

# Valuing Land for Land Tax Purposes in Highly Urbanized Cities

Vince MANGIONI, Australia

Kauko VIITANEN, Finland

## ABSTRACT

Land is the base on which the property tax is assessed in a number of countries around the world. Its tradition stems from a rural context and was the most common basis for assessing this tax during the industrial revolution where demand for land was at its greatest. The transition from a rural to urban use highlighted the importance of land value to be determined and taxed on highest and best use. This paper examines the relevance of land as the base of the property tax in the 21<sup>st</sup> Century and the challenges confronting valuers in the valuation of land in highly urbanized locations.

Surveys and interviews are used to examine the valuation practices of valuers in highly urbanized locations where vacant land transactions are rare. The challenges of valuing land for taxation purposes and the criteria valuers use to determine the highest and best use of land are examined. The paper concludes that while issues exist in the determination of any basis of value, the practices valuers use are most important in the determination of a consistent basis of value on which to assess this tax.

**Keywords:** Land Value, Highest & Best Use, Property Taxation

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## INTRODUCTION

The property tax operates on different bases of value internationally of which the two broad bases are area and value. Typically, area-based taxation applies in countries where property markets are evolving or information systems are not well-developed to support a value based system (RICS 2007). Under an area based system, 'a charge is levied per square meter of land area, per square meter of building or sometimes a combination of the two (Bird and Slack 2004). In contrast to area, value based property taxes are divided into three broad categories. The first is capital improved value (CIV), the second, being income or annual rental value (ARV) and the third being land value (LV) or site value (SV). Value based assessments are those determined from the market place, 'being a price that would be struck between a willing buyer and willing seller in an arms-length transaction' (Ibid:28).

The most recent international survey of the property tax undertaken between 2007 and 2010 as set out in Table 1, lists the bases of the property tax across 122 countries which are summarized by region. The most common base on which land tax is assessed is capital improved value, followed by Area and Annual rental value, while in contrast, land value is ranked fourth being one of the least commonly used basis of value. Despite this fact, few of the countries that use CIV have transitioned from other bases of value, with CIV being the original base of the property tax in those countries (McCluskey *et al*, 2010). On this point, it is argued that while land value is one of the less used bases of value, its minority does not result from countries moving away from land to an alternate basis of value.

**Table 1: Recurrent property tax bases by international region**

| Region    | No of countries | Land Value (LV) | Capital Improved Value (CIV) | Land & Improvts separately | Improvts only | Annual rental value (ARV) | Area | Flat Rate |
|-----------|-----------------|-----------------|------------------------------|----------------------------|---------------|---------------------------|------|-----------|
| Africa    | 25              | 1               | 8                            | 3                          | 4             | 7                         | 11   | 6         |
| Caribbean | 13              | 4               | 4                            | 2                          | 0             | 8                         | 5    | 0         |
| Asia      | 25              | 2               | 6                            | 2                          | 0             | 11                        | 12   | 0         |

Valuing Land for Land Tax Purposes in Highly Urbanized Cities,  
(6870)

Kauko Viitanen (Finland) and Vince Mangioni (Australia)

2/23

|                  |            |           |           |          |          |           |           |          |
|------------------|------------|-----------|-----------|----------|----------|-----------|-----------|----------|
| Oceania          | 7          | 6         | 2         | 0        | 0        | 4         | 0         | 0        |
| West Europe      | 13         | 0         | 9         | 0        | 0        | 6         | 0         | 0        |
| East Europe      | 20         | 1         | 6         | 0        | 0        | 0         | 15        | 0        |
| Cent/Sth America | 16         | 2         | 14        | 1        | 0        | 1         | 1         | 0        |
| Nth America      | 3          | 0         | 3         | 0        | 0        | 0         | 0         | 0        |
| <b>Totals</b>    | <b>122</b> | <b>16</b> | <b>52</b> | <b>8</b> | <b>4</b> | <b>37</b> | <b>44</b> | <b>6</b> |

Source: McCluskey, Bell & Lim 2010:125

From the initial view of Table 1, it may be logical to suggest that the progressive move for countries that still tax land would be a move to either CIV or ARV, being the two most commonly used bases of value internationally. The following more detailed analysis of each of these bases of value shows the diversity and in some cases disparities that exist in their application across different international jurisdictions. This is followed by a review of the specific challenges that confront jurisdictions using land value to levy the property tax on land, which leads into the research used to examine valuers and their practices in determining land value in highly urbanized cities.

## BASES OF VALUE AND VALUATION METHODS

The origins of the definition of value, which has guided its determination for all purposes in Australia over the past century, remains the guide for determining the valuation of land for land tax purposes. Both nationally and internationally, likeness of the definition has provided a veneer of perceived consistency in its determination. Often interchanged with the term market value, value has been described by the High Court of Australia as reflecting highest and best use in which the reference is made to the most advantageous purpose the land was adapted.

*Spencer v. The Commonwealth of Australia* (1907) 5 C.L.R. 418 at 432 and 441. In my judgment the test of value of land is to be determined not by inquiring what price a man desiring to sell could actually have obtained for it on a given day, i.e., whether there was, in fact, on that day a willing buyer, but not enquiring: What would a man desiring to buy the land have to pay for it on that day to a vendor willing to sell it for a fair price but not desirous to sell? (Rost and Collins 1993:36)

Similar to other definitions of value, the prevailing definition of market value evolved through a series of definitions which were acceptable in the various courts of the land

(Albritton 1982:7). While the courts have provided guidance as to the broad framework of value, the word value itself is open to interpretation. A further level of complexity is added to the interpretation and understanding of value by virtue of its everyday use. The generic use and meaning of value has presented a number of challenges to its operational application in assessing the value of property. Its broad use as a word, in contrast to its use, particularly in the valuation of land tax purposes has resulted in disparity between common speak and its application in the manufacture of value.

‘Imprecision of language, particularly in an international community, can and does lead to misrepresentations and misunderstandings. This is particularly a problem when words commonly used in a language also have specific meaning within a given discipline. That is the case with the terms price, cost, market and value as they are used in the valuation discipline.’ (Australian Property Institute, *Professional Practice* (2004). 39)

Cited as ‘a word of many meanings’ and a ‘slippery concept’ (Whipple 2006:81) its application as a catchall word used to describe what is interpreted to be the same thing to each individual and in every circumstance, is highly questionable. In the case of its use in the valuation of property it is asserted that elaboration of the purpose and circumstance for which value is sought, is of importance. This is founded on the basis that more than one value may exist for the same property and that the overarching principles which govern the purpose for which it is determined is of high importance (Gunther 1995:3.3). When considering the valuation task and its components, distinction is drawn between ‘positive’ and ‘normative’ definitions of value, which valuers and the courts have failed to distinguish between (Ibid).

In distinguishing these terms further, from a positivist perspective value is an outcome, while from a normative perspective value is the prescriptive process of attaining that outcome. In applying these concepts to rating and taxing purposes, in which equity is cited under the Problem Element, the Solution Element calls for a ‘normative definition of value as prescribed,’ as the most appropriate of these two. The following parts of this section highlight the differences within and across the various labels or bases of value used to assess the taxation of land. It demonstrates that variations exist in both its determination and application, of which the highest and best use component of value differs across the bases of value.

## Capital Improved Value (CIV)

CIV may constitute a combined value for a single assessment, or may comprise separate rates for each element of property, i.e. land and buildings, which allows a differential or split rate to be applied (McCluskey *et al* 2010:121). CIV is stated to get around a number of practical and conceptual problems that impact on alternate bases of value including rental value and land value systems (Bahl, 2009:7). Despite the suggestion that CIV gets around a number of practical problems, its use in some jurisdictions differs from the value used for other purposes and that while the word value is used it does not always bare relevance to market value.

In parts of the US, improved value is based on the initial purchase price of property, with a cap on the increase of the value and rate revenue raised from the property. In California where improved value is used, Proposition 13 was introduced in the 1970s to cap increases in the property tax at two per cent per annum, in which the initial purchase price of property is indexed annually, similar provision were introduced in Massachusetts in 1982 (Gaffney, 1995). In England, residential property is taxed on CIV, in which property is banded into groupings based on its improved value. Different tax rates apply to the value range of the property. The value range on which individual properties were initially determined to be within, were established in 1993, with no subsequent revaluation undertaken since that date, in which the basis of the tax no longer bears relevance to market value (Plimmer 1998).

In Germany where property is taxed on CIV, the values used for the property tax were determined in 1964 in the former Federal Western States and in 1935 in the former East Germany however this is now under review (Maximilian 2012). In France, where CIV is also the base of the property tax, the values used to assess the tax are circa 1970. Like Germany, France also uses historic values to assess the property tax in which the increase in tax revenue is determined by adjustment to the rate applied to the ‘map, also known as the cadastre value,’ (pers. comm. Bloechliger 2012). In these countries, the values are so dated, they resemble little relevance to market value and do not account for changes in the relativity of property values over time.

In other cases, market value and highest and best use is the base on which CIV is determined. Sweden uses CIV to assess the property tax in which property values are reassessed every three years. Sweden adopts a ‘Physically Defined Standard State’, (PDSS) for land and buildings by location, in which improvements are defined to a specific standard state by

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Valuing Land for Land Tax Purposes in Highly Urbanized Cities,  
(6870)

5/23

Kauko Viitanen (Finland) and Vince Mangioni (Australia)

location across the country. In accounting for any differences in the standard of properties within each location, a typical value is selected for similar type properties which best represents the majority of property in that location on which the value for taxing purposes is determined (pers. comm. Lind, 2010).

In Canada CIV represents market value, (Bird and Slack 2004:70) and a robust and definitive basis of value has evolved and is continuing to evolve as Canada leads the way in the assessment of value under CIV. While property tax reforms in Ontario are ongoing, it has been successful in implementing a uniform assessment system (Bird, Slack and Tassonyi, 2012:224), however it is not clear whether a Physically Standard Defined State is used to establish the highest and best use of CIV in Canada.

New Zealand has a well developed rating system in which local government has the option of adopting one of three bases of value for the rating of property, (McCluskey *et al* 2006:381). Four of the main cities of New Zealand (Auckland, Wellington, Christchurch and Hamilton) all utilize a capital or annual value rating system, (Ibid:389). New Zealand undertakes annual re-valuations of property and has a well developed valuation system in which value is determined in line with market value.

### **Annual Rental Value (ARV)**

Annual Rental Value (ARV) is derived from the annual income of improved property and is generally determined on the net annual rental after outgoings are deducted from the gross rent (McCluskey, Owiti and Olima 2005:11), however, Gross Rental Value may be used (McCluskey Bell and Lim, 2010) in some jurisdictions. Its two advantages are stated to be its broad application possibility (land and buildings), and its ease of assessment (McCluskey *et al*, 2005:11).

Similar to CIV, ARV is influenced by the condition, age and functionality of the improvements on the land, and may impact on the efficiency of the tax where improvements are not maximally productive. The core factor of location may be impacted on by improvements, particularly where they are not assessed on highest and best use or maximally productive. Whipple (1986) differentiating between capital bases of value including improved and land value compared with assessed ARV, is that capital value and the analysis of capital value transactions will capture both the investor and owner-occupier market. This is

in contrast to ARV assessments, which are derived from the investment segment of the market only.

The rental approach may present its own valuation problems in cases of properties that are not in the rental marketplace, such as owner-occupied property (Bahl 2009:6). The valuation problem also extends to the valuation of vacant land, where a rental is not determinable due to the absence of improvements on the land (Ibid:6). In cases where market rents are few or non-existent, reference to average rents are used which approximate the rental (Ibid:7).

The above opens the debate as to whether the tax is assessed on the actual rental from the property and where that differs from rent based on highest and best use i.e. market rent, which should be used to assess the tax. Where a property is vacant, a hypothetical landlord and tenant is assumed to be in occupation (Sanderson 2012).

### **Land Value LV / Site Value SV**

Land and site value is used across the six states of Australia and is broadly defined in Valuation of Land statutes as excluding improvements on land. Differences surround the measurement in practice of land value and in particular its determination on highest and best use in some states. In the early twentieth century, the use of land value as the basis of taxing property was determined on the sufficiency of undeveloped (unimproved or vacant) land transactions as the basis for assessing value (McCluskey, *et al* 2010:122). This approach was underpinned by the fact that vacant land transactions reflected the potential highest and best use of land. However, with the development of highly urbanized locations where vacant land sales have become the exception, valuers can no longer rely on vacant land sales as a measure of land values (NSW Ombudsman 2005).

The evolution of land taxation in Sydney (Australia) provides an insight into the challenges confronting all cities when imposing a land tax in increasingly urbanized locations. These challenges have resulted in an additional layer of complexity which requires accounting for the added value of improvements in the valuation of land (NSW Ombudsman 2005:7). With this has come a lack of ‘transparency’ and ‘simplicity’ and increasing pressure for the adoption of alternate bases of value for the assessment of recurrent property taxation. The lack of land transactions on these two principles of ‘good tax design’ are the suggested

rationale for the move to CIV in other international jurisdictions (Franzsen, 37 and 41, in Dye and England eds. 2009).

The lack of consistency in accounting for the added value of improvements and the inability for valuers to articulate how land value has been determined from improved value has raised a number of questions. The primary question being is whether land remains the most suitable base on which to assess the property tax in highly urbanized locations (Mangioni 2011). One consequence of the lack of sufficient vacant land transactions in a particular location has resulted in the practice of valuers being forced to use land transactions from adjoining locations (Bahl 2009:9). Another practice has been for land value to be determined by deducting the added value of improvements from improved property sales (NSW Ombudsman 2005).

This emerging valuation process and in particular, the determination of the added value of improvements, has raised questions about its potential to compromise the economic efficiency, simplicity and transparency of land tax (Arnott & Petrova 2002:3). It is suggested that such practices compromises the use of land value where an over allocation of value may be assigned to the improvements and results in a distorted lower value of the land. The challenges confronting valuers in valuing land in highly urbanized locations is apparent in this section, however, what is not known, is which specific elements of the valuation process do valuers find most challenging and where do they differ in practice in undertaking valuations of land in highly urbanized locations.

### **Valuation Methods**

The primary methods of valuation used in the valuation of property for taxation purposes are direct comparison, cost approach and income methods (Australian Property Institute 2007). Direct comparison is the most fundamental method of valuation in which one land parcel (the sale land) is able to be directly compared with another (the land being valued). Direct comparison is the foundation of all other valuation methods. ‘The principle of comparison underpins all valuation methods but it is also a valuation method in its own right.’ (Wyatt 2007:111). In the case of income or replacement cost methods, the variables adopted in their application are extracted from the transactions of other property (Rost and Collin 1993:86).



The direct comparison method is supported over other methods due to its simplicity in which it is asserted that ‘actual sales are a far more reliable index of market value than are any available forms of evidence, such as estimates based on a capitalization of prospective earnings.’ (Bonbright 1938:136). In the absence of vacant land sales more complex methods of valuation are needed to either separate the improvements from land, or to first calculate the improved value, after which the added value of the improvements are separated from the sale price to determine the land value. The extent of the use of this method of valuation hinges on comparability between the subject and comparable property having as few points of difference or need for adjustment (Rost and Collins 1996).

The income method of valuation is used to assess the improved value of property based on its income or income earning potential in cases where the property is vacant or owner occupied. This method may also be the initial step in determining improved value, from which the improvements are deducted to determine the land value. Alternatively, it is used as a primary method of assessing the value of improved property in locations where the property taxed is determined on the rental income or assessed annual value derived from the property.

The analysis of property transactions using the capitalization method will depend on which outgoings are deducted from the gross rent and which allowances such as leasing up and vacancy are adopted in determining the net rent (Bardouil and Malaquin cited in Adair 1996). Apparent in the valuation process both nationally and internationally, is the inconsistency in which valuers apply the capitalization method of valuation. It is stated, “There is no standard practice and it is for valuers to use and justify their approach with each valuation” (Ibid 115).

The summation method, also referred to as the residual or abstraction method is cited as being the most common method used to value land in urbanized location in the absence of vacant land sales (Bell, Bowman, and German cited in Dye and England Eds. 2009). This approach is best used in determining differences in land values across locations where improvements are relatively homogeneous. In addition to being used as a land residual technique, it may also be used as a building residual technique (Australian Property Institute 2007:474-5).

The use of this method and its interchange between land and buildings as the residual component and is an internationally recognized method of valuation (Hudson 2001). In the

case of rating and taxing valuations, these techniques may be used to assess the added value of improvements, also known as a paired sales analysis (Dept of Land NSW 2009:11). In addition to the use of this method in Australia and the US, it is specifically recognized for rating and taxing valuations of land in countries which still retain land or part land as the basis of a recurrent property tax and are specifically used where vacant land sales are scarce (Falk-Rasmussen and Muller 2010).

The cost method is an important option recognized in rating and taxing valuation purposes internationally (French and Gabrielli 2007). In addition to its use in NSW, this method, also referred to as the contractors' method, is recognized in international valuation practice (Falk-Rasmussen and Muller 2010). This method best applies to cases where the improvements on land are either new, or near new and reflect highest and best use in which there is no or nominal account for depreciation. Where new, or near new improvements have transacted, the analysis of these transactions may be considered by partitioning the value of their component parts. This is referred to a 'land share of value', or 'contribution value' (Dye and England 2009).

In using the cost method of valuation two crucial questions are asked of the valuer in the sales analysis process. These are 1) Are existing improvements the highest and best use of the land and do they add value to land, 2) If they do add value, what the added value of these improvements.

Computer assisted mass appraisal (CAMA) often referred to as a method of valuation, is a tool used within the valuation process. Its mention is warranted in placing it within the context of this research and highlighting its limitations in the valuation of land in highly urbanized locations. The potential for poorly or incorrectly analyzed sales has the potential to contaminate the valuation of land across locations, with particular reference to partitioning land value from the added value of improvements in the analysis of improved sales.

The MVP statistic measures the accuracy of values relative to sale price. However, it uses the adjusted analysed land value as an input into its calculation. Would it be fair to say that a non-conforming MVP could be as much a statement about the inaccuracy of the adjustment made to the analysed land value as to the accuracy of the assigned value of the property?

In which the answer provided was; Well, I think the short answer is yes.

(NSW Ombudsman 2005:66)

It is asserted however, that where the sales analysis process can provide a simple and transparent method of partitioning land from improvements, the potential for the use of CAMA is significant. What ultimately plagues CAMA is the contrasting process of valuations produced using mass appraisal with the objection and appeal process conducted on a property-by-property basis. This has been clearly identified in a number of jurisdictions in which the difference between mass valuation production and appeals on a single property value basis has presented challenges for the management of mass valuation systems and results (Tomson 2005:48).

A further limitation of the CAMA relates to the definition of value and how responses to values produced by CAMA are dealt with in the objection and appeals process. At the time land value taxation was introduced in Estonia in 1993, a high level of resistance to the tax has been observed with 10 per cent of taxpayers against paying this tax (Ibid). The impact of producing values using CAMA has resulted in high levels of objection, which resulted in no further updates in values since the last valuation in 2001. Increases in revenue from land tax in Estonia have been carried out by moving the rate in the dollar applied to the land values determined in 2001.

The inability for the taxpayer to see how their land value was determined and the inability of the taxing and valuing authority to show how land value was determined on a property by property basis, adversely impacted on the use of CAMA in Estonia (Tomson 2010 pers comm.)

In Pennsylvania where CAMA was used to manufacture values for the property tax, it was found that the mass appraisal system itself was not a problem. The problem was the perceived method in which the land value component was derived by its subtraction from the improved value, which ultimately resulted from the split in analysis between land and improvements (Hughes 2006). The CAMA simply replicated the result based on the information and inputs into the computer. The CAMA system used by the valuation assessors was unable to provide the requisite detail of accountability to both the taxpayer and commissioning authority to satisfy the principles of simplicity and transparency.

## RESEARCH METHOD AND RESULTS

This section sets out the research methods used to examine the valuation process and factors that influence the practices of valuers used to value land. This is followed by a summary of the results which contribute to explaining the rationale of valuers and where they differ in their valuation approach. This study was part of a larger study into the valuation of land used to assess land tax in Australia. The research comprised simulations, surveys followed by a short debriefing of the survey participants and finally, focus groups were used to determine how changes should be carried out in practice and law to the valuation process. This component of the study is of the survey results and discussions with the survey participants.

In testing the valuation practices of valuers when valuing land for taxation purposes in the absence of vacant land sales, two simulated hypothetical plans comprising retail shops and a second comprising residential houses in a street with sales of developed (improved) retail shops and residential houses were developed. There were no vacant land sales within either of these simulations and the task of the valuer was to determine the best approach and practices in undertaking the valuation of land by reference to improved sales only.

In measuring the responses of valuers who undertook this exercise, a survey was used which comprises six statements and two questions. The survey was conducted in Sydney Australia during 2010 – 11 in which the valuers were given the legal definition of land value under the valuation law in Australia. The valuers were provided basic information on how to complete the survey but no guidance on the survey content or the valuation process was provided in the initial survey. At the end of the survey a short interview with the valuers was conducted to qualify any comments or suggestions they had.

In measuring the survey responses, a Likert Scale ranging from 1 to 7 was used to gauge the responses of the valuers of the six statements, with 1 Strongly Agree, 4 Neutral and 7 Strongly Disagree. The survey was designed to gather information on a number of processes that valuers consider relevant, irrelevant, correct or incorrect when addressing the key research problem of separating land and improvements in when valuing land for tax purposes.

The first question of the survey was designed to determine how valuers rank the attributes of improved property in determining factors contributing to the productivity of improvements

and their contribution to the highest and best use of land. The second questions asked valuers to nominate the frequency, i.e. annually, bi-annually etc in which revaluations should be undertaken. The survey result summary is included as an annexure to this paper. In undertaking this survey, Table 2, sets out the survey response and completion rate.

**Table 2: Survey response rate**

| <b>Response Type</b>               | <b>Retail</b> |
|------------------------------------|---------------|
| Gross survey sample                | 40            |
| Total returned surveys             | 28            |
| Non-returned                       | 12            |
| Returned & incomplete (excluded)   | 3             |
| Returned & completed               | 25            |
| Response rate completed & returned | 62.5%         |

In analyzing the responses of the 25 valuers who completed and returned the surveys, each statement / question follows with a discussion on these responses as provided by the valuers following completion of the survey. A numerical summary of survey responses and their weighting is provided in the annexure.

***Statement 1:***

*A relativity ratio of (land to improved value ratio LUVR) deduced from property transactions would assist in improving the consistency and accuracy of values determined from improved sales where several different valuers are undertaking this work.*

This statement ranked sixth, scoring the lowest response with a median score of 3.08. Ratios are not used in traditional valuations, valuers were generally wary of this form of valuation approach. It was noted during discussions with valuers that the use of this method to check or verify the land values deduced from improved sales across broader areas. It was concluded that ratios are not a method of valuation, particularly where individual values are being assigned to land, but the use of this method should be to check the valuation only.

It was highlighted by two valuers that if the age and size of improvements were known, particularly in cases of property that had sold with near new improvements, then this ratio could be used more extensively as the need to account for depreciation was minimal.

***Statement 2:***

*In cases where vacant land sales have not transacted, a predetermined depreciation schedule from the analysis of improved property would improve consistency of land values deduced*

*from improved sales where several valuers are undertaking rating and taxing valuations across different locations:*

This statement ranked fourth lowest with a mean weighting of 2.52. Depreciation schedules derived from paired sales analysis in which the residual value of improvements could be isolated were considered by some valuers as a means of measuring the added value of improvements. It was added by valuers that the construct of these schedules would require some form of consistency or use of a standard model.

It followed that valuers agreed that a systematic approach is needed for determining the added value of improvements by deducting vacant land from improved sales to assess the added value of improvements. Valuers were generally reluctant to accept this method unless there were no more suitable sales on which to directly assess the value of land.

Concern was raised by some valuers about the potential for making the valuation process too mechanical and hence removing judgment from the process. It was generally agreed however that in the case of achieving greater consistency, some level of process in accounting for depreciation of improvements would improve consistency and also transparency of the process.

***Statement 3:***

*The availability of information relating to the improvements on land is important in the deduction of land values when analyzing improved sales in highly urbanized locations where vacant land sales have not transacted.*

This statement ranked as the most agreed upon statement with a mean ranking of 1.44. In dealing with the added value of improvements, valuers nominated information relating to improvements as most important in deducing land values in highly urbanized built-up environments. As improvements on land comprise a significant proportion of the value of property, it was strongly supported from the survey results that a minimum base level of information should be available and was needed in the analysis of improved sales in determining the added value of improvements for property tax valuations.

Information is an important part of the market analysis phase of determining the underlying value of land. Given that some level of adjustment for improvements needs to be made in the analysis of property sales, information relating to improvements on land is of high

importance. The three key pieces of information identified by valuers in under the survey questions of highest and best use as most important are the size, gross building area and age of construction, which would also include the date the last structural refurbishment of the building was undertaken. This point is addressed again under the Question 1.

***Statement 4:***

*Standardizing the sales analysis process for rating and taxing purposes would produce a more consistent basis of value on which rates and land taxes could be levied.*

Statement 4 with Statement 5, were equally the second most agreed upon statements with a mean weighting of 2.24. Once valuers understand the importance of consistency, equity and transparency in the sales analysis and valuation process, the need for standardizing the sales analysis process emerged from the survey results.

In distinguishing between valuation process and the degree of judgment used when analyzing sales, valuers commented on the concern that once process replaced judgment, valuation became a mathematical process, which could lead to the compounding of error. As pointed out by three valuers in the post survey discussions, value was a fact to be determined and it is not possible to predict whether standardizing the sale analysis process would result in an incorrect value. It was highlighted that no one method of valuation should be adopted at the expense or omission of another check or alternate methods. To this end, the foundation was set that differences of opinions emerged among valuers as to the method of assessment and in particular the deduction of value in highly urbanized locations.

Unresolved among valuers was whether vacant land sales should be imported from other locations and adjusted or, whether the alternative of adjusting improved sales within the same location was the preferred option. As highlighted by the High Court of Australia,<sup>1</sup> neither approach should be ignored at the expense of the other. Instead market analysis of property transactions is needed using multiple approaches, particularly in highly urbanized locations where improvements are to be accounted for. In addressing this statement there was consensus that whatever the process entails, consistency of approach is important.

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<sup>1</sup> *Maurici v Chief Commissioner of State Revenue* (2003) (High Court of Australia [2003] HCA 8).

***Statement 5:***

*Construction cost guides are a reliable starting point for the assessment of the added value of improvements where no vacant land sales exist to undertake a paired sales analysis.*

The use of construction cost guides also emerged as of equal importance in second place with Statement 4 with a mean weighting of 2.24. Discussions after completing the simulation and survey indicated that a level of wariness extended to the use of construction cost guides due to the potential differences between cost and value. In the case of analyzing property with new or near new improvements, it was broadly indicated by valuers that cost was a good proxy for value and that the added value of improvements was not precisely the cost new but would generally be close to their added value.

In the case of the added value of improvements of older structures, construction cost guides were considered less relevant or irrelevant as the ability to determine depreciation could not be established using cost. In contrast, it was generally agreed by most valuers that where improvements were over 10 years from either the date of construction or structural refurbishment, construction cost guides were of little or no relevance.

***Question 1:***

*Rank the following factors in assessing the added value of improvements on land? (Rank your answers from 1 being the most important factor, to 5 being the least important factor).*



**Table 3: Summary of survey responses to Question 1**

| <b>Factor</b>                                 | <b>Ranking</b>         | <b>Score</b> |
|---|------------------------|--------------|
| Age of improvements                           | 2                      | 66           |
| Permissibility of improvements                | 3                      | 76           |
| Demand for the improvements                   | 1                      | 64           |
| Design & aesthetics of improvements           | 5                      | 85           |
| Actual size to permitted size of improvements | 4                      | 81           |
| Other, please state                           | See following comments | N/a          |

The responses to Question 1 demonstrate that the demand for improvements was the factor which best determined the highest and best use of land, however the second most important factor was the age of improvements which scored a very close to demand and may be considered as equally as important. Valuers generally agreed that while new improvements could sometimes be an overcapitalization of the land, this would be in exceptional circumstances and this would usually be determined by an inspection of the improvements. The age of the improvements, including the date from last structural refurbishment, provided valuers with some opportunity to assess the extent of depreciation.

The legal permissibility of the improvements ranked third in terms of importance as improvements that were not permissible would likely have limited value if that element resulting from non-permissibility could not be rectified. This factor was also construed by valuers to include aspects of structural adequacy and safety aspects of use.

Size of improvements ranked fourth in determining if the scale of improvements are maximally productive. However, it was also pointed out that property may be purpose built for an owner occupier to suit their own business needs. Valuers further pointed out that in the simulations the size of the buildings was provided which was important information not often obtainable when determining the added value of improvements.

Ranked in fifth position was design of improvements. This factor was largely seen as more difficult to determine by valuers, with factors such as age and size of improvements being more tangible and indicative of the added value of improvements. Design was stated by one valuer to be more relevant to residential property than retail or business use property.

### ***Question 2:***

The question ‘*How frequently should land values be reassessed for rating and taxing purposes?*’

This question provided valuers with some guidance and the options of selecting one, two, three years or another alternate period of choice. The median response resulted in a 2.3 year interval between valuation cycles, which has been rounded down to two years as the most preferred time between assessments.

Valuers clearly felt annual valuations were excessive and in some cases counterproductive. In using the case of NSW valuations are undertaken annually, this is in contrast to the state of Victoria where the valuations are undertaken bi-annually or Queensland every three years. As sales would occur up to six or more months either side of the date of valuation, the need to differentiate the market from one year to the next was viewed to be difficult. The need to analyze data requires time and in the case of many of the sales that valuers relied upon as potential redevelopment sites, the improvements remained on the land for months, years and indefinitely in some cases after they had sold.

### **CONCLUSION**

This paper has reviewed the various bases of value on which the property tax is assessed internationally and demonstrated that limitations and challenges exist in determining the value of each base. This extends to the valuation process in which it was further shown that these challenges are impacted by the valuation process, of which the direct comparison method of valuation underpins all methods. It was demonstrated that the direct comparison method of valuation is not the primary method of valuation in determining land value in highly urbanized cities, primarily due to the absence of vacant land sales.

It was shown in the results of the survey that valuers agree on a number practices used and protocols needed in the valuation process. These include the importance of information on improvements, the use of construction cost guides and standardizing the sale analysis process to achieve consistency in the valuation process. However among the practices valuers viewed as unreliable is the use of land to improved value ratios.

It was further determined that valuers have ranked the attributes of improvements which contribute to the highest and best use of land and best support the process of partitioning the

added value of improvements to determine the underlying value of land. The underlying demand for the use of land as represented by improvements to their age were shown to be the most important factors in determining their added value to land. It is further shown that a level of consensus emerges among valuers in accounting for the added value of improvements when valuing land once the overriding importance of consistency is made a priority.

This brings to the fore, the importance that all bases of value should be determined on the same footing and more specifically on highest and best use. In the first instance, it has been observed that the success of taxing land on its highest and best use depends largely on the valuation practices used in the valuation process.

If land value is to remain the basis of the property taxation in Australia, it will be necessary to ensure that valuers firstly define the lands highest and best use improved before accounting for the added value of improvements in a simple and transparent manner. A framework for determining the highest and best use of land therefore has the potential to facilitate the application and harmonization of land tax within and across jurisdictions in Australia where different definitions of value across the states.

The primary rationale argued for using land value over other bases of value in assessing the property tax, is that improvements are accounted for in the sales analysis process in highly urbanized locations. This is in contrast to including improvements in the tax base and hence attempting to communicate to the taxpayer that where their actual improved value is not highest and best use, they are not being taxed on what is on their land, but what should be on their land.

The final conclusion that may be drawn subject to further research is that a consistent process of selecting, analyzing and determining value (aka the valuation process) should result in a more consistent determination of value across a population of valuers, of which the valuation process can be clearly communicated to the taxpayer.

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## CONTACTS

### **Dr Vince Mangioni**

University of Technology, Sydney Australia  
 PO Box 123  
 Broadway, NSW 2007  
 AUSTRALIA  
 Tel. +61 2 9514-8900  
 Email: [vincent.mangioni@uts.edu.au](mailto:vincent.mangioni@uts.edu.au)

### **Prof. Kauko Viitanen**

Aalto University, Real Estate Research Group

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