

Memorandum



To Chief Financial Officer; Manager Regulatory Affairs
From Treasury
Date 22 June 2004
Subject **NGC's Cost of Debt**

Introduction

NGC sources funding from both equity investors and debt providers to optimise its sources of funding for its business activities and investment opportunities. Funding from debt providers is senior in ranking to equity funding and is therefore cheaper than equity.

The cost of debt for a borrower is normally calculated at a margin over the swap curve. The swap curve trades at a margin above the government stock curve, the difference being referred to as the swap spread. The size of the swap spread can be affected by a number of factors including domestic and global economic and political events.

The margin takes into account the credit quality of the borrower and can be easily market determined if the borrower is rated by a credit agency such as Standard and Poor's. NGC's credit rating is A- and is currently on a stable outlook. To effectively manage debt-funding risk it is common practice to separate liquidity management (the risk of being able to borrow funds when required) from interest rate risk management (the risk of adverse movements in interest rates and therefore the cost of debt). Key objectives and considerations when making borrowing decisions include:

- Flexibility –are the terms and conditions of the funding flexible enough for the business to meet its operating, investment and growth objectives;
- Liquidity –can the business borrow funds when it requires or refinance debt when it matures;
- Diversification –borrow from a number of different sources (banks, debt capital markets, public and private markets, other countries) so that the business is not reliant on one particular source;
- Economic cost –optimise cost of funding allowing for the above objectives and considerations.

For regulatory purposes, a borrower's cost of debt should reflect the commercial practice of managing both liquidity and interest rate risk.

Liquidity Management

Liquidity or refinancing risk management should align with the nature and type of assets and business risks being funded. Network companies generally have high value tangible long term assets with low volatility of cashflows and would therefore expect to have longer term duration to their debt profile. Pure retail energy companies, on the other hand, who face competition and therefore cashflow volatility and have large intangible asset bases, may not be able to obtain economic long term funding because of their business risk profile.

The nature of the business will underpin the treasury policy and hence liquidity management. A typical network company's policy may state, for example, that no more than 30% of total debt is to mature in any one year. Sources of debt range from bank funding, domestic bonds, offshore debt capital markets issues through to capital notes or quasi equity, all generally having different maturities. The resulting debt profile of a company therefore has a spread of differing maturities, for example 3, 5, 7 and 10 years from diversified

number of sources. Contact Energy, Transpower, Meridian Energy, Powerco and Vector are examples of energy sector companies with diversified debt profiles. World shocks, as well as specific domestic market events and company events emphasise the necessity for companies to maintain a diversified debt maturity profile, as evidenced by September 11, whereby companies refinancing during periods of shock face a risk of default if debt is not well diversified.

NGC Group's Previous Capital Markets Issues

Funding	Issue Date	Issue Amount	Term (yrs)		Pricing Method	Coupon	Government Stock Rate	Assumed Issue Margin
NGC Notes	Mar-91	300M	8.5	W.A. Term	Margin above Government Stock	13.75%	11.29%	2.46%
NGC Convertible Capital	Sep-92	420M	5	Actual Term	Margin above Government Stock	10.50%	7.18%	3.32%
Transalta Capital Notes	Oct-96	111M	5	Actual Term	Margin above Government Stock	9.84%	8.04%	1.80%
Transalta Bonds	Oct-96	111M	7	Actual Term	Margin above Government Stock	8.81%	8.04%	0.77%
Transalta Bonds	Oct-96	111M	10	Actual Term	Margin above Government Stock	8.86%	8.03%	0.83%
NGC Bonds	Dec-03	200M	5.25	Actual Term	Margin above Government Stock	6.81%	5.93%	0.88%

NGC Notes were issued in March 1991 at a margin of approximately 2.50% above the corresponding Government Stock Rate. The weighted average duration of the notes was 8.5 years. In September 1992 NGC issued 5-year convertible notes at 3.30% above the government stock rate. At that time NGC was predominantly a gas utility with transmission/network assets and a wholesale gas position, that deemed it appropriate to borrow up to 10 years. Margins were influenced at that time by NGC's split from the Fletchers Group, the immature nature of the NZ domestic debt capital markets as well, as the volatility caused by the government's initiatives for a market economy.

TransAlta, which was later to become an NGC subsidiary, issued into the debt capital markets in October 1996, with a range of durations of 5 and 10 years, which was consistent for the nature of TransAlta's business. Following the merger of integrated power companies Energy Direct and Capital Power, TransAlta was a large network company with only a Wellington retail customer base at the time of debt issue. Margin to Government Stock was between 75 and 85 basis points on the bond issue and a more expensive 180 basis points on the capital notes issue due to some of its equity characteristics. Transalta's capital markets issues are included in the table above for illustrative purpose only as NGC's most recent issue, other than the current NGC bonds, was the convertible capital issuance in 1992. As such, NGC has minimal history of capital markets issuances. Appendix 1 therefore calculates the total debt margin given the current nature of NGC's business.

The overall duration of historical debt capital markets issues for the NGC group ranged between 5 and 10 years with margins of between 50 and 330 basis points over government stock rates. Over the period 1991 to 2004 NGC's weighted average margin (exclusive of upfront costs) averaged **178 basis points** (Appendix I), on a yearly basis this was between 50 and 290 basis points. Transalta's margin averaged 103 basis for the period bonds and notes were issued.

NGC's Anticipated Refinancing Strategy

NGC is now predominantly a network and infrastructure assets business. The current mix and nature of NGC's assets are long term with stable revenues, and high positive cash flow. These factors provide NGC with the flexibility to borrow a large proportion of its funding requirements on a longer term basis thereby extending duration of NGC's funding, and reducing refinancing risk.

Following the sale of its electricity generating business NGC completed a review of its capital structure and returned a portion of its capital back to shareholders reducing its cost of capital and optimising its financial position. The return was funded from bank facilities and a \$200m bond issue. The bond issue has partially increased duration of funding, with improved alignment of NGC's debt portfolio to the nature and cashflows of NGC's assets.

NGC's leverage as at 31 December 2003 was 58%, and since this date it has ranged between 58% and 61%. The level of leverage is consistent with NGC's current credit rating of A-.

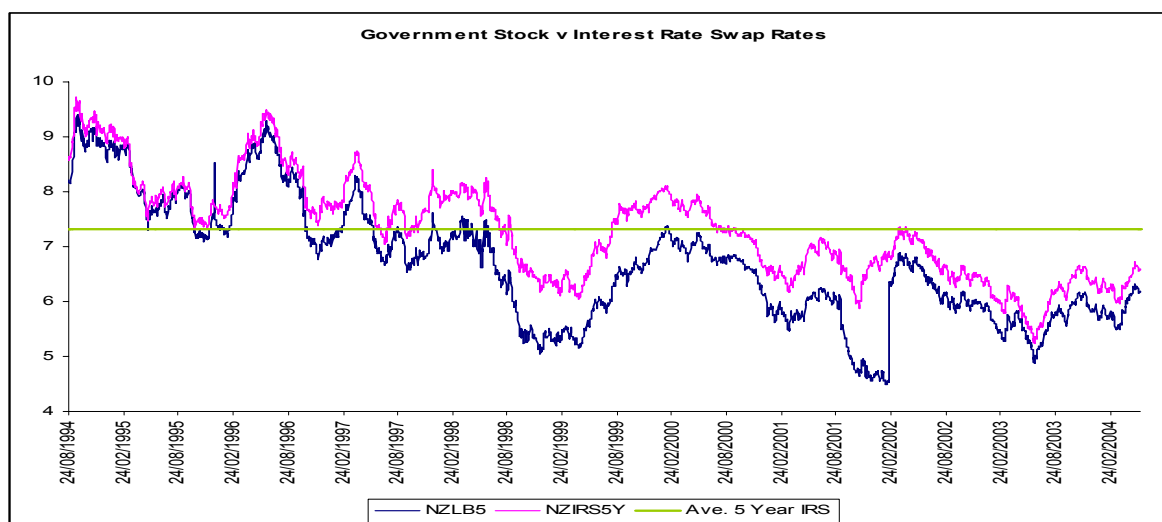
Interest Rate Risk Management

Cost of funds is primarily influenced by volatility in interest rates. To manage this risk firms enter into interest rate hedging instruments, as set out by treasury policy. To manage overall funding risk, firms generally separate out liquidity risk from interest rate risk by converting all debt (or portions thereof) no matter what the duration to either fixed or floating exposure using swap contracts. The swap rate is the market equilibrium where a market participant can swap a floating interest rate cashflow for a fixed interest rate cashflow over a certain term. This brings repricing of debt to a common term.

In a separate interest rate hedging portfolio, firms hedge against movements in interest rates using swaps and other instruments to reduce interest rate volatility. Treasury policies generally state the range within which interest rate exposure must be fixed for specified future periods.

NGC's interest rate hedging policy is typical of other energy sector companies. Based on its debt profile and treasury policy, NGC targets a duration of up to five years for interest rate hedging purposes. From the graph below the government stock rates and relevant swap rates generally correlate with any difference being referred to as the swap spread. When swap spreads increase this means that the underlying cost of credit has increased and visa versa. Swap spreads are a component of the margin that a company would pay for funding.

Swaps spread over Government Bond Rates



When comparing both the 5 year swap rate to the 5 year Government stock rates, the average spread is approximately **0.65%** over the applicable Government stock rate.

Upfront Costs

For completeness we should mention that costs associated with the arranging and set up of funding facilities will add approximately **20-30 basis points** per annum onto the cost of debt. These costs are paid upfront and are generally amortised over the life of the issue or facility. Costs include Legal Fees, Agent Fees, Arranger Fees, and Brokerage.

Conclusion

- It is common to separate liquidity (financing risk) and interest rate risk management for prudent risk management practice
- Term of debt is a function of asset classes and volatility of cashflows. Network companies are typically able to fund for longer terms given their stable cashflows and high value assets
- Conventional interest rate risk management is typically managed around 5 yrs
- Debt issue margin is separate from, and in addition to, interest rate risk management costs
- Upfront costs contribute to the overall cost of funds and should be amortised over the term of the debt
- NGC's debt premium, over the risk free rate, calculates to **205 basis points**, taking into account the historical debt profile.

Appendix I

NGC's Historical Debt Profile										
Year Ended	Total Debt	NGC Notes		Convertible Capital Notes		Bank Facilities		Bonds		Weighted Average Margin
		Amount	Margin	Amount	Margin	Amount	Margin	Amount	Margin	
1991	550	300	2.50%			250	0.60%			1.64%
1992	520	300	2.50%			220	0.60%			1.70%
1993	906	300	2.50%	420	3.30%	186	0.60%			2.48%
1994	868	300	2.50%	420	3.30%	148	0.60%			2.56%
1995	840	300	2.50%	420	3.30%	120	0.60%			2.63%
1996	786	300	2.50%	420	3.30%	66	0.60%			2.77%
1997	745	300	2.50%	420	3.30%	25	0.60%			2.89%
1998	491	255	2.50%			236	0.60%			1.59%
1999	299	203	2.50%			96	0.60%			1.89%
2000	899	142	2.50%			757	0.60%			0.90%
2001	926	76	2.50%			850	0.60%			0.76%
2002	788					788	0.60%			0.60%
2003	Nil									
2004	451					251	0.60%	200	0.88%	0.72%

Average Margin	1.78%
Upfront Cost Margin	0.25%
TOTAL MARGIN	2.03%