



Valuation of the Historic Environment

The scope for using results of valuation studies in the appraisal and assessment of heritage-related projects and programmes

Executive Summary

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Shortly after the completion of this report, David Pearce died suddenly. While David is most recognised for his unparalleled contribution to the advancement of environmental economics and his influential role in bringing sustainable development to the forefront of UK and international environmental policy, he also led efforts to recognise the worth that the concept of economic value and valuation techniques have in ensuring the preservation of cultural heritage and the historic environment. We are forever indebted to David and will miss him deeply.

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Preface

This study was commissioned because the partners - English Heritage, the Heritage Lottery Fund, the Department for Culture, Media and Sport and the Department for Transport - perceived a joint need for an in-depth review of existing valuation studies concerned with the historic environment. The partners recognise that the results of valuation studies are used to inform decisions in many parts of government. For example in determining highway and other transport investment, health and safety standards in the workplace and elsewhere, air quality and emission standards, priorities in health care, flood protection, the level of the aggregates and landfill taxes and the value of the British Library's output. Moreover, HM Treasury in its guidance on appraisal and evaluation in the public sector (the so-called Green Book) has recommended that the use of valuation techniques should be extended as far as possible. Although the heritage sector has not been as well served by valuation studies as the natural environment, there have been a number of recent heritage-related studies, including the valuation of changes in the level of road traffic intrusion at Stonehenge. The partners were keen that the review should cover not just published studies, but also relevant material in the so-called grey literature.

In addition to the review the partners also required an expert opinion on the scope for transferring values from existing studies to other situations (the so-called 'value transfer' process) where decisions are being made about expenditure or policies which affect heritage assets. The partners recognise that valuation studies are likely to be used as only one of many pieces of information in the decision-making process. Decisions which will lead to major expenditure would probably justify their own valuation studies, so the emphasis of this study is whether decisions on smaller, though still important, projects and programmes might be informed by existing evidence on economic values. The partners decided that the scope for value transfer should be assessed not just on the basis of theoretical considerations but also by reference to practical examples that match heritage valuation studies, with a list of potential examples supplied by the partners.

The partners also required that the assessment of the theoretical and practical possibilities for value transfer should form the basis of recommendations for future work that could increase the potential use of valuation techniques in decision-making. It was recognised at the outset that some of the recommendations might lead to quick gains from the use of existing studies, but also that others imply longer term and more expensive research effort.

The partners drew up a detailed specification of work reflecting these requirements and after a process of competitive tender, selected Economics for the Environment Consultancy (eftec) to undertake the study. This document is a non-technical executive summary. A detailed report has also been produced. The partners and the consultants are also organising other means of disseminating the results of the study, including presentations and articles.

Executive Summary

ES1 Introduction

The conservation and enhancement of cultural heritage is typically viewed as a desirable undertaking. Preservation and study of cultural heritage contributes to overall social wellbeing through understanding and appreciation of the past and its legacy. Agencies and organisations tasked with protecting heritage from threats such as urbanisation, population growth, pollution, weather and climate, and even use by the general public, must compete for resources with other socially desirable goals. Given that resources are limited, priorities must be set among competing concerns both within and between sectors.

This study is explicitly concerned with the subset of heritage assets associated with the 'historic environment'. In particular this includes:

- Buildings (individually or in association) of architectural or historic significance;
- Areas, such as parks, gardens, other designated landscapes or public spaces with a historic association, remnant historic landscapes and archaeological complexes; and
- Sites (e.g. ancient monuments, places with historical associations such as battlefields, preserved evidence of human effects on the landscape, etc).

Included also is the sense of identity and place which comes from the combination of these aspects of heritage. Notably this study is not concerned with elements of heritage such as art, museum and archive collections and alike, nor notions of tradition and custom. Furthermore the study does not consider spin-off effects such as employment and tourism and the 'heritage dividend' (see for example English Heritage, 2005).

Currently, appraisal of projects and programmes that impact upon the historic environment is largely based on weighting and scoring techniques developed by public bodies such as English Heritage, the Department for Transport and the Department for Culture, Media and Sport (see for example, DfT WebTAG; DCMS, 2004). Appraisal is undertaken on the basis of expert opinion and results in qualitative and quantitative assessments of the issues in hand. More generally though, overall Government guidance (HM Treasury, 2003) indicates that where possible, effort should be made to directly compare costs of projects and policies with their benefits. The overall objective of this study is, therefore, to consider the question, '**What is the the scope for using results of economic valuation studies in the appraisal and assessment of heritage-related projects and programmes?**' In particular, this concerns two main contexts:

- The appraisal or assessment of projects, programmes, and policies within the heritage sector that aim to preserve, conserve or enhance the historic environment; and
- The appraisal of projects, programmes, and policies in other sectors (e.g. transport) which impact upon the historic environment.

Heritage management decisions may include: assessing strategic needs in the heritage sector; determination of research priorities; expenditure on repair and restoration; expenditure on the environment in which heritage is presented and enjoyed; and preservation priorities concerning 'recent' heritage. It is not envisaged, however, that the retention of iconic and landmark heritage assets is in question. In particular these assets are protected by designations and planning controls. Therefore, the focus of the study is the expenditure of time and money on heritage assets that bring about relatively marginal, but significant, changes to an asset's fabric, appearance, presentation or surrounding environment.

ES2 The Economic Value of Heritage

Heritage as an economic good

Heritage assets are economic goods. The term 'economic good' applies to anything that generates flows of human wellbeing, for anyone and for whatever reason. The general presumption is that these flows are positive, e.g. heritage contributes to wellbeing and does not detract from it. Economic goods may or may not have market prices. Even if they do, market price may be a poor indicator of the economic value of the asset.

As an example, consider a heritage asset for which visitors face an entry fee. Typically at a high price, comparatively few visitors will choose to visit. However if the price is progressively lowered, it is likely that more and more people will be willing to pay the entry fee and visit the asset. Principally then, when faced with the prevailing entry fee, some potential visitors will be willing to pay that price or even more to enter a site, while other potential visitors would not be willing to pay the prevailing price, but would perhaps visit if the price were lower. The difference between what an individual is willing to pay for a particular good (whether it be visits to heritage sites or more conventional market goods) and what they actually pay is known as consumer surplus. Therefore an individual whose willingness to pay (WTP) is equal to the prevailing market price receives zero consumer surplus. Furthermore, anyone whose willingness to pay is less than the price does not purchase the good in question, i.e. they do not visit the heritage site. Hence for goods with market prices, the flow of economic value is equal to the sum of price paid plus the sum of consumer surpluses. For goods without prices, termed as *non-market* goods, the flow of economic value is comprised solely of consumer surplus; that is for non-market goods, consumer surplus is equal to willingness to pay. Therefore willingness to pay may be taken as a measure of economic value.

The above discussion is based on the WTP of individuals to visit a heritage site. The motivation behind these WTPs is known as *use value*; they arise from a use that is made of the heritage asset, in this case visiting the site. To estimate this visitor value it is common to use the *travel cost method*. The travel cost here includes any entrance fees that are paid to visit the site, other out of pocket expenses, wear and tear if travelling in one's own car and the economic value of time spent travelling to and from and visiting the site. It is also possible to envisage use values of a less direct nature. Suppose the heritage site is a landmark asset that confers prestige and attraction on the surrounding area. Then, anyone living in that area might get an amenity benefit from the site and this might show up in the value of their property. The element of the price of the property that is due to the heritage site reflects individuals' WTP to locate in that area because of the heritage site. This element is estimated using the *hedonic (property) price method*. The sum of the visitor values and the residents' values gives the *total use value* of the heritage site.

There is one other major category of economic value that needs to be considered. Whether an individual is a visitor, resident or neither, they may be willing to pay something towards the upkeep of the heritage asset. This sentiment may be shared by the general public of a region or nation, or even the international community even if they have no plans to visit an asset now or in the future. This WTP, which is independent of any use value, arises from all kinds of motives. One obvious motive is that many people feel the influence of the past and they see themselves as stewards of heritage. In most respects exactly identifying which motive influences which (type of) individual is not a crucial concern for economic valuation so long as the set of motives are legitimate. What matters is that people may be willing to pay to conserve heritage despite having no use value for it. This form of value is known as *non-use value* or *passive use value*.

Non-use value is typically characterised by a number of constituent parts. *Altruistic value* is derived from the knowledge that others may enjoy the historic environment whilst *bequest*

value is derived from the desire to conserve heritage assets for future generations. *Existence value* refers to the benefits that arise from the knowledge that our heritage is being conserved *per se*. Non-use value, and in particular existence value, typically reflect the public good¹ element of the historic environment (Pearce et al., 2001). Indeed, without the explicit consideration of the non-use value associated with heritage, the public good argument that often supports public provision of cultural goods is typically less strong for heritage assets, especially where it is possible to charge entry fees and exclude users.

Non-use value can typically only be valued in economic terms using *stated preference techniques*. Note that stated preference techniques can also be applied to measure use values. These techniques function through the use of questionnaires. In one form of stated preference technique, *contingent valuation*, individuals are asked directly what they would be willing to pay for the good to be conserved, or what they would be willing to pay for some change in the level of provision of the good. In another form of stated preference technique, individuals are not asked their WTP directly. Rather they are presented with a limited choice of options with varied features or characteristics. One of those features will be a price of some kind (e.g. a tax, entrance fee etc). Individuals then choose between these options. This *choice experiment* approach permits the analyst to infer WTP rather than eliciting it directly.

Total economic value and decision-making

The sum of use and non-use values gives the ***total economic value*** (TEV) of the heritage good which is closely related to a variety of decision-making contexts. Imagine first that the policy context is one of conserving or not conserving the heritage asset. In the latter case assume that it falls into a state of decay and eventually disappears. The TEV of the asset is therefore lost and the analyst would therefore estimate the use and non-use values as the costs of non-intervention. In turn, this forgone TEV is the *benefit* that would accrue from a policy of conservation against a baseline of 'doing nothing'. This benefit can be compared to the costs of conservation in a *cost-benefit analysis*.

In countries such as the UK, heritage assets are at some risk: budgets rarely stretch to protecting everything with positive heritage value. But the major 'landmark' assets are protected by designation and planning regulations, as are many non-landmark assets. As such, for many heritage assets the policy context is not one of 'conserve or decay'. Rather the decisions relate to changes in the way the asset might be presented or viewed, changes in visitor facilities, the addition of features, and so on. Another context might be that of 'holding maintenance' - making sure the asset is protected against the worst effects of time and the elements while funds are sought for full restoration. These marginal or discrete changes mean that what is valued is the *change in the TEV*. That is, what needs to be measured is the TEV with and without the package of measures that is under consideration. In other words, we seek to estimate willingness to pay for changes in the TEV, where WTP is the measure of economic value. Table 1 outlines potential uses of economic valuation in decision-making.

¹ A public good is one that when supplied to one person is supplied to others in such a way that the wellbeing derived by each individual does not detract from the wellbeing obtained by other individuals and that is not possible to exclude (e.g. by pricing) some users and not others. Two examples are national defence and clean air.

Table 1: Applications of economic valuation techniques in decision-making

Decision-making context	Comment	Relevance to heritage assets
Cost-benefit analysis: projects and programmes	This is the context in which CBA was originally developed. Usually public investment projects in public or quasi-public goods.	Restoration and maintenance projects
Cost-benefit analysis: policies, including regulations	Regulatory impact assessment (RIA)	Policies on national and local conservation requirements
'Demonstration' of the importance of an issue	Usually used to estimate economic damage from some activity, or the value to the nation of a policy	Could be used to estimate value of the stock of heritage assets in a 'conserve or decay' context
Setting priorities	Ranking allocation of funds for conservation etc	Could be used to prioritise heritage assets or prioritise spending on their restoration and maintenance
Establishing the basis for a tax or charge	Used to estimate the size of the tax or charge reflecting the damage of concern	Setting entrance charges to heritage sites
'Green' national income accounting	National accounts partially adapted for environmental impacts, e.g. Defra green agricultural accounts	Not so far applied to heritage assets
Corporate green accounting	A few studies exist of corporations' impacts on environment.	Not so far applied to heritage assets
Legal damage assessment	Possible use under EU Environmental Liability Directive	Could be used to estimate compensation if heritage assets damaged (though not covered by the Liability Directive)

Are heritage assets special? Non-economic notions of value and irreplaceability

The notion of economic value has a very precise meaning. However, some arguments assert that heritage assets embody other notions of value besides economic value. For example, this is the view taken by Throsby (2001) who argues that cultural assets, of which heritage assets are a subset, generate both economic value and *cultural value*. Throsby defines cultural value as a multiple set of attributes: aesthetic value, spiritual value, social value (sense of identity and space), historical value, symbolic value and authenticity value (its genuineness). If this is correct, heritage assets are special and different to other goods. Whilst the economic valuation approach would reject notions of cultural value that are different to economic value, it is important to understand why.

The standard economic approach does not argue that cultural values are unimportant. What it would argue is that cultural values are *determinants* of economic value, rather than values in themselves. In the language of economic valuation, they are *motives* for value, i.e. the motives behind use and non-use values as defined above. The critical response to this argument is that something like spiritual values should not be reducible to willingness to pay: the arguments are clearly debatable and cover several issues. These issues, which are discussed in more depth in Section 2.6 of the main report, include the extent to which the views of the general populous differ from that of expert opinion and questions of 'pricelessness' and also intrinsic value, the notion that assets are 'worth' something in themselves and independently of the human being who may value them.

A second argument for treating heritage assets differently to other goods is that they are irreplaceable in the sense that, once lost, the original cannot be recreated. Here the question is whether irreplaceability or uniqueness makes heritage assets special in the sense of making them a challenge for economic valuation (or even incapable of economic valuation). However

the counter argument would be that individuals should have higher WTP for non-substitutable or unique assets than for assets with higher degrees of substitution. As such, uniqueness does not pose a special problem for economic valuation, even though it may have implications for *which notion of economic value* is measured and for the reliability of ‘transferring’ economic values from one context to another.

ES3 Value Transfer in the Heritage Context

Value transfer is an approach to economic valuation which uses the results of previous valuation studies in the appraisal of projects and programmes. A distinct appeal of value transfer is its expediency and value for money properties in relation to commissioning original valuation studies, which can enable greater use of economic values within decision-making. Overall there are three main ways in which information concerning economic value can be transferred from an original valuation study to a new decision-making context:

- The transfer of average willingness to pay from the original study;
- The transfer of adjusted average willingness to pay from the original study; and
- The transfer of a willingness to pay function from the original study, where a WTP function shows the influence of factors relating to individuals (e.g. socio-economic characteristics, their visit behaviour), heritage assets (e.g. type, facilities, etc) and alternative sites (e.g. price, visit patterns, etc) on willingness to pay of individuals.

The first approach is the simplest. It entails ‘borrowing’ the average WTP amount estimated in the original study and assumes that this is an adequate proxy for the economic value associated with the heritage asset in the new decision-making context. The second approach, however, recognises that WTP between the original study context and the new decision-making context will likely be different due to factors such as (i) the socio-economic characteristics of populations local to the goods in question; (ii) the physical characteristics of the two goods; (iii) the proposed changes in the quality and/or quantity of the goods; and (iv) the availability of alternatives to each good (Bateman et al., 2000). Therefore WTP in the original study may be adjusted to account for such differences. Since income is typically a crucial determinant of WTP, will in most instances vary between the original valuation context and the new appraisal context, and is relatively easy to find data about, it is common to account for variations in income in the adjustment process.

Where there is the desire to make multiple adjustments to WTP in a value transfer exercise, the third approach of function transfer may be applied. Compared to the transfer of average values (either unadjusted or adjusted), function transfer requires that more information be known about factors that influence WTP in the new decision-making context. A typical supposition is that function transfer is the most conceptually appealing approach to value transfer since it allows for more control of factors that may vary between the original valuation study and the new decision-making context (Pearce et al. 1994).

While value transfer has been applied in many contexts, particularly in the valuation of environmental goods, much debate has focussed on its accuracy. At the core of the issue of the accuracy of value transfer is the question as to whether ‘some number is better than no number’. When considering this point it is worth distinguishing between two questions: (i) what is an acceptable level of error in value transfer; and (ii) is it possible to undertake value transfer on the basis of the existing body of heritage valuation literature? For the first point, unless an original valuation study is commissioned to provide a comparator, the degree of error in value transfer will be unknown. Hence perhaps all that may be said is that value transfer is an approach to economic valuation which has some degree of inherent uncertainty and evidence concerning its accuracy is inconclusive. The second point in some sense is more important - questions of accuracy are relevant when there are sufficient and appropriate

studies available for value transfer purposes. Fundamentally, value transfer is not a feasible input into decision-making if a sufficient body of relevant valuation literature is not available.

In order to minimise concerns relating to the accuracy of transferred values, it is necessary to identify a suitable study, or selection of studies from which to source WTP information for application in the new decision-making context. Hence, what is needed is a set of criteria for assessing the appropriateness of existing valuation studies for transfer purposes. Such criteria include (Bateman et al., 2002):

- i) Site/good characteristics from the original study should be the same as the new decision-making context, or differences should be accounted for;
- ii) The change in the provision of the good valued in the original study and the new decision-making context should be similar;
- iii) The original study and new decision-making context must be similar in terms of the affected population and characteristics or differences in populations must be accounted for;
- iv) The original valuation studies should contain WTP functions showing how WTP varies with different influencing factors;
- v) Studies included in the analysis must themselves be sound; and
- vi) The measure of the change in wellbeing (e.g. WTP for a gain; WTP to prevent a loss) should be the same between the original study and new decision-making context.

In theory, adhering to these conditions would enable a suitable 'match' to be made between an original valuation study and the new appraisal context². While not explicitly mentioned in the above criteria (but embodied within criterion (ii) and (iii)), geographical or spatial location is a particularly important consideration in assessing the appropriateness of a study for transfer purposes. For instance, 'similar' heritage assets may be distinctly different between different countries due to differing cultural and historical associations.

Where applications of value transfer source WTP information from robust valuation studies and take appropriate steps to ensure that any differences in provision of goods and population characteristics are minor, doubts concerning the accuracy of the value transfer exercise are likely to be minimal and the decision-making process will be informed by economic values that are as robust as can be expected. Practical experience of value transfer, for example in relation to the valuation of water quality and river flow improvements or health risk from air pollution, has also typically demonstrated not only the importance of study selection but also the ways in which values are adjusted and aggregated, particularly in relation to the definition of the affected population.

However, it seems unrealistic that all of the above criteria can be met simultaneously, a sentiment echoed in a number of instances, particularly in relation to heritage assets (see for example Pearce et al., 2002; Noonan, 2003). Indeed only an original and specifically designed valuation study could possibly meet all of them. UK Government guidance suggests that appraisal should be proportional to the scale of project (HM Treasury, 2003). This may provide some indication as to when value transfer can be a suitable input to the appraisal and assessment of heritage-related projects and programmes. Given that a larger degree of subjectivity is inherent in value transfer compared to original valuation studies, an original study may be preferred when greater certainty is required. In particular, where actions are large in magnitude, involving significant financial outlay or significantly affecting heritage assets of national or international importance, and issues of uniqueness and irreversibility are relevant, then an original valuation study may be a more appropriate undertaking.

² The six conditions outlined may be viewed as 'best practice' guidance for those undertaking value transfer exercises. Section 3.4 of the main report discusses each condition in more detail.

ES4 Literature Review

Application of economic valuation techniques to the historic environment is a relatively new occurrence. The survey of studies undertaken for this study finds 33 valuation studies that have been undertaken to date. In comparison to the valuation of environmental goods, where the number of published studies runs into the thousands, the number of studies in relation to the historic environment is decidedly small.

The existing studies typically consider either historic built heritage (e.g. individual buildings such as cathedrals, castles or groups of buildings) or historical and archaeological sites (e.g. ancient monuments). Notably, there is little focus on benefits associated with the preservation of more recent heritage, such as industrial heritage. With regards to the location of heritage assets considered by the literature, eleven are from the UK, six from Italy, three from Spain, four from other parts of Europe (Norway, Switzerland, Croatia and Bulgaria), seven from North America and two elsewhere (Morocco and Peru).

As a result of the relatively small number of studies, scope for comparison among studies is limited. While it is difficult to assess how economic values vary between different aspects of the historic environment, it is still possible to summarise some general findings from the literature. Overall, it is generally the case that positive values are attributed to the conservation or restoration of heritage assets, implying that degradation of the historic environment detracts from the wellbeing of individuals and society in aggregate. Moreover the public is willing to pay to mitigate this damage. It is widely found that higher income typically leads to a higher WTP for the historic environment. Furthermore values held by users of sites (i.e. visitors or nearby residents) are typically higher than those of non-users. It is also typically the case that the more trips a given user makes, the more likely they are to have a higher WTP. In addition, many studies find that non-user benefits are positive, particularly in cases where charismatic or unique heritage resources are under consideration. While non-use values in unit terms may be lower than use values for heritage assets, the extent of the non-use population may typically be greater, implying that aggregate non-use value is a substantial proportion of total economic value, particularly in the case of charismatic or unique heritage resources.

Table 2 outlines the aspects of the UK historic environment that have been the subject of valuation studies. Section 4.2 of the main report provides a summary of the literature review whilst the report annex provides an annotated bibliography of valuation studies.

Table 2: Valuation Studies of the Historic Environment in the UK

Study	Heritage Asset and Valuation Context
Adamowicz et al (1995)	Preservation of canals in Great Britain
Alberini et al (2003)	Regeneration projects for St. Anne's Cathedral Square, Belfast
Brown (2004a,b,c)	Aspects of National Trust properties in England
Garrod et al (1996)	Renovation of historical buildings in Grainger Town, Newcastle
Maddison and Mourato (2002)	Impacts of road improvements on Stonehenge.
Pollicino and Maddison (2001)	Aesthetic changes to Lincoln Cathedral due to air pollution
Pollicino and Maddison (2004)	Actions to address air pollution damages to historic buildings in Oxford
Powe and Willis (1996)	Visitor benefits to Warkworth Castle
Willis (1994)	Access to Durham Cathedral

A number of points from the literature review are pertinent to the use of value transfer in decision-making concerning heritage assets. Firstly the quality and reporting of studies and estimated economic values vary greatly. In particular descriptions of the heritage assets and the proposed changes in their provision can be limited, making the task of assessing a study's

appropriateness difficult. However this may be overcome by seeking alternative sources for descriptions of the asset. A tendency to focus on particularly unique assets may also limit the value transfer potential of the literature. Whilst a wide array of goods is considered, there is perhaps a lack of 'less unique' ones, which are also subject to management and conservation decisions. In addition to goods studied, the valuation scenarios vary greatly. The typical focus of studies considering the degradation of heritage assets is that of air pollution, whilst scenarios that consider improvements in heritage assets cover a variety of renovation, restoration and rehabilitation actions that differ considerably in scale. Finally a number of studies consider use value from access to certain heritage assets rather than marginal changes in the quality of assets. While these studies can be useful for value transfer exercises that seek to quantify the benefit accruing from a particular heritage asset in its current state, they are less useful when analysis seeks to assess the change in TEV that arises from a particular project or programme.

ES5 Case Studies

Section 5 of the main report provides a number of case study examples to demonstrate the value transfer approaches to the appraisal of heritage-related projects. The six case study examples are: the Denbigh Townscape Heritage Initiative Scheme; restoration of the Kennet and Avon Canal; restoration of Battersea Park; Lincoln Cathedral conservation and maintenance; improvements and repairs to Sandal Castle; and transport schemes and the historic environment. From the case study examples it is evident that value transfer applications are subject to varying degrees of success. Moreover in some instances value transfer is not feasible. Where value transfer is applied, a number of qualifying assumptions accompany the estimated economic values, indicating the extent to which uncertainty influences the results. In particular the value transfer applications in each case are based on the findings of single studies. Generally it would be useful to have a number of studies that satisfy the selection criteria. This would enable analysis to be more comprehensive and would also allow for comparisons and further sensitivity analysis in order to test key assumptions.

The case study examples are also subject to limitations in supporting data concerning both user and non-user populations. This information is also critical to the validity of value transfer estimates, particularly in relation to deriving aggregate values. For instance heritage assets are likely to attract non-use values, yet without suitable indications of non-use value and the population for which this is relevant, it is difficult to account for such value within the case studies. Finally, in a number of cases it is only possible to undertake a partial assessment of economic values (e.g. to account for benefit to new visitors encouraged by improved quality of an asset rather than the benefit to existing visitors of improvements in quality).

Where it is not possible to undertake value transfer, some quantitative assessment of benefit may still be possible in order to support more qualitative arguments. Typically, if collected, use can be made of survey data that assess visitor numbers as well as estimates of off- and on-site costs incurred by visitors (e.g. travel costs, entry fees, etc). Provided such analysis is set within the context of economic valuation, and its limitations are recognised and explicitly stated, decision-making can benefit from such information. More generally though, decision-making in heritage and related sectors could benefit from appealing to the concept of economic value, even if it is not possible to arrive at quantitative or monetised conclusions. Recognition of non-market benefits and particularly non-use value can aid qualitative arguments for supporting the historic environment.

ES6 Recommendations and Conclusions

The objective of this study is to consider the question, ‘**what is the scope for using results of valuation studies in the appraisal and assessment of heritage-related projects and programmes?**’ Overall there would appear currently to be limited scope for value transfer applications in heritage-related appraisal and evaluation exercises. This is not to say that it is impossible to undertake value transfer, nor that it should not be recommended, but that the circumstances in which effective value transfer exercises are likely to be feasible would appear to be uncommon. Fundamentally, the current extent of heritage valuation literature is a significant constraining factor on the application of value transfer. This finding is not surprising: in the comparable field of environmental economics the application of value transfer is also subject to some degree of doubt, even though the number of valuation studies that have been carried out is in the thousands.

Where value transfer is applied in an appraisal and evaluation context, much emphasis should be placed on satisfying the criteria for identifying suitable WTP information from existing studies. In particular an explicit and transparent account should be made of the key assumptions involved in the analysis. Moreover, value transfer should be supported by other relevant information. In particular visitor surveys are important in determining the user population of a given resource since information about users could be used both in transferring unit economic values and identifying the affected population for aggregation of values. In the absence of suitable studies for value transfer, information concerning visitor numbers, entry fees and other on-site costs can be useful proxies for the minimum benefit derived from the use of the heritage asset. Even couching qualitative arguments in the terms of economic value, by consideration of these and other factors (such as determining the relevant non-user population), can make appraisal of intended actions more formal and can provide further support for expenditure on heritage-related projects.

With the finding that the existing body of heritage valuation literature is somewhat limited in terms of coverage and applicability to heritage assets found in the UK, it is useful to consider future actions of different scales that would benefit future applications of value transfer.

- **Development of a database of valuation studies relating to the heritage sector.** The Annex to this report provides a basis for such an exercise in relation to the historic environment, which could be augmented by newer studies as they become available. Maintaining a database of studies should not prove to be too arduous a task and would require only periodic action. Given the current size of the literature and its current rate of growth this task could feasibly be managed by this study’s steering group partners.
- **Increased collection and availability of data relating to the populations of interest to aid future appraisal and evaluation exercises.** As with any decision-making support, not just pertaining to economic valuation, more detailed information concerning users and non-users of a heritage asset is an important input into analysis. For example, in relation to users of a heritage asset, accurate estimates of visitor numbers, frequency of visits, as well as an understanding of the relevant spatial extent of the user population is vital. An understanding of the scale (local, regional, national or international) on which the asset is relevant is also an important aspect of assessing the non-use value of heritage. The availability of such information is a significant aid to value transfer exercises and can act to reduce uncertainty associated with its application. This task would require coordination among different bodies responsible for the management of the heritage environment.
- **Future valuation work targeted at existing gaps.** Given the apparent lack of coverage of the existing literature, primary research pertaining to the impacts upon heritage from transport schemes may be appropriate, as well as relating to preferences for more recent heritage (e.g. industrial heritage). In addition, an assessment of expenditure on the historic

environment by public bodies may also inform where further economic valuation work could be targeted. In particular if significant funds are to be allocated, then some check on the benefits derived is an appropriate undertaking. This area of work could be carried out by private sector consultants and academics and could potentially be funded by heritage sector organisations (including the Steering Group) and the research councils.

- **Beyond the immediate gaps in literature, there is also need for longer term research aimed at increasing the number of high quality original valuation studies considering heritage assets.** In carrying forward this recommendation there may be a case to seek the support of research councils. Some suggested areas for future work for the heritage sector organisations and research councils to consider are:
 - Investigation of the transferability of economic values across similar heritage assets and populations. These would be an extension of the work of Brown (2004) which dealt solely with transferability across populations (and not sites). This could be done for a variety of heritage assets (cathedrals, monuments, historical buildings, historical towns, historical landscapes, museums, etc). In conjunction with this, or separately, there may also be scope to consider the potential for meta-analysis³ of economic values of heritage assets, which could improve the potential for function transfer within appraisal. This could be undertaken on the basis of the existing body of literature, although without further investigation it is unclear as to whether the existing valuation studies provide sufficient information for a robust meta-analysis to be undertaken.
 - Investigation of how prior knowledge of art, culture and history (general and specific) affects people's valuation of heritage and cultural assets. This could be done for a variety of heritage assets (e.g. monuments, historic houses, historical landscapes, etc);
 - Examination of how information provision on site (e.g. through visitor centres) affects: (i) the quality and enjoyment of visitors experiences in heritage sites; and (ii) people's valuation of heritage assets;
 - Investigation of how income affects heritage and more broadly cultural values. This could be a cross-section study looking at different socio-economic groups in one country; or looking across countries with different levels of wealth and similar heritage assets;
 - Investigation of how qualitative assessments (e.g. verbal descriptions) of heritage and cultural values relate to: (i) quantitative assessments of heritage and cultural values as elicited via attitudinal scales (e.g. scores and ratings); and (ii) monetary expressions of heritage and cultural values (e.g. willingness to pay measures);
 - Investigation of how the payment mechanism (entry fees, general taxes, local taxes, donations) affect the value people assign to heritage assets; and
 - Examination of how visitor congestion in heritage sites relates to the carrying capacity of the site. The carrying capacity of a location describes a threshold of sustainable usage, which if exceeded, results in undesirable degradation of the resource; while visitor congestion can be defined as the deterioration in the perceived quality of a visit experienced by those using a site when the number of visitors increases beyond a certain level. Congestion is not necessarily linked with exceeding available carrying

³ Meta-analysis typically involves analysis of a number of WTP studies in order to derive general relationships between WTP for a particular asset and a number of common explanatory factors.

capacity, although in many cases they will occur at the same time. The study could examine how the two concepts relate in a variety of heritage assets.

Finally, an objective of any future original valuation study (whether carried out for public bodies responsible for the management of heritage or for research councils) should be to provide adequate information concerning WTP that can be used in value transfer or meta-analysis exercises. Bateman et al. (2002) note that this may require the introduction of a practice whereby researchers estimate a specific value transfer model that is limited to a number of influencing factors for which information can be easily obtained for the new decision-making context, i.e. basic socio-economic data, plus where a spatial element is important, variables such as distance from asset.

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