1 October 2021

Warwick Anderson
General Manager
Network Pricing
Australian Energy Regulator
23 Marcus Clarke Street
Canberra ACT 2601

By Email – ███████████████████

Dear Mr Anderson

Response to questions re: RBA Research Discussion Paper RDP 2019-04 and Dividend Discount Models

Thank you for your letter dated 14 September 2021 which requested assistance from the Reserve Bank of Australia (**RBA**) with respect to the work of the Australian Energy Regulator (**AER**) in relation to RBA Research Discussion Paper RDP 2019-04 by Thomas Mathews (**RDP**) and the RBA's use of a dividend discount model (**DDM**) to generate information on the Australian equity market risk premium (**MRP** or **ERP**).

1. RDP – Raw Data

    You have requested access to the raw data series compiled by RBA staff from stock exchange gazettes for the RDP.

    The data are hand-collected unit records from share lists in Sydney Stock Exchange Official Gazettes. This is effectively comprised of two related datasets:

    •   All companies listed on the Sydney Stock Exchange: shares outstanding and share prices from 1916–79, on an annual basis from the December edition of the Gazette each year.

    •   The top 100 companies by market capitalisation (calculated from the annual data): shares outstanding, share prices and dividends from 1917, and profits and net tangible assets from 1937, on a quarterly basis until 1979.

    The raw data is held by ASX Limited. ASX Limited reserves all rights in respect of the raw data. We have requested that the ASX provide the data to you, but follow-up requests for the raw data should be directed to ASX Limited at the following address: ███████████████████

2. RDP – Content

    You have asked several questions in relation to the content of the RDP.

    As is set out in the preamble to the RDP, the RBA's Discussion Paper series is intended to make the results of current economic research within the RBA available to other economists. Its aim is to present preliminary results of research so as to encourage discussion and comment. Views expressed in the RDP are those of the author (Thomas Mathews) and are not necessarily those of the RBA. Use of any results from the RDP should clearly attribute the work to the author and not to the RBA.

As a result, we consider the AER's questions in relation to the content of the RDP would be better directed to the author of the RDP (Thomas Mathews). The RBA will separately provide the AER with Tom's personal contact details.

3. DDMs

You have asked several questions in relation to the DDM used at the RBA to generate information on the Australian MRP.

The DDM is used informally at the RBA. We sometimes consult it to consider the market's attitude toward risk. It is a model that projects out dividend and buyback payments, and then discounts those flows back at the zero coupon rate implied by government debt, plus the equity premium. There are many data sources used in the construction of the DDM. We use Bloomberg data, Consensus forecasts, Refinitiv, and data published by the RBA on government bond prices.

The model is particularly sensitive to assumptions about the long run, and this is even more the case now that interest rates are low. Assumptions about the long-run rate of growth and long-run payout ratios can have an important bearing on the level of the implied equity risk premium. Therefore we do not necessarily pay too much attention to the level, but we pay more attention to changes. However, month-to-month changes can be subject to some influences that do not reflect the true ERP. For example, we suspect that earnings forecasts that we receive are a bit too slow to move, and so we prefer to look at changes over a few months to see what is happening.

The level of the calculated ERP at the moment is sitting a little above its post-GFC average. However, this particular comparison does need to be treated with caution as well. As mentioned, the model is sensitive to assumptions about the long-run, and market expectations of these particular variables could have changed over the past decade.

Yours sincerely

Leon Berkelmans
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