Effect of Energy Efficiency Rating (EER) of Dwellings on Sale Prices in the ACT 1999-2021

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Since the enactment of Energy Efficiency Rating (Sale of Premises) Act 1997[1] in the Australian Capital Territory, a time when apartments were a very small part of the housing market, Exemplary Energy Partners has been evaluating the conventional wisdom of "higher EER, higher prices" as a valuation tool underlying the Canberra property market. As a result of the legislation, not only possible energy performance improvements specific to the building can be set out in the pre-sale documents but also market value of the property can be better justified (Lee and Yang, 2010). The overall benefit of this scheme lies in the expectation that it acts as an incentive for all potential stakeholders to improve the energy efficiency of their properties for higher sale prices. Subsequently, as web marketing supplanted newspaper advertising a decade ago, the market websites have responded by allowing buyers to sort their target dwellings by EER (e.g. Allhomes, ongoing).

Despite well documented successes in demonstrating a robust relationship between EER and sale prices (ABS, 2008) and (DECC, 2013)[2], our ongoing study showed that their correlation became weak at best. Over time, an inverse correlation was observed for all dwellings together and this trend remained persistently so since late 2014. Key reasons for this apparent anomaly are posited to be:

1. The proximity of the worst performing properties to the city centre (higher land values);
2. Apartments, intrinsically the better performing dwelling type, are priced relatively low in the market. Their market share has also grown dramatically in the last decade; and, to a more minor extent
3. Data analysis and representation (i.e. mean instead of median home prices have been used whereby a small number of high value homes may skew the aggregated value upwards).

To achieve better representation, a revised methodology has been implemented into our analysis:

4. Disaggregated by Dwelling Types (houses, townhouses, and apartments/units); and
5. Median prices, in lieu of mean prices[3].;

Refer to the series of graph presentations *below*.

The understanding brought by the disaggregation has been strongly apparent. For example, apartments within the 5+ star band in Woden/Weston Creek area (south-west of Civic), although they are priced lower than other dwelling types, generally attract an average sale premium of between 20% to 45% (3-4.5 star to 5+ star) in the last 12 months.

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[1] This legislation, superseded by Civil Law (Sale of Residential Property) Act 2003, requires sellers of residential properties in the Australian Capital Territory to disclose and provide information about their property's EER to potential buyers, including in any advertisements for that sale, since 31 March 1999.

[2] Department of Energy and Climate Change, United Kingdom, superseded by Department for Business, Energy and Industrial Strategy

[3] Prices described here refer to web-based advertised/asking dwelling prices such as "Allhomes", "*Domain*" and "*Real Estate*"

Townhouses also show positive relationship between price and EER. In Tuggeranong in particular, the sale premium for high-EER (5+ star) townhouses has been observed to be averaging 20% and 25% when compared against a low-EER (0-2.5 star) and a mid-EER (3-4.5 star) ones respectively. On the contrary, high-EER townhouses in Inner North and Inner South experienced large price fluctuations, listing between $600,000 to $1,600,000, and generally records price discounts.

Detached houses especially in inner regions are also prone to obscuration of $/EER trends by virtue of old, inefficient housing occupying very valuable sites. In the extreme, they are being bought with the intention of demolishing the house so that its EER is irrelevant to the purchase decision. Additionally, it is observed that houses at 3–4.5 star appear to be more appealing and listing at a higher price as compared to other star band groups regardless of location. In Belconnen, Inner South and Woden/Weston Creek in particular, the 12-month average sale premium attracted for 0–2.5 star to 3–4.5 star is especially high, reaching up to double the price of 0-2.5 star rated houses as compared to 20% high in Canberra as a whole.

Our observation into the refined dataset with disaggregation by dwelling types corroborates the intent of the legislation by revealing (and perhaps generating) a significant price margin of high EER dwellings over their low EER competition – confirming the conventional wisdom of “higher EER, higher prices”. This observation is most stark in Apartments/Units. In most suburb regions in Canberra, an apartment with a higher EER would almost certainly attract a price premium. Townhouses and houses also demonstrate similar trends in all suburb regions except Inner North and Inner South where demolish-rebuild is most common.

Our study also suggests that the price discounts and premiums progression may not be linear, especially when listing prices are above $800,000. This is reflective of the property prices in Inner North and South so the observed correlation may be as much geographic as it is price-determined. However, this price relativity observation also appears to be in agreement with the findings of Hyland and Lyons (2013) and Fuerst and Warren-Myers (2018), whereby the second-highest rated property attracted a higher premium than the highest rated one. Fuerst and Warren-Myers (2018) posited that this trend may be due to satisficing, (Simon, 1972) as the difficulties of pursuing higher ratings is bounded by uncertainty, lack of information and details of proven benefits and outcomes.

This study is part of a growing body of research on the sentiments of property owners, tenants, real estate agents and building industry participants alike, to improve energy efficiency of their properties for higher sale/rental price (e.g. Daly et al 2019). The Labor/Greens Agreement (2016) for the 9th ACT Legislative Assembly resolved that the Government would *“Conduct a review of the effectiveness of the Energy Efficiency Rating Scheme.”* That undertaking was not implemented before the election in October 2020 and the commitment was quietly dropped from the current agreement for the 10th Assembly despite the new Greens member, Rebecca Vassarotti, being appointed Minister for Sustainable Building and Construction (along with three other portfolios). Despite the many foibles of the scheme as it now operates, no indication has emerged of an intention to address these issues over the four years of her expected office.

An update on that apparently parlous situation will be presented to the conference.

References

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Selected Graphs showing Price and EER Trends over Time

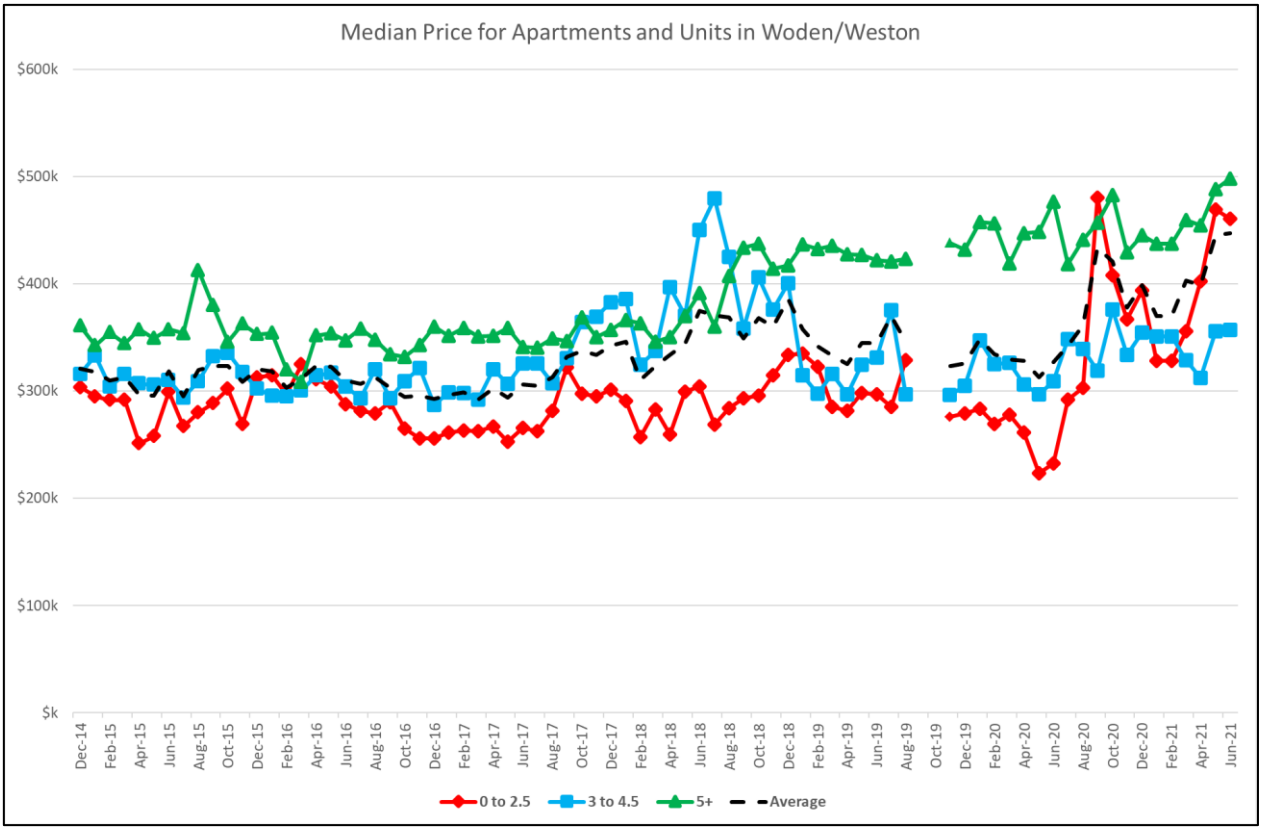

Figure 1. Median Prices for Apartments/Units in Woden/Weston

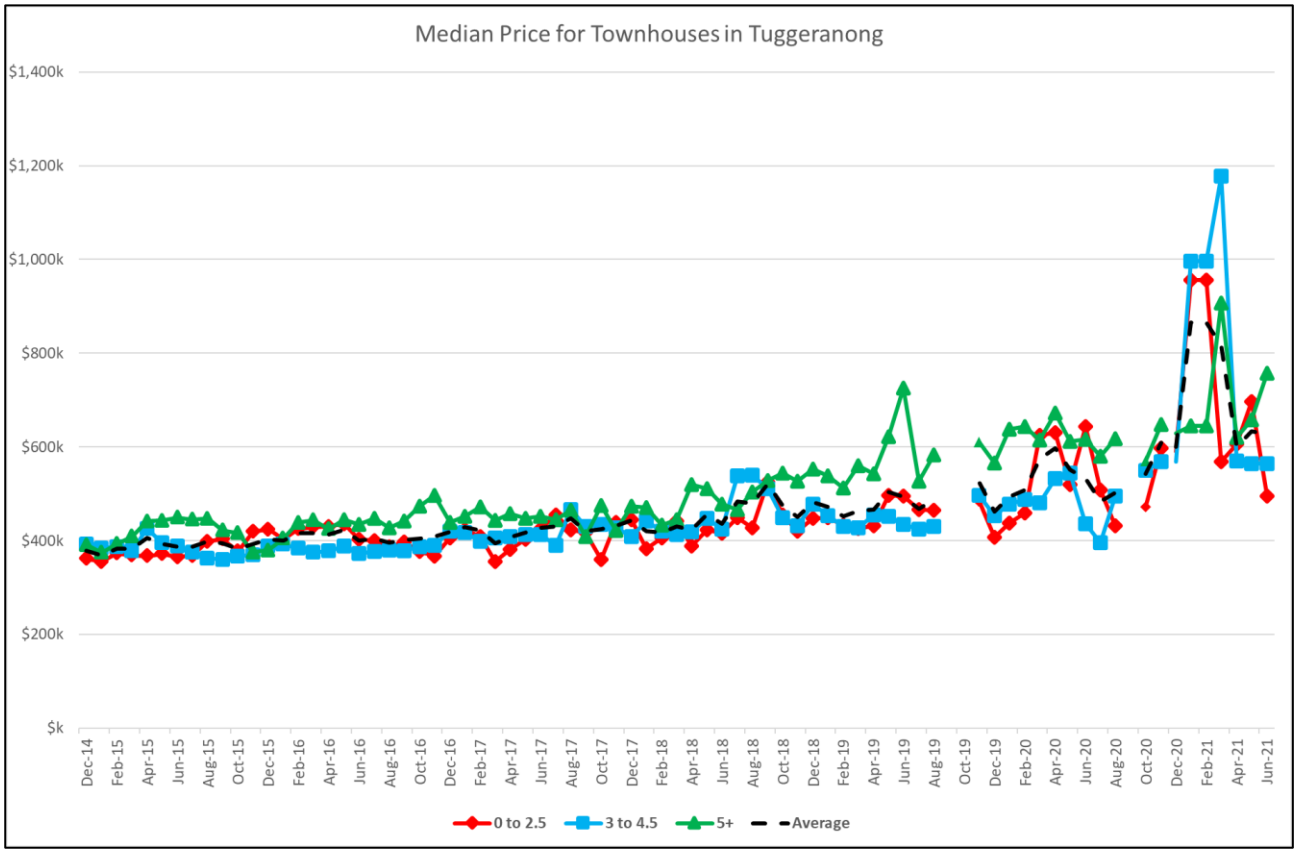

Figure 2. Median Prices for Townhouses in Tuggeranong

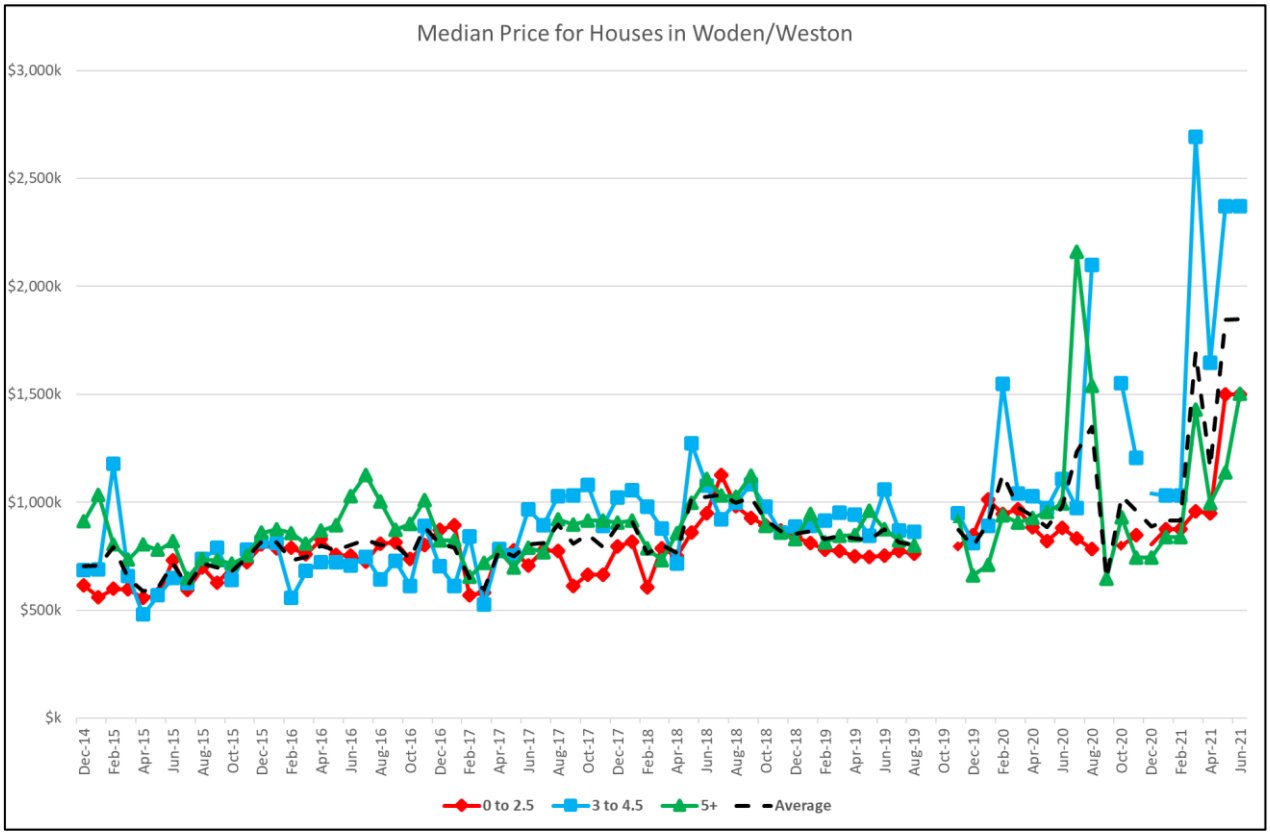

Figure 3. Median Prices for Houses in Woden/Weston