Major Electricity Users' Group

2 December 2019

Tom Georg
Senior Adviser Wholesale Markets
Electricity Authority
By email to HME.feedback@ea.govt.nz

Dear Tom

Discussion Paper – Hedge Market Enhancements

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Electricity Authority (EA) discussion paper "Hedge Market Enhancements (market making), Ensuring market making arrangements are fit-for-purpose over time, published 11th November 2019.[1]

2. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Some members may make separate submissions.

3. The Authority "… seeks feedback on the Authority's initial analysis of problems and opportunities, and seeks information and evidence from stakeholders to support further analysis."[2] The paper is the most comprehensive analysis of the historic performance of market making and analysis of incentives on various parties in relation to market making in the New Zealand electricity market that we have seen. The paper builds on prior work by the Wholesale Advisory Group (WAG) in 2014/15, the Electricity Price Review (EPR) last and this year and statistics published by ASX. Events of last spring have highlighted the focus on market making that has lapsed since the WAG work. The paper asks the correct questions including evidence parties may have to allow quantification of current problems and to assist weigh alternative future approaches.

4. A specific aspect of the market making arrangements that MEUG members are concerned about is the asymmetric risk to those in the market that are not market makers when the voluntary market making arrangement is put aside by the large vertically integrated generators at the very time a functioning market needs discovery of efficient prices. The paper states:

[1] https://www.ea.govt.nz/dmsdocument/26019-hedge-market-enhancements-discussion-paper
[2] Discussion paper p iii.

> "Since the time the EPR Panel considered this matter the voluntary market making arrangements have evolved to be more robust to stress events. For example, they were amended so that market makers could pull back from the market five times each month, instead of being able to pull back whenever they claimed financial stress."[3]

MEUG is not sure that since the market making arrangements were revised that we have had stress events equivalent to those of last spring to observe if the new arrangements have settled on the appropriate balance between the needs of the voluntary market makers and the asymmetric risk of all other parties to justify this statement.

5. MEUG has and continues to encourage staff in member companies with experience in market making in other markets to contact the Authority directly.

6. We look forward to the publication of further analysis of ASX data[4] and opportunities for engagement ahead of consultation on an options paper in early 2020.

7. This consultation round has a focus on uncovering evidence to assist development and quantify the pros and cons of options in the next consultation round. Nevertheless, perceptions by market participants are important and need to be considered. Or more accurately, whether the trend in the perception of a competitive hedge market (market making being an important part) are improving and on track towards New Zealand being able to claim we have a workably competitive hedge market.

8. The paper explains other work to address the broader topic of actual or perceived lack of competition in the spot and hedge markets.[5] MEUG welcomes the consideration of how "to better shine a light on its work" on the routine monitoring of pricing when market participants are net pivotal, "that is, when their generation is required to meet demand and they have a financial incentive to raise prices, given their overall market position, taking into account their contracted sales and hedge positions."

9. We agree addressing market making as set out in the discussion paper in a focussed approach is an urgent high priority task relative to other wholesale market related or EPR related decisions the Authority is directly accountable for, i.e. to improve the availability of wholesale market information, make generator-retailers release information about the profitability of their retailing activities, and monitor contract prices and new generation costs more closely.[6] We acknowledge the broader topic of competition and work on the EPR decisions is not within scope of the discussion paper. Nevertheless, we believe it's important to consider market making as a workstream within the broader topic of actual or perceived lack of competition in the spot and hedge markets.

[3] Ibid.

[4] Ibid [4.20] and [4.21]. Text in square brackets refers to paragraph numbers.

[5] Ibid [4.27] and [4.28].

[6] For completeness note the Authority has an important role in other government policies that will improve competition in the wholesale electricity market; namely working with MBIE and the GIC on amendments to the Gas Act to improve gas outage information.

10. Seen from a broader competition perspective, including uncertainty on whether there is sustained market power, an analysis of alternative approaches to market making and how to measure success using sustained excessive economic profits may change the preferred near-term solution. For example, if there has been sustained excessive economic profits earned to date and no reason why that may change in the near term, then in considering options more weight could be given to gentailers being obligated to provide market making at their own cost to offset the market power they have exercised.

11. The paper asks "Q4: Would it be useful to seek consensus on a measure of liquidity, and how could this be linked to consumer benefit?" Given the noun "liquidity" is widely and likely to continue to be used (along with the risk of misunderstanding), we think it would be useful for the Authority to undertake a literature search on possible definitions that could be used in conjunction with the often used partial metrics of liquidity such as open interest, trade volumes and available bid and ask volumes during normal and market stress events.[7] An example of what may be found in the literature to consider the definition of liquidity was included as an appendix in MEUG's submission on hedge market development to the Wholesale Advisory Group (WAG) on 19th December 2014.[8] A copy of that appendix is re-attached to this submission.

Yours sincerely

Ralph Matthes
Executive Director

[7] Ibid [4.23].
[8] Refer http://www.meug.co.nz/node/639

The Quick and the ILLIQUID

Liquidity (the ability to convert an asset readily into cash) is an important property of financial securities. When we want to buy something, we need cash to buy it then and there; when we sell something, we want to be rid of it quickly. It's always possible to hold a 'fire sale' (if you offer something for free, you'll find a buyer pretty quickly) but generally that's not a path to financial success. Jamie Hatch explores how this affects the New Zealand Stock Exchange (NZX).

Quantifying liquidity is a rather difficult proposition. We can recognise its presence, or its absence, but ranking securities by liquidity can be a more challenging proposition. However, several measures developed in the academic literature offer useful yardsticks for how easily one can move money into or out of a particular stock or bond:

Bid-Ask Spread: Looking at the gap between the price one can sell a stock at versus the (higher) price one can buy a stock at gives us an idea about the cost of entering and exiting the market.

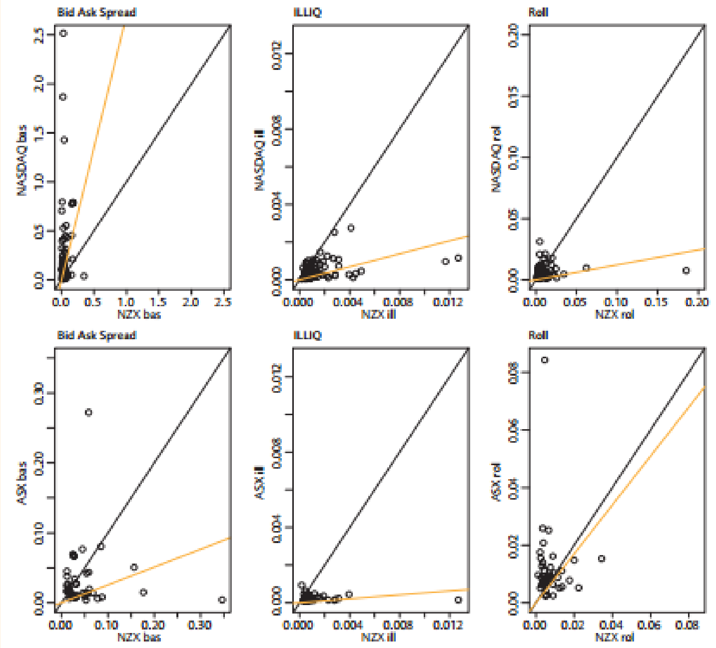
Roll's Measure: If stock prices bounce back and forth between wide bid-ask spreads, all other things being equal, we might expect to see negative correlation in stock prices when a stock is less liquid.

ILLIQ: By looking at the extent to which large buy (sell) orders cause positive (negative) shocks to stock prices, we can get an idea of how traders move the market as they rebalance their portfolios.

Like most markets, the NZX faces liquidity problems for its smaller companies. When the number of shareholders is small, finding a buyer or seller for a particular share can be challenging. Lack of liquidity is seen as a negative feature by investors. If investors do not like this, the shares will be worth less, and with less valuable shares it's harder for a small firm to raise capital. But are problems worse in New Zealand than overseas? And if so, what (if anything) can (or should) we do about it?

Let's compare the data for a set of small firms from the NZX with a matching set from the ASX and from the NASDAQ markets (in Australia and the US, respectively). Sorting the firms by capitalisation and then plotting the bid-ask spreads for these two comparisons reveals a mixed picture (Figure 1).

Figure 1: Bid ask Spread, Roll's measure, and Illiq for the NASDAQ and ASX, compared to NZX



Gold line shows best fit, while the black line is a 1:1 relationship.

New Zealand shares have a lower bid-ask spread when compared to the shares on the NASDAQ, yet have a larger bid-ask spread when compared to shares on the ASX. The reason behind the NASDAQ's larger spread is likely due to the use of market makers who make their profit from the size of the spread on shares. It is also likely due to the NASDAQ firms having share prices in general around ten times larger than NZX firms. The Roll and ILLIQ measures are larger on the NZX than on both the ASX and on the NASDAQ. These larger values show that liquidity is lower (worse) on the NZX than on the other international markets.

But what can be done to increase liquidity? One possible solution is improving information in the market. Since small companies do not attract as much media coverage as large firms, small investors fear that they may be taken for a ride by insiders when they trade shares in small firms. Paying analysts to provide coverage of a share may help level the playing field.

Examining a set of eight small NZ firms that recently gained analyst coverage (and carefully controlling for the fact that they were also growing in size over the period), we find that analyst coverage significantly improves the bid-ask spread and trade frequency measures at the 99% confidence level. The turnover indicator measure is also improved at the 90% confidence level. The ILLIQ and Roll measures, however, do not have a statistically significant improvement due to the introduction of analyst coverage. Based upon the improvements, the empirical analysis has shown that the use of analyst coverage by small capped firms leads to an increase in their liquidity.

Of course, paying an analyst to cover a small firm is an expensive proposition, and one that a small firm may balk at. As with many things in economics, we face a trade-off, and sometimes the cost is worth the pay-off, and other times it is not. However, as noted by Keynes[1], "Of the maxims of orthodox finance, none, surely, is more antisocial than the fetish of liquidity, the doctrine that is a positive virtue on the part of investment institutions to concentrate their resources on the holding of 'liquid' securities."

1 J M Keynes, *The General Theory of Employment, Interest and Money*, 1936, Palgrave Macmillan, UK.

Jamie Hatch was a Summer Scholarship student at the ISCR during the summer of 2013-2014. His scholarship was co-funded by VUW and NZX.