Academie

Queensland Competition Authority

DBCT Price Review

4 August, 2016

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1 BACKGROUND

The Queensland Competition Authority (QCA) is an independent statutory body responsible for assisting with the implementation of competition policy in Queensland. In particular, it is responsible for the economic regulation of key monopoly infrastructure services. This includes access to the Dalrymple Bay Coal Terminal (DBCT) which is owned by the Queensland Government and leased to DBCT Management for 50 years with a 49-year option.

Currently DBCT is subject to the 2010 access undertaking which expires on the earlier of 30 June, 2017 or the approval date of a new undertaking.

The consultant has been appointed to provide input to work being undertaken to assist on deriving the Weighted Average Cost of Capital (WACC) for this regulated utility.

Specifically, the consultant has been asked by the QCA to assist with providing pricing for interest rate swaps (IRS) to help determine the efficient benchmark cost of debt for this entity, aligned to its regulatory price reset period, and based on the probable commercial debt funding behaviour in the market.

2 METHODOLOGY AND SUMMARY OF INPUTS

The QCA has determined, via its benchmark debt management strategy, that this type of regulated entity would fund itself on the debt side with an average of 10-year fixed rate bonds in order to manage refinancing risk. However, the regulatory periods for resetting pricing will be shorter, in this case based on a 5-year reset.

The QCA benchmark strategy assumes, given the use of long-term (10-year) debt, that an efficient regulated firm would have the incentive to align its debt with the regulatory reset, in order to match the regulatory benchmark. In principle, the regulated firm can employ both IRS and credit default swap (CDS) contracts to achieve this objective. However, in practice, it is difficult to hedge the debt risk premium using CDS contracts due to the lack of market liquidity in these instruments. The QCA's approach recognises that the market for CDS contracts is illiquid, and accordingly assumes that firms do not use CDS contracts at this time. Therefore, the approach allows a 10-year debt risk premium rather than a 5-year debt risk premium. In DBCTM's situation, the allowed cost of debt set by the QCA every 5 years includes: the 5-year risk-free rate, the 10-year debt risk premium, the transaction costs of the IRS contracts and the annualised debt issue costs arising from 10-yearly debt issues.

Specifically, this exercise addresses the transactions cost i.e. the IRS margins, for implementing interest rate swap contracts.

A. Basic input information:

1. Enterprise Value: The Entity's regulatory asset base (RAB) is given as $2.40 billion. The enterprise value used is equated to the RAB as per normal process.
2. The gearing used is 60%. That allows the underlying amount of the debt of the entity, both now and into the future, to be derived. This will in turn give the underlying nominal principal profile for the debt for swap pricing.

3. The benchmark credit rating is assumed to be BBB. Pricing is also given for BBB- and BBB+ to give context.
4. The swaps are priced as on 4 August, 2016. The preferred date would have been 31 May, 2016. These results were not available, but commentary is given on this date mismatch at the end of the report.

B. Mechanism:

Dealing with the IRS:

1. For each hypothetical swap, the execution and risk spreads can be derived. The swap is assumed to be to BBSW (mid-market swap rate). The swap spreads have not been further adjusted for the timing of any difference payments (calendar quarters, monthly etc.) rather than quarterly as quoted;
2. For the principal profile, the swap from 10 year fixed to floating can be derived –as well as the spread breakdown; then the swap from floating into 5 year fixed can be derived –and the spread breakdown. For completeness the exercise has also been carried out for 1 and 3 year periods;
3. The execution spread is an estimate of the buffer that a bank levies for fluctuations in the market while the back-to-back transactions are placed. The risk spread (credit and capital costs) is an estimate of the charge that a bank makes for the risk of the counterparty of defaulting.

For a regulatory rate set, it is usually assumed that (hypothetically) the volume is dealt in portions over several days to avoid moving the market due to the volume of the transaction.

C. Basis for swap rate derivation and spreads:

The fixed rates in the table below are based on the prevailing mid inter-bank market Australian Dollar swap rates as published by ICAP (an inter-bank broker) on Reuters page ICAPAUSWAPS01 and relevant basis swap markets as published on Reuters page ICAPAUBASIS (same publisher) as at 10:00am Australian Eastern Daylight Savings Time on 4 August, 2016.

The rates are mid-market (BBSW). An increase of 5bps will need to be applied to convert this to the bid rate (BBSY bid) if required. This adjustment is needed if the margins quoted on the underlying debt are margins to BBSY bid, which is common, but not needed if the margins are to BBSW.

The credit spreads are based upon the requested ratings, specified tenors (1, 3, 5 and 10 years), and are based on an internal bank process which will be representative of the market. Execution spreads are based on current market pricing and a bank's internal pricing model.

3 SUMMARY OF RESULTS

The table below gives a summary of results. Points to note are:

i) The pricing has been carried out for BBB, BBB- and BBB+;

ii) The units used are basis points or 'bp'. 100bp = 1.00%

iii) The pricing of a swap from fixed to floating is virtually (but not exactly) the same as for the reverse swap, but within the limits of this exercise the difference is not material. Thus only one set of pricing has been given for any swap, be that fixed to floating or floating to fixed;

iv) The pricing for the two stage swaps can be derived by adding the spreads for the first swap to those of the second. For example, the cost of swapping a 10 year fixed, BBB rated debt to 5 year fixed, BBB rated debt = (2.5 + 5.5) + (2.5 + 3.0) = 13.5 bp = 0.135%

	1 Year			3 Years			5 Years			10 Years		
Spread bp	BBB	BBB-	BBB+	BBB	BBB-	BBB+	BBB	BBB-	BBB+	BBB	BBB-	BBB+
Execution spread %	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Risk spread %	1.5	2.0	1.5	2.5	3.5	2.0	3.0	4.0	2.5	5.5	6.5	4.5

v) It is noted that the relevant overall pricing developed as described in this report at 0.135%, is lower than the DBCTM submission draft figure of 0.159%. This may be due to variations from the input assumptions used to derive the figure of 0.135% in this report, such as the assumed gearing or the enterprise value. It may also be due to a mismatch between the dates when the hypothetical swaps were 'entered into' (6 June, 2016 and 4 August, 2016), although as mentioned below, pricing is currently fairly flat. The trades used to derive the pricing of 0.159% may not have been staggered to avoid volume impacts i.e. the difference between a 'regulatory' rate set and an 'acquisition' rate set. Also, the pricing obtained in this report has been derived directly from bank pricing quoted by a bank interest rate desk according to common convention as described.

vi) For completeness, the mid-market swap rates (basis adjusted) for 10.00 am on 4 August, 2016, on a quarterly basis were:

Swap tenor	1 Year	3 Year	5Year	10 Year
Rate vs. BBSW (%)	1.710	1.675	1.745	2.000

vii) To give high level market context, execution spreads have widened leading into the period of interest above (the second and third quarters of 2016) primarily due to the implementation and flow through to the global markets of bank regulatory changes; particularly Basel III and Volcker/Dodd-Frank. In January 2017 further prudential changes will affect the bank market, further increasing capital requirements for exposures including interest rate swaps. This will

particularly affect long-dated transactions i.e. out towards 10 years and beyond. Despite this, swap pricing and spreads are fairly stable and there would have been little change from the period in the quarter prior to that when the pricing above was determined. Having said that, large deals such as the upcoming AUSGRID transaction are likely to impact pricing in the market, but this sort of impact is not evident as at 4 August, 2016. In terms of general economic outlook, short-end rates are low and yield curves are quite flat. However, bank cost of funds is still elevated, not due to any particular event but to continued political unrest and economic weakness globally, especially in the European and Japanese banking sector. Money supply in Australia however is still high. These inputs tend to flatten term premia and again stabilise pricing.