Forest Research is the Research Agency of the Forestry Commission and is the leading UK organisation engaged in forestry and tree related research.

The Agency aims to support and enhance forestry and its role in sustainable development by providing innovative, high quality scientific research, technical support and consultancy services.
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1 General economic trends affecting forests and the forest industries sector

1.1 Overview
The UK economy has experienced a major downturn in 2020 due to the COVID-19 pandemic. A record fall in GDP during Q2 2020 has been partly reversed by growth during the summer, although in July remained 11.5% below its 2019 Q4 level. A significant downturn is expected for 2020 as a whole. The COVID-19 crisis follows a period relatively stable growth in the UK since 2010 (Figure 1.1).

Figure 1.1 Real GDP Growth Rate 2007-2020, Selected Economies, %

Real Growth of Gross Domestic Product (GDP) in the UK, USA, Germany, France and the Euro area (EA19) over the last decade.
There was a significant fall in spring 2020 in the value of the Pound Sterling against both the Euro and the US dollar. Some strengthening has since taken place against the US dollar while there has been some continued depreciation against the Euro (Figure 1.2). At the time of writing, there is uncertainty about the terms of the UK’s trading relationship with the European Union after it leaves the EU Single Market at the end of 2020, and this may be a cause of the recent falls against the Euro.

Figure 1.2 Exchange Rate of GBPEUR and GBPUSD, 2016 to 2020

The value of the Pound Sterling over time against the Euro and the US dollar.
Source: Bank of England (2020), Spot Exchange Rate (Euro into Sterling), Spot Exchange Rate (Dollar into Sterling).
1.2 Monetary Policy

The Bank of England’s Monetary Policy Committee vote on whether to raise, lower or maintain the Bank of England’s Base Rate, upon which many other interest rates are based. Setting ‘the interest rate’ is one of the key macroeconomic instruments in monetary policy that help to achieve the Bank of England’s inflation target and stimulate economic growth.

Slight rises in interest rates in 2017 and 2018 have been reversed in 2020. Rates were reduced from 0.25% to 0.1% in March 2020. The Monetary Policy Committee voted unanimously in September 2020 to maintain rates at 0.1%.

Despite low interest rates, the household savings ratio increased in the wake of the 2007-08 financial crisis as consumers chose to pay off existing debts and increase their savings rather than increasing spending using cheap credit. This had a negative effect on consumption and economic growth. However, there have been major increases in the household savings in the past year, latterly driven by a COVID-19 lockdown and continuing reluctance among consumers to spend in sectors such as retail, hospitality and travel. The Household Saving Rate in the United Kingdom increased to 8.6 percent in the first quarter of 2020 from 6.6 percent in the fourth quarter of 2019 (Figure 1.3).
The COVID-19 economic crisis has caused a fall in inflation. The twelve-month Consumer Prices Index (CPI) inflation rate fell from 1.0% in July to 0.2% in August, helped by temporary impacts from the Government’s Eat Out to Help Out scheme and a cut in VAT for hospitality, holiday accommodation and attractions. CPI inflation is expected to remain below 1% until early 2021, albeit slightly higher than expected earlier in the summer.

The path of growth and inflation will depend on the evolution of the pandemic and measures taken to protect public health, as well as the nature of, and transition to, the new trading arrangements between the European Union and the United Kingdom. It will also depend on the responses of households, businesses and financial markets to these developments.
1.3 GDP Growth

Change in Gross Domestic Product (GDP) is currently considered the main indicator of economic growth. It measures the market value of all ‘final’ goods and services produced over a period of time (i.e. monthly, quarterly, or annually) in monetary terms.

A recession is defined as a period of two successive quarters of negative economic growth. In the first half of 2020, the UK entered its first recession since 2009, with falls of 2.2% in Q1 and a record 20.4% in Q2, although growth returned in the summer as lockdown restrictions were eased. The latest Bank of England Quarterly Report did not provide further analysis on the trajectory for GDP in the coming year but provided survey analysis that shows major impacts of COVID-19 on business expectations. Respondents estimated that sales in 2020 Q2 were 30% lower than they otherwise would have been. A gradual recovery in sales was expected over the next year, although sales were still expected to be 5% lower than they would have been by 2021 Q2 (in the absence of the Covid-19 shock). Investment was expected to recover more slowly than sales, but with a broadly similar profile.
1.4 Inflation

The Consumer Prices Index, including owner occupiers’ housing costs (CPIH), shows the rate at which prices are rising, or falling, in the domestic economy (Figure 1.4). The Bank of England’s (BoE) target for inflation is 2% per year. In March 2009, the BoE set interest rates at 0.5%. This was coupled with a sustained period of quantitative easing\(^1\). A period of higher inflation in the economy followed, reaching a high of around 4.5% as credit became cheaper to obtain and demand for goods and services increased in the economy. The fall in the inflation rate between 2012 and 2015/16 is believed to have been largely caused by external factors to the UK economy, in particular a fall in energy, food and imported goods prices, which in turn were primarily due to fluctuations in exchange rates.

More recent falls in inflation since 2018 were associated with a dampening of economic activity, followed by a sharper decline in 2020 as a result of the COVID-19 pandemic.

\(^{1}\) The Bank of England creates new digital currency in order to purchase assets, such as government bonds. Buying assets in large quantities increases the price of these assets, which reduces the yield, or return, on that asset. This encourages owners of these assets to sell them and use the money from the sale to invest in alternative assets, such as company shares and bonds, which enables businesses to invest, boosting the economy.
1.5 Employment

Recent years have seen the employment rate in the UK increasing to record levels until the COVID-19 pandemic. Data from the Office for National Statistics show a slight fall in the employment rate, and an increase in the unemployment rate, in mid 2020 (see Figures 1.5 and 1.6). The cushioning effects of government responses to the pandemic – notably the temporary furlough scheme to prevent employers laying off staff – have reduced the impacts of COVID-19 on employment, but it is widely anticipated that unemployment may rise substantially when such measures are ceased or moderated.
Figure 1.5 UK employment rate % (seasonally adjusted), 2007-2020

Source: Office for National Statistics (ONS) Labour Market.

Figure 1.6 UK unemployment rate %, 2007 – 2020

Source: Office for National Statistics (ONS) Labour Market.
2 Policy measures

2.1 Forestry policy in the UK

Domestic forestry policy in the UK is a devolved matter. Devolution of forestry was completed in April 2019, but some cross-border collaboration remains for a number of functions as agreed by Ministers. Scotland, England and Wales are each delivering some of these functions (commissioning and monitoring of forestry research, management of the UK Forestry Standard and Woodland Carbon Code, Plant Health (forestry) and Forest Reproductive Material functions, provision of economist advice).

Both the UK Government and the devolved administrations are committed to sustainable forest management, as articulated in the Forest Europe Ministerial agreements. Sustainable forest management serves as an overarching concept and framework and the UK approach to delivery is set out in the UK Forestry Standard (fourth edition) published in 2017.

International forestry policy remains a reserved UK Government matter.

In March 2019 the UK Government announced ambitious woodland creation targets for the UK to help meet ‘Net Zero’ commitments made in May 2019 and to improve habitats and provide public benefits such as biodiversity, water regulation and benefits to human health. The target is to plant 30,000 hectares a year by 2025. Current planting rates are around 13,000 hectares.
2.2 Government priorities

2.2.1 England

Priorities in England include increasing afforestation rates; increasing the use of timber in construction; improving the resilience of trees, forests and woodland; developing a domestic carbon offset mechanism; increasing the benefits delivered by trees and woodland in and around towns and cities and strengthening the biosecurity of supply chains

The COVID19 pandemic caused some disruption to timber supply chains, harvesting and planting activity in spring 2020. This disruption was, on the whole, short lived. Most forestry businesses were operating close to normal by summer 2020. Demand for timber remains relatively high and prices strong.

An outbreak of Ips typographus in Kent led to sanitation fellings of Norway Spruce but volumes of wood involved were modest.

Hymenoscyphus fraxineus continues to damage and kill ash trees, particularly in Southern England. This is leading to owners felling ash where dead and dying trees threaten roads and property. Wood from these harvesting operations is being used in local bioenergy supply chain, income from the sale of this wood is helping to offset the cost of felling ash.

In England the Woodland Carbon Guarantee was launched in November 2019 to strengthen domestic woodland carbon markets and the England Tree Planting Programme has subsequently been created to deliver a step change in woodland creation rates and increase the proportion of woodland in active management.

In summer 2020 government consulted on a new England Tree Strategy that will shape forest policy to 2050.

Work continues on developing incentive schemes to support tree planting and other forestry activities as the UK leaves the EU.
2.2.2 Scotland

In Scotland, forestry is recognised as having an important role in contributing to emissions reduction targets through carbon sequestration which is a specific objective of woodland creation. The current Climate Change Plan (third report on policies and proposals) sets out how the Scottish Government will meet its greenhouse gas emission reduction targets for the period 2017-2032 and includes a policy on increasing the long term annual woodland creation target from the current 10,000 hectares of new woodland per year to 15,000 hectares per year from 2024/25. The government recognises the importance of woodland creation if it is going to hit the targets. Work is ongoing to update the Plan in line with the latest woodland creation targets set out in the Programme for Government published in September 2020. This increases the annual planting target to 18,000 hectares by 2024/5.

To complement woodland creation, a framework to better control woodland removal is also in place and the Climate Change Plan sets a goal of a further increase emissions abatement through greater use of Scottish timber in building construction and refurbishment.

These targets will be taken forward in a sustainable way and require the creation of a range of different woodland types, on different sites, with different objectives. The Scottish Government is committed to supporting the creation of between 3,000 and 5,000 hectares of new native woodland a year (Scottish Biodiversity Strategy: Route Map 2020).

To support the delivery of the Climate Change Plan, the Forestry Grant Scheme offers financial support for the creation of new woodland and the sustainable management of existing woodland. All applications are assessed against the UK Forestry Standard and associated guidelines. Scottish Forestry is also working with partners on ways to increase the amount of private sector investment in woodland
creation; for example, through the woodland carbon market using the Woodland Carbon Code.

From April 2019 the Forestry and Land Management (Scotland) Act replaced the 1967 Forestry Act in Scotland. The Act includes duties on Ministers to promote sustainable forest management and to publish a forestry strategy which will set out the Government’s priorities in relation to the economic, environmental and social benefits of forestry. Scotland's Forestry Strategy 2019-2029 was published in February 2019 and presents the Scottish Government’s 50-year vision for Scotland’s forests and woodlands and sets out a 10-year framework for action. It was developed in consultation with a broad range of stakeholders.

2.2.3 Wales

Priorities in Wales continue to be guided by Woodlands for Wales, the Welsh Government’s fifty-year strategy for trees and woodlands. The strategy was updated in 2018 and includes an aim to achieve a minimum planting rate of 2,000 hectares per annum from 2020 as a contribution to meeting national emissions reduction targets. Welsh Government’s A Low Carbon Wales published in 2019 expands on this further and includes an aim to increase the rate of planting to 4,000 hectares per annum as rapidly as possible, ensuring while doing so it is well-located for greatest ecosystem service value. Increasing rates of new woodland creation remains a key priority, and Welsh Government’s National Forest programme launched in March 2019 will help deliver this. The 2018 report on The Purpose and Role of the Welsh Government Woodland Estate also supports delivery of Woodlands for Wales and the Minister’s Foreword to the report states that the woodland area of the estate should be bigger in 25 years’ time.

Welsh Government is committed to a green recovery from the coronavirus pandemic to help accelerate Wales’ transition to a low-carbon economy and a healthier more equal nation. Tree planting and a focus on improving the benefits delivered by trees and woodlands in rural and urban settings will be an important
part of this green recovery, as will agroforestry initiatives to support rural livelihoods and sustainable land management. There is also renewed interest in timbers’ role in supporting a regenerative economy, with a focus on increasing the use of timber in construction.

Work continues on developing incentive schemes to support tree planting and other forestry activities as the UK leaves the EU.

After some uncertainty during the initial period of Covid 19 which impacted on all industries, timber sales from the Welsh Government Woodland Estate (WGWE) have benefitted from a buoyant marketplace and business continuity with forest industries has been maintained. Natural Resources Wales has commenced work on a new timber sales and marketing plan which will explain the approach to the harvesting and marketing of timber from the WGWE for the next five-year period, and how timber from the public forest estate can support wider commitments to developing a circular and regenerative economy in Wales.

Operational activities continue to address plant health issues with the removal of larch stands infected with Phytophthora ramorum. Whilst felling to manage the spread of Phytophthora ramorum has taken its toll on the visual, landscape, biodiversity and amenity aspects of significant areas of woodlands in Wales, it has facilitated faster-paced restructuring and tree species diversification in some areas which will improve resilience to future threats.

Chalara Ash Dieback (Hymenoscyphus fraxineus) is now evident throughout virtually the whole of Wales. It is expected that a significant proportion of ash trees in Wales will be affected by the disease in the coming years, some of which will subsequently die and/or may require removal for public safety reasons.
2.2.4 Northern Ireland

Forestry in Northern Ireland is undertaken by the Forest Service (FS), an Executive Agency of the Department of Agriculture, Environment and Rural Affairs (DAERA). It promotes afforestation and sustainable forestry, and is responsible for plant health matters.

The Chief Executive is responsible to the Minister for the Agency’s operations and performance. The Minister determines the policy framework within which the Agency operates, the level of resources made available each year and the scope of Agency activities. The Minister also approves the annual business plan, sets key performance targets, and monitors the Agency’s performance.

The Forestry Act (Northern Ireland) 2010 requires the Department to promote afforestation and sustainable forestry, to encourage public enjoyment and recreational use of its forests. The Act defines forestry to include the production and supply of timber and other forest products, the maintenance of adequate reserves of growing trees and the management and development of forests to contribute to the protection of the environment, biodiversity and the mitigation of, or adaptation to, climate change.

Both the UK Government and the devolved administration in Northern Ireland are committed to sustainable forest management, as articulated in the Forest Europe Ministerial agreements and an expansion of woodland cover to increase the many diverse benefits that forests provide.

The ‘Forests for our Future’ afforestation programme was launched by the Minister in March 2020. The programme aims to increase the rate of afforestation and create 9,000 hectares of new woodland over the next decade to help meet UK government net-zero carbon target by 2050, and at the same time it can help grow a strong economy, a thriving environment and health active communities. The importance of creating more forests is recognised by the Northern Ireland Executive
and ‘Forests for our Future’ will be one of the foundation programmes in the Green Growth Strategy.

Forest Service has a responsibility also for plant and tree health, making new plant health legislation and putting in place official controls to protect plant and tree health to enable continued trade and economic growth. This has generated a significant work programme as the EU Exit Transition period approaches on 31 December 2020.

2.3 Plant health: Import and Export Restrictions

2.3.1 Import requirements for wood and wood products

2.3.2 Forestry Border Control Checks 2019-20
Forestry Commission Plant Health Inspectors performed 3,257 inspections of 413,376 m³ of controlled timber from non-EU countries of which 10 were found to be non-compliant and remedial action was taken. There has been a downward trend in the imports of controlled timber with recent years (www.gov.uk/government/statistics/international-trade-and-controlled-consignments-of-plants-and-plant-products). Additional checks were performed where there was evidence of poor compliance including imports of sawn softwood from other parts of the EU.

From 1 October 2018, EU Implementing Decision 2018/1137 has been in place which requires the inspection of wood packaging material associated with 52 commodities (identified by generic and specific CN Codes) from China and Belarus. There is a requirement to inspect 1% of these consignments on an annual basis.
493 inspections were carried out during 2019/20 with 18 interceptions of non-compliant wood packaging material all of which were destroyed under statutory notice.

2.3.3 Statutory notification scheme for solid fuel wood (firewood) imported into England and Scotland 2019-20

From 1 January 2017, a statutory notification scheme requires that all imports of non-regulated solid fuel wood (in the form of logs, kindling, twigs, billets or faggots) from third countries, plus all regulated and non-regulated solid fuel wood material from the EU, be notified to the Forestry Commission prior to landing.

This scheme currently applies to imports into England, Scotland and to Wales as of 27 March 2020. All relevant consignments, irrespective of size/weight, must be notified. Notification allows the monitoring of the extent of the solid fuel wood import market where data is not already captured and the carrying out of mainly risk based inspections of consignments to ensure that they meet GB landing requirements.

The number of enrolled companies or individual traders has increased from 47 at the beginning of April 2017 to 250 at the end of March 2020.

During 2019/20, the quantity of imported solid fuel wood notified was 130,625 tonnes. Approximately 80% of the solid fuel wood notified is imported from the EU with Latvia and the other Baltic nations as the most important suppliers.

The market is dominated by birch, ash, oak and alder which are declared as originating in the EU, predominately from Latvia (66%).

In England and Scotland 4,050 notifications were received during this period and 331 inspections were carried out. The solid fuel wood that was inspected was generally compliant and focused mainly on regulated species. 80% of the solid fuel wood notified had been kiln dried to below 20% moisture content. Six out of the 331 consignments inspected were found to be non-compliant. The Forestry
Commission took corrective action where solid fuel wood imports was found not to meet landing requirements, particularly where they represented a risk of introducing harmful tree pests into the UK.

In England and Scotland there were 4 cases where the conifer wood packaging material associated with the consignments were non-compliant and two cases where conifer kindling and conifer logs were non-compliant again due mainly to the presence of some residual bark. It is not permitted to land wood packaging material with traces of residual bark unless it is accompanied by a plant passport. Where plant passports are issued these act as an official declaration that either the material has had kiln drying or has been supplied from an area known to be free from conifer bark beetles.

Ash was specifically targeted for inspection due to the threat from Emerald ash borer. It is present in the west of Russia and during 2019/20 it was confirmed as being present in Ukraine. Ukrainian ash has been targeted for inspection along with ash from Latvia and Lithuania.

Due to the risk of emerald ash borer entering Great Britain, new regulations came into force on 21 April 2020. These apply to ash timber imports from Belarus, Ukraine and Kazakhstan. The Official Controls (Plant Health and Genetically Modified Organisms) (England) (Amendment) Regulations 2020 can be found at http://www.legislation.gov.uk/uksi/2020/381/made. Ash entering GB from Belarus, Ukraine and Kazakhstan will be treated as regulated material and will be inspected at ports of entry.
2.4 Tree pests and diseases

2.4.1 Ips typographus

The Eight-toothed spruce bark beetle (Ips typographus) is the most damaging pest of spruce in Europe, usually feeding on its native host Norway spruce (Picea abies), though it will feed on other conifers (Abies, Larix, Pinus) in outbreak situations when its preferred hosts (Picea) are no longer available.

Ips typographus was discovered in a woodland in Kent in December 2018.

The Plant Health (Ips typographus) (England) Order 2019 and its amendment both came into force in January 2019. The Order allows the Forestry Commission to demarcate areas around confirmed outbreak sites and impose movement restrictions on conifer material capable of spreading the pest using a Notice.

Provision is made within the Order to enable plant health inspectors to authorise movements of spruce material with bark where this can be achieved without risking the spread of Ips typographus. The demarcated area covers parts of Kent and East Sussex.

Survey work during 2019 confirmed the presence of a single established population of Ips typographus and, following removal of all spruce from the infested site, eradication was considered possible if all adults which may have over-wintered in the leaf litter could be trapped out over the course of the following year.

Pheromone traps on site have been used along with billets and tree traps. Wider environment traps have been used in the Kent and East Sussex area. All three methods of trapping caught adult beetles during 2019. The full range of trapping will take place again during 2020 and any new breeding population detected will undergo eradication. The Ips typographus contingency plan requires three years of zero catches to confirm eradication.

2.4.2 Phytophthora ramorum

Forestry Commission surveys of larch in England

During the spring and summer of 2019 the work of the Forestry Commission Tree Health Operations Team in England was firstly reprioritised to the consequences of the Ips typographus outbreak and then secondly in July to support investigation work on Oak Processionary Moth (Thaumetopoea processionea) survey work across England. This work significantly impacted upon the aerial survey programme resulting in the loss of around 8 weeks of survey opportunity leading to a reduced surveillance flying programme for P. ramorum.

With a reduced programme, priority was given to survey those parts of the country where Phytophthora ramorum has been most prevalent – the South West and the North West. Following on from the 2018 findings in the North West further areas of low-level sporadic symptoms were identified, predominantly in Cumbria. This coincided with a noticeable split in weather patterns over the summer with the north of the county having appreciably more rain.

From the surveys that were undertaken in the South West, symptoms were less abundant with no significant areas identified in terms of scale or new locations. As a likely consequence of the conducive temperatures of the summer of 2018 there has been a noticeable increase in the localised death and dieback of larch attributable to Larch Bark Beetle (Ips cembrae).

As at the end of the reporting period the aerial survey programme in England has comprised of 11 survey flights that covered 606,027 hectares of forest and woodland, incorporating the survey of 27,063 hectares of larch. These flights identified 199 suspect larch sites. Further investigation of these has resulted in the
issue of 24 Statutory Plant Health Notices (SPHNs) which scheduled 116 hectares of larch to be felled, with a further 22 SPHNs in the process of being issued.

No findings of P. ramorum on trees have been made in new geographic areas.

Further information and latest distribution of SPHN’s is available at on Forest Research’s web page Ramorum disease (www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/ramorum-disease-phytophthora-ramorum/).

Scottish Forestry surveys of larch in Scotland
The 2019 aerial surveillance programme covered over 1.3 million hectares of forest and woodland across Scotland. Follow up field surveys confirmed a similar number of P. ramorum infected sites as 2018 but with little expansion from infected areas in the south west/ western areas of Scotland. Areas of significant infection were found nearby (within 1 – 2km) to previously found infections. Some favourable damp weather conditions and the scale of infection in 2018, which caused some delay in infected trees areas being felled quickly, is the likely cause of nearby larch trees becoming infected. Outlying infections have been restricted to individual trees where underlying stress conditions were already present.

The situation in Scotland is similar to last year where new areas are on a scale that makes it impossible to fell all of the necessary trees under SPHNs before the new survey year commenced. Priority was given to dealing with infections occurring furthest from the ‘P. ramorum Management zone’ in south west Scotland. Newly infected areas within 10km of the edge of the P. ramorum Management Zone will be dealt with, but some may not be felled until later in 2020.

Further information and latest distribution of SPHN’s is available at https://forestry.gov.scot/sustainable-forestry/tree-health/phytophthora-ramorum.

Natural Resources Wales (NRW) Survey of larch in Wales
NRW carry out regulatory plant health functions within woodlands and forestry on behalf of the Welsh Government.
During 2018/19, NRW carried out its annual aerial surveys programme (spring/late summer), primarily focused on P. ramorum. Flights initially targeted the boundary of the new Core Disease Zone 2 (CDZ) in mid and North Wales and along the border with England. The flight information showed some increase of infection in the western part of mid and north Wales although not to the same extent as the previous two years.

NRW identified 2,000 hectares for further ground investigation. The bulk of these sites lie outside the CDZ. NRW have subsequently visited most of these sites and have issued Statutory Notices on 1,350 hectares of larch woodlands. This area includes other species where larch is a component of the crop. In general, the disease has primarily been low level infection but on a large area, with occasional areas of high level of infection.

There have been no new findings in the remaining three counties within Wales with no recorded infection in larch. The Welsh Government’s Phytophthora ramorum Disease Management Plan (https://gov.wales/sites/default/files/publications/2019-05/phytophthora-ramorum-management-strategy.pdf) has been updated because of increased levels of infection during the previous 2 years. There is a three-year time limit for actions to be taken in CDZ2, with priority for action within a short timescale still being required in the Disease Limitation Zone (DLZ).
2.5 Carbon markets

The Woodland Carbon Code has generated much interest among landowners and investors alike. In England, the government’s Woodland Carbon Guarantee, giving landowners the option to sell their verified Woodland Carbon Units to government at a guaranteed price, is about to hold its third auction (late October 2020), and the previous two auctions realised an average successful bid price of £24.11 and £19.71.

In the last six months interim results\(^2\) indicate that the number of projects registered with the Woodland Carbon Code has almost doubled, with the predicted sequestration of registered projects increasing from 5.8 million tonnes of carbon dioxide equivalent at the end of March 2020 to 8.3 million tonnes of carbon dioxide equivalent at the end of September 2020. Around one half of registered projects have been validated\(^3\) to the Code. Well over half of the validated carbon has been sold upfront for corporate and social responsibility reasons, but there are also sales of the small number of verified\(^4\) Woodland Carbon Units to companies who are looking to formally offset their emissions.

The [Woodland Carbon Code website](http://www.woodlandcarboncode.org.uk/uk-woodland-carbon-registry) provides a ‘central point’ for buyers and sellers to connect.

\(^2\) [www.woodlandcarboncode.org.uk/uk-woodland-carbon-registry](http://www.woodlandcarboncode.org.uk/uk-woodland-carbon-registry)

\(^3\) Validated: is the initial evaluation of a project or group against the requirements of the Woodland Carbon Code. Upon completion a project/group will receive a ‘Validation Opinion Statement’. The project/group will then be certified for a period of up to 5 years.

\(^4\) Verified: Verification is the evaluation of a project as it progresses to confirm the amount of CO2 sequestered to date as well as that it continues to meet the requirements of the Woodland Carbon Code.
3 Market drivers

3.1 COVID-19

The global COVID-19 pandemic has been a major influence on forest products markets in 2020, with the majority of businesses in the sector closed or running at a much reduced capacity for several weeks after lockdown started in March. This has led to reduced demand from construction and pallets markets. However, the UK Government’s furlough scheme has led to increased demand in the DIY sector.

Return to work in the construction sector was initially focused on completion of existing work and repair and maintenance, with little new construction work started until July.
3.2 Prices

Exchange rates are seen as a major influence on timber prices in the UK. As noted in the economic overview (section 1.1), there was a significant fall in spring 2020 in the value of the Pound Sterling against both the Euro and the US dollar. The fall was also evident in the value of the Pound Sterling against the Swedish Krona which, after a brief recovery in April, continued to fall.

Figure 3.1 Exchange Rate of GBP/Swedish Krona, 2016 to 2020

![Exchange Rate Graph]

Source: Bank of England (2020), Spot Exchange Rate (Swedish Krona into Sterling).

Timber prices in the UK are monitored via 2 price indices, based on sales by Forestry England, Forestry and Land Scotland, and Natural Resources Wales. The coniferous standing sales price index for Great Britain was 14.8% lower in real terms in the year to March 2020, compared with the previous year. The softwood sawlog price index was 18.6% lower in real terms in the 6 months to March 2020,
compared with the corresponding period in the previous year. These decreases follow a generally increasing trend in both indices in recent years.

Figure 3.2: Coniferous standing sales and sawlog price indices in real terms for Great Britain, 2012-2020

Source: Timber Price Indices: data to March 2020 (Forest Research, May 2020)
3.3 Construction, manufacturing and distributive trades

3.3.1 Construction

The value of UK manufacturer sales of builders’ carpentry and joinery was £3.8 billion in 2019, a 2.7% decrease from the previous year.

However the Construction Material Price index has shown an increase of 2.2% for ‘All Work’ from 2018 to 2019 (Department for Business, Energy and Industrial Strategy, Building materials and components statistics: August 2020).

Output increased for most construction sectors between 2018 and 2019, with the largest percentage increase, of 15.9%, in public sector housing.

Figure 3.3: Construction industry output, 2018 to 2019 percentage change

Source: Output in the Construction Industry (Office for National Statistics, July 2020)

Note:
1. Volume seasonally adjusted data.
2. RM = repair and maintenance.
The Construction Products Association (CPA) anticipates construction output in 2020 to fall by 20.6%, with the worst affected sectors including private housing (-33%) and commercial (-29%).

Figure 3.4: Construction industry output, monthly all work index

Source: Office for National Statistics: Construction Output and Employment (September 2020)
3.3.2 New house starts

A total of 196 thousand permanent dwellings were started in the year to September 2019, a 4% decrease from the same period in the previous year. Housing completions totalled 212 thousand in the year to September 2019, a 9% increase.

Figure 3.5: Housing starts and completions in the UK, January 2010 to September 2019

Source: UK House Building: Permanent dwellings started and completed (Office for National Statistics, April 2020)
3.3.3 Manufacturing and distributive trades

UK manufacturing output fell by 1.7% between 2018 and 2019.

Over the same period, the UK index of production for the wood, paper products and printing sector decreased by 0.9%. More recently, there was a sharp decline of 31.7% in output in April 2020, compared with April 2019. Output has since picked up, but remains below 2019 levels.

Figure 3.6: Manufacturing output, May 2018 to July 2020 – Percentage change from 12 months previously

Source: Index of Production (Office for National Statistics, September 2020)
3.4 Energy

The share of UK energy produced by biomass and waste has increased from under 4% in 2010 to 10% in 2019.

Figure 3.7: Consumption of primary fuels, 2010 to 2019

The use of renewables to generate electricity and heat has increased from 8.5 billion tonnes of oil equivalent in 2010 to 24.3 billion tonnes of oil equivalent in 2019. Plant biomass (including wood) accounted for 38% of renewables in 2019.

Source: Digest of UK Energy Statistics (Department for Business, Energy and Industrial Strategy, July 2020)
Figure 3.8: Renewable sources used to generate electricity and heat, 2010 to 2019

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Source: Digest of UK Energy Statistics (Department for Business, Energy and Industrial Strategy, July 2020)

Note:
1. toe = tonnes of oil equivalent.
4 Developments in forests and forest products markets sector

4.1 Wood raw materials

Coniferous roundwood production in the UK has increased from around 7.2 million cubic metres underbark in 2002 to a peak of around 10.4 million cubic metres underbark in 2018. There was a 4% reduction in 2019, to 10.0 million cubic metres underbark. Estimates for 2020 suggest that this will reduce to around 8.9 million cubic metres underbark, largely as a result of the COVID-19 pandemic. Production is projected to recover in 2021, returning to 2018 levels.

Figure 4.1: Coniferous roundwood production, 2002 to 2021

Source: Forest Research (2020).

Non-coniferous roundwood production has risen from around 0.5 million cubic metres underbark in 2002 to around 0.8 million cubic metres underbark in 2019. Production is expected to remain close to 2019 levels in 2020 and 2021.
4.2 Wood energy

Wood energy in the UK is produced from a range of wood products, including roundwood, sawmill products, wood pellets and recovered wood.

The use of recovered wood for woodfuel has increased in recent years, with an estimated 2.4 million tonnes used in 2019.

The majority of wood pellets consumed in the UK are imported. In 2019, imports of wood pellets totalled 8.9 million tonnes, with around 80% of this quantity imported from North America. A further 0.3 million tonnes of wood pellets were produced in the UK.

4.3 Certified forest products

1.39 million hectares of woodland (43% of the total UK woodland area) were certified in March 2020 under the FSC and/or PEFC schemes.

The proportion of certified roundwood produced from UK woodlands has largely stabilised over the last 10 years. In 2019, an estimated 82% of all coniferous roundwood produced in the UK came from certified woodlands.

Figures reported by sawmills and by round fencing manufacturers suggest that around 77% of sawlogs and around 69% of coniferous roundwood used by fencing mills was certified in 2019.
4.4 Sawnwood

Coniferous sawnwood production fell by 6% in 2019 to 3.4 million cubic metres. A further 13% decrease is expected in 2020, largely as a result of the COVID-19 pandemic. A recovery is projected in 2021, with production returning to the 2018 level of around 3.6 million cubic metres.

Imports of coniferous sawnwood fell by 3% in 2019 to 6.4 million cubic metres. Estimates for 2020 suggest a further 11% decrease, to 5.7 million cubic metres. A partial recovery, to 5.9 million cubic metres is projected for 2021.

Figure 4.2: Coniferous sawnwood production and imports, 2010 to 2021

Imports accounted for 96% of apparent consumption of non-coniferous sawnwood in the UK and totalled 0.6 million cubic metres in 2019.

Source: Forest Research (2020).
4.5 Woodbased panels

Particleboard (including OSB) and MDF consumed in the UK are both produced domestically and imported, while plywood and other hardboards consumed in the UK are imported.

The UK consumed around 6.5 million cubic metres of woodbased panels (plywood, particleboard and fibreboard) in 2019, a 3% decrease from 2018. A further decline is expected in 2020, with consumption estimated at 5.8 million cubic metres, down 10% from the 2019 figure. This is expected to be a temporary dip, with consumption expected to return to 2018 levels in 2021.

Figure 4.3: UK consumption of woodbased panels, 2010 to 2021

Production of particleboard (including oriented strand board) totalled 2.5 million cubic metres in 2019, a 6% increase from the previous year.

The UK produced 0.8 million cubic metres of MDF in 2019, up 4% from 2018.
4.6 Pulp and paper

Paper and paperboard consumption in the UK fell by 4% in 2019 to 8.2 million tonnes. It is estimated that this will decrease by another 6% in 2020, before recovering slightly in 2021.

Figure 4.4: UK consumption of paper and paperboard, 2010 to 2021

Source: Forest Research (2020).
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