

ERA

Debt Transaction Costs

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I. EXPERT OPINION

I.1 QUALIFICATIONS AND EXPERIENCE

ABOUT THIS PAPER: Geoff Watkins provided the subject matter expertise and where opinions are expressed they reflect his views based on his significant market experience. Michael McAlary, Principal of the Chairmont Group provided complementary advice and editorial review.

Michael McAlary

Michael McAlary BCom CPA, Australian Financial Services (AFS) and Australian Credit Licence (ACL) Holder (No 285043)

Michael has over 30 years financial services experience with 10 years in global markets. Michael is on the Australian Energy Regulator (AER), Australian Competition and Consumer Commission (ACCC), Economic Regulation Authority of Western Australia (ERAWA) and Australian Federal Treasury financial services industry advisory panels. He was an independent member of the Australian Securities Exchange Risk Panel from 1999- 2001.

Prior to setting up Chairmont 20 years ago Michael was a director of Price Waterhouse financial services consulting group for 10 years. As well as the work conducted in Australia, Michael has completed financial services assignments in the USA, Europe, UK, NZ and Asia.

Michael has been a director of listed and non-listed companies.

I, Michael McAlary have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the Court.

Michael McAlary

Date

Geoff Watkins

Geoff Watkins BCom (Hons), Finance and Economics, Accredited Derivatives Adviser Level 1

Geoff has over 20 years of experience in financial markets working with large banks and their institutional and corporate clients. His activities focussed on derivatives, risk management and structuring of new financial products in equity, interest rate, commodity and foreign exchange instruments.

Recently, Geoff has developed analyses for institutions and private advisers in the areas of structured products, risk management techniques, derivatives and hybrid products across equity, interest rate and foreign exchange markets.

Geoff has previously provided advice to AER and the ERAWA.

From 1992 to 2007, Geoff worked for WestLB AG, a major German bank. Geoff had a number of roles, including Senior Structurer Capital Markets and a Senior Risk Manager in Asia and Germany. Prior to joining WestLB AG, Geoff worked at the CBA as Chief Sales Dealer, Interest Rate Risk Management.

I, Geoff Watkins have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the Court.

Geoff Watkins

Date

1.2 MATERIALS PROVIDED

In preparing this report the materials provided to me from ERA were, in order of receipt:

- a. “The New Issue Premium for Debt”, dated 17 December 2014.
- b. “Jemena – Attachment 08-07 Incenta April - Report on Debt Raising Transaction Costs”, dated 30 April 2015.
- c. “2016-2020 Access Arrangement Period Supporting Submission: 56”, dated 24 February 2016.

2. SCOPE

ERA seeks an expert opinion on the reasonableness of applying allowances for and, if so, the level of the Standard and Poor’s (S&P) liquidity requirement and three months ahead refinance requirement within the debt issuance costs. The objective of this short exercise is to provide general guidance on the context and size of these debt cost components.

3. BACKGROUND

Dampier Bunbury Pipeline (DBP) claims a higher debt raising cost allowance than that awarded by ERA in the Draft Decision. Specifically, DBP includes two cost components which ERA considered and disallowed. These are the S&P requirements to:

- have access to a minimum amount of excess liquidity (Liquidity Reserve); and
- refinance three months ahead of the actual maturity date of prior debt (Early Refinancing Costs).

ERA explained in their Draft Decision for DBP as follows:

632. The Guidelines considered the estimate of debt raising costs of 0.125 per cent per annum in depth. The Guidelines noted that the debt raising cost estimate covered:

- gross underwriting fee: including management fees, selling fees, arrangement fees and the cost of an underwriter for the debt;
- legal and road show fee: this includes fees for legal documentation and fees involved in creating and marketing a prospectus;
- company credit rating fee: a credit rating is generally required for the issue of a debt raising instruments, a company is charged annually by the credit rating agency for the services of providing a credit rating;
- issue credit rating fee: a separate credit rating is obtained for each debt issue;
- registry fee: the maintenance of the bond register; and
- paying fee: payment of a coupon and principal to the security holder on behalf of the issuer.¹

¹ ERA, Draft Decision on Proposed Revisions to the Access Arrangement for DBNGP 2016 – 2020: Appendix 4 Rate of Return, p.132-133

The revised proposal by DBP explains their case as follows:

10.33 In respect of debt-raising costs, the ERA has proposed a value of 12.5 bps. The main difference between this and the figure of 20 bps suggested in Table 9 above is that the latter includes Standard & Poors' liquidity requirement and Standard & Poors' requirement to finance three months ahead (DD, para 634 p133). The ERA rejects both on the basis of discussions it has had with finance providers who have suggested to the ERA that, under normal liquidity conditions, both would add only roughly one bps to costs (DD para 636, p133). No indication is provided as to who these finance providers are or what basis they provide for their conclusions, making it very difficult for these claims to be investigated further; we are left merely to accept that the ERA has looked into this matter and reached a conclusion.

10.34 Both of these costs are costs associated with Standard & Poors, and it is not clear why the ERA has not conferred with Standard & Poors to ascertain the veracity of the claimed amounts. Incenta (2015, p2-3) has done so and, moreover (ibid p14-19) has examined Standard & Poors' liquidity requirements and the costs of meeting them and has confirmed that Standard & Poors does require firms to refinance three months ahead of expiry (ibid p9) and estimated the costs of meeting this requirement (ibid pp20-1). The ERA has nowhere shown any error in what Incenta has done, nor given any indication that the calculations are inaccurate, beyond reference to "discussions with finance providers".

10.35 For this reason, DBP does not accept the ERA's debt-raising cost figures. We note that the exact values for debt-raising costs are a function of the size of the debt, and the timing of the decision. Incenta (2015) report for Jemena, which is roughly the same size as DBP and is, like DBP, a private business, and do so using data from January 2015. This gives a total debt-raising cost of 17.84 bps per annum. DBP proposes that this figure be accepted as provisional for this Draft Decision, and the amount re-calculated at the same time as other time-dependent variables like the risk-free rate are estimated.²

Instead DBP proposes debt raising costs as per the Incenta method, which in February 2015 was estimated to be as follows:

- 9.0 basis points per annum for the costs of issuing the bonds in an assumed debt portfolio of \$1,786.8 million (i.e. RAB debt);
- 5.6 basis points per annum to establish and maintain bank facilities required to meet Standard & Poor's liquidity requirements condition for maintaining an investment grade credit rating; and
- 3.2 basis points per annum to compensate for the requirement (again as a condition of maintaining an investment grade credit rating) that Standard & Poor's requires businesses to refinance their debt 3 months ahead of the re-financing date.

Summing these components we have estimated a total levelised cost of debt raising transaction costs of 17.84 basis points per annum on the regulatory debt.³

The 'basic' issuing costs proposed by DBP, i.e. the first of the above three bullet points, are therefore lower than the allowance for the same items by ERA (12.5bp). Nonetheless, the total allowance applied for by DBP is higher than that proposed by ERA due to DBP's inclusion of the two further transaction cost factors.

² DBP, Proposed Revisions DBNGP Access Arrangements, Supporting Submission 56, p.81

³ Incenta Economic Consulting, Debt raising transaction costs – updated report, February 2015, p.4

4. ESTABLISHING A CONSISTENT APPROACH

4.1 EXISTENCE OF LIQUIDITY RESERVE AND EARLY REFINANCING COSTS

Chairmont agrees that both costs are necessary direct costs incurred by an efficient corporate. Almost all corporates incur these costs as a result of liquidity and early refinance risk management decisions. A corporate that engages in them is adopting best practice, regardless of any requirements by S&P or any other rating agencies.

Consequently, these actions should not be seen as an externally imposed, quasi-regulatory cost, but as an investment in reducing the risk of costs associated with solvency distress.

By understanding the two financing actions as rational risk-adjusted profit maximising strategies, their use in a cost-benefit context is necessary. While they cause a direct cost, they also provide indirect benefits, including lower debt yields and reduced long-term financial crisis costs.

4.2 CONCEPTUAL FRAMEWORK

The starting point in examining Liquidity Reserve and Early Refinancing Costs is to consider them in the context of the National Gas Objective (NGO) through the National Gas Law (NGL) and National Gas Rules (NGR). These components should be included only if they are required to determine the efficient cost of providing network services.

Diagram I shows the building blocks that form the basis for the regulatory allowance determined by ERA for the provision of network services. As it can be seen, each building block is multi-faceted and the high level building blocks drill down to many potentially interrelated details needed to determine total revenue allowed as part of the Access Arrangement (AA) for network service providers, including DBP.

A Liquidity Reserve and the Early Refinancing (rollover) of debt are both similar in character. They both inflate the amount of debt facilities that a corporate requires to finance the assets and cash flow of the business.⁴ Liquidity Reserves can be considered as a permanent increase in the amount of debt; whereas raising new debt three months before the maturity of prior debt represents a temporary increase in the amount of debt. Hence, both of these items are indicated in Diagram I as being relevant to the quantity of debt which flows into the overall cost of debt.⁵

⁴ Liquidity reserves may be funded or unfunded, i.e. either a committed but unfunded capacity to borrow or an actual excess liquidity held in liquid short-term assets.

⁵ Note that the terms Liquidity Reserve and Early Refinancing refer to the excess quantity (amount) of debt, whereas the associated costs are referred to explicitly as the Costs of holding those quantities.

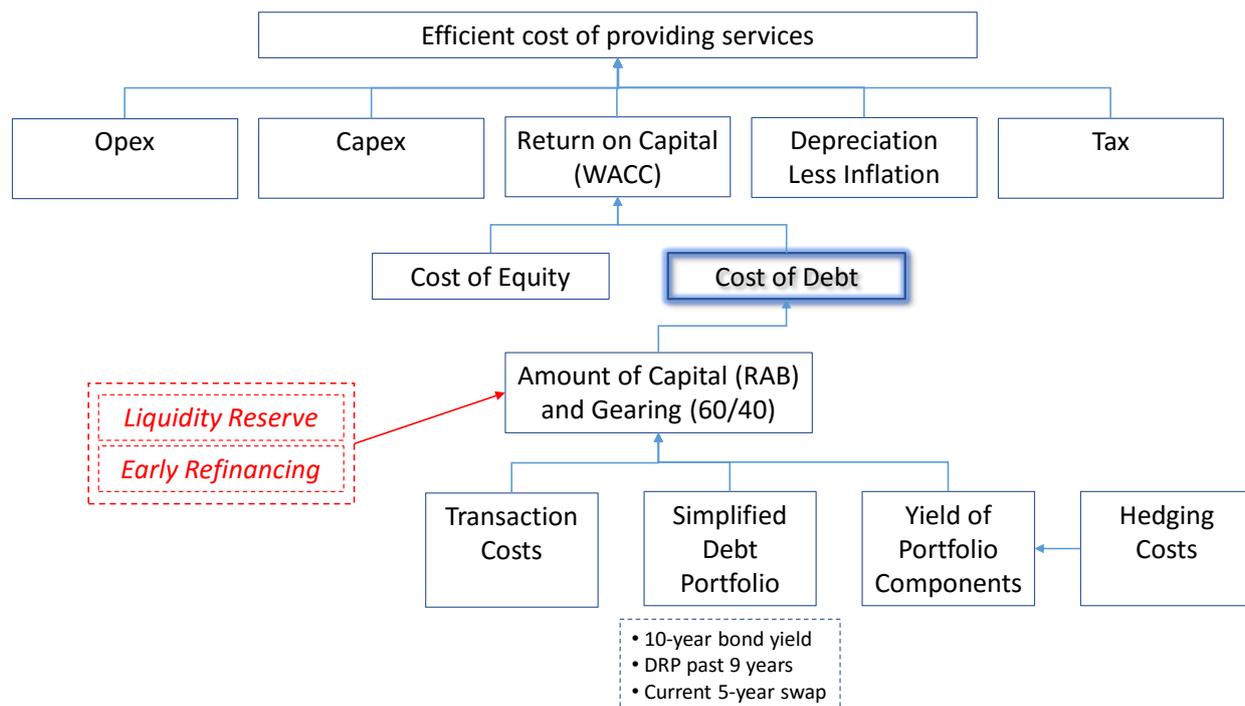


Diagram I: Conceptual Framework of the Cost of Debt

The diagram also seeks to emphasise that they are not part of operating expenses, to which Incenta referred to them in the submission for DBP.⁶ Operating expenses submitted by DBP in their AA proposal and in a company's accounts include items such as employee and system costs in the corporate treasury. However, costs such as commitment fees for standby lines of credit or interest costs on excess liquidity are part of financing costs, i.e. the cost of debt.⁷

Chairmont also does not consider that these components are part of Transaction Costs because they do not directly form part of the costs of raising any particular debt facility or bond issue.⁸

4.3 PRINCIPLES

4.3.1 ADDITION OF THE COMPONENT COSTS TO THE EXISTING METHOD

Based on the above conceptual framework, it follows that the two cost of debt components under consideration should not be included in debt raising costs. However, both of them should be included in an actual calculation of the overall cost of debt.

When a company calculates its actual cost of debt for the Weighted Average Cost of Capital (WACC), it measures the amount of each type of debt instrument and applies the relevant interest rate for that instrument, including fees. At its simplest, the calculation is quantity multiplied by interest rate for a list of outstanding debt. The calculation takes the full portfolio of diversified debt that a corporate holds. Typically, it will include senior bonds of various tenors and maturities,

⁶ Incenta, p.1

⁷ Commitment Fees are fees that a lender charges on the balance of a loan facility that is undrawn. These are specified in a loan agreement and are set as a fixed number of bps.

⁸ As a side note, it is arguable that the overall transaction costs are higher. This is because transaction costs are quoted in bps and with a higher debt level the overall cost will be marginally greater.

bilateral and/or syndicated bank debt of various tenors and maturities, subordinated and/or hybrid debt, leases, standby lines of credit and so on.

Adopting the portfolio calculation approach described above, there would be no need to make a special addition of Liquidity Reserve and Early Refinancing costs. All debt and the applicable costs would directly flow into the equation.

It follows that the addition of the proposed components for regulatory allowance purposes is only necessary because the cost of debt calculation is a theoretical construct, or simplification, rather than an actual diversified portfolio calculation.

4.3.2 RE-INTRODUCING OTHER SIMPLIFICATIONS OF THE DEBT PORTFOLIO

It may be reasonable to add these two contentious components back into the calculation only if other excluded components of the debt portfolio were also included. As illustrated in Diagram 1, there is a bottom-up approach to the building blocks of costs to establish the total efficient cost of providing network services. It is not a top down approach. Choosing to re-introduce some components of the costing model without considering potential offsetting (or additional) simplifications may be counterproductive to achieve that overall aim. They may or may not offset; however the deciding factor for their re-introduction should be in the context of the complete model.

A simplification which Chairmont considers would offset some of these costs is that the regulatory cost of debt calculates a 10-year yield each time it is measured. This method does not reflect actual recent history.

There is historical evidence that the average tenor of corporate debt has been estimated in the range of 8.7 to 11.3 years.⁹ Historical portfolio structure, including tenor, is indicative and may not correctly reflect the current situation. The measurement method must achieve what the regulatory framework is based on, i.e. each cost of debt measurement should reflect a new issue at that time.¹⁰ This means that where the average new issue maturity is materially different to the historical average tenor of the outstanding portfolio, it is the new issue maturity that should be used.

Since 2007 and the Global Financial Crisis (GFC), a smaller proportion of debt with 10-year maturities or longer has been raised by Australian corporates, including utility companies. In early 2016, the post-GFC situation continues, where bank debt with three to five year maturities is the most utilised debt raising form of corporates. Furthermore, the quantitative easing practices of many foreign central banks in 2015-16 led foreign banks active in Australia to aggressively price those loans making them irresistible for corporate borrowers compared to loans by the Australian major banks or the bond markets. The result is a lower credit spread, or Debt Risk Premium (DRP), for corporates compared to the 10-year DRP.

An efficient corporate acts very flexibly and opportunistically in its debt financing practices, i.e. everything is a series of trade-offs between credit margins, debt raising costs, refinance risk management and base-rate interest risk management. For example, corporates take on more refinance risk if they consider that relative credit margin pricing is sufficiently advantageous. Further, they will pay more debt raising costs if it allows them to achieve lower credit margins, larger debt

⁹ See AER Explanatory statement – rate of return guideline - December 2013 and CEG, Debt strategies of utility businesses, June 2013.

¹⁰An analogy being “Past performance is no indication of future returns”, i.e. conditions change.

quantities or longer term maturities. No one component of debt cost is viewed in isolation by an efficient corporate.

A second simplification which is likely to offset the costs of holding excess liquidity is the measurement technique for the DRP. Utility companies are typically at the lower end of the credit spread spectrum within any given official rating. By calculating the DRP using a range of different corporates, the average is likely to overstate the cost for a regulated utility company.

4.4 QUANTIFICATION

4.4.1 LIQUIDITY RESERVE

Liquidity Reserve is a broad financial concept that can be achieved in a variety of practical ways. Different companies may employ different liquidity ratios, depending on their strategic plans at a particular time, corporate structure, the condition of financial markets generally, and specifically debt markets at the time. While most companies will use committed but undrawn bank facilities as their external Liquidity Reserve, there is no universally used formula for the amount of the reserve, although it is recognised that some industries, e.g. banking, have adopted standards, such as Basel III.

Similarly, the cost of the Liquidity Reserve is also dependent on the situation. At times a company will simply rely on having a larger than needed bank loan facility. This allows them to have excess liquidity without establishing a separate facility and thereby avoid having any separate establishment costs as the costs are rolled up into the overall borrowing cost.

Commitment Fees and other costs depend on the context of the liquidity and the type of business the corporate has with the bank, and they will change over time for new facilities.¹¹

4.4.2 EARLY REFINANCING

Raising debt ahead of upcoming maturities incurs some form of additional cost for the length of the excess period. As for the Liquidity Reserve, the cost of Early Refinancing depends on the manner in which it is achieved. The cost will most likely be minimised where the new debt is committed to without being funded immediately. This is possible for syndicated or bilateral bank loan facilities or for some bond issues. In the case of bank loans, a maximum of the commitment fee for the period is applicable. As bonds are issued on a date with explicit conditions that they will be funded on a later date (settlement date), there is often no commitment fee. This procedure is standard in the US Private Placement (USPP) market, which is regularly used by Australian regulated utility companies.¹²

A current example of this occurred this month, May 2016. SA Power Networks, a regulated network service provider, issued a series of bonds in the USPP market with a funding date of August 2016. SAPN explained that the new issuance was to repay maturing USPP debt in September and October 2016. The result is a guaranteed funding source approximately four to five months before a debt maturity, while only having to carry excess liquidity for one to two months.

If the debt raising is funded near the commitment date, the cost will be a negative interest spread between the borrowed funds and the equivalent investment. Using the simplified portfolio

¹¹ A loan facility with Commitment Fees may be part of core debt, not part of a Liquidity Reserve. Conversely, a Liquidity Reserve may include a loan facility with Commitment Fees.

¹² Forward pricing of the deal feeds into the overall yield and credit spread reported for the transaction, rather than incurring a specific fee. Typically in the USPP market, issues with a delayed funding date of up to three months incur no fee, with an additional 5bp per month beyond that.

assumptions for regulated service providers, the rate difference will be equal to the credit spread (DRP over swap) of the newly issued bond which has been swapped to floating base rates. This assumes that they are able to re-invest in a 3-month bank bill, thereby neutralising the BBSW part of the first period swapped bond costs.

Early rollovers do not incur additional transaction costs, i.e. the same amount of debt would have to be raised. It is only the timing which is varied.

The differing means of achieving the 3-month ahead refinancing requirement highlight the problem of how ERA should provide an allowance. The simplified portfolio approach was established by long and intensive negotiation with the industry, whereas there has been no process for agreeing on a refinance allowance. As Chairmont has noted elsewhere in this report, it is difficult to justify special treatment for just one aspect of portfolio simplification without addressing other simplifications. Factors which could be relevant in conjunction with an Early Refinancing cost include the timing of the rate measurement window, and the term of the debt raised.

5. MARKET CONDITIONS

Chairmont sees one particular overarching difficulty in the discussion of the cost of debt components for calculating the regulatory allowance. While market conditions vary considerably across any time period, financial markets in recent years have changed dynamically (short term) and structurally. Many of these changes are likely to remain for the long term or permanently. Consequently, any framework which is static or measurement which is held constant is unlikely to represent a true picture of the environment faced by network service providers.

An example of a dynamic change is where companies need to react quickly and flexibly to changes in market liquidity. In 2015 through to early 2016 the Australian debt market has seen an influx of aggressive offers for bank loans from foreign banks, whereas there have been no Australian corporate bond issues in AUD at all in any public market globally. In this situation it would be inefficient for a company to only target 10-year bond issuance. The debt portfolio is going to be more skewed to shorter term bank loans and in amounts large enough to cover excess liquidity requirements, without the need for separate stand-by liquidity lines.

It is arguable that the aggressive and unprecedented monetary accommodation by central banks around the world has led to a structural change in debt markets, as at the time of writing this report, approximately 20 per cent of the developed world has negative interest rates. Economic policy makers' claim of an eventual return to a "normalised" interest rate environment is hypothetical, as it provides the basis for supporting their decisions.

The above market condition has at least three implications for the measurement of an efficient cost of debt for network service providers, as follows:

- A current measurement of excess liquidity costs would likely be on the low side compared to prior, or potentially future, costs;
- The current efficient debt portfolio, especially for new issuance spread measurement is likely to have a term significantly shorter than 10 years. This causes a current overestimation of the DRP, and misaligned rollover dates in coming years; and
- The secondary market bond portfolio used to measure DRP is likely to have a significantly different bond composition than current new issuance characteristics i.e. it is probably too heavily weighted to AUD bonds and misses the margins available in the USPP market, which is the more important actual source of long term funds in recent years.

Another way in which market conditions impact the firm's actual debt portfolio is through near-term expectations of liquidity conditions. When companies expect tightening of credit availability they will try to increase their excess liquidity, if possible. Alternatively, if companies expect ongoing ready supply of credit they often minimise excess reserves to minimise costs.

Only in the past month or two, a significant repricing of lending is being forced on the market due to the flow-on effect of new capital rules under Basel III. Although the situation is currently in a state of flux, efficient debt portfolios are likely to change as a result.

As noted earlier in this report, regardless of the static requirements by S&P, the prudent corporate keeps a liquidity reserve which varies depending on their plans and market circumstances.

6. DBP'S PROPOSAL

6.1 BASIS OF ARGUMENTS

DBP applied for additional cost allowance due to what they term as transaction costs of raising debt which are not already explicitly allowed for by ERA. Their reasoning and supporting quantification is based on the paper by Incenta for Jemena from February 2015. Incenta classifies the two liquidity components as necessary costs of achieving an investment grade rating, and therefore a cost of raising debt.

There are a range of factors that are necessary for an investment grade rating, including robust corporate governance, skills and experience of personnel, technology security, etc. as well as a Liquidity Reserve and Early Refinancing practices. These wider operational costs are neither exclusively for the purpose of obtaining an investment grade credit rating, nor would these costs be considered as costs associated with raising debt.

Consequently, and consistent with Chairmont's framework in Diagram I, the two liquidity components are better classified as non-transactional costs of the overall debt portfolio.

6.2 RATIONALE

DBP and Incenta stress that these costs "are costs 'that would be incurred by a prudent service provider acting efficiently' to 'achieve the lowest sustainable cost of delivering pipeline services'."¹³ Chairmont agrees with this description, while not at this stage opining on the quantification proposed.

The rationale for Incenta and DBP seeking additional compensation for these components is that they are classified as operating expenditure and rely on the NGR segments relating to operating costs. They state that the NGRs "do not provide (the regulator) with the discretion to disallow an allowance for liquidity costs on the basis that such costs are compensated by an offsetting bias somewhere else in the calculation of reference tariffs".¹⁴ Chairmont disagrees that these costs are operating expenditure because, as noted above, in any corporate annual report, including those of network service providers, debt raising costs, debt fees and interest costs appear under financing costs, not operating expenses.

6.3 QUANTIFICATION

6.3.1 LIQUIDITY RESERVE

To establish the amount of the Liquidity Reserve, Incenta draws on the S&P requirements for minimum liquidity by an investment grade company. As noted above, Chairmont observes a wide range of ratios in practice for excess liquidity of investment grade Australian corporates. The approach used by Incenta is a reasonable anchor point.

Incenta then prices that Liquidity Reserve assuming that the full amount is achieved by an undrawn commitment with a 3-year maturity, where the commitment fee is half of the 3-year DRP (BBB credit spread). This costing would have been reasonable at the time of the report, February 2015, however Chairmont understands that the average commitment fee has since fallen to approximately 40% of the spread, closer to the pre-GFC level. As explained earlier in this report, the use of static

¹³ Incenta p.1

¹⁴ Incenta, p.1

costs such as the 70bp here, is unrealistic as the business environment is dynamic as reflected in the changing BBB credit spread and the proportion of commitment fee.

As an additional step, Incenta then includes a figure for establishment costs for this Liquidity Reserve. As noted above, the form of attaining a Liquidity Reserve varies and it is often most efficient to take a larger than required syndicated or bilateral bank loan, thereby reducing or removing additional establishment transaction costs. It appears an overstatement, though a small item, to include this component fully in the Liquidity Reserve costings.

6.3.2 EARLY REFINANCING

Incenta measures the Early Refinancing cost as the spread between a 6-month BBB security and the spot BBB cost of 10-year debt held for three months. This measurement approach is inappropriate for two reasons:

1. Both bank loans and some bond issuance markets allow a borrower to achieve committed financing with a delayed funding date. The impact of this is a shorter period of holding the early refinanced amount before it is actually needed. In this month's SAPN issue, the holding period averaged only 1 ½ months, not 3 months.
2. Aligning with the regulated entities' efficient financing practices, service providers will swap any fixed-rate issuance to floating-rate at the time of issue.¹⁵ The maximum interest rate differential they incur as an Early Refinancing cost will therefore be the DRP (credit spread) on the new issue.

Using the Incenta approach of assuming that they invest the proceeds in short term BBB-rated debt, the net differential will be somewhere below the company's own DRP, given even short term BBB debt will have a positive spread to BBSW. By using the 10-year debt fixed rate as the relevant borrowing cost, Incenta's measurement incorrectly includes a yield curve slope effect, which would overstate the size of the interest differential, whenever the yield curve between 3-months and 10-years is positively sloped.

¹⁵ They then achieve their risk neutral base-rate fixed interest rate by paying fixed in the 5-year swap at the beginning of the regulatory period.

7. CONCLUSIONS

The key conclusions are:

1. Liquidity Reserve and Early Refinancing techniques are necessary efficient financing tools. The costs of these techniques:
 - are direct costs;
 - appear in a corporate's financial statements as part of financing costs which forms part of the cost of debt; and
 - are neither exclusively, nor primarily costs imposed by S&Ps rating requirements. They arise from typical and prudent liquidity risk management practices of a business, where the cost may be seen as an investment to reduce risk costs associated with liquidity stress and potential insolvency.
2. Both components are inappropriately classified by Incenta and DBP. They:
 - increase the amount of debt facilities above that required to directly fund assets. The Liquidity Reserve is a permanent quantity increase, while the Early Refinancing is a temporary quantity increase; and
 - incur costs that do not form part of debt raising costs or operating expense.
3. The use of a simplified benchmark regulatory portfolio has led to the two factors being excluded. The benchmark portfolio consists of only 10-year floating rate bonds and 5-year swaps and is applied to 60% of the Regulated Asset Base (RAB). Actual corporate debt portfolios, including those of regulated service providers are more complex and diversified. An actual debt portfolio includes shorter term bank loans, longer term foreign bonds, subordinated or secured debt, hybrids, leases, as well as the liquidity facilities and early roll-overs.
4. Static quantification of these components is likely to over/under estimate the unbiased longer-term level of the costs. This is a consequence of market conditions varying considerably, including recent unprecedented and structural changes.
5. Quantification depends on a range of factors and assumptions. In particular the:
 - Liquidity Reserve cost depends on the amount held and type of facility. Incenta's quantification approach is broadly reasonable, although the appropriate level has most likely changed since the February 2015 estimation; and
 - Early Refinancing cost depends on the financing technique adopted, i.e. how it is done, not how it is measured. The Incenta method is likely to overestimate both the period of actual double-financing and the spread loss between borrowing and investing rates.