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, data, 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 an uptick since the major downturn in 2020 due to the COVID-19 pandemic. GDP growth decreased in Q3 2022, however it has increased in Q4 2022 and the first half of 2023 (Figure 1.1).

Figure 1.1 Real GDP Growth Rate 2009-2023, 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 general increasing trend in 2023 in the value of the Pound Sterling against the US dollar (Figure 1.2), due to a more positive outlook for the UK’s economic performance. There have been more fluctuations in the value of the Pound Sterling against the Euro since a significant fall in spring 2020. Various factors may account for this including the UK’s new trading relationship with the European Union after it left the EU Single Market at the beginning of 2021.

Figure 1.2 Exchange Rate of £ against Euro and US Dollar, 2016 to 2023

The value of the Pound Sterling over time against the Euro and the US dollar.
Source: Bank of England (2023), 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.

Following a number of years of persistently low interest rates, the Monetary Policy Committee voted unanimously in December 2021 to increase rates from a historically low 0.1% to 0.25% to help tackle rising inflation in the UK. The interest rate has steadily increased since December 2021 to control inflation, reaching 5.25% by August 2023 - the highest it has been since 2008.

Despite low interest rates, the household savings ratio increased in the wake of the COVID-19, driven by lockdowns and continuing reluctance among consumers to spend in sectors such as retail, hospitality and travel. The Household Saving Rate in the United Kingdom has decreased following COVID restrictions being lifted. However, rising interest rates have increased the Household Saving Rate in the last few quarters – from 6.2% in the second quarter of 2022 to 9.1% in the second quarter of 2023 (Figure 1.3).
Figure 1.3 Households’ Savings Ratio, 2008-2023, %

Source: ONS (2023), Households’ saving ratio (per cent): Current price: £m: SA.
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.

Following the loosening of COVID-19 restrictions, the UK saw GDP growth. UK GDP is estimated to have increased by 0.2% in Quarter 2 2023. This follows an estimated increase of 0.3% in Quarter 1 2023, revised up from a previous estimate of 0.1%. In output terms, growth in the latest quarter was driven by an increase in the production sector, where there were increases in 9 out of the 13 sub-sectors; this reflects falling input prices relieving some pressure on manufacturers.
1.4 Inflation

The Consumer Prices Index, 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. Falls in the inflation rate between 2012 and 2015/16 are believed to have been largely caused by external factors to the UK economy, in particular a drop 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. However, there were sharp rises in inflation in 2022, rising to around 10% although, in 2023, the annual Consumer Prices Index including owner occupiers’ housing costs (CPIH) inflation rate has generally decreased with the latest August 2023 estimate dropping to 6.3%.

The largest downward contributions to the monthly change in the CPIH annual rate came from food, where prices rose by less in August 2023 than a year ago, and accommodation services, where prices can be volatile and fell in August 2023.
Figure 1.4 Consumer Prices Index including owner occupiers’ housing costs (CPIH), 2011 to 2023, %

Source: ONS, CPIH Annual Rate 00: All Items 2015=100
1.5 Employment

The employment rate in the UK had risen to record levels prior to the COVID-19 pandemic. Since the loosening of COVID-19 restrictions, increases in the UK employment rate have resumed, reaching 75.7% in Q2 2022.

Figure 1.5 UK employment rate % (seasonally adjusted), 2011-2023

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 (fifth edition) published in 2023.

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 are set out in the England Trees Action Plan published in May 2021 and include expanding and connecting the woodland resource; enhancing the role of our trees and woodland as part of the green economy, protecting and improving the woodland resource and connecting people with trees and woodland.

New plant health requirements were introduced in Spring 2022 to further control the spread of Ips typographus in Kent and East Sussex. Action is also being taken on Phytophthora pluvialis.

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), updated in December 2020, sets out how the Scottish Government will meet its greenhouse gas emission reduction targets for the period 2017-2032.

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.

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
As part of the Welsh Government’s plan to tackle the climate emergency it has committed to plant 43,000 hectares of new woodland by 2030, and 180,000
hectares by 2050, in line with the ‘balanced pathway’ set out by the Climate Change Committee.

Priorities in Wales continue to be guided by Woodlands for Wales, the Welsh Government’s fifty-year strategy for trees and woodlands.

2.2.4 Northern Ireland

In Northern Ireland the Forest Service delivers forestry and plant health functions on behalf of the Department of Agriculture, Environment and Rural Affairs (DAERA). 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.

Forest Service’s work substantially supports the Department’s vision of ‘Sustainability at the heart of a living, working, active landscape valued by everyone’ and the Strategic Outcomes in the DAERA business plan). Forest Service work streams are aligned to the Department’s strategic objectives as set out in Sustainability for the Future – DAERA’s Plan to 2050, its vision for ‘Green Growth’ and its contribution to Programme for Government Strategic Outcomes including ‘We live and work sustainably – protecting the environment’, for which DAERA has lead responsibility.

The ‘Forests for Our Future’ programme was launched in March 2020 and is aimed at helping achieve the UK’s net-zero carbon target by 2050 as well as contributing to the enhancement of the landscape and biodiversity, and improving the health and well-being of those that enjoy this natural resource. Over this decade the Forests for Our Future programme aims to plant 18 million trees or 9,000 hectares of new woodland and is a foundation initiative of the Executive’s Green Growth
strategy which is being developed by DAERA. Forest Service will continue to actively engage in developing policies in agricultural and environmental land use to establish the role trees have within these policies in the pathway to net carbon zero.

In 2023/2024 Forest Service will contribute to the development and implementation of the Northern Ireland Climate Action Plan under the Climate Change Act (Northern Ireland) 2022. The Climate Action Plan will set out NI Departments’ approach to the carbon budget period 2023 to 2027. In this business year the policy areas for Forest Service contribution to emission mitigation are Land use and Land Use Change, Forestry (LULUCF), peatlands restoration and increased afforestation. In 2023/2024 Forest Service will commence restoration of gateway peatland restoration sites and develop plans and capacity for further peatland restoration.
2.3 Plant health

2.4 Carbon markets
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, has held 7 auctions to date. Average prices for verified Woodland Carbon Units ranged from £17-£24 per tonne of carbon dioxide equivalent (tCO$_2$e).

The number of projects registered with the Woodland Carbon Code sits at 1,916 as of 31 March 2023$^1$. The predicted sequestration of registered projects has nearly quadrupled since March 2020, increasing from 5.8 million tonnes of carbon dioxide equivalent at the end of March 2020 to 22.9 million tonnes of carbon dioxide equivalent by March 2023. In March 2023, 451 projects had been validated$^2$ to the Code.

The Woodland Carbon Code website provides a ‘central point’ for buyers and sellers to connect.

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$^1$ Woodland Statistics - Forest Research
$^2$ 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.
3 Market drivers

3.1 Overview
UK forest product markets have declined following reduced demand in the latter part of 2022 and into 2023. The fall in demand has been particularly noticeable in construction. In addition, a decline in economic activity has resulted in reduced demand from the pallets sector.

This fall in demand from construction has, at least partly, been driven by increasing prices and changes in exchange rates. This has led to UK-grown timber becoming less competitive against imports.
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 has been a general increase in the value of the Pound Sterling rose against the US dollar (Figure 1.2) in the first half of 2023. The value of the Pound Sterling against the Swedish Krona has also shown an overall increase over the first half of 2023.

Figure 3.1 Exchange Rate of £ against Swedish Krona, 2016 to 2023

Source: Bank of England (2023), Spot Exchange Rate (Swedish Krona into Sterling).
Timber prices in the UK are monitored via three price indices and based on sales by Forestry England, Forestry and Land Scotland, and Natural Resource Wales. The Coniferous Standing Sales Price Index for Great Britain was 31.5% lower in real terms in the year to March 2023, compared with the previous year. The Softwood Sawlog Price Index was 34.9% lower in real terms in the 6 months to March 2023, compared with the corresponding period of the previous year. The Small Roundwood Price Index was 2.7% lower in real terms in the 6 months to March 2023, compared with the corresponding period of the previous year.

**Figure 3.2: Coniferous standing sales and sawlog price indices in real terms for Great Britain, 2015 to 2023**

Notes: base = 100 (Sept 2021)

Source: Timber Price Indices: data to March 2023 (Forest Research, May 2023)
3.3 Construction, manufacturing, and distributive trades

3.3.1 Construction

The value of UK manufacturer sales of builders’ carpentry and joinery was £5.5 billion in 2022, a 16.4% increase from the previous year.

The Construction Material Price index has shown an increase of 19.1% for ‘All Work’ from 2021 to 2022 (Department for Business, and Trade, Monthly Statistics of Building Materials and Components statistics: September 2023).

Output increased for most construction sectors between 2021 and 2022.

Figure 3.3: Construction industry output, 2021 to 2022 percentage change

Source: Output in the Construction Industry (Office for National Statistics, October 2023)

Note:
1. Volume seasonally adjusted data.
2. RM = repair and maintenance.
Figure 3.4: Construction industry output, monthly all work index, 2011 to 2023

Source: Output in the Construction Industry (Office for National Statistics, October 2023)
3.3.2 Manufacturing and distributive trades

UK manufacturing output fell by 3.3% between 2021 and 2022. Over the same period, the UK index of production for the wood, paper products and printing sector, fell by 4.6%.

Figure 3.5: Manufacturing output – index, 2018 to 2023

Source: Index of Production (Office for National Statistics, October 2023)
3.4 Energy

The share of UK energy produced by biomass and waste was 10.7% in 2022, marginally less than in 2021 (10.8%). This follows a period of increasing market share since 2010.

Figure 3.6: Consumption of primary fuels, 2012 to 2022

Source: Digest of UK Energy Statistics (DUKES Table 1.1.1c), Department for Energy, Security and Net Zero

Note:
1. Excludes net electricity imports.
The use of renewables to generate electricity and heat has increased from 7.0 million tonnes of oil equivalent (Mtoe) in 2010 to 21.7 Mtoe in 2022. In addition to heat and electricity, renewables are also consumed in the transport sector as liquid biofuels and also biogases are injected into the gas grid. These uses totalled 1.2 Mtoe in 2010, increasing to 3.0 Mtoe in 2022. Plant biomass (including wood) accounted for 32% of renewables in 2022\(^3\)

**Figure 3.7: Renewable sources used to generate electricity and heat, 2011 to 2022**


Note:
1. toe = tonnes of oil equivalent.
2. Other includes biogasses, animal biomass, biodegradable energy from waste, and heat pumps.
3. Excludes liquid biofuels in transport and biogasses injected into the grid.

\(^3\) Source DUKES Table 6.6; https://www.gov.uk/government/statistics/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes
4 Developments in forests and forest products markets sector

4.1 Wood raw materials

UK coniferous roundwood production decreased from 10.2 million cubic metres underbark in 2021 to 9.1 million cubic metres underbark in 2022, a decrease of 11%. Production is expected to fall in 2023 to 8.6 cubic metres underbark and remain at that level for 2024.

Figure 4.1: Coniferous roundwood production, 1994 to 2024


Non-coniferous roundwood production has remained relatively stable at around 0.7 million cubic metres in 2020 to 2022. Production is expected to remain at 2022 levels in 2023 and 2024.
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 stabilised in recent years, with an estimated 2.6 million tonnes used in 2022.

The majority of wood pellets consumed in the UK are imported. In 2022, imports of wood pellets totalled 7.5 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

There were 1.44 million hectares of woodland (44% of the total UK woodland area) certified in March 2023 under the FSC, PEFC and/or Grown in Britain schemes.

The proportion of certified roundwood produced from UK woodlands has largely stabilised over the last 10 years. In 2022, an estimated 80% 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 73% of coniferous roundwood used by fencing mills was certified in 2022.
4.4 Sawnwood

Coniferous sawnwood production decreased by 13% in 2022 to 3.1 million cubic metres. Production is expected to fall to around 2.9 million cubic metres in 2023 and remain constant in 2024.

Imports of coniferous sawnwood fell by 25% to 5.7 million cubic metres. Estimates for 2023 suggest a decline to around 5.4 million cubic metres, with a further small increase in 2024.

**Figure 4.2: Coniferous sawnwood production and imports, 2010 to 2024**

Imports accounted for 97% of apparent consumption of non-coniferous sawnwood in the UK and totalled 0.8 million cubic metres in 2022.
### 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 6.3 million cubic metres of woodbased panels (plywood, particleboard and fibreboard) in 2022, a 9% decrease from 2021. This is expected to drop to around 6.1 million cubic metres in 2023 and remain constant through 2024.

**Figure 4.3: UK consumption of woodbased panels, 1999 to 2024**

![Graph showing UK consumption of woodbased panels, 1999 to 2024](source: Forest Research (2023)).

Production of particleboard (including oriented strand board) totalled 2.6 million cubic metres in 2022, a 3% decrease from the previous year.

The UK produced 0.9 million cubic metres of MDF in 2022, up 7% from 2021.
4.6 Pulp and paper

Paper and paperboard consumption in the UK rose by 9% in 2022 to 7.4 million tonnes, following a decrease in the previous year. It is estimated that consumption will fall to around 6.3 million tonnes in 2023 and then increase slightly in 2024.

Figure 4.4: UK consumption of paper and paperboard, 2010 to 2024

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