ASX
AUSTRALIAN SECURITIES EXCHANGE

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Jeremy Rothfield
Economist
United Energy and Multinet Gas
Level 3, 6 Nexus Court
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Dear Jeremy,

Re: Historical price indices, and dividend yield data from the ASX

On Friday 24th October 2014, I received a query from Simon Wheatley, of NERA Economic Consulting, about two time series that the Australian Energy Regulator (AER) has been using to determine appropriate rates of return for regulated energy utilities. Apparently, the AER has claimed that the two time series that it has been using were supplied by the Australian Securities Exchange (ASX). Simon Wheatley wanted to know whether the time series are truly ASX products.

The first time series was a monthly series of price indices that began in January 1875. This series appeared as MXAOI in the worksheet 'Monthly Data' in a workbook which was supplied, 'Analysis.xlsm'. The series also appears on the web site of Wren Advisers as AU ASX All Ordinaries Index. The series was – at least since the inception of the All Ordinaries at the start of 1980 – an average of the level of the All Ordinaries index across the days of each month. The earlier data were produced by the well-known Australian economist Don Lamberton, who worked for the Sydney Stock Exchange from 1949 to 1953. NERA queried whether it would be appropriate for the price series to be labelled as an ASX product.

The second time series was a quarterly series of dividend yields that began in the fourth quarter of 1883. This series appeared as LAMYLD in a worksheet 'Quarterly Data', which was supplied in the same workbook, labelled 'Analysis.xlsm'. These yields were produced by Don Lamberton and were published in the Sydney Stock Exchange Official Gazette in 1958 and 1961.

There was no question that this series was a product of the Sydney Stock Exchange – a precursor of the ASX. However, NERA explained that the points of controversy were as follows:

- Whether the Lamberton series of dividend yields should be adjusted if it were to be combined with the series of price indices to produce an accumulation index;
- If the Lamberton dividend yield series were to be adjusted, then how that should be done; and, importantly,
- Whether the ASX had a view on what adjustment, if any, should be made.

NERA further reported that:

Associate Professor John Handley of the University of Melbourne, in a paper co-authored with Tim Brailsford and Krishnan Maheswaran, used a series that is based on the two series (price and dividend yields) with an adjustment made to Lamberton's series of dividend yields. They multiplied the series of dividend yields that Lamberton had supplied by 0.75. The AER has used this series and has claimed that the adjustment has the blessing of the ASX.

Emeritus Professors Elroy Dimson and Paul Marsh of the London Business School, in their annual Credit Suisse Global Investment Returns Sourcebook, co-authored with Mike Staunton, also of the London Business School, uses a series provided by Emeritus Professor Bob Officer of the University of Melbourne that is based on the two series without any adjustment being made to Lamberton's series of dividend yields. Dimson, Marsh and Staunton are aware of the work of Brailsford, Handley and Maheswaran but state that because Brailsford, Handley and Maheswaran do not present alternative annual dividend estimates, they continue to use Officer's data.

The questions posed by NERA were set out as follows:

- Does the ASX believe that to produce an accumulation index, Lamberton's series of dividend yields should not be adjusted?
- Does the ASX believe that to produce an accumulation index, Lamberton's series of dividend yields should be multiplied by 0.75; or
- Does the ASX hold no view on the issue?

In response to the queries, I offer the following comments:

- Assuming the monthly price index, MXAOI, in the NERA workbook has been derived and sourced as described, it can be regarded as an ASX product.
- The method that you have described for adjusting Lamberton's series of dividend yields, which involves multiplying the dividend yields by 0.75,

produces another series of amended dividend yields. ASX holds no view on whether Lamberton's series should be adjusted this way.

A search of the ASX email archive was not able to find any emails between ASX staff and the authors of the Brailsford, Handley and Maheswaran (2008) study[1]. Please note however that email archiving system did not come into use until 2006 so anything prior is unavailable.

More generally, I should advise that the ASX outsourced its index calculations to Standard and Poor's in 2000. Much of the intellectual property in relation to index management and methodology now rests with Standard and Poor's. I am aware of the methodology which underpins the calculation of accumulation indices that carry the S&P/ASX brand. However, S&P may be best placed to comment on the alternate forms of adjustment to dividend yields, (including "no adjustment"), that you have described.

If you would like to contact Standard and Poor's, then you can reach them via the email address, index_services@spdji.com.

Yours sincerely,

Brian Goodman.

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[1] Brailsford, T., J. Handley and K. Maheswaran, Re-examination of the historical equity risk premium in Australia, Accounting and Finance 48, 2008; page 79.