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Independent Pricing and Regulatory Tribunal
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NSW 1240

Review of Local Government Rating System

Thomson Reuters supplies mass appraisal software to Local Government and the Valuer General of Victoria for the purposes of levying rates, along with other Government software (including valuation software) supplied globally. We offer some brief observations below on topics raised within this review and recent conversations.

Automated Valuation Models (AVMs)
An Automated Valuation Model (AVM) can be built in many ways - utilising methods such as indexing, hedonic regression and sales comparison. Their performance is not influenced not only by the quality of the model, but also the depth and accuracy of underlying data and market activity. As such, AVMs can be expected to perform well and return values close to actual sales evidence in situations where:

1. The model itself performs well
2. The data on the subject property is accurate and detailed
3. The data of the surrounding market is accurate and deep
4. There is sufficient sales evidence turnover of similar properties with similar characteristics to drive the model
5. The subject property is not unique to its surrounding market

AVMs are used by some lending institutions to make use of the significant speed and cost benefits into their mortgage approval process. Their use forms part of a sophisticated set of cascading business and credit rules which take into account the property characteristics, borrower characteristics and the confidence score returned by the model. AVMs require a degree of caution and are only used in ‘safe’ circumstances to account for the potential of variable or inaccurate results.

We have noted an increasing interest from rating authorities in exploring use of AVMs for rating and taxation purposes. While AVMs have their place in the industry for valuing large portfolios of property, validating business rules, or consumer interest - it is unusual for the values to be used as a proxy of financial payment.

A property owner will not know of the result of an AVM when it used in their mortgage application. It does not get scrutinised by a stakeholder. If the model fails to produce a satisfactory result, it will cascade to a higher level of valuation – usually a full inspected valuation. If an AVM were to be used by a rating authority to levy taxes, an owner could reasonably be expected to scrutinise this figure and so it is therefore important to consider the characteristics of AVM performance at an individual level.

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As a statistical model, an AVM will often return results at individual property level which conflict with common perception. If a situation occurs where an owner disputes the valuation, an AVM does not allow for adjustments or alterations. Due to the complexity of an AVM, it is very difficult to investigate and determine why a certain value was reached.

There is a significant amount of discussion that could be held around the topic of AVM, but in an effort to summarise, an AVM performs well in a specific set of circumstances which are simply not broad enough to benefit a rating authority who must accurately, fairly and consistently value all properties – from a generic house in the mortgage belt, through to a high rise apartment in the East, through to low turnover rural properties and commercial/industrial properties. They do not provide justification ability during disputes and are subject to many influencing factors that can cause variation and inaccurate results. We believe that the utilisation of a professional valuer to undertake a mass appraisal will continue to provide the fairest assessments across a widely variant property base.

Expanded Data Requirements for Improvement Value

As a software provider rather than a valuation firm, we will refrain from discussion around valuation methodologies and use of Site Value vs Capital Improved Value.

Instead, we'd like to share our observations around what we believe are the common data points referred to in generating a Capital Improved Value in the hope it provides some context for data collection requirements. The requirements and methodology differ between residential and commercial/industrial, so we will focus on residential as commercial relies on an income approach where market factors are combined with information sourced from owners and tenants directly.

We can identify three potential sources of improvement data in NSW:

1. Councils, through property and permit data
2. Valuation Firms, through large volumes of inspected valuations contained within their databases
3. Commercial Property Data Suppliers, who primarily source data through real estate listings and the valuation firms

Within Victoria, we can identify these data elements as having a material impact on calculating the Improvement Value:

- Construction Material
- Built Year / Renovation Year
- Bedrooms
- Gross Floor Area
- Additional Improvements (Shed, Pool, Rural Improvements)

- Sale Price
- Sale Date
- Property Details at Sale (Land Use, Zoning, Area, Attributes)
- Building Permit Details
- Header / Dependent relationships

In mass appraisal, the core contributor to the improved value of a property primarily sits within the high level valuation modelling. This is where a valuer will determine market values for large groups of similar characteristic properties, using drivers such as floor area for houses or bedroom count for units.

An example of a simple model is below, where a valuer might set a rate for the Construction Type ”Brick Veneer” within a specified market zone:

Area (m^2)	Rate
0	$870
170	$840
300	$790

The above model for improvement value based on Gross Floor Area will drive the bullk of the initial value. Then on each assessment, the valuer may imply additional adjusting factors based on inspections, council data, local area knowledge, maps and satellite imagery. We have supplied an example of a residential house Capital Improved Value calculation to demonstrate this.

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Site Value	Description	Area	Base Value	Adjustment	Net
Land Value	Block Rate	767.00 m^2	$281,060		$281,060
Site Base Value					**$281,060**
Street Adjustment Factor	9 - 10% Increase		$281,060	10.00%	$28,106
Topography	8 - 10% Increase		$281,060	10.00%	$28,106
Views	3 - +10%View		$281,060	10.00%	$28,106
Influenced Site Value					**$365,378**
Adjustment				0.00%	$0
Total Assessment Site Value					**$365,378**

Improvements Value	Description	Area	Base Value	Adjustment	Net
Building Base Value	Construction Type: Brick Veneer Render	546.00 m^2	$790		$431,340
Building Base Value					**$431,340**
Age Factor	Calculation Year: 2006		$431,340	-2.00%	-$8,627
Aged Building Value					**$422,713**
Building Condition	10 - Excellent		$422,713	50.00%	$211,357
Quality of style	10 - Excellent		$422,713	50.00%	$211,357
Building Improvement Value					**$845,426**
GU4-Garage Under Main Roof - Quad+			$45,000		$45,000
VE1-Verandah1			$3,000		$3,000
PL3-Pool3			$20,000		$20,000
SU8-Surrounds8			$8,000		$8,000
Assessment Improvements Value					**$921,426**
Adjustment				0.00%	$0
Total Assessment Improvements Value					**$921,426**

Summary		
Site Value		**$365,378**
Improvements Value		**$921,426**
Capital Improved Value		**$1,286,804**
Net Annual Value	**5.00%**	**$64,340**

Victoria mandates a significant amount of rich and complete data through a well established collection process using Councils, Valuers and the state Land authority. However, not all of this is necessary to determine propety value. If NSW were to pursue investigation into alternative valuation methods, it would be beneficial to establish the differences in data requirements for Capital Improved Value across varying methodologies of using the Income Approach, Direct Comparison, Summation, Multiple Regression Analysis and others to ensure the overheads are fully understood and anticipated.

We hope this provides some useful input for the review, and welcome further opportunities to contribute to the knowledge base on mass valuation in Australia.

Sincerely,

Leigh Oliver

Product Manager - VM Online

Thomson Reuters

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