Valuation of woodlands
1st edition, guidance note

The UK’s 2.8 million hectares of woodlands and forests are made up of a wide range of types, ages and sizes. Valuation of woodlands involves diverse factors, some of which are of a specialist nature, and there is a lack of published market evidence.

The aim of this guidance note is to assist the valuer in highlighting the main factors that impact the Market Value of woodlands. It addresses some of the more complex issues that might arise in assessing the Market Value of such an asset by addressing the following topics:

• Categories of woodland
• Factors affecting value
• Preparatory work and inspection
• Valuation methods.

This guidance applies only in the United Kingdom.
Valuation of woodlands

RICS guidance note

1st edition (GN 64/2010)
## Contents

### RICS Valuation Standards

- **iv**

### RICS guidance notes

- **1** Scope
- **2** Introduction
- **3** Categories of woodland
  - **3.1** Primarily commercial or investment woodlands
  - **3.2** Primarily amenity woodlands
  - **3.3** Rural estate and farm woods
  - **3.4** Woodlands relating to other property assets
- **4** Factors affecting the value of woodlands
  - **4.1** Physical factors
  - **4.2** Legal factors and other obligations
  - **4.3** Forestry policy and fiscal incentives
  - **4.4** Market factors
- **5** Establishing the facts: preparatory work and property inspection
  - **5.1** Preparatory work
  - **5.2** Property inspection
- **6** Valuation methods
  - **6.1** Market comparables
  - **6.2** Income-based approach: assessment of the standing timber value

### References

- **11**
RICS (Royal institution of Chartered Surveyors) is the leading organisation of its kind in the world for professionals in property, land, construction and related environmental issues. As part of our role we help to set, maintain and regulate standards – as well as providing impartial advice to governments and policymakers.

To ensure that our members are able to provide the quality of advice and level of integrity required by the market, RICS qualifications are only awarded to individuals who meet the most rigorous requirements for both education and experience and who are prepared to maintain high standards in the public interest.

Members who qualify as valuers are entitled to use the designation ‘Chartered Valuation Surveyor’ and, in addition to compliance with the general rules of conduct applicable to all members, must also comply with the *RICS Valuation Standards*, generally referred to as the ‘Red Book’.

This guidance note describes the standard of work that is expected of a reasonable, competent valuer experienced in the subject to which this note relates.

RICS has in place a regulatory framework. Where a valuer undertakes work that has to comply with the Red Book that valuer is also required to register with RICS. Registration enables RICS to monitor compliance with the valuation standards and take appropriate action where breaches of those standards have been identified.

**Acknowledgments**

This guidance was produced by the RICS Rural Professional Group. RICS would like to express its thanks to the following who contributed to its development:

**Lead author**
David Lewis, Royal Agricultural College

**Working group**
John Clegg, John Clegg & Co LLP
Charles Cowap, Harper Adams University College
John Lockhart, Lockhart Garratt Ltd
Fiona Mannix, RICS
Simon Peck, Savills
Antony Wallis, Forestry Commission
Mark Warnett, Strutt and Parker
This is a guidance note. It provides advice to members of RICS on aspects of the profession. Where procedures are recommended for specific professional tasks, these are intended to embody ‘best practice’, that is, procedures which in the opinion of RICS meet a high standard of professional competence.

Members are not required to follow the advice and recommendations contained in the guidance note. They should however note the following points.

When an allegation of professional negligence is made against a surveyor, the court is likely to take account of the contents of any relevant guidance notes published by RICS in deciding whether or not the surveyor had acted with reasonable competence.

In the opinion of RICS, a member conforming to the practices recommended in this guidance note should have at least a partial defence to an allegation of negligence by virtue of having followed those practices. However, members have the responsibility of deciding when it is appropriate to follow the guidance. If it is followed in an inappropriate case, the member will not be exonerated merely because the recommendations were found in an RICS guidance note.

On the other hand, it does not follow that a member will be adjudged negligent if he or she has not followed the practices recommended in this guidance note. It is for each individual chartered surveyor to decide on the appropriate procedure to follow in any professional task. However, where members depart from the good practice recommended in guidance notes, they should do so only for good reason. In the event of litigation, the court may require them to explain why they decided not to adopt the recommended practice.

In addition, guidance notes are relevant to professional competence in that each surveyor should be up to date and should have informed him or herself of guidance notes within a reasonable time of their promulgation.
1 Scope

The aim of this guidance note is to assist the valuer in highlighting the main factors that impact on the Market Value of woodlands, and to outline the valuation process and approaches. It does not set out to provide a comprehensive manual for the appraisal of trees and woodlands. The application of the different valuation methods for these aspects is documented elsewhere.

This guidance note has been prepared with regard to valuation practices in the UK. It addresses some of the more complex issues that might arise when assessing the Market Value for such an asset and seeks to place them in the context of the RICS Valuation Standards and UK valuation practices.

2 Introduction

The UK's 2.8 million hectares of woodlands and forests, which comprise some 12 per cent of its land area, are made up of a wide range of woodland types, ages and sizes. They are also subject to different types of legal tenure and varying constraints and liabilities. In addition, woodland owners have various ownership motives, whether financially orientated (e.g. tax planning reasons or as an investment) or as a lifestyle choice (e.g. conservation amenity or recreation).

Management objectives are often varied and might include optimising timber production and financial returns, or the management of non-timber benefits such as wildlife, landscape and recreational enhancement.

Sometimes the reasons for ownership involve a combination of motives, and consequentially there is often more than one potential market for woodlands. There are also many physical factors that affect the value of woodlands, including location and site issues (such as soil type and access), as well as the tree crop itself (particularly the species, quantity and quality of timber, and the extent of previous management). Furthermore, a woodland may offer some advantage to a neighbouring residential property or farm, thus much of its value may come from its marriage value with those other property assets.

Woodlands, like other property assets, are valued for different purposes, including sale and purchase, compensation, loan security and tax purposes. In turn, the choice of an appropriate basis of value is key. For example, the adoption of a Market Value definition that disregards special purchasers, and therefore potential marriage value, may produce a very different value to one which takes such factors into account.

The same valuation principles apply to a woodland as to any other property asset. It is thus important to inspect and appraise the subject property, and to apply existing valuation approaches. Comparative market based, income based or replacement cost based approaches are all potentially applicable and need to be considered. However, the valuation of woodlands poses particular challenges. Not only does the valuation involve a wide range of factors, some of which are of a specialist nature, but there is also a lack of published market evidence. Thus the valuation of woodlands often requires specialist knowledge, skill and experience.

3 Categories of woodland

There are many different types of woodland, which not only impacts the potential demand, but also the valuation approach. Woodlands may form an integral part of a farm or rural estate, or they may represent distinct entities in their own right. For those that form distinct entities there are essentially two 'market categories' of woodland: primarily commercial or investment woodlands; and primarily amenity woodlands. Within these categories, there are many different woodland types in terms of size, species, age, silvicultural system, structure and condition.

3.1 Primarily commercial or investment woodlands

This category of woodland typically comprises larger areas where coniferous species, such as spruce, pine, larch and fir, predominate. These areas are often located in the uplands because conifers grow considerably more quickly than most broadleaved species and can tolerate poorer upland sites. Notwithstanding the above, species such as oak and ash can produce more valuable timber than most conifers; they just take longer to achieve an economic return. Therefore some broadleaved and mixed woodlands may fall into this category and should be valued accordingly.
These woods tend to be managed with the main objective of maximising timber production and, in turn, profit, although this does not have to exclude other non-timber objectives, such as amenity, conservation and recreation. The main value of these woodlands is generally related to their current and future timber value, as well as the projected revenue stream from mature and non-mature trees. The key issues are the quantity, quality and value of the timber that the woods contain and the availability for harvest. Thus the current and potential timber values need to be carefully assessed. This will likely require a specialist survey and mensuration techniques to determine the existing and potential volume of the timber, its quality and its potential markets and value.

3.2 Primarily amenity woodlands

This category of woodland typically comprises smaller blocks of broadleaved or mixed woods. Most broadleaves require fertile soils and low elevations, so they tend to be concentrated in lowland areas, which may also command higher site values.

These woods are often managed for non-timber objectives such as sporting or amenity value. Recent reports indicate that much of this resource is less actively managed than a commercial/investment woodland and that the timber contained in it is low quality. Thus many of these woodlands have little real standing timber value.

However, they may have high environmental/amenity value or recreational/sporting potential, which may be the principal value associated with such woodlands. This non-timber use value can be difficult to quantify, particularly where there is no income generating potential. Since the attraction tends to lie in the eye of the beholder, the assessment is a subjective exercise.

3.3 Rural estate and farm woods

Woodlands may form an integral part of a farm or rural estate, where their significance is enhancing the farm as a whole. The majority of these farm woods, like primarily amenity woodlands, comprise smaller blocks of woodland and are in the form of spinneys and shelterbelts. It should be noted that many of the areas planted with trees on farms are those less suited for productive agricultural use.

They may also have been planted specifically to provide shelter from the wind, to prevent soil erosion or to improve the amenity or sporting value of the property, and so determining their value is again a subjective assessment.

3.4 Woodlands relating to other property assets

A valuer also needs to consider and assess whether the woods offer some advantage to adjacent and nearby residential properties, farms and other assets, as much of their value may come from their marriage value with those other property assets. For example, a small block of woodland may add considerably to the amenity and sporting value of the estate and therefore considerably more to the overall value than its value as a wood in its own right. In a case like this, a number of approaches may be considered in building up a soundly based valuation. It will be for the valuer to choose the most appropriate approach or combination of approaches, in light of the physical circumstances, economic conditions and the purpose for which the valuation is required.

4 Factors affecting the value of woodlands

There is a wide range of factors that influence the value of woodlands. Their relative importance depends on the type/category of woodland and the purpose of the valuation. These factors broadly fall into four groups:

- Physical factors – e.g. the location, site and the tree crop
- Legal and regulatory factors – e.g. title (freehold/leasehold), rights of access, fencing covenants, mineral and sporting reservations, environmental designations and felling regulations
- Forestry policies and fiscal incentives
- Market factors.

Each of these four categories is considered in the following paragraphs.

4.1 Physical factors

Many physical factors influence the Market Value of woodlands, and as a result a wide variation in values is evident. These factors include the location
and size of the woods, physical site characteristics, crop details and dwellings and buildings.

**4.1.1 Location and size**

As for all properties, location and size can greatly affect Market Values. For large, primarily commercial woodlands, the main interest is likely to be the current and future income from timber production, so location is particularly important in relation to access and proximity to timber markets, i.e. the timber processing plants or shipping facilities. Timber is a relatively low value and bulky product, so access and proximity to the timber markets impact the existing or potential income generation from timber production. For small, primarily amenity woodlands, location in relation to the wealth and interests of the local population is more important, as the main interest will be from those who are attracted to the amenity, environmental and recreational potential. Furthermore, smaller woodlands tend to command a higher price per hectare.

Proximity to urban settlements may also be an important factor. Urban woodlands tend to be subject to greater levels of public access and therefore offer less privacy. There are also often greater problems with trespass and encroachment, which adversely affect value, although there may be greater opportunities to derive non-timber income.

**4.1.2 Physical site characteristics**

Soil type and drainage, climate, elevation, exposure and the threat of wind damage impact not only the range of tree species that can be grown successfully, but also the growing potential of the tree crop. For example, most tree species will grow productively on a sheltered site with a brown earth soil, whereas for an upland site with a poorly drained peaty soil, the choice of tree species may be very limited, such as lodgepole pine. Wind damage can have an impact upon future management, in particular, future thinning and rotation length. Furthermore, the altitude, exposure and drainage of the site, particularly for primarily commercial woodlands located in upland areas, may be crucial not only in terms of hampering the growth, but also the likelihood of windthrow.

Site terrain, external access (including proximity to adequate public roads) and internal access are also important factors. The terrain, in terms of slope, unevenness and drainage, can impact the choice of harvesting system and the cost of harvesting, which affect the value of the standing timber crop. External access to the wood facilitates the movement of heavy equipment and timber (particularly important for large commercial woodlands), while internal access and extraction infrastructure enables the other benefits of the woodland to be enjoyed and appreciated. Therefore the condition of both may greatly impact value.

The quality of internal road or tracks and the maintenance of the road surface, roadside vegetation and drainage have a bearing on value. The existence and diversity of ground flora should also be considered, as it indicates not only the soil type, but also the habitat value of the wood. The presence of non-woodland features such as streams and ponds, ancient hedges and banks, and archaeological features also contribute to the amenity and habitat value of the wood.

**4.1.3 Crop details**

Timber volumes, species, tree size, and timber quality and age all affect Market Values, as does the way the woodland has been managed, e.g. the thinning of the crop and its general appearance. Wide variations in values are evident when one makes comparisons, for example:

- Conifers versus broadleaves
- Woods of high quality timber versus woods of low quality timber
- Young woods versus mature woods.

These variations in value are linked to the impact of all these aspects upon the existing or potential income generation opportunities from timber production.

Tree health is also becoming a pertinent issue. Diseases such as red band needle blight and *Phytophthora* pose significant threats to particular tree species and forest sites. Widespread damage to groups of trees and sometimes whole woodlands is now being more widely reported. Furthermore, the risk of disease and pest damage is expected to increase with climate change.

**4.1.4 Dwellings and buildings**

Plant, machinery and other equipment, along with materials and prepared products, may also need to be considered. For example, there may be cottages, an estate sawmill, preservation plant, a forest nursery, etc., that may impact value.
4.2 Legal factors and other obligations

Many legal factors and other obligations influence the Market Value of woodlands, such as the nature of the title, including freehold/leasehold, covenants and reservations; rights of access through woodlands; non-woodland development potential; environmental designations; and felling regulations.

4.2.1 Title

A leasehold woodland will invariably command a lower value than a comparable freehold woodland. This is due to the limited duration of the interest or the imposition of rent, as well as the rights and restrictions on management, a breach of which could ultimately risk forfeiture of the property. Leasehold owners always have to be aware of the limitations on their freedom to act. Positive and restrictive covenants in the title (freehold or leasehold) can also significantly influence value, both in terms of costly obligations like fence, road or ride maintenance and restrictions on its management. Likewise, reservations to others such as minerals or sporting rights can reduce value, particularly if they are seen as having a reasonable likelihood of being exercised.

4.2.2 Rights of access through woodlands

Access to third parties or the public in general that is granted by way leaves, easements and rights of way, together with liabilities for the maintenance of other features needs to be carefully assessed. This can also impact current and future timber operations, as well as potential demand from prospective buyers. Examples are given in the following paragraph.

Where public access is permitted on a public right of way or as a result of dedication of the woodland as ‘access land’ under the Countryside and Rights of Way (Countryside and Rights of Way) Act 2000, this will affect management decisions and the exercise of certain rights such as sporting. Access that is exercised irresponsibly can result in additional management costs from fire, trespass or vandalism. Way leaves can create swathes of sterile areas, as no trees can be planted along the routes of gas mains or electricity lines. The introduction of the Electricity Safety Quality and Continuity (Amendment) Regulations 2005 also has exacerbated the impact of certain power lines, as it entitles network operators to undertake additional vegetation management if deemed to threaten the line.

4.2.3 Non-woodland development potential

If there is scope for future development potential, such as building development or mineral extraction, non-woodland development potential must be carefully considered, and the relevant local planning policies need to be investigated.

4.2.4 Environmental designations

These designations, along with controls and regulations affecting the countryside, are developing constantly. It would be impractical to provide a list of each designation that might currently influence woodland values in this guidance note. However, it is important to be aware of the kind of factors that need to be considered and the impact they might have on the management and, in turn, value of the woodlands.

Such designations may be described loosely as either voluntary or compulsory and either restrictive or supportive. A voluntary designation is one where the landowner can choose whether to participate in a scheme within the designated area. Conversely, a compulsory designation is one where the landowner has to comply with the restrictions imposed by that designation. Examples include Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNRs) and also historic or archaeological designations, such as Scheduled Ancient Monuments (SAMs).

There are also particular woodland designations such as tree preservation orders (TPOs) and ancient woodland sites – either ancient semi-natural woodland (ASNW) or planted ancient woodland site (PAWS) – which can constrain or influence forest management. Notwithstanding this, woodlands subject to designations such as SSSIs and ancient woodlands can, in certain circumstances, command premiums due to their perceived habitat and amenity status. Similar parallels can be drawn with buildings that are listed which may attract premium values for historical or architectural reasons, but equally the listing can be seen as a major constraint. Each case must be taken on its merits.

4.2.5 Felling regulations

Whilst grants and tax concessions are offered to encourage planting of trees and management of woodlands, there is also an element of enforcement on owners of existing woodland. Generally,
woodlands cannot be felled without permission from the Forestry Commission in accordance with the Forestry Act 1967 (as amended). This applies to any timber amounting to more than 5 cubic metres (equivalent to two large broadleaved trees), so consent will be required for even the smallest commercial operation.

When there is a valid reason for the trees to be felled and removed, permission should be granted, although normally subject to a requirement that the land be replanted with an agreed species or mix of trees. Thus when valuing woodland, it is usually necessary to assume that the property will remain as a woodland in perpetuity and that it cannot be converted to farmland after the crop has been felled.

4.3 Forestry policy and fiscal incentives

Successive governments have sought to encourage both tree planting and sustainable management. Fiscal incentives, in the form of both grants and tax concessions, have been offered to promote these two aims. Forestry policy and grant schemes are devolved to country administrations, so they will be different for England, Scotland, Wales and Northern Ireland. This section therefore gives only an indication of the types of grants available.

4.3.1 Grants

A range of grants is currently available to encourage landowners to plant trees on their land (though these are targeted according to location, woodland type, etc.). Grants can either be stand-alone woodland grants or linked to agri-environmental schemes. For farmland there are not only capital grants available that may be sufficient to offset most of the planting costs.

They also come with annual payments being made for up to 15 years to offset a significant proportion of the loss of income from agricultural production. Notwithstanding these incentives, the relatively poor profitability of forestry and its long-term nature, compared with agriculture, have resulted in relatively small areas of land being converted to forestry over the last 20 years.

There is also a range of grants that aim to help encourage sustainable management and are currently weighted in favour of public access and the environment. They include payments to help offset the costs of undertaking works designed to improve the environmental attributes of the wood. Such work can include new access tracks, fencing and scrub clearance, as well as habitat management. Grants are also available for restocking a woodland that has been clear-felled.

To access these grants, a management plan will need to be prepared and approved by the Forestry Commission, from which details of the grants’ rates and the conditions can be obtained. Although grants are vital to the viability of establishing new woods or replanting areas, they do not normally have a direct influence on the valuation of existing woodlands. This also applies to grant payments for specific management works to help offset the costs.

However, annual payments and capital grants for establishing new woodlands are often main sources of income and may amount to a greater sum than competing uses for that land (such as agriculture). This may be important to certain buyers and may well have a bearing on the valuation. Notwithstanding this, the grants receivable and the amounts paid should be noted in the valuation, because receipt of these grants generally requires the owner to comply with certain conditions which, if broken in the future, may result in penalties.

4.3.2 Tax

Woodland owners, both historically and currently, receive benefit from a range of tax concessions. Previously, it was possible to offset expenditure on forestry against other non-forestry income, while effectively enjoying freedom from taxation on the eventual sale of timber. However, these concessions were rescinded under the Finance Act 1988 and phased out by April 1993, with the result that ‘commercial woodlands’ were removed entirely from the scope of income and corporation tax.

Expenditure on the planting and maintenance of trees for timber production is no longer a tax deduction against other income. However, the sale of timber is still exempt from capital gains tax, and ‘commercial woodland’ (like agricultural land) can also benefit from 100 per cent relief from inheritance tax. It thus attracts the interest of some high net worth individuals looking to limit their potential tax liability.
4.4 Market factors

As with commercial property, various market factors influence the woodland market. These include:

- Supply and demand
- Interest rates
- Availability and cost of finance
- The state of the economy
- Performance of other investments
- Planning and fiscal policies.

In addition to these, it is important to consider the economics of woodland management.

The demand for woodlands is wide ranging, though the supply of woodlands to the market has been limited and fragmented. Whilst it is impossible to describe all of the various parties that are interested or involved in the investment and purchase of woodlands, it must be recognised that potential buyers have varied motivations, circumstances and objectives.

Some purchase for capital appreciation and some for reducing potential inheritance tax liability, while for others, the motivation is less financially orientated. For example, pride of ownership, the desire to be involved in a conservation project or the sporting or recreational potential of the woodland may be the main drivers. Furthermore, woodland purchases are often financed with cash, particularly for the lifestyle buyers, so changes in the general economy and the banks’ willingness to lend are less important.

The factors that influence the economics of woodland management include not only timber prices, but also financial incentives (both grants and tax concessions) and non-timber income, such as sport, leisure development, minerals and radio masts. For the primarily commercial woodlands, timber is likely to provide the main source of income, whereas for primarily amenity woodlands, the main source is likely to be non-timber income and grants. So the profitability of forestry is likely to be an important consideration for the primarily commercial woodlands, whereas it may have limited impact on the capital value of primarily amenity woodlands. However, the link between woodland income and capital value is tenuous, even for primarily commercial woodlands. The capital value is driven not only by the profitability of forestry, but also by demand for the non-income attributes.

5 Establishing the facts: preparatory work and property inspection

The purpose of the valuation, be it for sale, purchase, loan security, compensation or tax, needs to be clearly established. In addition, clear identification of what is to be valued is required. For example, a cottage, an estate sawmill, plant, machinery and other equipment may also need to be valued. Where the woodland forms an integral part of a farm or rural estate, it is important to consider whether it is to be valued as part of the whole farm or estate, or a separate valuation is required. Valuers also need to consider the appropriateness of their knowledge and skills as required under PS 1.5 of the RICS Valuation Standards, 6th edition (at the time of writing). Following on from this, the terms of engagement may need to set out particular requirements and information pertaining to the treatment of the woodlands (and trees) within the valuation.

5.1 Preparatory work

Before inspecting the property, it is important to consider as many of the factors relating to the valuation as possible. In this way, likely problem areas can be highlighted before the site visit and, as a result, given more effective consideration on the ground. Such preparatory work might include establishing details of all the relevant designations that affect the woodland(s), such as SSSIs or ancient woodlands. Title issues need to be investigated including tenure, restrictions and liabilities, rights of way, way leaves and easements, as well as maintenance liabilities for features such as boundaries and access routes. Details of any grant schemes and woodland management plans and records will assist both the inspection and the valuation.

5.2 Property inspection

As for all valuations, inspecting and appraising the subject property is essential. Surveys are necessary not only to check or verify the legal boundaries, access routes, location of way leaves and rights of way, but also to gain the physical site and crop...
details necessary to assess the current or potential timber value of the wood and its potential market. Using a 1:2,500 or 1:10,000 plan, the external boundaries, way leaves, rights of way and fencing and maintenance liabilities can be verified, and the location of the access routes and internal tracks plotted. It also important to determine whether there is any unauthorised access and encroachment and, if there is, its impact and the ability to control this aspect in the future.

In addition, the wood may need to be divided into compartments and sub-compartments to reflect different crop types, in terms of age, species, composition and condition. The areas for each need to be ascertained and recorded (if not detailed on the map/management plan) and, ideally, separately assessed. However, this can be a time consuming process and prohibitively expensive. Therefore depending on the type of woodland and the purpose of the valuation, a more simplified approach, based on agreed assumptions, might be more appropriate.

Whether these compartments are fully stocked may also need to be determined. Typically 5–20 per cent of woodland will be unstocked due to areas being used for roads, rides and streams, as well as gaps resulting from crop failures. In addition, it is important to consider the non-timber attributes, such as the sporting and leisure potential, as well as any non-woodland developments, such as dwellings and buildings.

6 Valuation methods

A number of methods may be used to arrive at the Market Value of woodlands. Knowledge of the market and the use of comparables are key, particularly for amenity woodlands, which only have a nominal timber value. For primarily commercial woodlands whose market features are considered to be the quality and quantity of timber, then both the site, or ‘land value’, and the standing timber value may need to be considered separately. An income-based approach may thus be required to assess the standing timber value.

This guidance note does not set out to provide a comprehensive manual for the application of the different methods of assessing timber and woodland values, as these aspects are documented elsewhere. It does, however, seek to place them in the context of the RICS Valuation Standards and UK valuation practices.

6.1 Market comparables

In certain cases, the woodland being valued could possibly be compared to other properties that have recently been sold or are currently being offered for sale at specific asking prices. It should be noted, however, that woodlands, like all properties, reach the market for many reasons and by various methods of sale. They vary considerably according to location, extent, age, structure and condition. Prices can also be affected by the economic, financial and political climate, as well as fiscal policies, in particular grants and tax concessions.

In addition to these numerous variables, there is a shortage of market evidence. Not only do woodland sales tend to be handled by a small number of specialist agents, be they chartered surveyors or forest management companies, but there are also limited transactions whose results are rarely disclosed. Guide price data, of course, can be gained by obtaining property particulars and bulletins from these specialist agents, but it has the usual limitations. Furthermore, it is difficult to compare like with like without good knowledge of those properties – so varied are the location, extent and quality of sites and crops. Notwithstanding the aforementioned difficulties, market evidence is the main approach to gain an estimate of the Market Value, particularly for smaller amenity woods, where the main market features are non-timber based. Intuition and experience also come into play.

6.2 Income-based approach: assessment of the standing timber value

Where the main market features of the woodland are the quantity and quality of the timber being grown, market evidence derived from other woodland sales is likely to be of less relevance due to the greater number of technical variables. Against this background, a number of alternative approaches are advocated that take into account the current and potential standing timber value within the woodland. Thus both the site or land value and the standing timber value often need to be considered separately.

The land is assessed as ‘planting land’ and comparables are used to assess its value. An
income approach is used to assess the timber value. A separate assessment of the site or land value may also be required, if undertaking a valuation for capital gains tax purposes, as the timber is currently free of capital gains tax but the land is not. Furthermore this may become a more significant issue, now that indexation is no longer considered in the assessment of the taxable gain.

The method of valuing the growing timber then depends on the age of the trees at the time. When the trees are mature or nearing maturity (i.e. their optimum rotation length), a ‘present market value’ (discussed in more detail in 6.2.1) can be used to assess the current value of the standing timber. For young, immature woodlands (such as those less than 20 years old) using the ‘expectation value’ (discussed in more detail in 6.2.2) may be more appropriate to assess the future income or even the replacement cost. The figures determined by these approaches are then added to the land value to help assess the Market Value of the whole property.

### 6.2.1 Present market value

Present market value is used to assess the current standing timber value, i.e. the Market Value of the timber if cut now. It is often referred to as the ‘devastation value’. The present market value can be appropriately applied to mature (or nearly mature) commercial woodland categories. However, the present market value approach must be treated with caution, as the value derived from this method can often be less than the Market Value and can actually result in a negative value. For example, a woodland that contains small and immature trees and/or timber of a poor form can cost more to harvest than the proceeds from the sale of timber. However, comparable transactions clearly indicate that such woodlands have a Market Value above the value of just the planting land. This is because the present market value approach ignores both the non-timber value and the future timber value.

The current standing timber value is calculated by assessing the volume of standing timber and then multiplying that by the relevant standing timber price. Before this, valuers must first estimate the quantities of standing timber. They should take particular care if there are significant quantities of standing saleable timber, as they are germane to the valuation. There are several different methods of estimating the volume of standing timber. The method chosen may be influenced by the size and quantity of produce, its value and the purpose of the valuation. Forest measurement procedures are comprehensively described by Hamilton (1975) and Hart (1991). However, to gain an accurate estimate of standing volume involves quite complex methods of mensuration that require considerable knowledge and practice and are beyond the scope of this guidance note.

Prices for standing timber are extremely variable. The main factors which affect value are: species, tree size, quality, quantity being sold, ease and cost of harvesting, access and proximity to the timber markets. The main markets for timber are from the wood processing industries, which are built around four main product sectors: sawmilling, paper, board/wood-based panels and other wood (including fencing and garden furniture). Other markets include pit props, transmission poles, turnery, firewood (broadleaves only) and minor products such as bark, chips and foliage.

In addition, the wood fuel market is now increasingly offering an alternative outlet as a result of the increased adoption of biomass heating systems. This increased demand for wood fuel means that, in many cases, this market outlet now provides a more advantageous price for the lower quality timber. Furthermore, the expectation is that this demand and price will continue to increase.

Timber certification is also becoming a more important issue. The UK government is actively encouraging owners to certify their woodlands in accordance with the UK Woodland Assurance Standard (UKWAS). This certification is designed to provide independent assurance that the woodland is sustainably managed in accordance with sound silvicultural management practices. It is a voluntary scheme which was launched in 1999 and was established in response to the growing demand by consumers and retailers.

Up until recently, this scheme had relatively low uptake among private woodland owners. This is believed to be due to the time and costs involved, and many timber buyers are also not currently offering a premium in terms of price. However, the Forestry Commission grant schemes currently offer additional financial incentives to owners of certified woodlands. Furthermore, many in the industry expect that markets for non-certified timber will decline in the future and thus the premium for certified timber will increase.
There is a lack of published data on timber prices, particularly for broadleaved timber. The main published timber price indices are based on Forestry Commission timber sales and consist of the Coniferous Standing Sales Price Index and the Sawlog Price Index. Another source is Beacon Forestry, which holds regular electronic auctions of timber and publicises the results of these on its website. These and other prices are also reported in forestry magazines, e.g. *Timber Trades Journal*.

Despite their limitations, the data from these published sales of standing coniferous timber show that there is a good relationship between tree size and timber price (regardless of species), thus the larger the mean tree size, the greater the price per cubic metre will be, within certain limits. Hence with experience in this area, the standing price of conifer trees can be assessed after making the relevant adjustments in terms of species, quality, access and location.

The assessment of broadleaved timber is more problematic. While the same principles hold for broadleaved timber, published data for broadleaves are more sporadic and less complete. This is due to the broadleaved timber trade being more complex, with much greater variation in prices, depending on species, size, form, quality and marketing expertise of the seller.

### 6.2.2 Expectation value

When a crop is not yet mature, the timber may not have reached its full potential in terms of its size and value. Thus using a present value approach, which estimates the current standing timber value, will ignore this future potential value and may result in an undervaluation of the asset. Therefore, expectation value is often used for market valuations as it takes into account the future income and expenditure, which is likely to be more appropriate in this type of situation.

To assess expectation value, it is necessary to forecast the volume yield from the thinnings and final crop to the anticipated optimum rotation age, as these are the main management operations that will result in future income and expenditure. The forestry management tables (Edwards and Christie, 1981) can be used to determine the optimum economic rotation length, and thus the expected volume yield from thinnings and final felling to that rotation age.

Using the aforementioned data from the crop inspection, an appropriate ‘yield model’ can be selected from *Yield Models for Forest Management* (Edwards and Christie, 1981) that sets out the future trends of growth to estimate the probable development of that woodland. The expected volume yield from thinnings and final felling can be read directly from that yield model. Yield models have been prepared for all the major commercial tree species in the UK and for a wide variety of treatments, including a range of initial tree planting densities and thinning regimes.

However, it is inevitable that an individual woodland/woodland compartment will vary in one respect or another from the yield model, be it the actual physical stand characteristics or future management regimes that will be influenced by market factors. Therefore it is necessary to tailor the yield model predictions accordingly. Furthermore, yield models assume full stocking and thus should be adjusted to allow for open spaces such as roads, rides, streams, buildings and crop failures.

Once future volume yields from thinnings and final felling have been estimated, unit values based on standing timber prices should be applied to the volumes at relevant points in time and discounted to the present, using an appropriate discount rate. The latter will clearly have a significant impact on the capital value derived. The higher the discount rate, the more the current value is discounted, and likewise the greater the timescale involved, the greater the impact.

Determining the appropriate discount rate to use will be dictated by the market, but will probably be taken to approximate to the level of internal rate of return being sought by investors at the time. This, in turn, requires a full awareness of the prevailing trends in the forestry investment market.

Notwithstanding that, the discount rate adopted also varies according to the woodland category, as well as its age, timber quality and location.

### 6.2.3 Replacement cost method

Woodlands up to 20 years old are not likely to contain any saleable timber; therefore the present market value approach is not appropriate. Expectation value is also problematic for such woodlands as they are many years away from their optimum economic rotation length. The further
ahead that costs and prices are predicted, the more inaccurate such projections are likely to be. The discount rate will also have a very significant effect on the capital value derived.

An alternative approach is to consider the net costs of establishment. These can be derived from actual or standard published costs. The availability of grant aid also must be taken into account to ascertain the net cost. This net establishment cost should then be compounded to reflect the opportunity cost on the money invested for that period.

This method has its limitations as, firstly, it does not take into account the future income potential and, secondly, it does not reflect the state of the market. While such a method may be appropriate for certain types of valuation, such as insurance, the use and analysis of comparable market evidence is also vital for assessing the Market Value of younger woods.

References


The UK's 2.8 million hectares of woodlands and forests are made up of a wide range of types, ages and sizes. Valuation of woodlands involves diverse factors, some of which are of a specialist nature, and there is a lack of published market evidence.

The aim of this guidance note is to assist the valuer in highlighting the main factors that impact the Market Value of woodlands. It addresses some of the more complex issues that might arise in assessing the Market Value of such an asset by addressing the following topics:

- Categories of woodland
- Factors affecting value
- Preparatory work and inspection
- Valuation methods.

This guidance applies only in the United Kingdom.