Life-Cycle Maintenance Cost Implications of Heritage Properties: Valuation Challenges and Opportunities for Further Research

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Key words: Heritage Property, Valuation, Life-Cycle Cost

SUMMARY

The valuation of land and buildings or real estate has come a long way in terms of advancements in the development of valuation techniques. The roadmap to the existing practices and techniques in the profession has however been hampered by a multiplicity of challenges. For example, the lack of transaction information which characterises real estate markets makes value estimation all the more critical. These challenges are perhaps more pronounced in the valuation of heritage properties than in other real estate assets. The valuation of heritage properties requires careful consideration of a multiplicity of factors that can take into account the importance of these properties, such as long term maintenance needs and the various restrictions on alterations. The costs of restoration and maintenance are not only long-term in nature, but can also be astronomical and these costs will obviously affect the value of the properties. Moreover, it is quite common for heritage real estate to be used commercially, thereby raising the need for a cash flow based type of value assessment over and above the intrinsic 'heritage value'. In view of these complexities, this paper focuses on the valuation of heritage properties, with particular reference to their long-term life-cycle maintenance costs and their implications for the valuation of these properties. This is achieved by scanning through the existing techniques in the valuation of heritage properties so as to highlight their shortcomings and suggest areas for improvement.

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1. INTRODUCTION

This paper focuses on the valuation of heritage properties, with particular reference to their long-term life-cycle maintenance costs and their implications for the valuation of these properties. The rationale is both a historical and contemporary issue. The valuation of land and buildings or real estate has come a long way in terms of advancements in the development of valuation techniques. The development of the existing practices and techniques in the profession has however been hampered by a multiplicity of challenges, such as the lack of transaction information which characterises real estate markets and makes value estimation a challenging task. These challenges are perhaps more pronounced in the valuation of heritage properties than in other real estate assets where careful consideration of a multiplicity of factors is more pronounced. For example, the costs of restoration and maintenance are not only long-term in nature, but can also be astronomical and these costs will obviously affect the value of the properties. Moreover, it is quite common for heritage real estate nowadays to be used as commercial entities, thereby raising the need for a cash flow based type of value assessment in addition to recognition of the intrinsic 'heritage value'.

Having researched the area of valuation methods for heritage buildings, it became apparent that very little research has been done in this field. In particular, there does not appear to be any valuation method or technique capable of adequately taking into account the long term maintenance costs of, say, 200 years and above. This paper aims to set the stage for bridging this gap by reviewing the existing techniques in the valuation of heritage properties so as to highlight their shortcomings and suggest areas for improvement. The starting point is to provide a clear understanding of the concept of value.

2. NATURE AND PLACE OF HERITAGE PROPERTIES IN NATIONAL ECONOMIES

Heritage property is the broader assets falling under the umbrella term of cultural heritage. In its broader meaning, the word 'heritage' is generally associated with the word 'inheritance' which connotes something transferred from one generation to another (Nuryanti, 1996). Perhaps the most comprehensive definition of cultural heritage is that provided by Bedate, Herrero and Sanz (2003), quoting Harvey (1997), who defines the concept as the entire set of goods, real property, and many other assets, tangible and intangible, which have great historic, artistic, scientific and cultural value, and which therefore are worthy of preservation. The meaning of the term heritage with regard to real estate assets has been used in relation to the preservation of monuments and historic buildings for a long time (Nuryanti, 1996).

These cultural and heritage goods provide certain benefits and externalities to the areas within which they are located. They do not only create economic benefits but may also be used as catalysts for transforming certain areas, thereby making them part of local and regional economic development strategies (Dziembowska & Funak, 2000). It has also been argued that due to a number of factors, such as the increased cultural and heritage awareness, increased amount of free time in contemporary economies and improvements in transportation and communication, there has been a corresponding increase in the consumption of cultural goods (Dziembowska & Funak, 2000). However, Dziembowska and Funak, (2000) further contend that the real reason for the strong increase in demand for cultural products over the recent past can be attributed to what they term as leisure culture, which describes the patterns of participation in a large variety of leisure activities. Because of its role as a carrier of historical values from the past, heritage is also viewed as part of the cultural tradition of a society (Nuryanti, 1996).

Another way of conceptualizing the benefits of cultural and heritage assets is by reference to the concept of heritage tourism. As an economic activity, heritage tourism is said to be predicated on the use of inherited environmental and socio-cultural assets in order to attract visitors (Fayall & Garrod, 1998).

This recognition of heritage buildings usually occurs because of their special significance or architectural qualities deemed worthy of preservation (Herbert, 1989). However, there is also usually a personal touch to the value to heritage assets. For example, in their study, Poria, Butler and Airey (2003) argued that the perception of a place as part of personal heritage is associated with the visitation patterns and that those who view a place as bound up with their own heritage are likely to behave significantly differently from others.

Gaddy and Hart (2003) suggest that property value depends on four main factors: physical forces; economic forces; political and government forces; and social factors. Understanding of the above is important in the valuation of land and building as an asset and the common agenda of sustainable development are driving these forces. Also environmental forces impact on properties value due to potential climate change giving rise to adverse weather conditions.

The implications of the above individualistic as well as pluralistic benefits of cultural and

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heritage goods give rise to the need to ensure that appropriate protocols and methods for valuing such assets are devised. Although arguably much effort has been made in this regard over the years, there remains a number of challenges in the theory and practice of valuation of heritage goods. These challenges are perhaps more pronounced in the valuation of heritage real estate assets than in the alternative heritage goods.

3. CHALLENGES POSED BY HERITAGE PROPERTIES IN THE VALUATION PROCESSES

Economic analysis of cultural and heritage goods suggests that many historic and cultural assets have no market value upon which they may be exchanged Bedate, et al. (2003). The direct implication of a lack of exchange value is that these heritage assets also lack price. Indeed, the value of the assets is not necessarily economic value but may be social and cultural value in nature. Thus, the valuation of heritage properties requires careful consideration of a multiplicity of factors that can take into account the importance of these properties, such as long term maintenance needs and the various restrictions on alterations. The costs of restoration and maintenance are not only long-term in nature, but can also be astronomical and these costs will obviously affect the value of the properties. Moreover, it is quite common for heritage real estate to be used commercially, thereby raising the need for a cash flow based type of value assessment over and above the intrinsic 'heritage value'. This poses great difficulties in the valuation of heritage assets in general and heritage real estate assets in particular. This is further compounded by a general lack of information for valuing the assets.

There is also the issue of costs associated with heritage buildings, as it is usually substantial due to the need for specialist surveyors and architects, skilled labour and special materials (Benhamou, 1996). Restoration and maintenance needs to be planned for well in advance and years beforehand. Often the inability to pay for restoration and maintenance to preserve a historic building over its life time results in it becoming unoccupied or even derelict. The traditional methods of valuing heritage buildings do not take into account the life-time maintenance costs and stakeholders would benefit from a new valuation method that includes their life-time maintenance cost issues. There is equally no specific guidance from the Royal Institution of Chartered Surveyors (RICS) with regard to the valuation of historic buildings that incorporates neither their life-time maintenance costs nor a valuation method to adopt (Royal Institution of Chartered Surveyors, 2014).

This traditional approaches works well on modern properties with a 25 year life cycle but these may not be suitable for heritage properties with life cycles in excess of 100 years. The need for a defined approach to valuing heritage assets was covered in 1999 when the Accounting Standards Board (ASB) issued Financial Reporting Standards (FRS) 15 Tangible Fixed Assets (TFA) for uniformity in measurement, valuation, depreciation and disclosure of TFAs. Later in 2006 the ASB described 'heritage assets' as assets with historic, artistic, scientific, technological, geophysical and environmental qualities. However, accountants prepare accounts on an annual basis at a given time in the past or the present and include

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maintenance costs within that accounting period. The current practices do not take into account the high life cycle maintenance associated with heritage buildings and they often rely on a valuation prepared by a chartered surveyor.

Past studies have reflected the impact of heritage listing on values. Hough and Kratz (1983) reported new office buildings in Chicago attracted a higher value and older heritage buildings did not. Moorhouse and Smith (1994) wrote house prices in Boston were affected by architectural styles but houses with similar styles usually sold at a lower price. In Sydney, Penfold (1994) found that house prices in conservation areas rose at a similar rate to house prices in other areas.

The view of Applied Economics (2000) is the main public benefits of a heritage building is the benefit to residents and businesses as well as tourists and visitors, but there isn't a simple way of valuing public benefits and the main methods used are hedonic property valuations, travel cost studies and economic impact analysis.

As Rypkema (1992) notes, preservationists frequently talk about the "value" of historic buildings: social, cultural, aesthetic, urban context, architectural and historical value and a sense of place. But one of the strongest arguments for preservation should be that historic buildings have many layers of "value" to the community, but this is difficult to calculate.

Navrud and Ready (2002) argue that non-market valuation techniques are useful when reviewing the issues involving trade-offs between 'use values' and 'non-use values' and can be applied to cultural heritage objects of local, national and international significance. Non-market valuations contribute to cultural heritage and environmental policy, but what are also needed are valuation studies which solve future building maintenance issues.

In a recent study by the RICS and Kingston University (2009), it was suggested that their study on the valuation of heritage assets had asked more questions than it answered them. It is arguable that heritage assets can be valued to market value using conventional methods or using a cost approach basis and puts forward for debate for possible alternative methodologies for stakeholders and further studies are needed in this area.

In spite of the above challenges, this is not to suggest that cultural and heritage goods do not have value. It is therefore imperative that an attempt is made to find ways and means of estimating the value of the assets. Before narrowing down to an evaluation of the methods of valuing heritage assets that have been tried before, it would be appropriate to provide an overview of the diverse interpretations of the word 'value' so as to better articulate the associated methods of estimating value.

4. UNPACKING THE CONCEPT OF VALUE

Value considerations are of central importance in a broad and diverse range of real estate activities. The term 'value' is often used imprecisely in common language but in economics it

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has a specified meaning which distinguishes it from the related concepts such as price, cost and worth. So to avoid confusion, valuers do not use the word value alone; instead they refer to many types of value, such as market value, use value, investment value, contingent value, etc.

Market value is the price an asset would sell in a competitive market setting. Market Value is usually interchangeable with Open Market Value or Fair Value. The definition of Market Value is the estimated amount for which a property should exchange on the date of valuation between an educated buyer and a reasonable motivated seller in an arms-length transaction after proper marketing wherein the parties had each acted knowledgeable, prudently and without compulsion. The market value is determined from comparable market transactions and requires the valuer to have the knowledge and ability analyse the information available to come to a reasoned decision

Use value is the immediate physical entity in which a definite economic relationship exchange-value is expressed. Value-in-use implies the net present value or NPV of a cash flow that an asset generates for a specific owner within a specific use. It is the value to one particular user and often above or below the market value of a property. This contrasts with investment value, which is the value of an asset to the owner or a prospective owner for individual investment or operational objectives. Sayce, Cooper, Smith and Venmore-Rowland (2006, p.13) says there are five important inputs and they are: the passing rent; the estimated market rental value (at the valuation date); the valuation yield(s); the purchaser's costs; and the length of the void period and costs before vacant accommodation becomes income producing.

Contingent valuation is a survey based economic technique for the valuation of non-market goods for example, environmental preservation or the impact of contamination. When combined with valuations provided through market processes (where relevant), an overall assessment of the economic value of cultural commodities can be established. However Throsby, (2003) argues that the contingent valuation method provides an incomplete view of non-market value of cultural goods and alternative measures need to be developed to produce a full account.

5. REVIEW OF THE EXISTING PRACTICES

The recognised methods of valuation and used by valuers are the comparative method, the investment method, the profits method, the residual method and the contractor's method. However these methods are not necessarily mutually exclusive. For example when valuing a hotel both the comparative and the profits method might be relevant. In the valuation of unusual properties generally, the valuer will have to use their experience, knowledge and judgment to decide which method or combination of methods are appropriate.

The comparative method entails analysing transactions to determine the price or rent achieved and then applying the information to the property to be valued. Whether it is the rental value

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or capital value which is sought will depend on whether the type of property is normally let or sold with vacant possession. This method should only be used when the properties being compared with are of a similar type, in the same area and with good evidence of frequent transactions and in a stable market. In the valuation of heritage buildings, the comparative method is unlikely to be useful as they are all unique and the identification of a similar building in the same area with a recent transaction is extremely unlikely. Having said this, if a heritage building was converted into say a suite of offices it is likely comparisons can then be drawn.

The investment method is used for valuing properties which are normally held as income producing investments. The value of such an investment is the product of the net income and the inverse of the market yield. Investment is the payment of a capital sum in exchange for the benefits to be received in the future. Where a freehold property is let at its full rental value and there is therefore no known reversionary element to be valued and no recovery of capital to be provided for, an investment valuation is therefore net income multiplied by years purchase. This method can be used for the valuation of heritage buildings once a business has been set-up, established and producing an income. However incorporation of the life-cycle maintenance costs within the valuation is still problematic, although it can be argued that this can be implied in the choice of the all-risks yield.

The profits (or accounts method) is used when comparables are not available, for example hotels and restaurants and their valuation is achieved by reference to the profits which a reasonable tenant could make from the occupation of the property. This would involve examining the accounts to determine typical figures. From gross takings receipts, necessary deductions are made, for example, operating and overhead costs, tenant's capital and interest but excluding rent or mortgage interest payments. The result of this calculation is the "divisible balance" and represents the amount available for tenant's share of the remuneration and landlord's rent. This method is dependent on the skill of the valuer in interpreting the accounts to produce a reliable estimate of the market value.

The residual method is often used by developers in valuing development sites and buildings suitable for redevelopment. It involves estimating the cost of a project and the new value created with an allowance for profit and contingency. The difference between value and cost represents the value of the unimproved property. However the estimation of costs and the timing of future payments can be complex. Other than a developer, this method can be used in a modified form to a prospective shop tenant, for example in costing the fitting-out a "shell unit" having regard to future value.

Finally the contractor's method is used for properties that do not come to the market and are mainly occupied by public bodies, for example libraries, fire and ambulance stations and need to be valued for non-domestic rates or as part of an asset valuation. For an asset valuation this method is called the depreciated replacement cost (DRC). DRC involves estimating the cost of replacing the site and the building (the land and re-building value) then an allowance for depreciation. The land value must reflect the locality (the obvious alternative use which would be permitted by the planning authority), for example residential value if in a residential

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area and industrial value if in industrial area. However this method has the disadvantage of attempting to equate cost to value, as well as certain practical difficulties involved in making the various estimates and in particular the correct depreciation allowance.

A further method apart from the traditional methods above is the discounted cash flow (DCF) approach and this technique has been developed by economists and accountants as a tool in investment decision making processes. It is essentially used to assess the profitability of investment projects given certain criteria and can be described as a simple form of the investment method. It can be used to calculate whether or not a particular scheme meets the criteria by the investors or potential investors. To make a DCF calculation, future costs and receipts have to be estimated and in the case of property valuation, the cost will normally be the original capital outlay and the receipts will be the income generated. There are two approaches to a DCF calculation. The first is the net present value and the second is the internal rate of return and these are expressed by separate mathematical formulae. The net present value of a scheme is expressed as a sum of money representing the discounted (discounted) present value of the flow of all income, less the (discounted) present value of all the outgoings and including the capital outlay from a project over the whole of its life. The internal rate of return is the rate by which future net receipts must be discounted so that their discounted value will exactly equal the initial cost of the project and measures the true rate of return on the capital invested.

Heritage building valuations in europe and in particular western europe are complicated by taxation and they have various types of relief to relect heritage status. Heritage buildings in Canada are at risk as property tax is reduced for vacant property which encourages demolition of a building. In the united states, the zoned development potential of land underneath a heritage building is valued for taxation purposes. The down-side is, this paves the way for demolition and redevelopment in areas zoned for high-density development. Municipal governments in the United States and Canada have introduced property tax exemptions and reliefs to compensate this issue. Due to budgetary constraints governments in developed and developing countries are increasingly finding it difficult to justify financial incentives for heritage conservation. This is because heritage buildings often represent a direct loss of revenue. Only limited research has been done internationally to disprove this view, but studies in the UK and the United States show conservation involving the repair, maintenance and reuse of vacant or derelict heritage buildings can result in an increase in income from taxation.

6. NEW DEVELOPMENTS IN UK

Valuing a heritage asset can be almost as difficult as defining a heritage asset. One person's high valuation might be offset by another person's low valuation as often 'beauty' is in the eye of the beholder'. As a result the term significance is often applied to give value in a national context as it implies that it has national interest and possibly international high value. The concept of significance is at the heart of the listing procedure in England and a concept

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promoted both in the National Planning Policy Framework (NPPF) (Department for the Communities and Local Government, 2012) and by English Heritage (2013) in their Heritage Works publication. Significant heritage buildings may hold a big place in economic urban regeneration which provides a further valuation complexity, creating direct value and indirect value concepts perhaps derived from economic multiplier analysis.

Establishing the nature of a heritage asset and its value can be complicated by the character of areas. Oxford City Council, Oxford Preservation Trust and English Heritage (n.d.). have recently produced an Assessment Character Toolkit to provide some objectivity in the assessment of the value of an area or buildings. It looks at physical features but also, emotional issues and association issues. Numerical values are attached to features using a simple scale. However, valuations can still be subjective, for example, the birth place of a famous person for example may raise values of property but the association with ghosts may devalue a property!

In terms of valuation methodology heritage property taxes the role of a professional Valuation Surveyor because there can be so many variables and intangibles: fashions, tastes, environmental factors. With conservation in mind English Heritage have recently produced a number of best practice guides that all relate in some way to direct value and indirect value for example: Constructive Conservation in Practice (English Heritage, 2008); Vacant Historic Buildings (English Heritage, 2011); Regeneration and the Historic Environment (English Heritage, 2005); Shared Interest-Celebrating Investment in the Historic Environment (English Heritage, 2006).

7. CONCLUSIONS

This paper supports the need for either a potential new valuation method to assist valuers with heritage buildings. It is envisaged that further research will establish benchmarking or best-practice guidance for valuers when dealing with heritage buildings. The unique nature of heritage properties, particularly their multidimensionality in terms of differences in value judgements, further research is needed to fully account for this multiplicity of value, including taking into account the long-term maintenance requirements of heritage buildings. Traditional valuation methods take into account the condition of the building at the date of valuation and estimate the cost of maintenance for the duration of say a 25 year lease. However, costly longer-term (100-200 years) maintenance is innaccurately accounted for. Therefore a valuation approach that takes into account the longer term maintenance, among other issues, will be of vital benefit.

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