio market value (including both realised and unrealised profits/losses on all physical and derivative instruments) compared with the change in benchmark portfolio market value.[17] Outcomes in terms of debt interest costs will also need to be considered in assessing debt management performance. Any performance fees paid to external debt portfolio managers will be primarily related to performance measured on this basis.

The benchmark portfolio will be taken to be the actual core portfolio of loans provided this is constructed within the specified benchmark constraints and not actively traded (apart from necessary loan draw downs or repayments and any transactions necessary to maintain the portfolio within the benchmark constraints). In this situation, any active management to provide performance relative to benchmark should then be undertaken in a separate sub-portfolio so that the performance relative to benchmark would be represented by the value added by sub-portfolio transactions.

Management limits on the actual total debt portfolio are to be established in terms of:

- maximum deviation of the total portfolio's modified duration from the benchmark portfolio's modified duration[18]; and
- maximum usage of hedging instruments (which may be directly related to the modified duration limits).

This approach is similar to the widespread investment practice of managing against indices and involves taking a deliberate position as opposed to passive holding.

[16] The term ‘hedging instrument’ should be given its ordinary meaning throughout this document.
[17] More detailed guidance is contained in NSW Treasury Circular 03/09 *‘Guidelines on Reporting of Investment and* Liability Management Performance’.
[18] Modified duration is the standard measure of volatility of a portfolio's value with respect to changes in interest rates.

Policy Statement

The Board (or the highest level of management where a board does not exist) resolves that:

- A neutral benchmark is to be established against which portfolio performance is to be measured. Establishing a debt benchmark is a complex task that requires high level treasury expertise. In cases where agencies do not have the requisite level of expertise external advice must be sought. The construction of an appropriate benchmark should have regard to factors such as:
  - the agency's business plan
  - future capital expenditure and other cash flow requirements
  - capital structure
  - the debt position of market participants and private sector competitors, and
  - the interest rate outlook.
- Management of the debt portfolio is to be achieved by two main methods:
  - adjustment of the debt maturity profile from time to time, to shorten or lengthen the actual portfolio's maturity structure relative to the benchmark portfolio, and/or
  - use of derivatives, where approved, to shorten or lengthen the portfolio maturity structure relative to the benchmark.
- The Board (or the highest level of management where a board does not exist) is to approve a maximum portfolio risk position, where risk is defined as:
  - the difference in modified duration from the benchmark portfolio. For example, where the benchmark portfolio has a modified duration of 3.0 years then such a limit may be set at, say +/- 0.5; and/or
  - a maximum deviation in percentage terms from the benchmark portfolio. For example, the benchmark portfolio may be set to contain, say 40 per cent in debt to mature in the next 12 months (floating rate debt) and 60 per cent thereafter. In such a case, the risk position could be specified to allow between 30 and 50 per cent as the floating rate range.
- The Board (or the highest level of management where a board does not exist) is to receive a monthly report covering:
  - compliance with the interest rate risk constraints, with policy breaches separately explained as to how the breach occurred and action undertaken or proposed to remedy the breach. The Board (or the highest level of management where a Board does not exist) must ratify any action to remedy a breach.
  - the market value cost of funds of the actual and "neutral" benchmark portfolios, and
  - actual and budget comparison for interest expense and the expected interest expense outcome for the financial year.
- Details of compliance issues and the strategy and timing for resolution are to be reported to NSW Treasury in the context of the *Reporting and Monitoring Policy for Government Businesses* for Government businesses or under the *Financial Management Framework* for other agencies.

Policy adopted: [ ] 2007
To be reviewed (no later than): [ ] 2008

Foreign Exchange Risk Policy

Purpose

The Foreign Exchange Risk Policy is to ensure that the agency's foreign exchange exposure is minimised through hedging instruments.

Rationale

The objective of this policy is to mitigate the potential for financial loss arising through unfavourable exchange rate movements. As a matter of policy, agencies should not be exposed to foreign exchange rate risk.

Policy Statement

The Board (or the highest level of management where a board does not exist) resolves that:

- Net foreign exchange positions in all currencies will be regularly monitored, including reconciliations to financial statements (Profit and Loss, Balance Sheet and Cash Flow) and stress simulation tests.
- Net foreign currency exposures totalling more than $500,000 are to be managed within five days of the exposure arising.
- An exposure is to occur at the firm commitment of an approved purchase or a signed contract in a foreign currency.
- Where a contingent foreign exchange exposure in excess of $500,000 emerges (for example where a tender is submitted), the Chief Executive Officer is to be advised and the management of that exposure reported to the Board at its next meeting. Where a Board does not exist breaches are to be reported to senior management immediately and to the next management meeting for ratification of the action proposed or undertaken. Management options for a contingent exposure can include leaving the position uncovered, option strategies and forward cover or any combination of the above.
- Gross exposures to foreign currency exchange rates (including costs and revenues and segmentation by price and volume), details of hedging instruments and the source of benchmarks for forward price curves are to be reported to the Board on a monthly basis.
- Policy breaches are to be reported to the Chief Executive Officer immediately and to the Board monthly with the action proposed or undertaken. Where a Board does not exist breaches are to be reported to senior management immediately and to the next management meeting for ratification of the action proposed or undertaken.
- Details of compliance issues and the strategy and timing for resolution are to be reported to NSW Treasury in the context of the *Reporting and Monitoring Policy for Government Businesses* for Government businesses or under the *Financial Management Framework* for other agencies.

Policy adopted: **[ ] 2007**
To be reviewed (no later than): **[ ] 2008**

Commodity Risk Policy

Purpose

The purpose of the Commodity Risk policy is to ensure that agencies are aware of risk exposures and take appropriate action to offset positions, if deemed necessary, through hedging instruments or contracts.

Rationale

The objective of this policy is to ensure that agencies are able to adequately source key inputs to their production processes at prices which do not place the organisation in financial stress. The decision to hedge commodity risks will be at the discretion of the Board for Government businesses or the Chief Executive/Director General for other agencies.

Sufficient liquidity exists in a number of commodity markets to provide inexpensive cover often up to (and in some cases beyond) 12 months into the future. Where commodity markets are unable to provide this cover, contracts can be used to guarantee supply or act as a commodity hedge.

Policy Statement

The Board (or the highest level of management where a board does not exist) resolves that:

- Where necessary, adequate contractual supply agreements will be in place for essential businesses inputs such as electricity and water access rights. The decision whether to enter into supply contracts or to engage in spot market purchases will be an individual business risk decision which the Board or Chief Executive/Director General (where a Board does not exist) will need to manage.
- Where the Board or Chief Executive/Director General decides that these risks should be eliminated, the business must not enter into a position where it over hedges its existing exposures.

Policy adopted:	**[**	**]**	**2007**
To be reviewed (no later than):	**[**	**]**	**2008**

Operational Risk Policy

Purpose

The Operational Risk Policy establishes a prudential framework covering approved policies, best practice internal controls and reporting systems for treasury risk management. Agencies are required to seek board approval or approval by the highest management level where a board does not exist.

Treasury risk management may be outsourced to a competent treasury management expert providing that the terms of engagement specify that compliance with the *Treasury Management Policy* and related requirements are mandatory.

Rationale

The primary objectives of the Operational Risk Policy are to:

- have a good understanding of where risks occur
- develop and maintain effective reporting and disclosure of risks, and
- foster an organisational culture which encourages employees to act in the best interest of the organisation.

For these objectives to be met in an efficient and effective manner, best practice requires the establishment of:

- approved policies and procedures documentation, with regular reviews as business and market circumstances change or on an annual basis, for all treasury activities
- appropriate segregation of duties between staff responsible for initiating transactions, settlements, accounting, risk control and performance measurement
- Board (or where a Board does not exist Chief Executive/Director General) reporting requirements for existing and future liquidity positions
- programs to develop staff expertise to the appropriate skill level and degree of specialisation in line with their responsibilities
- procedures to manage the risks associated with outsourcing, including reputation risks and service disruption, and
- adequate systems and additional controls including:
  - business continuity or disaster recovery plan for treasury operations
  - effective reporting systems including sensitivity analysis
  - appropriate delegations of authority
  - a treasury code of conduct including permitted instruments
  - appropriate contractual agreements with external managers
  - regular audit of treasury operations to ensure compliance with policies
  - re-evaluation of the success or failure of past transactions, and
  - accurate detailed preparation of cash flow projections and the implementation of prudential limits on maturing debt in particular financial years.[19]

[19] The frequency and provision of forecasts should be determined by the size and nature of the mismatches which will ensure that the funding pressures on the State are within reasonable limits.

Policy Statement

The Board (or the highest level of management where a board does not exist) resolves that:

- Treasury risk management will be conducted in accordance with the *Treasury Management Policy* and related requirements.
- Operational risk management may be outsourced to a competent treasury management expert for all treasury management functions or elements of those functions.
- Operational risk management is to be carried out internally or through an outsourcing provider with:
  - qualified and experienced personnel acting under specific delegations with appropriate segregation of duties and acting within a best practice code of conduct, and
  - superior standard systems incorporating effective performance reporting and sensitivity analysis with a regularly tested business continuity plan.
- Compliance issues and the strategy and timing for resolution are to be reported to NSW Treasury in the context of the *Reporting and Monitoring Policy for Government Businesses* for Government business or under the *Financial Management Framework* for other agencies.
- Detailed cash flows are to be prepared by management on an ongoing basis highlighting material net liability gaps.
- No more than [30] per cent of total face value debt is to mature in any one financial year.

Breaches of prudential limits are to be reported to the Chief Executive immediately and to the Board monthly for ratification of the action proposed or undertaken. Where a board does not exist, breaches of prudential limits are to be reported to the highest level of management immediately and to the next management meeting for ratification.

Any cash balances exceeding the business' working capital needs, approved capital investments and an appropriate contingency for financial flexibility will be classified as excess cash. In accordance with the *Financial Distribution Policy*, excess cash[20] is required to be returned to shareholders as investment in financial assets are not core operations for Government businesses.

Policy adopted:	**[**	**]**	**2007**
To be reviewed (no later than):	**[**	**]**	**2008**

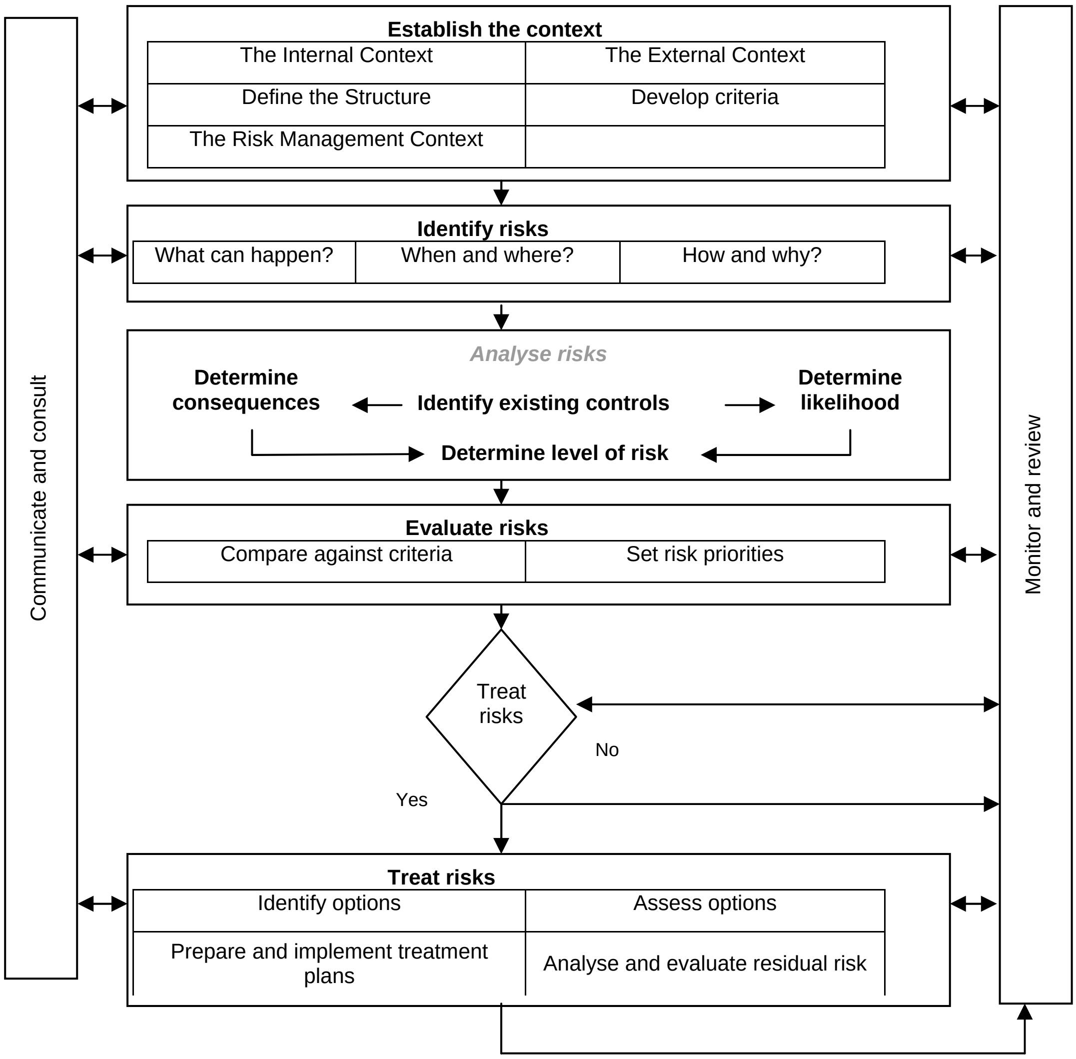
[20] Under the *Financial Distribution Policy for Government Businesses* (TPP02-3, June 2002) excess cash is defined as any cash balances exceeding the business' requirements for working capital, the funding of acceptable investments and an appropriate contingency for financial flexibility.

Appendix 2: Finance Theory and Private Sector Practice

Risk management

Risk management is an established business discipline that requires the application of quantitative and qualitative tools in the identification, measurement and management of the potential for loss. Detailed guidance on risk management is contained in the *Risk Management and Internal Control Toolkit* (TPP 97-3) and the Australian and New Zealand standard on risk management (AS/NZ 4360: *2004 Risk Management*). The Australian and New Zealand standard provides a generic framework for the establishment and implementation of the risk management process.[21] The multifaceted process is depicted below:

Risk Management Process – in detail



[21] AS/NZS 4360: 2004 Risk Management is a joint standard prepared by the Joint Standards Australia/Standards New Zealand Committee OB/7 on Risk Management as a revision of AS/NZS 4360: *1999 Risk Management*.

Financial risk management

Financial risk management is becoming more widespread in response to volatile markets, developments of new technology and the dismantling of regulatory constraints. This situation has led to the evolution of a range of financial risk management products which can be used to manage exposures. The increasing focus on financial risk management has generated much debate in academic circles as to whether it affects firm value.

Although the vast majority of financial risk management material has concentrated on financial intermediaries, these principles can equally apply to the corporate sector. The extent of treasury unit involvement in financial risk management will depend upon the nature, size and complexity of their treasury functions and associated risk exposures.

Corporate treasuries differ from financial intermediaries as they are subject to inherent market risks from normal operations. To this extent, corporate treasuries traditionally operate as a cost centre while financial institution treasuries are profit centres. A large number of highly publicised failures at an international level have led to risk management strengthening. These failures strengthen the argument that corporate treasuries should only operate as cost centres.[22]

Modigliani and Miller[23] in their seminal paper established the relationship between the value of a firm and its financial policies. Smith and Stultz[24] and, Froot, Scharfstein and Stein[25] translated this general proposition into a specific rationale for the use of risk management. These theoretical studies indicated that risk management has the potential to add value by facilitating optimal investment and, reducing the costs of financial distress and taxes.

Smithson[26] supports the notion that financial risk management can increase shareholder value under certain conditions. He argues that financial risk management, which avoids excessive business debt, can encourage optimal investment by:

- reducing the likelihood that creditors will impose restrictive debt covenants
- avoiding excessive debt servicing costs for businesses with high debt to equity ratios, and
- discouraging businesses, who are under threat of liquidation, from pursuing projects with short payback periods instead of investing in projects with the highest net present value.

Smithson argues that the cost savings from reduced financial stress will depend on a firm's probability of encountering this situation and the resulting cost if it occurs. Direct financial distress expenses effectively occur through liquidation or bankruptcy. Businesses are also likely to face indirect financial distress costs through higher contracting costs with suppliers, employees and customers.

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[22] Some of the highly publicised derivative disasters include Proctor & Gamble, Metallgesellchaft and Orange County.
[23] Modigliani F and Miller M H, "The Cost of Capital, Corporation Finance and the Theory of Investment," *American Economic Review*, 48: p.261-297, June 1958.
[24] Smith, C Jr and Stulz, R, "The Determinants of Firms' Hedging Policies," *Journal of Financial and Quantitative Analysis*, 20, p.391-405, 1985.
[25] Froot K, Scharfstein, D and Stein, J, "Risk Management and Co-ordinating Corporate Investment and Financing Policies," *Journal of Finance*, 48, p.629-658, 1993.
[26] Smithson, C, "Managing Financial Risk: A guide to derivative products, financial engineering, and value maximization", 1998, p.503-508.

Private sector practice

Since the early 1990s, there has been increased emphasis on the establishment of an independent risk management function. Within the financial sector, the Basel Committee on Banking Supervision has been the major player developing financial risk management standards. Despite the Basel Committee's emphasis on addressing Credit and Operational risks, much of this work is relevant for corporate treasuries. The main financial risks faced by corporate treasuries are Market risks, which occur due to underlying business exposures.[27] It is, however, important for Government businesses to develop strategies to address Operational and Credit risks.

[27] Jorion, P. Value at Risk, 2001, McGraw Hill, 2nd edition, Chapter 19

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