UK Rural - April 2020

SPOTLIGHT
Savills Research

The Forestry Market

savills

Investment market • Planting schemes • Sustainable construction • Carbon sequestration

£121m
The value of UK forestry investment in 2019

25%
Increase per net productive hectare in the UK in 2019

22%
Higher market value in 2019 than the medium term average

Forestry – capturing the move towards sustainability

The mutual benefits of forestry attract public and investors' interest

Last year there was clear evidence of new buyers entering the UK forestry market attracted by the recent performance of the asset class, but also drawn to the environmental benefits of forestry. There was a perceptible shift in public attitude towards the climate emergency and investors concerned with ethical governance looked to forestry to provide some of their solutions.

For commercial forestry the sustainability arguments are clear; we are producing a natural commodity in timber, which if used in a sustainable way locks up the carbon sequestered through the growth of trees. Secondly, the growing world population will put a strain on our natural forests, so plantations will be required to deliver more of the wood we need. Finally, while our principal investment assets are upland commercial spruce woodlands, management to Forestry Stewardship Council certification standards ensures there is a place for biodiversity and conservation in even the most commercially managed forests, meaning they are both sustainable and environmentally beneficial.

While new interest was a feature of the market, some recent trends continued including low supply, strong competition and reasonable timber prices, as well as rising asset values across all regions. However, following strong rises in the proceeding two years, timber prices, particularly for sawlogs, fell back from the highs recorded during 2018.

The growing interest in forestry has now filtered through into tree planting and was the subject of many political party manifestoes last year. These positive pledges are very welcome, but there was little detail on how this additional planting would be achieved against a backdrop of complex grant schemes, slow processes, lack of nursery stock and the higher value of competing land uses. There is a huge opportunity to engage the country in a national tree planting effort, but it is important to underpin this with the production of quality timber that can be managed and used sustainably, particularly because any change in land use is likely to be an enduring one.

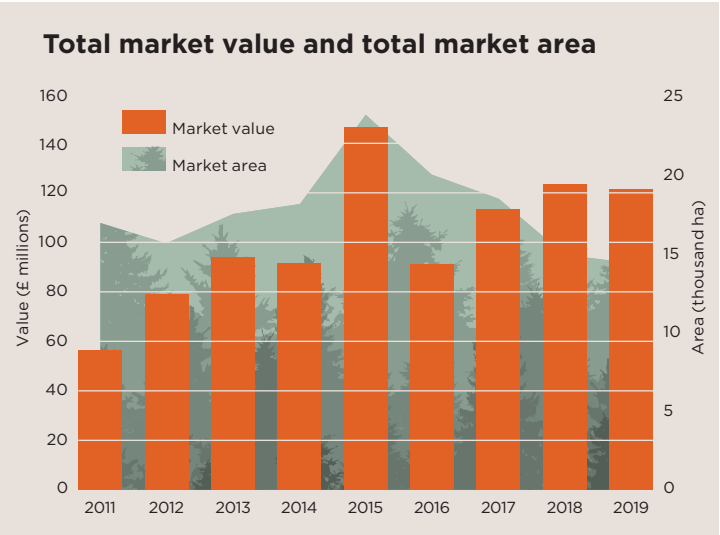


figure 1 **Source** Savills Research

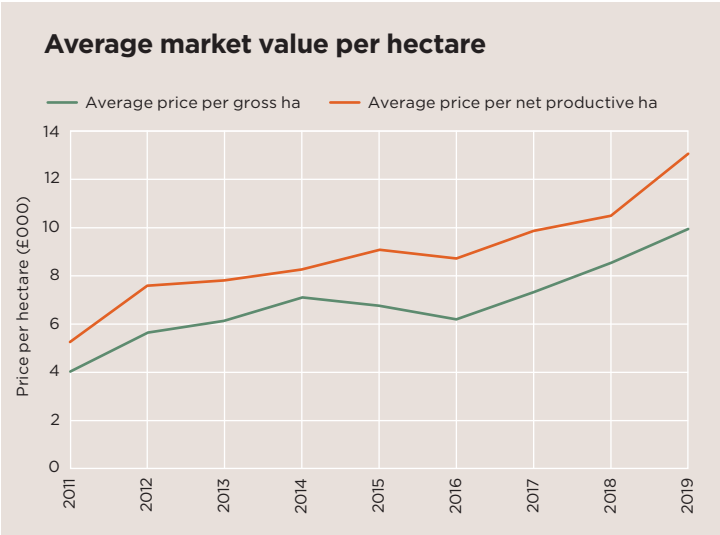


figure 2 **Source** Savills Research

TOTAL MARKET

AREA AND VALUE

The value of the UK forestry investment market was just over £121 million during the 2019 forest year (1 Oct 2018-30 Sept 2019). This represents a -2% reduction in overall sales value compared to 2018. In spite of this, our research shows that when looking back to 2011, with the exception of 2015 and 2018, the total value of forest sales is highest in 2019 (figure 1). There was a corresponding fall in the area of forestry traded, reducing by -4% from 14,900 hectares in 2018 to 14,400 hectares during 2019. With the exception of 2015, when forest sales were bolstered by a large portfolio sale, figure 2 illustrates that against a reduction in the number of hectares traded, the average value per hectare of forestry sold has generally increased since 2011.

AVERAGE FOREST VALUES

Our analysis of the 2019 sales data shows the average gross value increased by 17% to £9,900 per hectare, which translates to an increase of 25% per net productive hectare to £13,100, a trend following previous years.

Although average values provide an excellent basis for trend and comparative analysis, forestry values are diverse and price is dependent on a range of factors, including location, accessibility, tree species, average age and timber volume/quantity.

Our analysis shows that the proportion of multi-rotation forests in the sample is increasing year on year. Due to the drop off in forest planting in the 1990s, even aged properties are now rare and restructured properties with a wide age range of mature and immature timber are now the market norm. These have different valuation dynamics as the prices combine both the immediate value realisable from felling age timber and the expectation value that younger trees have. This allows investors to take a positive approach to pricing, as they can support value from different aspects, which has led to enhanced asset values.

“In line with the previous year’s average, values in England and Wales are boosted by a scarcity of productive woodland for sale”

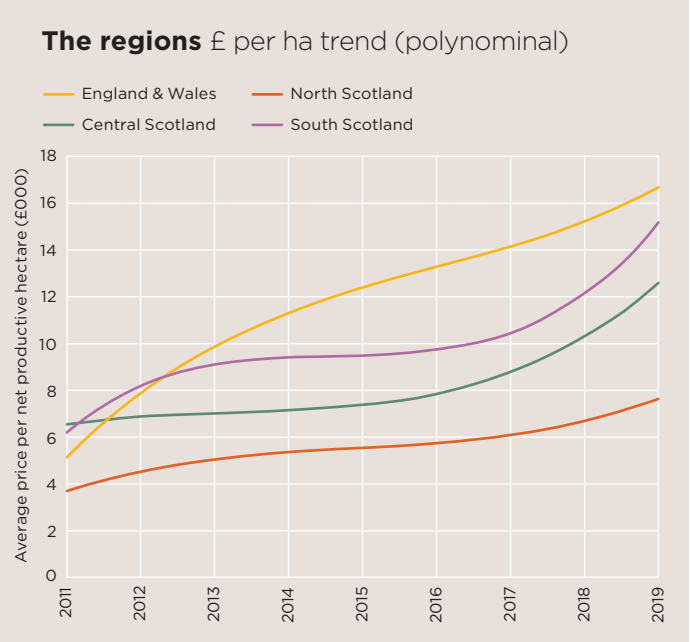


figure 3 **Source** Savills Research

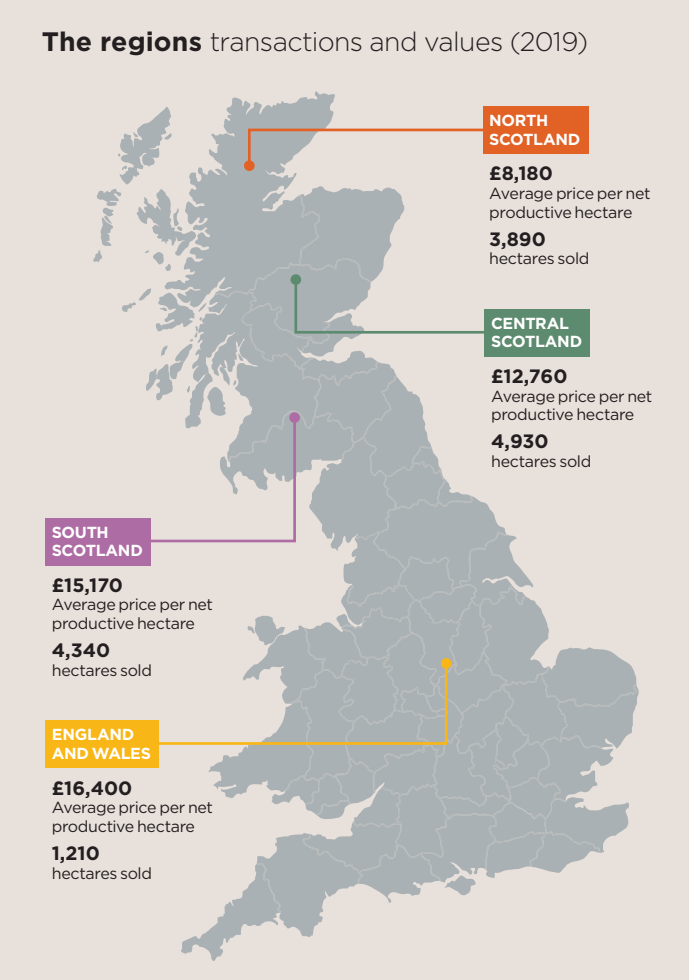


figure 4 **Source** Savills Research

Regional focus

Average timber prices and the value of productive woodland across the UK

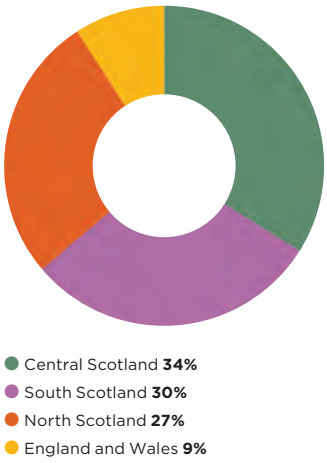
NORTH SCOTLAND

Our analysis shows that North Scotland is a lower value area, due to the poorer physical growing conditions, variable tree growth and extended distance to timber markets. However, our 2019 analysis reveals that across the market North Scotland witnessed the highest rise in average values from £5,630 to £8,180 (45%) per net productive hectare. The rise compares to average annual growth of 7% over the past seven years. This reflects improving timber prices in the region as markets become more competitive (for instance Norbord near Inverness significantly increased production following investment in the facility), and also a distillation of money from the prime market areas as investors become frustrated by the lack of purchasing opportunities. With the exception of Central Scotland (where the number of hectares sold was largely unchanged), North Scotland was the only region to sell more hectares in 2019 than 2018, reporting an increase of 800 hectares.

31%

The rise in value of productive forest area in Central Scotland during 2019. This sharp rise compares to average annual growth of 6% between 2012 and 2018

Percentage market share by region



Source Savills Research

CENTRAL SCOTLAND

The average value of net productive forest in Central Scotland rose by 31% during the 2019 forest year to £12,760 per hectare. This sharp rise compares to average annual growth of 6% between 2012 and 2018 and was largely a result of some high prices paid in Argyll, which is now considered a mainstream investment area. Although Central Scotland experienced no real change in the number of hectares sold, it had the largest market share across Scotland, England and Wales at 34% with just under 5,000 hectares transacted.

SOUTH SCOTLAND

In the 2019 forest year average values in South Scotland rose by 38% to £15,170 per net productive hectare. This strong growth follows a slight dip in 2018. Although the number of hectares sold was -17% less than the 2018 forest year, South Scotland’s market share was the second largest of all the regions. In Scotland, the south remains the most competitive area for timber marketing, and forests here benefit from excellent physical conditions leading to fast, even growth.

ENGLAND AND WALES

In line with the previous year’s average, values are boosted by a scarcity of productive woodland for sale (figure 4). The average price of commercial forestry traded in England and Wales is higher than any Scottish region and since 2013 has cost over £10,000 per productive hectare. Although the 2019 forest year reports a slower rate of value growth in England and Wales (5%) compared to the Scottish regions, average net productive values were above £16,000 per hectare.

“The UK government’s pledge for net zero carbon emissions has increased the focus on the forestry sector and is likely to drive the shift towards more sustainable timber-based construction methods”

Macro-disruption

Forestry and timber markets face new challenges over the coming years as disruption is initiated by a number of different factors

As global supply chains face unprecedented levels of uncertainty from the fallout of the coronavirus pandemic, large standing timber stocks across Europe remain under significant threat of attack from bark beetle infestations. Closer to home, the UK government’s pledge for net zero carbon emissions has increased the focus on the forestry sector and is likely to drive the shift towards more sustainable timber-based construction methods.

CORONAVIRUS

As a worldwide public health threat, the Covid-19 virus outbreak has become a fast evolving global pandemic with both short and long term economic implications. While governments around the world enact severe control measures to limit the spread of the disease, global trade and equity markets are scrambling to make sense of potential economic consequences and respond accordingly.

At the time of writing, domestic timber markets were starting to experience the realities of working in a lockdown environment and by early April many processors had adopted reduced shift patterns or site closures.

The most significant impact has been in the cessation of building work, which removed sawlog demand in a matter of days. Some markets have been resilient, namely roundwood for biomass that feeds some hospital and care home heating systems and palletwood on the back of an unprecedented logistical effort to keep the country fed and medical supplies moving. Naturally, global trade, which supplies 80% of the UK timber requirement, is stalling and supply chains are being tested as processors and factories close, ports idle and shipping movements slow.

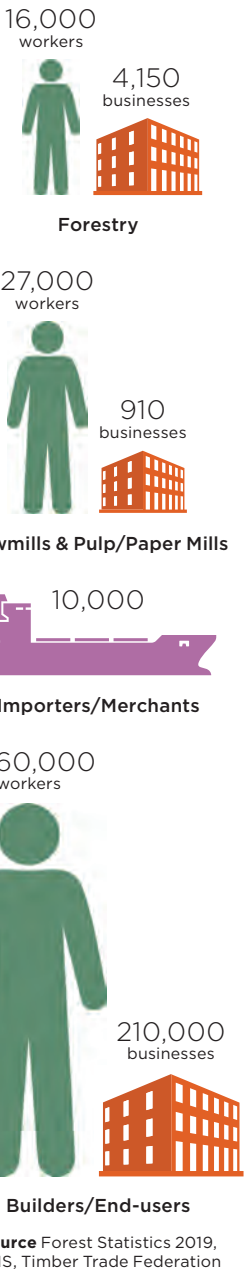
With the length and depth of any economic slowdown still largely unknown, the impact of the virus is best classed by an estimated recovery period. A prolonged pandemic is expected to have a significant bearing on general economic activity and substantial follow-on effects to consumer wealth, income and spending. Indeed, if the opposite occurs and disease control measures allow for a faster return to normal operation, follow-on effects may be reduced, and some commentators are predicting a strong ‘bounce’ late in 2020 and through next year.

For the UK, timber prices will ultimately be driven by availability of imported stock and demand from the house building sector. A large proportion of timber products used in the UK are imported and domestic stocks and processors are not capable of countering any large shortfall. Supply chains, while paused, are as yet to be majorly affected, however with isolation and social distancing measures now impacting on non-essential business, including building and construction, major disruption in demand is conceivable over the short to medium term.

80%

of the UK timber requirement is sourced through imports

CORONAVIRUS – SUPPLY CHAIN RISKS



Source Forest Statistics 2019, ONS, Timber Trade Federation

BARK BEETLE

Bark beetle infestation across central Europe’s spruce forests continues to pose a significant threat to timber markets. Recent mass outbreaks and their widening geographic spread have many countries on high alert to control its ecological and economic impact.

Bark beetles are a natural part of a conifer forest’s life cycle, but the scale and intensity in population growth over the past two decades is having an alarming impact. Rising temperatures are preventing widespread winter die-back of beetle larvae, while also enhancing the beetles’ potency. The beetles are expanding into new territory, hatching earlier and reproducing more frequently.

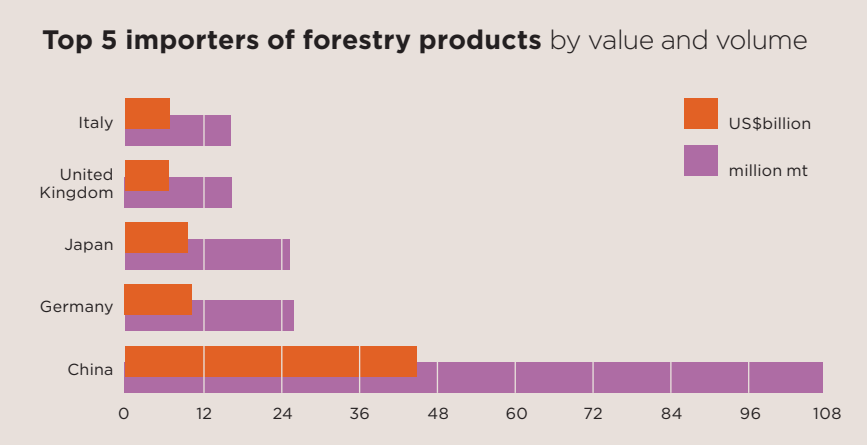
As a result, Switzerland is preparing to lose all spruce trees that do not lie high in the Alps. The Czech Republic’s forest body estimates its 2018 outbreak affected 18 million cubic metres of spruce, some 10 times more than amounts seen in previous years. At a cost of nearly £671 million in discounted product and extra logging costs, the ramifications of a continued rise in beetle population could be significant for global timber stocks.

1.6m ha
Of forestry and plantation timber has been burnt during Australia's bushfire crisis

80%
Of new builds in Scotland are timber framed

35%
Saving of embodied carbon with modular timber frames

Source Chatham House



Source Chatham House

Sustainable construction

Reduced waste, lower costs and negative emissions

Timber as a sustainable construction material is unrivalled in its category. Wooden buildings can contribute to negative emissions as the timber used in the building doubles as a carbon store and makes way for new trees to continue carbon sequestration.

According to research by the Policy Exchange, timber frames currently account for 22% of new builds in England, 17% in Northern Ireland and 30% in Wales. This is a number that could be greatly increased considering Scotland reports timber frames make up 80% of new builds.

Recent studies of modular timber frames show a 35% saving of embodied carbon compared to traditional residential building methods, while also reducing waste and lowering costs. A shift towards more sustainable construction products is gaining momentum, particularly as at present 40% of UK carbon dioxide emissions derive from building and construction, with the largest contributor being concrete.

Introducing products such as Cross Laminated Timber (CLT) or Glulam improves cost effectiveness and construction strength of new builds, as well as providing ongoing sustainability benefits long after building completion. Producing a laminated timber beam uses one-sixth the energy required for a steel beam of comparable strength. Softwood timber window frames provide almost 400 times the insulation when compared to a plain steel equivalent and over 1,000 times as much as an aluminum equivalent.

The value of timber-based construction has been recognised by the French government, which is pushing for reform that mandates all new public buildings be made from at least 50% wood or bio-based materials by 2022. The commitment comes as the country begins construction on its 2024 Olympic precinct, for which it says any building under eight stories will be built entirely of timber.

AUSTRALIAN BUSHFIRES

The recent bushfires over the Australian summer highlighted the unique exposure of land based investments. Australia is no stranger to hot, dry weather, but the cumulative effect of severe and prolonged rainfall deficits combined with high temperatures and strong winds created disastrous fire conditions. Estimates are that up to 11 million hectares of bush, forest, parks and agricultural land were directly affected by the fires, which in context equates to around 85% of England's land area. The worst in terms of fire intensity was the 5.8 million hectares impacted across south-eastern Australia.

Of this, it is estimated around 1.6 million hectares of forestry and plantation timber has been burnt according to rural intelligence company Digital Agriculture Services. This equates to 1.2% of Australia's total forest and plantation area, or half the 3.2 million hectares of woodland in the UK.

Economic costs are still being tallied but, with the scale of devastation likely to prohibit a widespread reclamation harvest, it is reasonable to assume a significant write down in biological assets will occur as a result.

1.2% of Australia's total forest and plantation area has been burnt, equating to half the 3.2 million hectares of woodland in the UK

£50m
Available for woodland carbon across England

264%
Global increase in forestry offsets in 2016-18

3x
More planting needed annually in UK to reach net zero by 2050

Britpik / Alamy

Sustainable tree planting and carbon sequestration

The forestry sector and tree planting as an offsetting mechanism have large roles to play in the net zero pledge

The UK government's net zero commitment legislates the need to consider the effect of business and industry on the environment. The subsequent rush for carbon sequestration capability has spurred interest in forestry, particularly at greenfield level, as investors position themselves to benefit from income streams.

By adding green income streams to an otherwise long term standing capital reserve, investors previously prohibited by the irregularity of income from forestry assets now view forestry as a viable option. The UK government has supported this by introducing the Woodland Carbon Guarantee in England, a scheme aimed at establishing a public marketplace for carbon offsets through woodland creation. While we expect private markets to leverage from this, much work is still required at policy level to fix the operation of carbon credits, preferably to a global standard.

Of course, the forestry sector has a large role to play in the UK's net zero pledge, but perspective should not be lost on the practical and economic implications of tree planting as an offsetting mechanism. Limited available land area and competing existing land uses in the UK make substantial tree planting quotas challenging to deliver. Undoubtedly, Covid-19 has put UK food security firmly back on the table and environmental concerns have changed as people endure lockdown. It remains to be seen whether the pandemic alters the policy approach to land use, which focuses largely on environmental delivery. So as much as offsetting will be an important response to the net zero agenda and could form a valuble part of corporate Environmental Social and Governance (ESG) reporting, tree planting is not a quick win. Businesses need to understand the hierarchy of emissions reduction that includes cessation and mitigation strategies – they cannot plan to simply 'buy out' environmental problems.

It is worth noting that while forestry assets have received increasing interest as boardrooms are pushed to address ESG factors, it is foreseeable some of this sentiment is relaxed or paused as the financial sector works to recover the extraordinary losses across many other asset classes incurred since February 2020. Capital reserves may be constrained into alternative assets, like land for tree planting, over the short term, but there remains opportunity for the long term investor looking for uncorrelated, values-based returns.

WOODLAND PLANTING SCHEMES

£46.4m
Forestry Grant Scheme, Scotland 2019-2020

£8m
Glastir Woodland Schemes, Wales 2021-2023

£6,800 per hectare
Woodland Creation Grant: Countryside Stewardship, England 2019

Source Savills Research

THE WOODLAND CARBON GUARANTEE

This is a £50 million scheme to help accelerate woodland planting rates across England. The scheme is held as an online auction, the first of which took place in February 2020 and saw 18 contracts offered by the Forestry Commission to help stimulate the creation of 182 hectares of new woodland. The next auction takes place from 8-19 June 2020 with £10 million available. Auctions will be held every six months for up to five years, depending on the rate of uptake. The Guarantee provides successful applicants with the option to sell the captured carbon from woodlands in the form of verified Woodland Carbon Units to the government for a guaranteed price every five or 10 years up to 2055/56. The option to sell credits on the open market rather than to the government will also be available. The woodland in the guarantee must be validated under the Woodland Carbon Code (see right).

> The value of woodland carbon sequestration could emerge as a new potential income stream for land managers

THE WOODLAND CARBON CODE

A voluntary standard for carbon sequestration within UK woodland projects, used by private investors, brokers and the government.

- The code creates verifiable carbon rights that can be sold and provides assurance that the planted trees will be well managed and will capture the carbon dioxide claimed. Each tonne of carbon dioxide sequestered is called a Woodland Carbon Unit, which can be used by companies to report against UK based emissions.
- The code has a rigorous verification and monitoring process and strict eligibility criteria. It only applies to new woodland creation schemes registered two years before to two years after planting commences. Applying to the code does not exclude projects from applying to other Forestry Commission funding schemes.
- The code calculates the projected carbon sequestration rate of projects, taking into account woodland type, management and quality.
- Projects must conform to the UK Forestry Standard and woodland carbon projects that are registered with the standard are listed on the UK Woodland Carbon Registry, to avoid double counting. Regular third party auditing is carried out every five to 10 years.
- The code doesn't yet account for the final use of timber, which is problematic, as it fails to include possible carbon emissions through, for example, burning wood.
- Woodland carbon credits cannot be used in compliance schemes such as the EU Emissions Trading Scheme and cannot be used outside of the UK. They are intended for the voluntary offsetting market.

266

projects are currently verified under the code, with a projected carbon sequestration of 6.2 million tonnes of CO_2 over 100 years

Grant money paid 2009-10 to 2018-2019

Period	England £m	Wales £m	Scotland £m	GB £m
2009-10	24.4	2.9	5.7	33.0
2010-11	28.7	3.8	18.9	51.4
2011-12	32.5	5.4	34.2	72.1
2012-13	32.8	5.0	32.3	70.1
2013-14	33.9	4.1	35.5	73.5
2014-15	32.4	1.8	39.2	73.4
2015-16	23.0	3.6	27.5	54.1
2016-17	23.8	3.3	30.5	57.5
2017-18	13.5	4.7	37.9	56.1
2018-19	20.5	5.9	50.2	76.6

Source Forestry Commission, Scottish Forestry, Welsh Government

Carbon – a new player in the forestry marketplace?

Emissions reduction and offsetting have been brought centre stage in recent years

The UK's commitment to achieving net zero emissions by 2050 has significant impacts for the nation's future land use, in particular increasing demand for tree planting. The legally binding target, combined with the power of climate-related financial disclosure and the 'Thunberg effect', has brought carbon emissions and offsetting centre stage. The value of woodland carbon sequestration could emerge as a new potential income stream for land managers.

CARBON OFFSETTING

Putting a value on woodland carbon depends on quantifying carbon sequestration. However, calculating an average amount of carbon dioxide absorbed is no easy task, as the type of tree, its age, its location, soil type, stocking density and management all alter the quantity of carbon sequestered. Therefore rigorous assurance standards are required to verify that a forestry project is absorbing the stated amount of carbon. Within the UK, the government-recognised standard is the Woodland Carbon Code.

The government is promoting both public and private carbon offsetting markets in order to incentivise tree planting and reach its net zero targets. Currently, 13% of the UK is wooded, much lower than the European average of 37%. Annually, around 10,000 hectares of land are planted with trees, mostly in Scotland. If we are to meet net zero by 2050, it is estimated that 30,000 hectares need to be planted each year, nearly triple the current annual planting rate (Committee on Climate Change 2019).

In the UK, the market for carbon offsetting through forestry is not mainstream, with individual stakeholders brokering bespoke deals between private landowners and emitters. The government's £50 million Woodland Carbon Guarantee was launched to stimulate the marketplace, and will set a baseline carbon value.

If the global voluntary offsetting market is indicative of future domestic trends, the market will almost certainly expand. Globally, the volume of offsets generated through forestry and land use activities increased 264% between 2016 and 2018. In comparison, the volume in all other offset types grew just 21% (Ecosystem Marketplace 2020). Coupled with the increasing offsetting demand from multinational corporations, the woodland carbon marketplace offers significant opportunities.

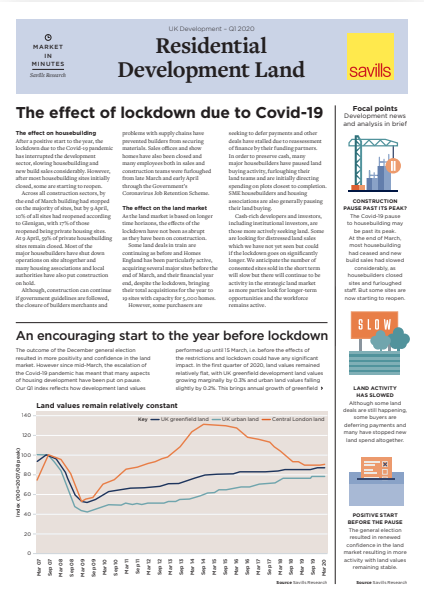
BARRIERS TO PLANTING

While increasing new woodland planting levels is an excellent endeavour, there are barriers to planting trees. The UK nursery stock of tree saplings is limited to orders the nurseries know will be fulfilled, with a one to two year lag time to produce new stock to meet changes in demand. Woodland creation also requires prior approval as a change of land use from agricultural production and this process can be time consuming. Once approved the land cannot be reverted to farmland, which can deter owners of better quality land to consider a change of use. Finally, there is a relatively limited area within the UK that is suitable for tree planting – it is important not to compromise other economic land uses, biodiverse habitats and protected ecosystems just to reach tree planting targets.

A policy focus on climate mitigation and the devlopment of the private offsetting market risks using carbon sequestration as the only indicator of success. On the downside this could incentivise mass tree planting schemes with little regard for location and species specificity. Without doubt, the woodland carbon market offers exciting new income streams for forestry, however planting must be appropriate – in the right place and for the right objectives, which must include production of sustainable, quality timber.

Carbon Offset Market • Biodiversity Net Gain • Nitrate Neutrality • Rewilding

Is the rise of veganism overplayed? • Disrupting the supply chain • Achieving net zero



Market evolution • Growing costs • Multiple end uses • Investment opportunities

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James Adamson
Head of Forestry Investment UK
01738 447 510
james.adamson@savills.com

Nicola Buckingham
Rural Research
07807 999 011
nbuckingham@savills.com

Angus Locke
Rural Research
020 7075 2871
angus.locke@savills.com

Analysis Methodology: Our research analyses our transactional database of forest sales that collates data from all mainstream forestry transactions and, where we are aware, off-market or private sales. While every effort is taken to ensure all transactions are included, it is likely that further sales are reported after our publishing. Therefore, this Spotlight on the UK Forestry Market takes into account all new available information.