

26 October 2016

Keston Ruxton
Manager, Input Methodologies Review
Regulation Branch

By email: im.review@comcom.govt.nz

Dear Keston,

Input Methodology Review: Cost of capital – response to recent Transpower submission (dated 5 October 2016)

Thank you for the opportunity to comment on the information provided by Transpower to the Commerce Commission (**Commission**) which was published on 14 October 2016.¹

We comment below on two areas:

- 1) The determination window / swap market volumes; and
- 2) The impact of forward start swaps.

1. Determination window

The proposed move to a three month window will alleviate some pressures that might otherwise be brought to bear on the interest rate swap market. However, we do not agree with Transpower's assessment of the liquidity of the New Zealand swap market outlined in Appendix A of the abovementioned submission, and in particular their calculations of the consequent impact on cost of capital are overstated.

Assessing liquidity by looking at the volume of just 5 year swaps is incorrect. The 2 year swap market is the most liquid part of the interest rate swap curve and it is this tenor swap that is often used by banks to hedge their risk from entering into swaps of a wide range of tenors. For example, if a corporate enters into a 5 year hedge with a bank, that bank can hedge out that risk by trading in (roughly) 2.5 times the volume of 2 year swaps. So to determine swap market liquidity it is necessary, at the very least, to look at the sum of the volume of both the 2y and the 5y swaps traded.

It is also not clear exactly what part of the market is included in the ISDA swap data cited by Transpower as there is no description available on the referenced website. It appears the cited ISDA swap volumes are a limited sub-set of total market volumes as they are significantly lower than other data sources suggest for the total market. It is possible that these volumes are related to interbank trades only.

We have cited evidence of swap market volumes in previous submissions.² In addition to this, we have further evidence of NZ swap market volumes as follows:

- Bank for International Settlements (BIS) 2016 data is now available³ and shows average daily volume of NZ interest rate swaps totalling US\$4.6 billion (approx NZ\$6.5 billion), which equates to approximately NZ\$135 billion / month, consistent with their previous triennial survey.

¹ <http://comcom.govt.nz/dmsdocument/14853>.

² See page 55 and 56 of <http://comcom.govt.nz/dmsdocument/14524>. RiskNet article shows clearing house swap volumes of circa \$384 billion in April 2016 and 2013 BIS survey citing volumes of around NZ\$125 billion / month.

³ http://stats.bis.org/statx/srs/tseries/TRIENNIAL/A:U:A:D:NZ:A:5J:A:TO1:TO1:A:A:3:B?t=D12.2&c=&p=2016&i=35.8&x=DER_CURR_LEG2.9.CL_BIS_UNIT.

- Bloomberg page SDRV (screen shot in Appendix) cites total NZ interest rate swap market volume of \$218 billion over the last three months. A breakdown of the data extracted from this source is set out below, with 2 year swaps making up nearly 40% of total market volumes, whereas 5 year swaps make up under 20% of total.

NZD Interest Rate Swap (IRS) volumes for the last 3 months from Bloomberg page SDRV		
Maturity	Volume NZ\$	Vol as % total IRS
IRS 1 year	57,651,650,000	26.4%
IRS 2 years	79,530,400,000	36.4%
IRS 3 years	24,789,000,000	11.4%
IRS 5 years	36,166,305,000	16.6%
IRS 7 years	2,118,590,000	1.0%
IRS 10 years	18,024,590,000	8.3%
IRS 30 years	67,000,000	0.0%
IRS Total	218,347,535,000	100.0%

- Assuming the total Regulated Asset Base for default/customised price quality regulated EDBs and Transpower of approximately NZ\$15 billion, at leverage of 49%⁴, this gives total debt of approximately NZ\$7 billion. If the base interest rate exposure on this debt was fully hedged via interest rate swaps over the proposed 3 month window, this would represent 8.1% additional 2 to 5 year swap volumes in that period.⁵ Although this may cause some movement in the swap market, it is likely to be relatively negligible, if at all noticeable – and certainly lower than that claimed by Transpower.
- Transpower is correct to say there is a strong correlation between US and NZ swap rates. However, this relationship does break down from time to time as numerous factors will influence both data points (economic conditions, market view of likely central bank action, demand, supply, bond issuance, relative interest rates etc). We note that there is a similar weakening of the correlation occurring right now (as can be seen on the right hand side of the graph in Transpower’s submission (Figure 2)). It cannot be said therefore that the weakening of correlation in 2014 was specifically due to any regulatory hedging activity.

2. Impact of Forward Start Swaps

We have some sympathy with Transpower’s argument that there may be a cost associated with the time lapse between the determination window and the start date for the determination period. However, we have some concerns with the analysis on this matter.

Firstly, as can be seen from the graph below, the impact of having to execute an interest rate swap on a forward start basis varies considerably over time. It may even be negative when the yield curve is inverted, which admittedly occurs less commonly than a positive yield curve, but nonetheless is likely to happen at each turning point in the economic cycle.

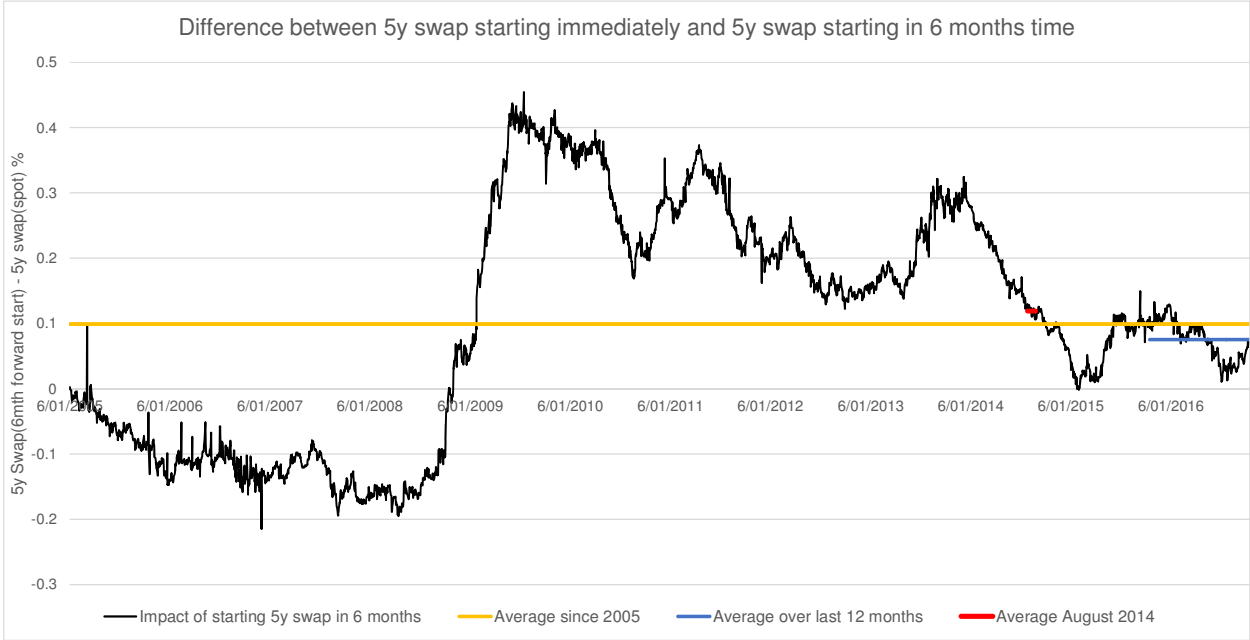
⁴ We have used the results of TDB’s most comparable sample set for this analysis (see page 64 of <http://comcom.govt.nz/dmsdocument/14524>). We note if the Commission’s draft decision of 41% is used this will show an even lower potential impact.

⁵ $7.3 / (79.5 * (2/5) + 24.8 * (3/5) + 36.2 + 7.3) = 7.3 / (31.8 + 14.9 + 36.2 + 7.3) = 8.1\%$.

Secondly, the quantum of the effect cited by Transpower (18 bp cost) is overstated and, being calculated from a small one month window, is not necessarily indicative of future expectations.

The 18bp cost derived by Transpower is calculated using the differential between a five year swap starting in one year's time and a five year swap starting straight away ("spot"). However, the time lapse between the determination window (1-31 August 2014) and the start of the determination window (1 April 2015) is closer to 6 months than 12 months. The impact of forward starting a swap is typically correlated with the term of the forward start component i.e. a 5 year swap starting in 12 months' time will have a higher rate than a 5 year swap starting in 6 months' time.

The graph below (sourced from Bloomberg data⁶) shows that, based on the long term average impact of a 6 month forward start, this cost is more likely to be circa 10bp or 8bp if most recent 12 months data is used.



Nonetheless, we agree that, if the yield curve is positive at the time of future determination windows, there may be a cost incurred from forward start swaps. We therefore agree with Transpower that ideally, it would be constructive to try and minimise the time lapse between the determination window and the start of the determination period.

We would be happy to discuss any of the above further if helpful.

Yours sincerely,

Simon Healy
GM Commodity Risk and Strategy

⁶ NDFS0F05<Currency>NDSW5<Currency>HS<Go>.

Appendix: Extract from Bloomberg page SDRV showing NZ\$ IRS volumes over the last three months

