

VALUATION FOR RATING AND TAXING

Approved 2002



1.0 INTRODUCTION

1.1 Purpose

The purpose of this guidance note is to provide information to valuers employed or engaged by government or statutory authorities to assess valuations for use in the determination of Rates, Taxes and other statutory charges over land.

1.2 Status of Guidance Notes

Guidance notes are intended to embody recognised 'good practice' and therefore may (although this should not be assumed) provide some professional support if properly applied. While they are not mandatory, it is likely that they will serve as a comparative measure of the level of performance of a Member. They are an integral part of 'Professional Practice'.

1.3 Scope of this Guidance Note

This guidance note does not cover the administration of valuation lists or determine their use. That process is achieved by complementary legislation that prescribes the categories of properties to be valued and any exemptions or omissions from the valuation rolls of property in public ownership.

1.4 Compliance

Valuers engaged to assess valuations for rating and taxing purposes should comply with statutes and precedents relevant to the type of valuations being made.

1.5 Statutory Responsibility

The professional responsibilities of valuers engaged to make rating and taxing valuations, are prescribed by regulatory jurisdiction in each State or Territory of Australia and New Zealand.

Under the relevant legislative authority, the Valuer-General is responsible for maintenance of valuation standards

1.6 Authorities

For the purpose of this guidance note, Rating and Taxing Authorities Include:

- The States and Territories of Australia,
- New Zealand,
- Local authorities,
- Any statutory authority which is financed by revenue from a Rate or Tax.

2.0 BASES OF VALUATION

2.1 Form of Rating or Taxing Bases

Each State and Territory of Australia and New Zealand has its own legislation defining the various bases of rating valuations. Practitioners should ensure that they are familiar with the legislative definitions and supporting case law in the jurisdiction in which they are practising. The bases comprise the types of valuation used to form the valuation roll, such as Improved Values, Unimproved Values, Site Values, Land Values, Gross Rental Values, Estimated Annual Value or Assessed Annual Values as defined in the various statutes. Such valuations shall be in accordance with market evidence at a common date, generally referred to as the "Date of Valuation."

Other information may be required to be included in the valuation lists such as the date of inspection of the relevant property and the prescribed date for effective use of the valuation for rating or taxing purposes. A qualification or reference to the legislation making such direction must be noted on the return of valuations.

2.2 Determining the Value of Land

In determining the value of land, including stratum, Members may, amongst other valuation criteria, be required to take into account:

- The highest and best use to which the land might reasonably be expected to be put at the relevant date,

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- The detrimental effect on value of any lease, mortgage, covenant or other charge over land,
- The actual use to which the land is being put at the relevant date and any potential use,
- The effect of any legislation, regulation, local law, planning scheme, including heritage provisions or any other such instrument which affects or may affect the use or development of such land,
- The shape, size, topography, soil quality, situation and aspect of the land,
- The situation of the land in respect to natural resources and to transport and other amenities, facilities and services,
- The extent, condition, and suitability of any improvements on or to the land,
- The actual and potential capacity of the land to yield a monetary return.

CAUTION: WHERE THE REQUIREMENTS OF A STATUTE AND GENERALLY ACCEPTED VALUATION PRINCIPLES ARE IN CONFLICT, THE STATUTE IS THE OVERRIDING AUTHORITY.

2.3 Land Values

Land Values are a widely used bases for the taxation of land. They are also provided to the Federal Government for the equitable distribution of Financial Grants to the States.

2.4 Determination

Land Values can be determined under 33:2.3 for most areas of the continent, islands and Territories of Australia and New Zealand. Measures of land value are usually readily available by reference to sales of comparable land or analysis of improved land transactions.

2.5 Vacant Land

Rating and taxing legislation generally refers to vacant land in two ways:

- Land in its raw undeveloped state is referred to as Unimproved Value. API Members engaged to provide this type of valuation, must be familiar with the legislation applicable in the State within which they are operating, in order to know the type of land value to be applied.
- Land having merged improvements is referred to as Site Value, which is usually applied within urban areas or townsites where merged improvements may add value beyond the

undeveloped land value and where the form of the land in its original state can no longer be determined. The categories and extent of the merged improvements are prescribed in the applicable legislation.

2.6 Continuing Land Use

In all instances, unless otherwise directed by local legislation, the valuer is to ignore the "existing use" in favour of the potential "highest and best use", unless the former gives rise to a greater valuation than as a result of considering the latter. This includes land that is reserved for public purpose. The provisions of heritage or valuation legislation may bring about an exception to the highest and best use principle by prescription of existing use values for affected properties.

2.7 Rental Values

Rental values are used in many States and Territories of Australia and in parts of New Zealand, generally for the assessment of Municipal and Water rating of improved properties. In some States, rental values are used by State Governments for the distribution of grants to Local Governments. Evidence of lettings is generally available for most classes of buildings. However, most legislation provides rules for the determination of rentals to be applied to properties of a type not normally rented. Rating and taxing legislation refers to rental value in Australia in several forms:

2.7.1 Gross Rental Value

Gross Rental Value. The Gross Rental Value is the annual rent passing between landlord and tenant for the use of land or land and buildings on the assumption that the landlord is liable for all outgoings necessary to maintain the value of the land. Where a rent cannot be determined, legislation may provide a statutory formula for the calculation of the Gross Rental Value.

2.7.2 Assessed Annual Value

Assessed Annual Value. In some legislation, gross rental value or a percentage of gross rental value may be used to create what is known as "annual value". This is usually accompanied by associated restrictions within the legislation as to its application or modification. Annual Value should not be confused with "annual valuation" which refers to a periodic valuation on an annual basis.

2.7.3 Net Annual Value or Estimated Annual Value

Net Annual Value or Estimated Annual Value. The net annual rental of a property is generally the amount that a property is likely to rent from year to year less an amount equal to the charges and costs required to maintain the property in a lettable state. These costs may vary with legislation and regulation, but usually include Rates, Taxes, insurance, and other expenses necessary to preserve the level of rent commanded.

2.7.4 Capital Values/Improved Value

Capital Value is also referred to in rating and taxing legislation as Improved Value and applies to all parcels of land including vacant, improved or held in stratum. Such a value, unless specifically stated by the legislation, would not normally include any plant, machinery, tools, or other appliances that are not fixed to the premises in a way that would justify inclusion in the real estate under the law of fixtures. In the case of a stratum the valuer will typically assume that if the stratum; is wholly or partly in an excavation, that the excavation of the stratum had been made; has access, that access may be used or continue to be used; is capable of use, that it is used, may be used, or may continue to be used or could have been used at the date of valuation.

3.0 VALUATION ACCURACY AND UNIFORMITY

3.1 Accuracy and Uniformity

In accordance with the statutory responsibility of Valuers-General and other regulatory authorities, valuations for rating and taxing purposes must conform with standards of valuation accuracy and uniformity.

The terms of valuation contracts where they apply will specify the required standards.

3.2 Measurement of Accuracy and Uniformity

The parameters of valuation accuracy and uniformity expected of valuation contractors and professional practitioners will be dictated by regulatory policy. These parameters are often expressed in the terms of valuation contracts by reference to statistical tests and other means of

comparing subsequent sales with the valuation data presented in the valuation roll. Appendix 1 sets out accepted processes of statistical comparison to enable determination of valuation accuracy and uniformity.

4.0 PROVISION OF REPORT

4.1 Revaluation Reports

The regulations that form part of the respective State and Territorial Acts may contain the requirements for the provision of a Report with which practitioners should be familiar. All valuations creating or amending a valuation roll for the Valuer-General should be accompanied by a report written by the practitioner creating or amending the roll.

4.2 Management of Insurance Programs.

The management of insurance programs has thus taken on an increased importance for professionals involved in producing satisfactory returns from property investments.

4.3 Report Contents when Creating a Valuation List

In the case of creating a roll for the Valuation Authority, the report must contain:

- Purpose of the roll including any other likely use of the valuations.
- Definitions of the type of valuation to be recorded in the roll and the enabling legislation under which it is created.
- The date of valuation (note use of multiple dates if required in some States).
- The date at which the valuations are to come into force.
- A schedule of evidence used to support the roll including market evidence and comments.
- A schedule of any evidence excluded and the associated qualification as to why this was necessary.
- A current cost schedule at the date of valuation should the type of roll require calculation or be supported by costs.

4.4 Report Contents when Amending a Roll

In the case of creating a supplementary valuation or amending a valuation list the report must contain:

- Type of valuation to be recorded in the roll and the enabling legislation under which it is created.
- The reason for amending the roll (eg. Addition or deletion of improvements, amended area etc.).
- The date the original valuation came into force.
- The date of valuation.
- The date at which the amended valuation is to come into force.

5.0 CONFORMITY AND PROFESSIONAL RESPONSIBILITY

5.1 Valuation Principles and Statutory Requirements

The valuer engaged or employed by a rating or taxing Authority should be cautious in carrying out valuations if the direction given by the Authority is contrary to established valuation principles or statutory requirements. If such a direction is given a qualification should be provided with the valuation.

5.2 Professional Responsibility and Confidentiality

In the valuer's relationship to the Authority, there should be a declaration of any pecuniary or other interest that may arise in meeting the Authority's requirements. In many instances there will also be established a position of confidentiality, either by contract or by statute. It is the responsibility of the practitioner to honour any requirements contained in the vehicle of engagement or employment subject to 5.1 above.

5.3 Conformity and Professional Responsibility

Additional information on this topic may be obtained from the Institutes "Principles and Practice of Valuation" Chapter 22 "Rating and Taxing".

The performance of all valuation assignments should conform with generally accepted valuation principles and standards promulgated by the Australian Property Institute and New Zealand Property Institute.

6.0 SUPPLEMENTARY VALUATIONS

6.1 Requirement

Supplementary or Interim valuations are required in most valuation rolls as a result of changes that are advised or occur after the adoption of the general valuation roll.

6.2 Occurrence

Supplementary valuations are new entries to the roll or substitute for land in the original roll. Changes may result from;

- zoning amendments.
- addition or removal of merged improvements.
- construction of, addition to, or removal of buildings.
- acquisition or resumption.
- physical changes to the land.
- errors and omissions.
- changes in value levels in relation to the balance of the properties recorded on the roll.
- movement of rating or authority boundaries by statute or prescription.

6.3 Calculation

- Supplementary values are calculated under definitions and in accordance with the methods described for general values listed on the roll. In nearly all instances the supplementary values are to be calculated at the valuation date of the original roll, taking into account all of the factors affecting value listed at 33:2.2 and provided to the Authority as shown in 33.4 above.

7.0 VALUATION CONTRACTS

7.1 Outsourcing

There is an increasing trend in Australian municipal valuation practice towards valuation authorities engaging the services of professionally accredited contractors for the provision of municipal valuation services. The trend towards outsourcing has been driven by national competition policy and implemented in many cases by Government directive.

7.2 Valuation Contracts

Typical valuation contracts will contain the following provisions:

Description of municipal area.

Requirements for inclusion in the valuation roll of property types and any exclusions.

The contents of Valuation Reports to be provided as per GN 33:4.0.

Confidentiality Agreement..

Valuation definitions to be provided eg. Land Value, Site Value, Unimproved Value, Improved Value, Capital Value, Assessed Annual Value.

Required valuation methodologies eg. summation, residual valuation, capitalisation, deprival value for public sector entities and how these methodologies are to apply to various property types.

The names of nominated staff to undertake the duties of supervision, field inspections and any sub-contractors to be employed.

The level of inspection required for various property types.

Time frame for progressive and final submission of revaluation data.

Penalty provisions for non-compliance.

Termination provisions for non-compliance.

Standardised data sets for the return of data in digital format.

Requirements for ongoing maintenance of the valuation roll.

Submission of subsequent sales information and statistical tests required for standards of accuracy and uniformity.

Contract price and progressive or lump sum payment arrangements on submission of completed data for revaluation and maintenance of the valuation roll.

APPENDIX 1

VALUATION ACCURACY AND UNIFORMITY

It is important that valuations in a valuation roll are both accurate and uniform, in order to display equity and to be supportable before tribunals or courts of law. The following describes methods of measuring accuracy and uniformity. The methods shown here use evidence of sales and rentals to compare and make judgements about the accuracy and uniformity of entries included in the valuation roll. Differing methods may be adopted in each jurisdiction and the practitioner must ensure that the relevant requirement is met.

Accuracy

Measurement of accuracy must be subject to established standards of accuracy and be capable of independent audit.

Accuracy is measured against current market evidence to the date of valuation. Current practice in some States and Territories is to test the value against evidence two months before and two months after the date of valuation, as within this relatively short period factors affecting the value of land are unlikely to change.

However should API Members be valuing in times of rapidly rising or falling markets, the period for the selecting of evidence should be adjusted accordingly. The degree of acceptable variation will reflect the volume and comparability of the market evidence.

Accuracy is easily understood as percentage error. For example it might be said that a valuation is within 10% of the *actual price* where *actual price* is the evidenced price in the base period (sale or rental, analysed and adjusted). Where the valuation is less than the actual price, the percentage error is computed from the formula $100(\text{actual price} - \text{valuation})/(\text{actual price})$. If the valuation is greater than the actual price the percentage error is computed as $(\text{valuation} - \text{actual price})/(\text{actual price})$.

While the ideal is to produce a percentage error of zero, a value within 15% is generally regarded as acceptable.

The ratio $100(\text{valuation}/\text{actual price})$ is an equivalent measure of accuracy which is equal to 100 minus the percentage error if the valuation is less than the actual price or 100 + percentage error if the valuation is greater than the actual price. Thus a percentage error of 10% is equal to a ratio of 90% if the valuation is less than the actual price or is 110% if the valuation is greater than the actual price.

Any measure of accuracy should be subject to the following considerations:

- The sales or rentals must be investigated and shown to be at arms-length. Sales or rentals discarded following investigation, should still be listed as part of the evidence, together with a qualification statement clearly indicating why they were excluded.
- The values must reflect the general level of sales or rentals occurring within the base period and for the sub-market of which they are typical or indicative.

Measures of Accuracy and Uniformity

There is a need to combine the values for accuracy of individual valuations in aggregate samples to produce a combined measure of accuracy and uniformity. The term *accuracy* relates to the closeness of valuations to actual prices. The term *uniformity* is a measure of the consistency of the percentage errors or ratios. Thus a valuer who values three properties each at 80% of actual price is *uniform* in the valuation process but is not *accurate*.

Some useful measures of accuracy and uniformity are listed below together with conditions for their use and guidelines on interpretation of their values.

Any valuation methodology used for the roll must be subject to standards of consistency and be capable of audit.

Uniformity must be measured with reference to evidence, usually against the median percentage error or median ratio from all parcels in the

aggregate sample. Accuracy is measured against the ideal percentage error of 0 or ideal ratio of 1.

The evidence for *accuracy* and *uniformity* should be based on an aggregate sample of current market evidence relevant to the date of valuation. Each jurisdiction should determine the appropriate base period for supporting the valuation roll. If no such determination is made by a jurisdiction, the practitioner should qualify the roll by stating the period within which the evidence sample supports the valuation. Present practice indicates that the use of evidence occurring two months before and two months after the date of valuation should be used to test the values in the roll effectively.

Listed below are some useful measures of valuation accuracy and uniformity. Each measure is described in words and interpretation of its values and conditions for its application are discussed. Mathematical formulae used to calculate the statistics are provided in the subsequent 'Formulae' section.

1. Coefficient Of Dispersion (COD)

This is a widely used and accepted measure that is based on the differences between individual ratios of valuations to actual prices and the median of all ratios in the aggregate sample. It is formed as the average of such differences (ignoring the signs of the differences) divided by the median ratio and expressed as a percentage. Values of COD less than 15% are expected.

The COD is firstly a measure of uniformity since it is formed from differences between individual ratios and the median ratio. Thus a collection of identical individual ratios of say 90% would yield a COD of 0 even though the valuations are not accurate. However, in practice, where not all ratios are identical, the use of the median ratio as a divisor does provide a form of adjustment for inaccuracy. Thus the COD is a combined measure of uniformity and accuracy.

The COD can be applied when there is a broad range of actual prices in the aggregate sample and provides a meaningful basis for comparison of accuracy across diverse collections.

2. Median Percentage Error (MPE)

This is a simple and robust measure of accuracy. It is formed as the median percentage error. It will have a value of 0 when all valuations are identical

with corresponding actual prices and increasing values of MPE imply decreasing accuracy. Values of MPE less than 10% are expected.

The MPE can be applied when there is a broad range of actual prices in the aggregate sample and provides a meaningful basis for comparison of accuracy across diverse collections.

3. Median Difference (MD)

Where there is interest in expressing the likely size of the difference (in \$ terms) between valuations and actual prices a simple calculation using the median percentage error is available. Multiply any chosen actual price by the MPE and divide by 100 to obtain the MD. For example, if the MPE is 5% and the chosen actual price is \$100,000 then MD is \$5,000.

Interpretation is simple: Based on a valuation system that produces an MPE of 5%, one half of the valuations on \$100,000 properties will lie within \$5,000 of the actual price.

Note that because the likely size of the difference is proportional to the actual price the size of the MD will double if the actual price doubles. Thus with an MPE of 5% for properties with an actual price of \$200,000 one half of the valuations will lie within \$10,000 of the actual price.

4. Percentage of High Valuations (PHV)

Interest in accuracy not only centres on how close valuations are to actual prices but also on possible bias in valuations. Valuers need to be aware if they are consistently undervaluing or overvaluing properties. Ideally the valuations should centre on the actual prices so that approximately equal numbers of valuations are on either side of the actual prices. A simple measure of bias is provided by counting the number of valuations in an aggregate sample that are above the corresponding actual prices, dividing this number by the total number of valuations that are either below or above the corresponding actual prices and multiplying by 100 to give the percentage of high valuations (PHV).

Valuations in the aggregate sample are without bias if the PHV is 50%. The further the PHV goes above 50% the more evidence that consistent overvaluation is occurring. The further the PHV goes below 50% the more evidence that consistent undervaluation is occurring. Values of PHV outside the range 35% to 65% are cause for concern, although these guidelines only apply if the sample

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size is at least 40. The use of PHV is not recommended for sample sizes that are less than 40.

The PHV can be applied when there is a broad range of actual prices in the aggregate sample and provides a meaningful basis for comparison of bias across diverse collections.

An additional role for the PHV is to check for internal consistency in an aggregate sample. If the actual prices are sorted by size, the PHV can be computed for two or more price subgroups and the values obtained provide a means of checking on consistency across subgroups.

Formulae

Valuations and actual prices are presumed to be available from n properties.

The calculation of the measures defined below are based on the following table:

Property	1	2	...	n
Valuation	v_1	v_2	...	v_n
Actual price	a_1	a_2	...	a_n
Ratio	$r_1 = v_1/a_1$	$r_2 = v_2/a_2$	...	$r_n = v_n/a_n$
Percentage error	$p_1 = (a_1 - v_1) /a_1$	$p_2 = (a_2 - v_2) /a_2$	...	$p_n = (a_n - v_n) /a_n$

Note that enclosing an expression between two bars, e.g., $|a_1 - v_1|$, implies that the expression should be treated as a positive number. In mathematical terms it is called 'taking the absolute value' of the expression.

1. COEFFICIENT OF DISPERSION (COD)

Compute the median of the ratios, $\tilde{r}$. Then

$$\text{COD} = 100[|(r_1 - \tilde{r})| + |(r_2 - \tilde{r})| + \dots + |(r_n - \tilde{r})|] / [n\tilde{r}]$$

2. MEDIAN PERCENTAGE ERROR (MPE)

$$\text{MPE} = \text{median of } \{p_1, p_2, \dots, p_n\}$$

3. MEDIAN DIFFERENCE (MD)

For an actual price of $\$a$,

$$\text{MD} = a \times \text{MPE} / 100$$

4. PERCENTAGE OF HIGH VALUATIONS (PHV)

Let n_+ be the number of valuations above the corresponding actual prices and n_- by the number of valuations below the corresponding actual prices, then

$$\text{PHV} = 100n_+ / (n_- + n_+)$$

Note that $n_- + n_+$ is equal to the total number of properties minus the number of properties in which the valuation is equal to the actual price.