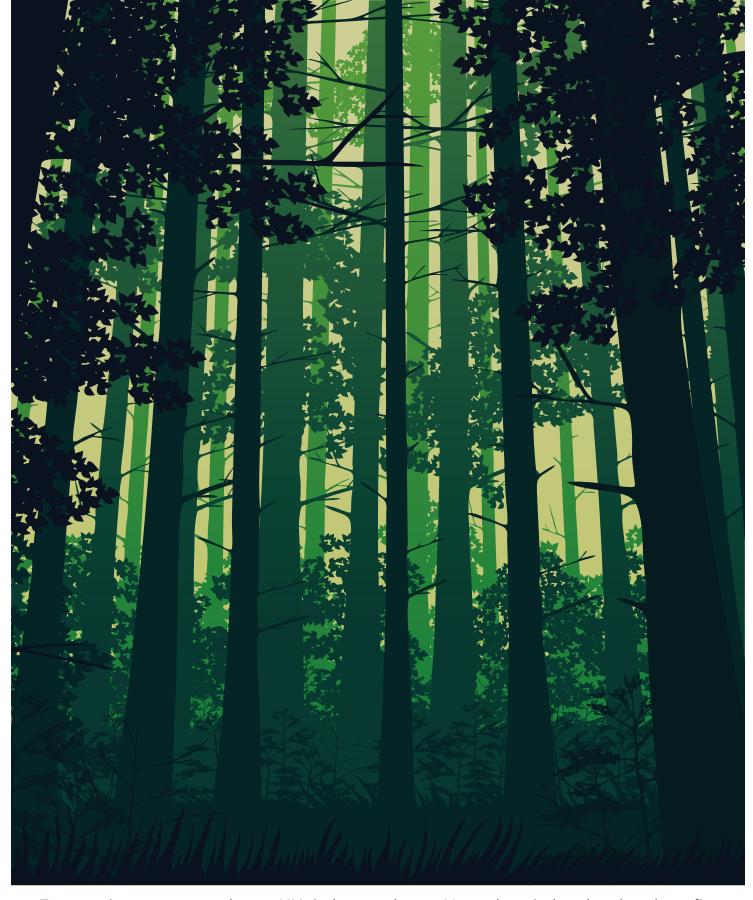


The Forestry Market





14,750

Gross area of hectares traded in 2018

£11,142

Average price per net productive hectare

11.4m m³

Volume of timber harvested in the LIK in 2017

Future of forestry

The popularity of UK forests has caused capital values to rise at impressive rates, but is this sustainable?

Demand for UK forests continues at unprecedented levels, but the market remains constrained by lack of supply and we believe this is unlikely to change over the medium term. The reasons for the current popularity of forestry assets are well documented; strong and rising demand for wood, long rotation lengths, diversification into tangible assets and increasing recognition of the environmental benefits of woodlands, with potentially new opportunities for monetisation. As a result of this popularity capital values have risen at impressive rates. However, for some time now a few voices in the industry have been expressing concern over the sustainability of these price rises and indeed, whether an asset bubble is forming.

An asset bubble can be described as a runup in prices fuelled by demand, speculation and exuberance. So is this the case with the current market? We believe this is unlikely. While the market is definitely being stimulated by a clear supply-demand imbalance and there is a degree of speculative pricing going on, the nature of forest growth underpins the asset in two ways.

First, biological growth is immune from property market cycles, so it provides investment stability. Second, the productive potential of timber properties will improve as timber prices rise, effectively underwriting rising capital values, and we do not think the top of the cycle has been reached yet. In other words, good timber properties can support these values providing timber sells at current (or higher) levels. It's also worth noting that forest investors have low levels of gearing and are generally long term in nature, meaning they are able to ride out short term market fluctuations.

We would, however, caution the sentiment that high forest returns are normal. Investment performance has been spectacular, but relies heavily on capital movement not income yield. This means a sale is required to crystallise the performance, which many investors are not wanting to do. While we consider that forest values have scope to rise further, owners must realise that if they want to remain invested, then income yields should become the accepted measure of performance, and these will normally be much lower than on a total return basis, which prices in the asset capital.

£118m

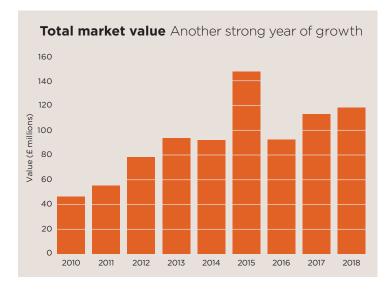
The total value of the UK forestry investment market in 2018

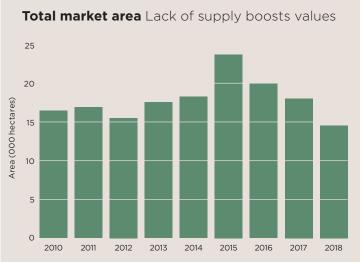
Total market - area and value

In line with recent trends, 2018 posted another strong year of value growth for the UK forestry market, with supply down by 19%, but overall market value up by nearly 6%, meaning a 30% increase in average value per gross hectare. Despite this headline figure, it is important to understand that forestry values are influenced by a number of local factors and, therefore, the location, quality and scale of the properties in the sample can skew the result compared to the true average. It does not necessarily follow that there has been such a strong increase across the board.

During the 2018 forest year the total value of the UK forestry investment market increased to £118 million, up from £112 million in 2017, to a figure 14% above the medium term average of £99 million per annum. For the second year in a row the increased market value was against a backdrop of falling supply, with a gross area of 14,750 hectares traded, some 18% below the medium term average. Contraction in supply coupled with increased market value led to a strong increase in the average price per hectare to £8,066 per gross hectare. Our analysis shows that within the area traded, 10,678 hectares was productive forest, giving an average price per net productive hectare of £11,142, up from £9,300 per net productive hectare in 2017.

In 2018, analysis shows the average unproductive area was 28% per property, lower than in 2017 but in line with the medium term average. Unproductive areas include unplanted land (roads, rides, tracks, wayleaves, watercourses, etc) and non-timber species such as broadleaf trees planted for biodiversity.

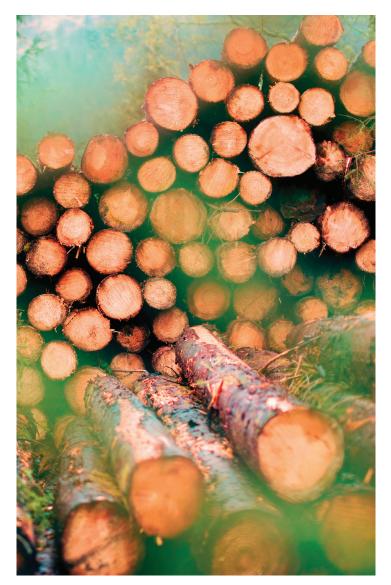




Source Savills Research

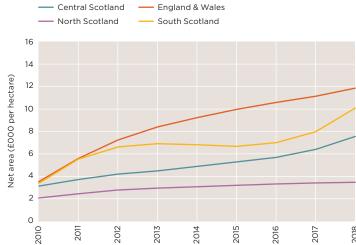
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66 In line with recent trends, 2018 posted another strong year of value growth for the UK forestry market, with supply down by 19%, but overall market value up by nearly 6% 99



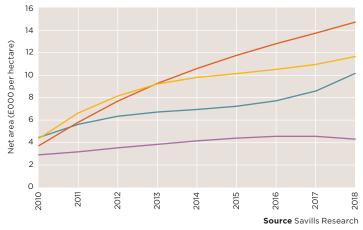
Regional Average Gross Values

Polynominal £ per ha trend



Regional Average Net Values

Polynominal £ per ha trend



Regional markets

The pattern of market share and values is broadly similar to recent years

There is of course significant regional variation in average price and the trend shows increasing divergence as represented by the spread of lines on the graphs above. A number of different factors influence this. In England and Wales the small number of transactions is an important factor, meaning availability and subsequent competition is a key price driver. In north Scotland the relatively low and static pricing structure reflects the geography and productive capacity of the woodland resource, with large areas of low quality softwood, remote from timber markets and often challenging to harvest.

The most interesting regions are south and central Scotland. South Scotland (extending into northern England) benefits from good growing conditions, good infrastructure and competitive timber markets. The market priced in these benefits several years ago with the three year rolling average reaching £9,000 per net hectare in 2014 and then staying within a relatively constant £1,500 per hectare of that figure since then, so within an overall movement of just 17%. Conversely, average values in central Scotland, which includes Perthshire, Argyll and Aberdeenshire, had a three year rolling average of

only £6,400 per hectare in 2014, which has since increased to £8,870 per hectare, a movement of 38%. While these changes are influenced by the individual properties sold, the strong price increases in central Scotland do directly reflect a noticeable change in investor sentiment that increasingly values woodlands in central Scotland supported by improving timber infrastructure and prices in remote areas. Mathematically, average values dropped slightly in England and Wales, but adjusting for the characteristics of the properties sold, values remain on an upward trend. In south Scotland, the

average value over recent years rose sharply reflecting the high timber prices paid in this region. Within all regions, apart from north Scotland, the overall range of prices paid is widening, and increasingly reflects the productive potential of assets.

In terms of market share, the broad pattern was similar to recent years with over 90% of the market activity by area in Scotland. Market share by area was at the highest level recorded in south Scotland since 2015, and 72% of the overall marketed by area was in central and south Scotland, against a medium term average of 65% for these combined regions.

66 The reality is that the price of timber will be entirely influenced by supply and demand and the efficiencies or otherwise of the production chain 99

Outlook for the timber market

The key to timber prices over the longer term is likely to come from sustained building activity and a buoyant economy

Last year saw the third highest percentage rise (46.2%) in UK timber prices recorded during the last 35 years, leading to understandable nervousness over the short term direction the markets will take. But commodity price fluctuations are not new and market volatility will continue – the reality is that the price of timber will be entirely influenced by supply and demand and the efficiencies or otherwise of the production chain. The domestic market is complicated by the degree to which the UK is reliant on imports. In 2018 and early 2019, this was compounded by the uncertainty around future UK trade relationships with most other exporting countries.

In forecasting commodities it is important to look at underlying fundamentals, not past pricing cycles or short term risks. There are a number of factors influencing this, but the latent demand for wood is undoubtedly key. Both global and UK timber supply should be considered relatively finite as replenishing global timber resources is unlikely to keep pace with fellings, and indeed pressure to limit climate change will provide strong friction against expanding the global harvest further into the natural forest resource. Domestic forward supply is shown on the graph on page 5, and the ability to upscale domestic production is limited, so from a supply standpoint timber deliveries are

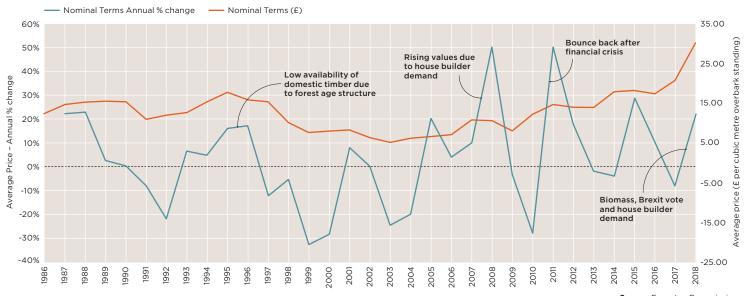


relatively unresponsive to increasing demand and, therefore, open to demand led price inflation.

Latent demand may fluctuate, but we consider that over the medium term it will not diminish. Construction demand is underpinned by house building targets in the UK, and this is replicated in China and the USA, as well as the potential from developing economies. Biomass currently offers strong demand for small diameter timber in the UK

and elsewhere. This is not a sustainable use of wood fibre and, although it is clearly impacting on markets, there is the prospect of price or regulatory intervention impacting the further expansion of this sector. The key to timber prices over the longer term is likely to come from construction demand and in a buoyant economy there is no reason for prices to fall. If they do, as seen in past cycles they will recover again, and we do not believe the market has reached a ceiling price.

Coniferous Standing Sales Price Index for Great Britain Significant increases in just over a decade



Source Forestry Commission

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46.2%

Increase in the average value of timber to September 2018

£70/t

The best softwood parcels trade at high prices

30+

Felling rates considered sustainable for 30+ years

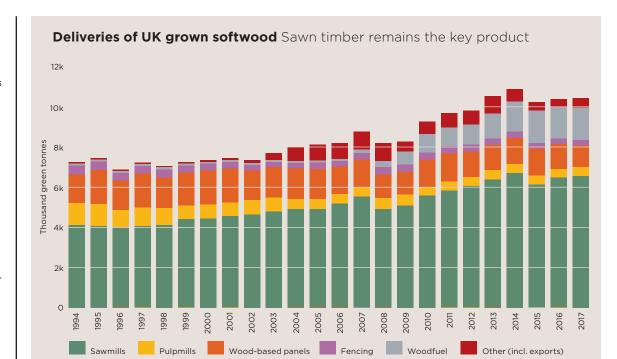
TIMBER MARKETS

PRICE

According to the Coniferous Standing Sales Price Index for Great Britain, the average value of timber increased significantly (46.2%) during the year to September 2018. This follows a 21.4% increase in the previous harvest year. This 2018 price rise is substantial but not unique and the graph on page 4 shows this is the third increase of this magnitude in annual growth in just over a decade; other significant rises occurred in 2010 (48.7%) and 2007 (50.2%). Since 2000 timber prices have increased by 235% compared with -26% in the 15 years preceding 2015.

DEMAND

It is well reported that the UK is very reliant on timber imports, but recent inward investment in the UK wood processing industry and pricing trends highlight the buoyant and world class nature of this sector. Current conditions favour UK producers but our potential harvest is limited by availability of the resource and the practicality of harvesting more timber than we are currently producing. Current felling rates can be considered as sustainable for the next 30 plus years, which means that, subject to external shocks disrupting demand, there is little on the horizon to suggest a change to current pricing structures.

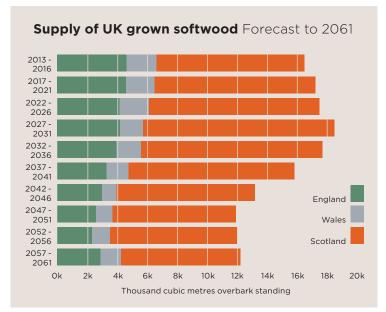


Although woodfuel has provided a new market over the last decade, it is clear that sawn wood still remains the most important product type. Production of quality sawn timber remains the key determinant of overall price, but there is a degree of dilution occurring, and the differentiation of product types is not as clear

as it used to be. Prices for all product categories rose strongly in 2018. While it's easy to point to a weak pound making imports uncompetitive, the reality is much of that benefit had already been priced in during 2017, and 2018 was more about demand from domestic processors and a degree of competition to secure supply.

This was coupled with improving demand for product from a hungry construction sector. There is now some risk that imports could pick-up to push back on some of the current domestic demand, but the uncertainty prevailing over future trading arrangements is likely to influence this.

Source Industry surveys and industry associations



Source National Forestry Inventory

SUPPLY

UK softwood supply is forecast by the Forestry Commission, shown opposite. Based on current projections the data on the chart averages about 15 million m³ against a current harvest of 11.4 million m3, meaning we are currently running at just below maximum capacity. This is for a number of reasons. including industry capacity and the ability to work in upland locations in winter. Even if we could capture the extra 3 million m³ per annum, this only represents 5% of current UK wood usage so it would have limited potential to adversely affect timber prices. Although there is a risk that imports win back market share post Brexit, factors such as tighter biosecurity controls on imported wood or increasing demand in the country of origin may limit this.

66 Natural capital is the stock of the world all around us – earth, air and water and all the components that are linked with them: trees, minerals and peat bogs, to name but a few 99



New land management principles

The services and benefits that natural capital can deliver underpin the new policy architecture for UK land

The 25 Year Environment Plan (EP) sets out the general principles for UK land management, namely: public money for public goods, more effective application of the "polluter pays" principle, and the concept of "net environmental gain" on all land use. The Agriculture Bill focuses on the public money for public goods element, but acknowledges that market and supply chain relations remain key tools to manage and allocate risk fairly among market players. It can be expected that further detail on the "polluter pays" and "net environmental gain" elements will be set out in the Environment Bill, expected in May, which should provide the framework for all land use in the UK. These policies recognise the significant benefits that forestry and woodland will contribute as suppliers of eco services in the new natural capital-based policy architecture.

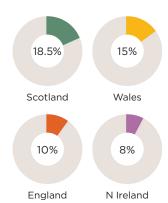
Natural capital is the stock of the world all around us – earth, air and water and all the components that are linked with them: trees, minerals and peat bogs, to name but a few. Ecosystem services are the services that natural capital can deliver, such as the sequestration of carbon by trees, the filtering of

water by soil and the flood prevention provided by landscape management and flood plains. Services also include the provision of food, fuel and fibre, and the pollination of crops, as well as wellbeing values.

The proposed New Environmental Land Management Scheme (NELMS) in theory is underpinned by natural capital principles, meaning that payments to land managers for "public goods" will be based on a natural capital valuation of those assets and the services they provide. This could open up funding for managing natural resources, especially to mitigate climate change by sequestering and storing carbon.

Forestry, woodlands and hedgerows can provide a range of other ecosystem services and benefits such as recreation, public access and enhancing landscapes. The market potential for services will largely depend on the location of the asset, as shown by the higher grant rates under the new Woodland Grant Scheme for public access measures. Factor in existing and potential markets for fibre for fuel and timber, flood alleviation, water filtration, prevention of soil erosion, and biodiversity outcomes, and some attractive returns may be on offer.

WOODLAND LAND USE UK



In 2018, 13% of UK land area is woodland, which is evenly distributed between conifers and broadleaves. On a country basis. Scotland is the most forested country (18.5% of its land area), followed by Wales (15%), England (10%) and Northern Ireland (8%). There are regional differences in forestry type, with conifers making up three-quarters of Scottish woodlands, while broadleaves are the dominant tree type in England (74% of woodland area). There is a more even distribution between conifers and broadleaves in Wales and Northern Ireland.





√9k ha/pa

The area of woodland increased during the latter half of the 20th century (from 6% in 1947) as a result of a steady programme of afforestation throughout the UK. Planting rates reached a high of 30,000 hectares annually in the late 1980s, but have declined dramatically in recent years, averaging 9,000 hectares annually since 2010.

Source Savills Research

13%

UK total area covered by forests and woodland

18%

UK tree cover needed to reach 2050 targets

40,000

Hectares of tree planting required per year to 2050

Have we got enough trees to reach our targets?

Falling levels of planting mean the carbon sink could be half what it is now by 2050

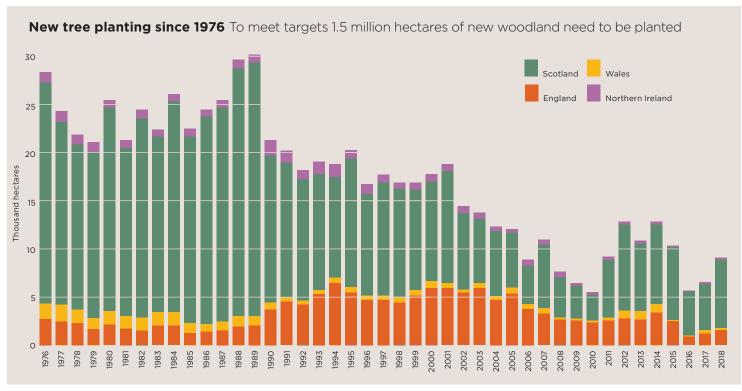
Currently UK forests and woodlands cover 13% (3.2 million hectares) of the UK total area and, as UK forestry is a net carbon sink, they contain around 150 million tonnes of carbon in the trees (biomass) and a further 640 million tonnes in the soil.

In the past three decades, and especially in the past decade new tree planting has fallen, see below. According to the Committee on Climate Change (CCC) at current levels (3.2 million hectares) the carbon sink from forests and woodlands will be half of what it is now by 2050 due to ageing forest and lack of planting, as trees are unable to sequester more carbon on reaching an equilibrium.

As well as reducing the future net carbon sink the reduced rates of tree planting will also restrict the opportunities to harvest timber as discussed on page 5 of this report.

According to the CCC, in order to meet

UK binding greenhouse gas capture targets, up to 1.5 million hectares of new woodland would be needed to store carbon by 2050. This would increase tree cover to 18% of the UK and would require around 40,000 hectares of tree planting per year to 2050. That is significantly more than twice the average number planted per year since 1976 and almost four times more than the average planting over the past 20 years.



Source Forestry Commission, Natural Resources Wales, Forest Service, grant schemes

LANDOWNER OPPORTUNITIES

Payments, capital and/or an annuity for ecosystem services are made to the "manager" of the natural capital to provide the ecosystem service. Many services are currently provided without charge or under local initiatives, but as the new environmental policy landscape becomes more established so does the potential for offering offsetting services and the development of associated

markets. These might include:

- Markets in avoided costs such as reducing nitrates in water, paid for by savings on water purification costs
- Compulsory offsetting such as carbon trading through the Emissions Trading Scheme
- Voluntary offsetting and links with CSR initiatives
- Social prescribing and paid-for access to green space through NHS budgets
- Green finance from corporate investors looking for long-term environmentally beneficial commercial projects.

Our Estate Benchmarking
Survey clearly shows that
woodland on rural estates is
under-utilised. Over the past
five years it has, on average,
barely broken even and on
many estates is a significant
cost. We believe that woodland
along with other natural assets
on estates should be an income
opportunity worth exploring
and should be investigated
as part of the estate's current
strategic planning.

One key area to consider is the loss of area-based payments over the next seven

years. Where these payments have supported agricultural production on marginal land, there will be an opportunity to consider the next most beneficial use of this land over five to 10 years. A more site specific approach to cropping efficiency could free up awkward corners and patches of variable soils for woodland planting. It is worth noting that trees should be viewed as part of long term planning as it is not a land use that can easily revert back to agriculture, and land values may be impacted.



Savills Rural Research

We provide bespoke services for landowners, developers, occupiers and investors across the life cycle of residential, commercial or mixed-use projects. We add value by providing our clients with research-backed advice and consultancy through our market-leading global research team



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