



**UNECE Forestry and Timber Market
Statement for the United Kingdom
2019**

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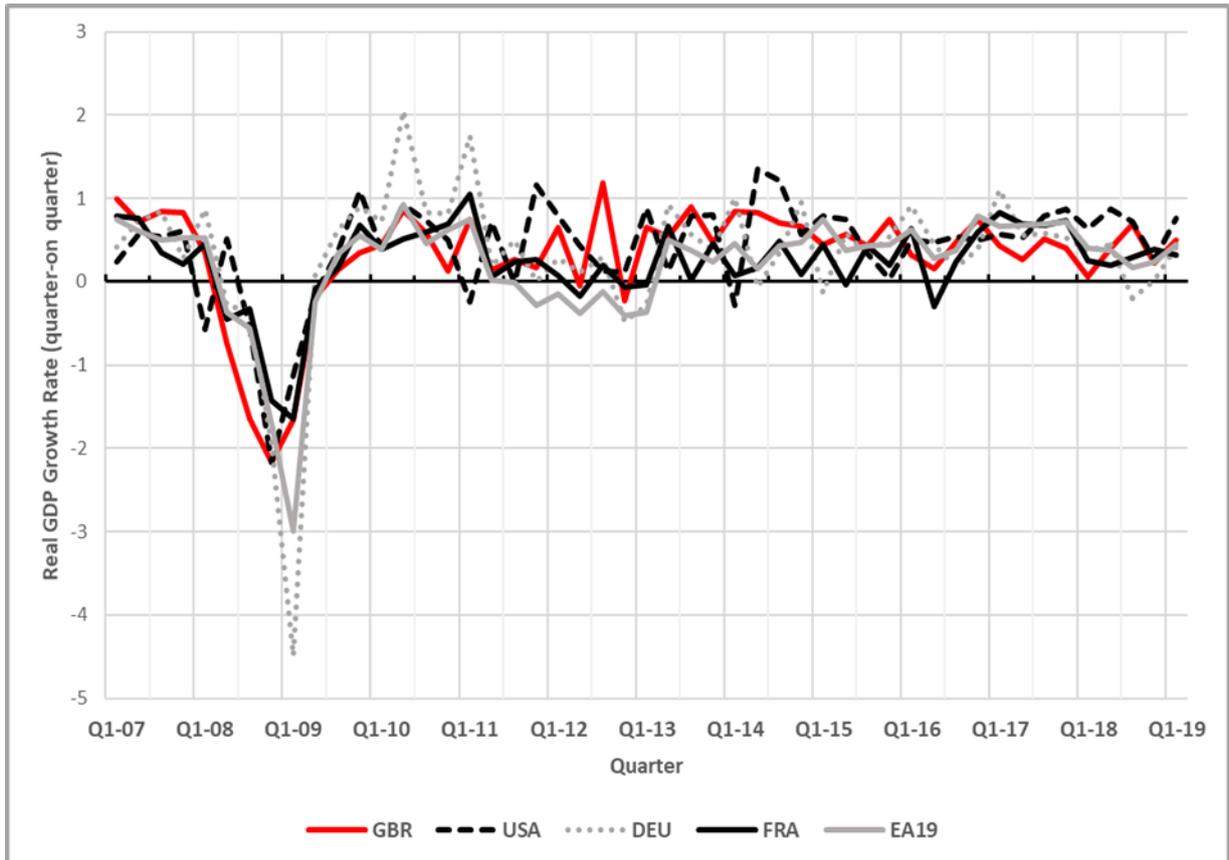
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1 General economic trends affecting forestry industries and the timber market in the UK

1.1 Overview

The UK economy has delivered moderate quarter-on-quarter growth in Q4 2018 of 0.11% and Q1 2019 of 0.5%. Growth in the UK has been relatively stable since 2010 at approximately 0.5% quarter-on-quarter (Figure 1.1).

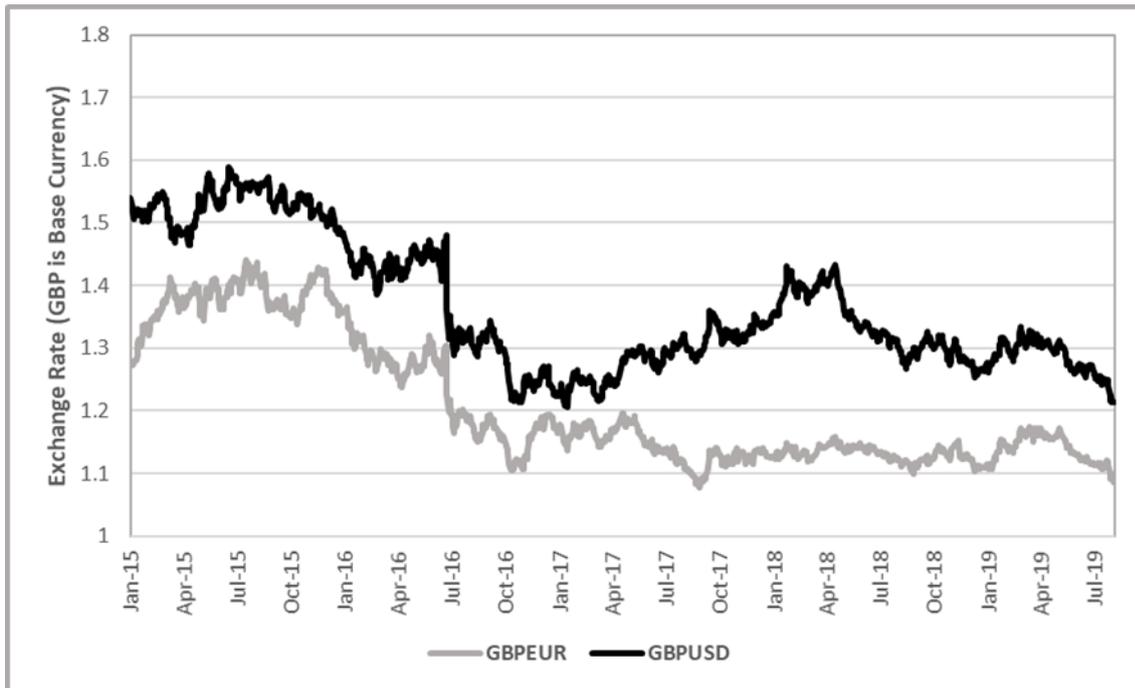
Figure 1.1 Real GDP Growth Rate 2007-2019, Selected Economies, %



Real Growth of Gross Domestic Product (GDP) in the UK and other selected economies over the last decade. Source: [Organisation for Economic Co-operation and Development \(OECD, 2018\) "Quarterly GDP" \(indicator\), doi: 10.1787/b86d1fc8-en](https://doi.org/10.1787/b86d1fc8-en) (Accessed on 31 July 2019). GBR: Great Britain; USA: United States of America; DEU: Germany; FRA: France; EA19: European Area statistics for 2019.

At the time of writing the Pound Sterling has stabilised after a period of depreciation against the Euro, whilst the value against the US dollar has weakened since April 2018 (Figure 1.2). The Pound Sterling substantially fell in value against the Euro and the Dollar in the days following the UK's European Union membership referendum on 23rd June 2016. Exchange rates are subject to uncertainty in the current political climate.

Figure 1.2 Exchange Rate of GBPEUR and GBPUSD, 2015 to 2019



The value of the Pound Sterling over time against the Euro and the US dollar.

Source: [Bank of England \(2019\). Spot Exchange Rate \(Euro into Sterling\), Spot Exchange Rate \(Dollar into Sterling\).](#)

GBPEUR: Great British Pound to Euro exchange rate; GBPUSD: Great British Pound to US Dollar exchange rate.

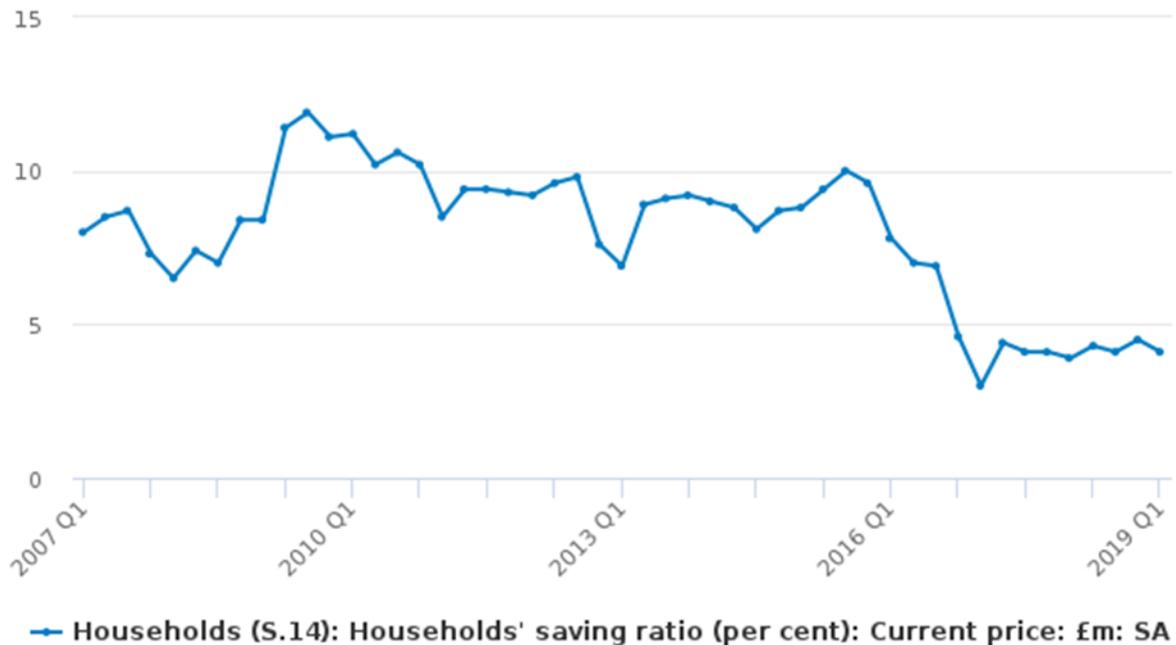
1.2 Monetary Policy

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.

The Monetary Policy Committee voted to raise the Base Rate from an historic low of 0.25% to 0.5% in November 2017 and by a further quarter percent to 0.75% in August 2018. This rise in August 2018 is only the second rise in interest rates in a decade and interest rates are now at their highest level since 2009.

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. In Q1 of 2019, households saved approximately 4.1% of their disposable income following a decline in the savings rate over the past decade (Figure 1.3).

Figure 1.3 Households' Savings Ratio, 2007-2019, %



Source: [ONS \(2019\). Households' saving ratio \(per cent\): Current price: £m: SA.](#)

As the Pound Sterling has continued to be valued below pre-referendum levels against the Euro and the Dollar, there has been an inflationary effect on goods and services due to increased import prices. This is demonstrated in recent Consumer Price Index (CPI) figures, which show that inflation had been above the Bank of England's 2% target since February 2017. Latest figures show that the current inflation rate is at approximately 2%.

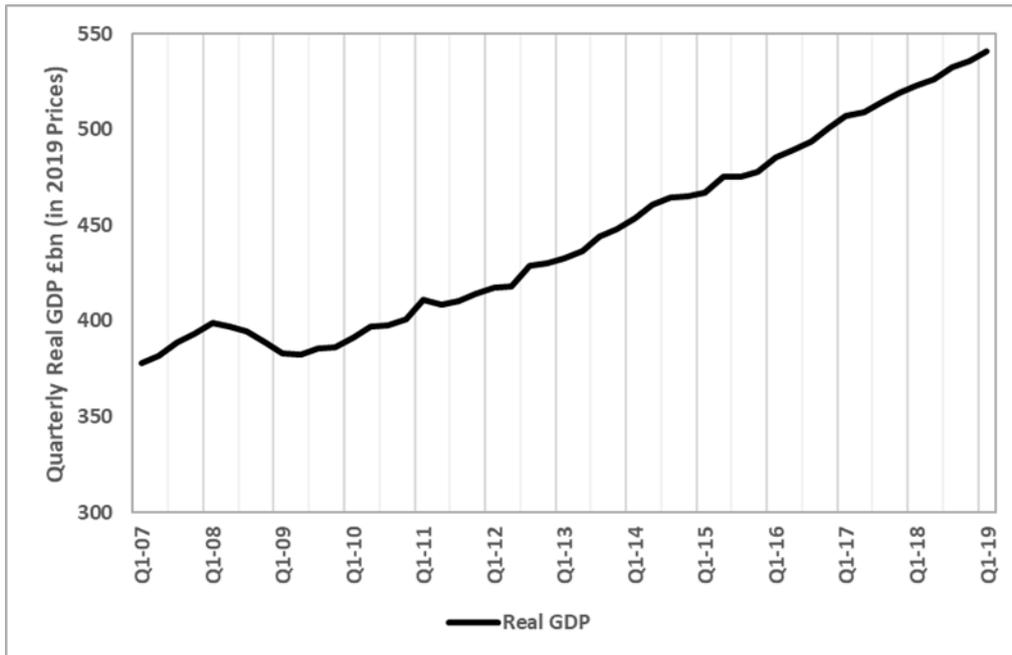
1.3 GDP Growth

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. Real GDP also considers the effect of inflation, which is a measure of changes in prices. Therefore, Real GDP provides a more accurate picture of how much the UK economy produces and how this has changed over time in comparison to Nominal GDP, which does not take changing prices into account (Figure 1.4).

A recession is defined as a period of two successive quarters of negative economic growth. Although the UK has not experienced a recession since 2009, economic growth remains modest despite the setting of low interest rates by the Bank of England in attempts to stimulate spending and thus the economy (Figure 1.5).

Chapter 1: Economic trends

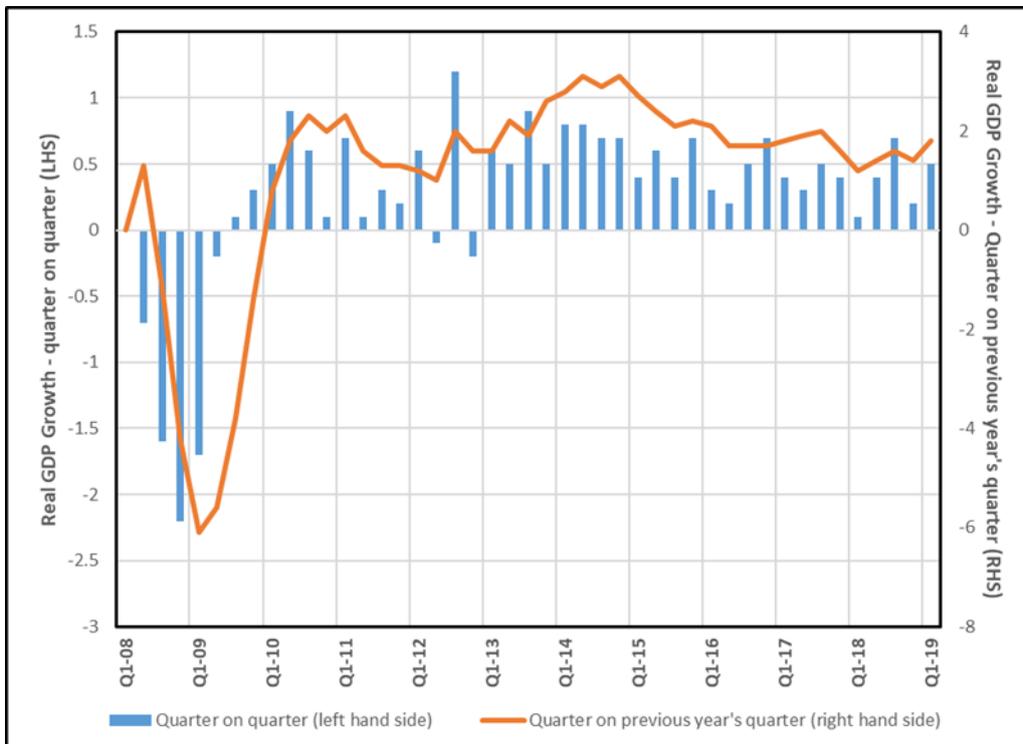
Figure 1.4 Real Gross Domestic Product (GDP) per quarter 2007 to 2019 (in 2019 prices), £bn



The value of output from the UK economy since 2007.

Source: [ONS \(2019\), Gross Domestic Product at market prices: Current price: Seasonally Adjusted £m](#)

Figure 1.5 Real Gross Domestic Product (GDP) Growth per quarter since 2008, %



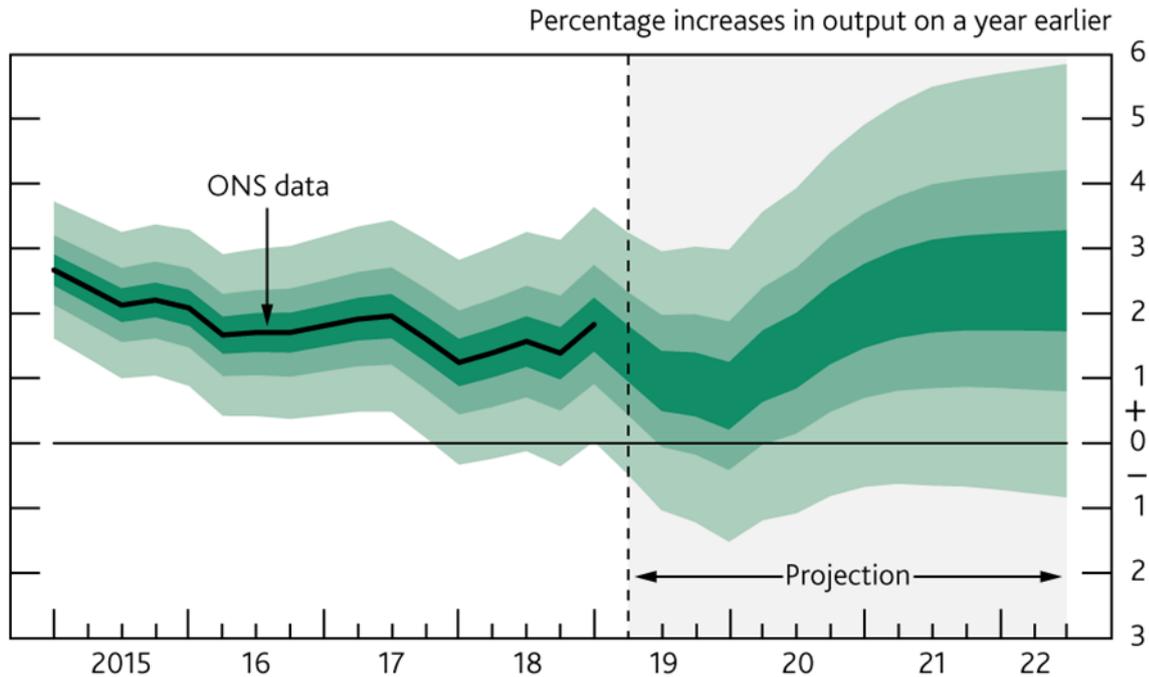
The rate at which the national economy is growing each quarter compared to the previous quarter (bars, left hand side axis), and compared to the previous year's quarter (line, right hand side axis).

Source: [ONS \(2019\), Office for National Statistics – UK National Accounts](#)

The Bank of England publishes a quarterly report containing updates on key economic indicators. This includes a projection of the likely path of GDP over the coming years (Figure 1.6).

The OECD (Organisation for Economic Co-operation and Development) Business Confidence Index (BCI) shows that businesses expectations for the immediate future are slightly pessimistic with expectations for Business in the UK being lower than the average for OECD member countries for the first time since 2011.

Figure 1.6 Gross Domestic Product (GDP) 2013 to 2019 and GDP projections 2018 to 2022



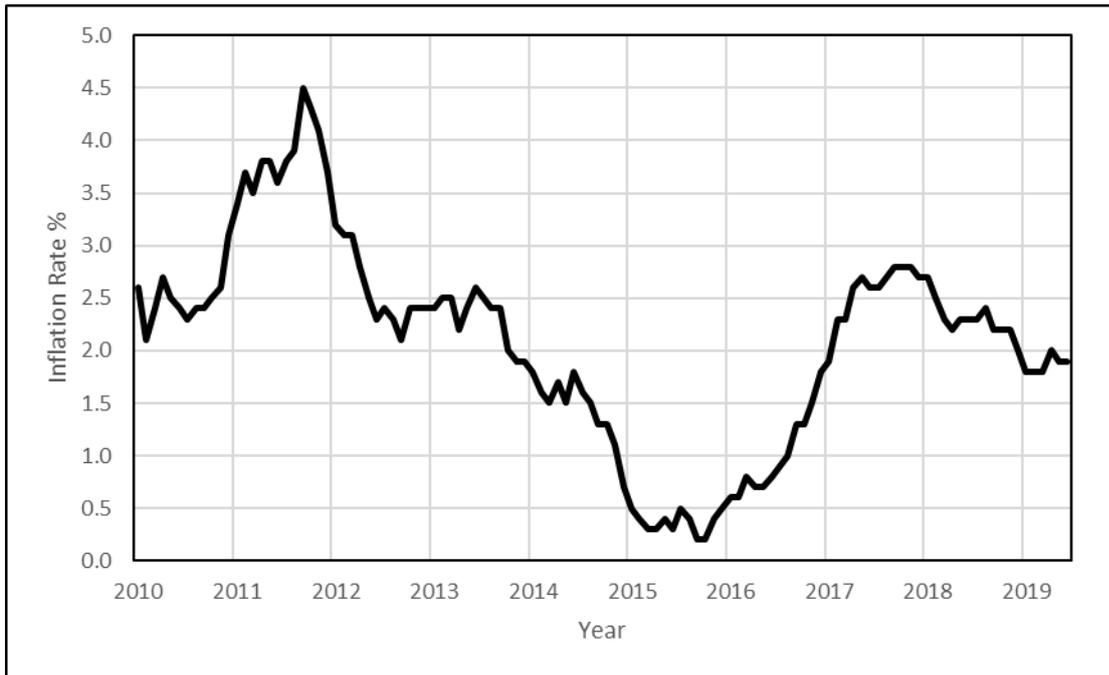
Darker shade represents higher likelihood and lighter shade representing lower likelihood.

Source: Bank of England Inflation Report; published August 2019 (quarterly). ONS = Office for National Statistics.

1.4 Inflation

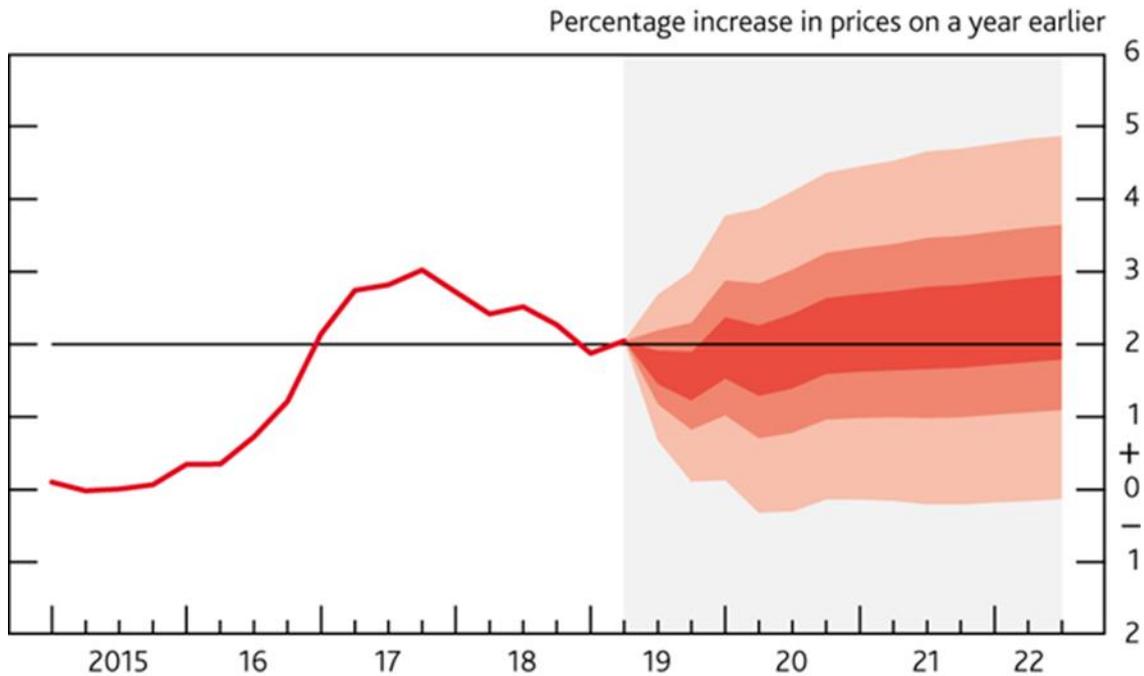
The Consumer Prices Index, including owner occupiers' housing costs (CPIH), shows the rate at which prices are rising, or falling, in the domestic economy (Figure 1.7). The Bank of England's (BoE) target for inflation is 2% per year. In March 2009, the BoE set interest rates at 0.5%. This was coupled with a sustained period of quantitative easing. 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 (Figure 1.8).

Figure 1.7 Consumer Prices Index including owner occupiers' housing costs (CPIH), 2010 to 2019, %



Source: [ONS, CPIH Annual Rate 00: All Items 2015=100](#)

Figure 1.8 Consumer Price Index (CPI) inflation projection based on market interest rate expectation: CPI Inflation Rate 2014-2018 and CPI Inflation rate Projections 2019 to 2022, UK, %



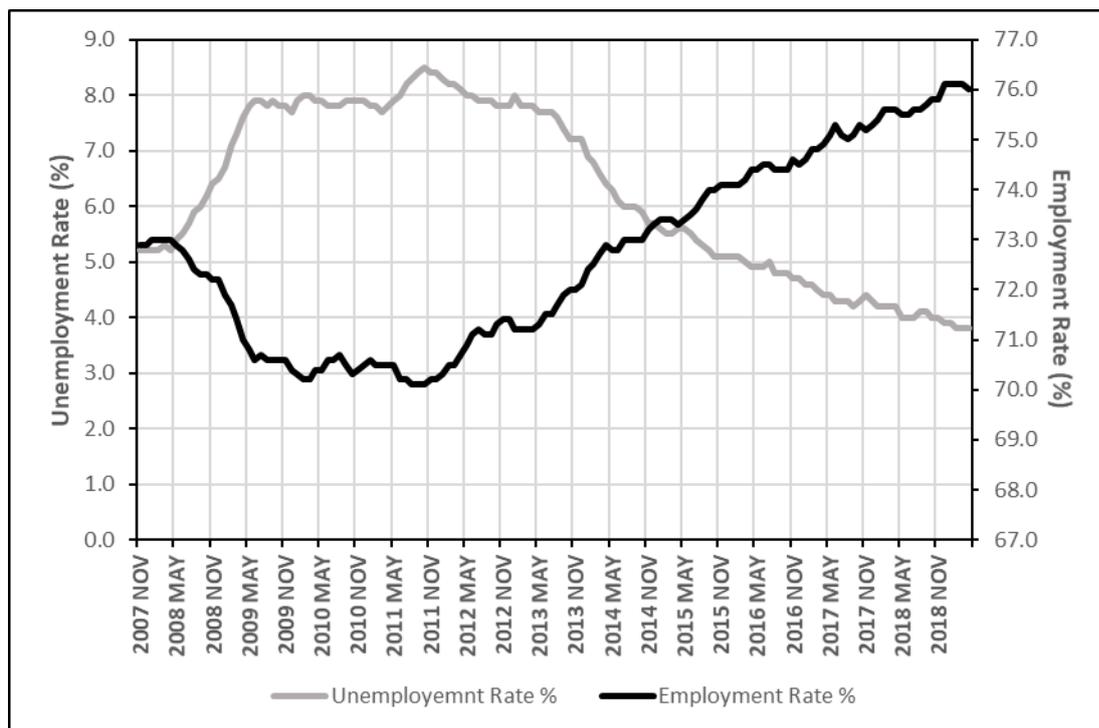
Darker shade represents higher likelihood and lighter shade represents a lower likelihood.
 Source: Bank of England Inflation Report; published August 2019 (quarterly).

1.5 Employment

The year to Q1 2019 delivered continued increases in employment rates. Since Q3 2014, the employment rate has been at a record high, with either quarter-on-quarter stability or increases since then. The current record high of employment rate at Q1 2019 is 76.1%. For March to May 2019, there were 32.75 million people in work, 28,000 more than for December 2018 to February 2019 and 354,000 more than for a year earlier.

The unemployment rate fell to 3.8% in the three months to May 2019, a joint record low since 1974. The unemployment level stood at 1.29 million, 45,000 fewer than the previous three months and 110,000 fewer than the previous year (Figure 1.9)

Figure 1.9 Employment and unemployment rates in the UK, 2007 – 2019



The quarterly employment and unemployment rates in the UK for the last ten years. Source: Office for National Statistics (ONS) Labour Market; updated 16 July 2019.

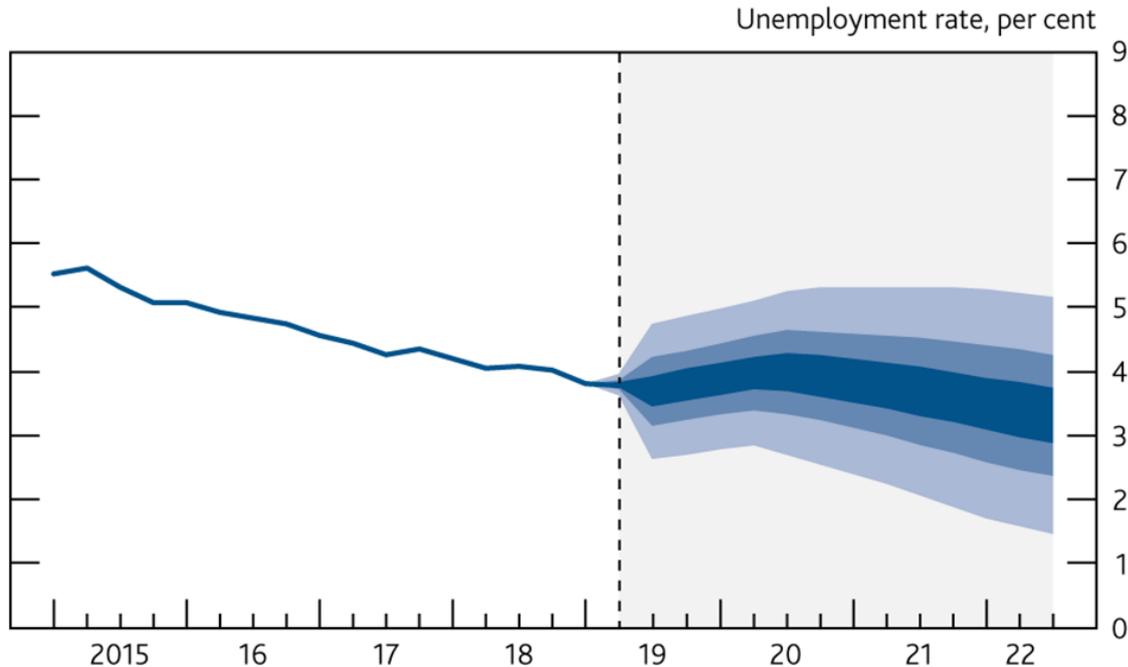
Labour productivity in the UK, as measured by output per hour has remained broadly unchanged since Q3 2017. Labour productivity in Q1 2019 decreased by 0.2% compared with the same quarter in the previous year, which was the third consecutive quarter of contraction.

The annual increase in the number of people in employment (354,000) was mainly due to more people in full-time employment (247,000), accounting for 69.8% of the total increase.

Increases in the number of people in employment in recent years have not been matched by increases in wages. Average total pay (including bonuses) for employees in Great Britain was £498 per week before tax in real terms for May 2019 and other deductions from pay, £27 lower than the pre-downturn peak of £525 per week recorded for February 2008, however, wages are now increasing at a faster rate than inflation.

The Bank of England expects the unemployment rate to remain relatively stable over the next four years with a slight increase in the short term and a decrease expected longer term (Figure 1.10).

Figure 1.10 Unemployment in the UK 2014-2019 and Unemployment projections 2019-2022



Darker shade represents higher likelihood and lighter shade represents a lower likelihood.
 Source: Bank of England Inflation Report; published August 2019 (quarterly)

1.6 UK Economic Indicators

Table 1.1 UK Economic Indicators, 2013-2021

	2013	2014	2015	2016	2017	2018	2019	2020	2021
GDP growth (%)	2.16	2.85	2.33	1.90	1.80	1.40	1.3 ^a	1.5 ^c	1.6 ^c
Interest Rate (Base Rate at year end) (%)	0.5	0.5	0.5	0.25	0.5	0.75	0.75	0.9 ^c	1.2 ^c
Consumer Price Index	2.6	1.5	0	1.32	2.9	2.3	1.8 ^a	2.1 ^a	
Unemployment Rate (%)	7.6	6.2	5.4	5.32	4.6	2.3	3.9 ^a	4.0 ^c	4.2 ^c
UK Housebuilding Starts (000s) ¹	150.1	170.1	179.8	188.6	197.7	201.9			

All figures are percentages unless otherwise indicated. (a) HM Treasury, Forecast for the UK Economy: A comparison of Independent Forecasts, July 2019 (b) 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. (c) Bank of England Inflation Report, August 2019.

¹ [Ministry of Housing, Communities & Local Government](#); Table 211: permanent dwellings started and completed, by tenure, United Kingdom (quarterly). Last Updated July 2019.

2 Forests and the Circular Bio-Economy in the UK

We live in an age of unprecedented demand on our global resources. We have a responsibility to protect our environment, tackle the effects of climate change and improve our air quality. It is critical that we harness existing knowledge, skills and experience in the UK to make better use of global natural resources².

2.1 What is a circular bio-economy?

A bio-economy refers specifically to the use of biotechnology and bio-based materials in creating processes and products, while a circular economy refers to a process that does not focus on an end point (disposal), but loops materials into an ongoing cycle. Both concepts, while slightly different in approach, have the same goal to reduce waste and improve environmental health. Therefore, a circular bio-economy is where these two concepts can work in unison.

2.2 National Government Strategies

2.2.1 UK Clean Growth Strategy

As set out in the [Clean Growth Strategy](#), the UK has been at the forefront of encouraging the world to move towards clean growth. The [Clean Growth Grand Challenge](#), set out in the [Industrial Strategy](#), seeks to maximise the opportunities for UK industry from the global shift to a low carbon resource efficient economy.

In 2019 the UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050³. The target will require the UK to bring all greenhouse gas emissions to net zero by 2050. This was recommended by the Committee on Climate Change who also advocate high levels of afforestation and increased use of timber and bioenergy and it is likely to shape land use and energy policy in the UK in the future.

2.2.2 UK National Bio-Economy Strategy

The [UK National Bio-economy Strategy](#) to 2030 sets out Actions for Change including; Government will look to utilise assets to their full potential, accelerating progress so that the UK is a place where maximum value is extracted from sustainable resources at all stages of use, including minimising the creation of waste.

The UK already benefits from its world class bioscience base. By developing this the UK can boost national productivity and address key challenges in food, chemicals, materials, energy production, health and the environment. This includes:

- Creating new forms of clean energy and new routes to high value industrial chemicals
- Producing smarter, cheaper materials such as bio-based plastics and composites for everyday items as part of a more circular, low-carbon economy
- Reducing plastic waste and pollution by developing a new generation of advanced and environmentally sustainable plastics, such as bio-based and biodegradable packaging and bags (whilst avoiding microplastic pollution)
- Providing sustainable, healthy, affordable and nutritious food for all

² [Growing the Bio-economy](#), 2019, Department for Business, Energy and Industrial Strategy

³ <https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law>

- Increasing the productivity, sustainability and resilience of our agriculture and forestry
- Manufacturing medicines of the future and making existing ones more efficiently

2.2.3 Scotland

Scotland's strategy for a circular economy, [Making Things Last: A Circular Economy Strategy for Scotland](#) sets out their priorities for moving towards a more circular economy – where products and materials are kept in high value use for as long as possible. It builds on Scotland's progress in the [Zero Waste](#) and resource efficiency agendas. Scotland is also the location of both Dunbar and Bute which are both part of a network of Zero Waste municipalities throughout Europe working towards a zero waste circular economy strategy.

2.2.4 England

[Our Waste, Our resources: A Strategy for England](#) was published in 2018 and sets out how England will preserve its stock of material resources by minimising waste, promoting resource efficiency and moving towards a circular economy. At the same time England will minimise the damage caused to the natural environment by reducing and managing waste safely and carefully, and by tackling waste crime. It combines actions England will take now with firm commitments for the coming years and gives a clear longer-term policy direction in line with our [25 Year Environment Plan](#). The strategy is England's blueprint for eliminating avoidable plastic waste over the lifetime of the 25 Year Plan, doubling resource productivity, and eliminating avoidable waste of all kinds by 2050.

2.2.5 Wales

The Welsh Government has recently launched a £6.5 million Circular Economy Fund to increase the use of recycled materials. The [Circular Economy Fund](#) will help Wales reach the milestones of 70% recycling by 2025 and 100% recycling by 2050, as set out in the Welsh Government's waste strategy [Towards Zero Waste](#).

2.2.6 Northern Ireland

[Delivering Resource Efficiency – Northern Ireland Waste Management Strategy](#) is the revised Waste Management Strategy for Northern Ireland with a renewed focus on waste prevention (including re-use). Derry City and Strabane District Council in Northern Ireland are also part of the network of Zero Waste municipalities in Europe working towards the Zero Waste Circular Economy Strategy.

2.3 Links to the UK forest sector

As demand for bio-based resources increases, there are a number of concerns regarding feedstock sustainability, including the direct and indirect impacts of changes in land use, soil quality and carbon stocks. However, the UK recognises that there are opportunities to increase resource efficiency by using residues from agriculture, forestry, and industry or by maximising the efficiency of the use of the resources available. Bioenergy and forestry markets are influenced by carbon and sustainability criteria, that are defined by UK legislation. The producers of some consumer goods then seek to meet similar sustainability standards with their products. There are a wide number of voluntary sustainability standards operating internationally which enable users to demonstrate that their operations, and those of their supply chains, meet certain minimum thresholds in terms of key environmental and social sustainability criteria.

The land area used for agriculture in the UK has been steadily declining for the last half century or more. Concerns relating to direct and indirect land use change impacts are expected to lead to an increase in the use of bioenergy feedstocks that do not impact food or feed markets, including those bioenergy feedstocks that require less land for their cultivation and/or can utilise land not suitable for food and feed production. These non-traditional bioenergy feedstocks include agricultural residues, biomass crops, forestry residues, macro algae, micro algae and municipal solid waste.

2.3.1 Waste wood industry

Timber is renewable and it uses low energy processes and generates little waste that cannot be recycled or used as a source of renewable fuel. The waste wood industry in the UK is growing. Five million tonnes of waste wood is generated each year in the UK⁴. Year on year there has been an increase in how much of that is recycled or reprocessed, largely driven by increases in landfill taxes and government initiatives to encourage more recycling of waste.

Uses for recycled waste wood in the UK include feedstock for the panel board industry, which accounts for the majority of recycled wood, animal beddings, equestrian and landscaping surfaces, play areas and filter beds. However, in recent years there has been a considerable growth in the reprocessing of waste wood into biomass fuel, for use domestically and with international exports. In 2018, 1.3 million tonnes of waste wood were recycled, 2 million tonnes of waste wood were used for energy and 300 thousand tonnes were exported⁵.

2.3.2 The construction industry

In the UK, construction, demolition and excavation account for 60% of both material use and waste generation. Globally less than a third of construction and demolition waste is recovered or reused and around 40% of global construction waste is suggested to be timber⁶ that could be repurposed for various uses, for example wooden flooring.

[Construction 2025](#) is a partnership in the UK between industry and the UK Government to transform the construction industry and was set up in 2013. The vision set out for Construction 2025 includes increasing sustainability of the industry delivering low carbon assets and delivering genuinely whole life value for customers. In 2016 the [Government Construction Strategy: 2016-2020](#) was produced, including themes consistent with the wider ambitions for industry featured in Construction 2025, and is to be delivered by industry and government through the [Construction Leadership Council](#). England's 'Our Waste, Our resources: A Strategy for England' includes plans to increase resource efficiency and minimise waste in the construction sector and specifies that it will work with industry and support [Grown in Britain](#) to increase the amount of home grown timber used in England in construction, creating a conveyor belt of locked-in carbon in our homes and buildings. A wide range of economic and environmental benefits will flow from commercial afforestation to meet the growing demand for timber. Scotland's waste prevention priorities set out in 'Making Things Last: A Circular Economy Strategy for Scotland' include working to avoid depletion of primary aggregates and timber resources through enhanced recycling of

⁴ [Wood Recyclers Association](#)

⁵ [Wood Recyclers Association](#)

⁶ Ellen MacArthur Foundation, World Economic Forum, The Boston Consulting Group

Chapter 2: Forests and the Circular Bio-Economy

demolition materials. Constructing Excellence in Wales has been working to explore the opportunity for the built environment sector from circular economy.

3 Policy developments potentially affecting the UK timber products trade

Forest ownership in the UK remains fairly stable with around 27% state owned and 73% privately owned⁷.

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). International forestry policy remains a reserved UK Government matter.

The Forestry Commission is the non-Ministerial government department advising the UK Government on forestry policy and its implementation in England. From April 2019, regulatory and policy support and grant-giving functions transferred from Forestry Commission Scotland to Scottish Forestry, a new agency of the Scottish Government. In Wales, these functions have been delivered by Natural Resources Wales and by the Welsh Government Forest Resources policy team since 2013.

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.

3.1 Priorities for the government in the UK

3.1.1 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 chains⁸.

The [Tree Health Resilience Strategy](#), published in May 2018, sets out plans sets to protect England's tree population from pest and disease threats. It also sets out how England will strengthen the resilience of its trees to withstand threats.

In England, objectives and policies for woodland expansion are set out in the 25 Year Plan for improving the Environment⁸ which states the commitment to plant 11 million trees between 2017 and 2022 on a pathway to achieving the aspiration to increase woodland cover from 10% to 12% by 2060. The 25-Year Plan recognises the need to make woodland planting more attractive to landowners and attract private investment to fund it, through initiatives such as Forestry Investment Zones, the establishment of the Northern Forest and strengthening of Domestic Carbon Markets.

⁷ [Forestry Statistics \(2019\)](#) Chapter 1: Woodland Area and Planting. *Forest Research*.

⁸ For more information see [A Green Future: our 25 year plan to improve the environment](#) and [Clean Growth Strategy: leading the way to a low carbon future](#).

The Rural Development Programme for England co-financed Countryside Stewardship (CS) Woodland Creation Grant is the principal source of financial support for woodland expansion in England, with its main objectives to enhance biodiversity, improve water quality and contribute to flood risk management. CS restocking grants for woodlands recovering from tree disease are also available in England. The Environmental Impact Assessment (Forestry) Regulations, as they apply in England, were revised in May 2017, requiring that more information is provided by proposers of afforestation projects, while increasing the Environmental Impact Assessment threshold in areas mapped as low risk if a UK Forestry Standards woodland creation plan or the environmental and social information required to produce one is submitted. The design of larger scale productive woodlands is supported through the Woodland Creation Planning Grant (from 2015), while their establishment is supported through the Woodland Carbon Fund (from 2016).

A policy on whether to convert woods and forests to open habitats in England is in place, which includes an assessment of implications for carbon balance and requirements for compensatory planting in the process of prioritising sites for restoration.

3.1.2 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 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 Programme for Government published in September 2019 outlines how the Scottish Government is stepping up support for woodland creation, and aims to accelerate progress towards the 15,000 hectare target and set increased targets beyond 2021.

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.

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.

3.1.3 Wales

[Woodlands for Wales](#) is the Welsh Government's fifty-year Strategy to promote sustainable land use. The Strategy was updated in 2018 and includes an aim to plant 2,000 ha per annum from 2020 as a contribution to meeting national emissions reduction targets.

3.1.4 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.

While a Minister was not appointed to the Department in 2018/19, the Agency business plan and budget was endorsed by the Department Board who monitored the Agency's performance during the year. No major policy decisions were required in respect of the Agency's business that could not be taken in the absence of a Minister and Executive.

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.

Northern Ireland's Forestry Strategy was published in 2006 and includes an aspiration to double woodland cover over 50 years.

3.2 Plant Health

3.2.1 Import and Export Restrictions

3.2.1.1 Import requirements for wood and wood products

The Forestry Commission keeps an updated list of restrictions and conditions on timber and wood imports and exports on their [website](#).

3.2.1.2 Forestry Border Control Checks 2018-19

Forestry Commission Plant Health Inspectors performed 3,874 inspections of 454,667 m³ of controlled timber⁹ from non EU countries of which 25 were found to be non-compliant and remedial action was taken. Additional checks were performed where there was evidence of poor compliance including imports of sawn softwood from other parts of the EU.

From 1st October 2018 a new 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. 501 inspections were carried out between October 2018 and the April 2019 with 8 interceptions of non-compliant wood packaging material all of which were destroyed under statutory notice.

3.2.1.3 Statutory notification scheme for firewood imported into England and Scotland 2018-19

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 the EU and third countries, plus all 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 and Scotland only. 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 risk based and random inspections of consignments to ensure that they meet GB landing requirements.

The Forestry Commission has taken corrective action where any solid fuel wood imports were found not to meet landing requirements, particularly where these represent a risk of introducing harmful tree pests into the UK.

The number of enrolled companies or individual traders has more than tripled from 47 at the beginning of April 2017 to 181 as of the end of March 2019.

During 2018/19, the quantity of solid fuel wood recorded by the end of March was 109,643 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 (61%).

In England and Scotland 4,050 notifications were received during this period and 137 inspections were carried out and the firewood that was inspected was generally compliant. Inspections are mainly risk based and focus on regulated species. 80% of the firewood notified had been kiln dried to below 20% moisture content.

⁹ Controlled timber: virgin wood or wood fibre which has been verified as having a low probability of including wood from any of the following categories:(a) Illegally harvested wood;(b) Wood harvested in violation of traditional and civil rights;(c) Wood harvested in forests in which high conservation values are threatened by management activities;(d) Wood harvested in forests being converted from natural and semi natural forest to plantations or non- forest use;(e) Wood from forests in which genetically modified trees are planted. For more info refer to the [FSC website](#).

In England and Scotland there were 14 cases where the conifer wood packaging material associated with the firewood consignments were non-compliant and in addition two cases where conifer kindling was non-compliant again due to the presence of some residual bark. No live insect activity was detected on any of the intercepted consignments inspected. It is not permitted to land wood packaging material with traces of residual bark unless it is accompanied by a plant passport. Where 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 although not confirmed in any of the countries listed. It is however present in the west of Russia and the understanding is that its distribution is expanding towards the Ukraine. Ukrainian ash firewood in particular has therefore been targeted for inspection along with ash from Latvia and Lithuania.

3.2.2 Tree pests and diseases

3.2.2.1 *Ips typographus*

Ips typographus was discovered in a woodland in Kent in December 2018. Legislation has been laid in Parliament that restricts the movement of susceptible spruce material (including live trees over 3 metres and wood with bark) within 50km of the outbreak sites where *Ips typographus* was found.

The [Plant Health \(*Ips typographus*\) \(England\) Order 2019](#) came into force on 16 January 2019. The Order allows the Forestry Commission to demarcate areas around confirmed outbreak sites, and imposes movement restrictions on conifer material capable of spreading the pest using a Notice.

A revised [Notice](#) of the Order came into force on 29 January 2019. This applies to the movement of spruce (*Picea*) material with bark (for example, wood with bark, isolated bark, live trees over 3 metres) that has originated within the demarcated area.

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 and the boundaries of the area are shown in the [Ips typographus notice map](#) and within the [Notice](#), which also contains a description of the boundary. This Notice replaces the Notice originally issued on 17 January 2019.

A [Q&A document](#) offers further information.

3.2.2.2 *Phytophthora ramorum*

Phytophthora ramorum has continued to be to be a major plant health issue affecting Japanese larch (*Larix kaempferi*) trees and to a lesser extent European larch (*Larix decidua*) and hybrid larch (*Larix x eurolepis*).

The wet and mild autumn/winter of 2017/18 provided favourable conditions for sporulation resulting in continued findings of *Phytophthora ramorum* during the growing season of 2018 in areas where infection had previously been confirmed either on larch, rhododendron, sweet

chestnut or a combination of these species. At some of these sites there is continued evidence of ongoing collateral damage across other species (e.g. beech, sweet chestnut, Douglas fir and bilberry).

Early survey flight observations in England of *P. ramorum* symptoms on larch in May and early June were generally of low level symptoms in the vicinity of previously confirmed infection. These symptoms comprised mainly small groups of trees or individuals, including symptoms as subtle as single crowns and individual branches. There were however exceptions of a small number of localised sites associated with previously confirmed infection that have conducive topography (higher elevation regularly exposed to immersion in low cloud and mist) where symptom progression has been widespread covering locally significant areas.

During the latter part of June reports received from the North West prompted further survey flights which revealed low level branch and canopy symptoms emerging across extensive areas in Cumbria and Lancashire which had been surveyed some weeks before when no symptoms were observed. This emergence of symptoms appeared far more prevalent in the North West in comparison to other regions and resulted in more concentrated aerial surveillance in that area.

As at the end of the reporting period the aerial survey programme in England had comprised 20 survey flights that covered 791,403Ha of National Forest Inventory (NFI) forest and woodland (60% of all forest and woodland in England) , incorporating the survey of 34,071Ha of larch in both private (18,298Ha) and public (15,773Ha) woodland. These survey flights identified 298 suspect larch sites. Further investigation of these resulted in the issue of 67 Statutory Plant Health Notices (SPHNs) which schedule 432 Ha (which includes one large site of 118Ha in the NW) of larch to be felled with a further 70 SPHNs in the process of being issued.

5 new 10km grid squares (4 in the North West - Cumbria and 1 in the South West - Dorset) were found to contain infected larch or sweet chestnut. No findings of *P. ramorum* on tree species have been made in new geographic areas.

During 2017/18, Natural Resources Wales (NRW) carried out its annual aerial surveys programme (spring/late summer), primarily focused on *Phytophthora ramorum*. Flights initially targeted the boundary of the Core Disease Zone (CDZ)¹⁰ in south Wales and areas of previous infection in mid and north Wales. The flight information showed a significant increase of infection in the western part of mid and north Wales similar to the findings in 2017.

NRW identified 2,021 ha for further ground investigation. The bulk of these sites lie outside the CDZ in an area with only previously light infection. NRW have issued Statutory Notices on 720ha of larch woodlands. The disease has primarily been at high levels of infection in areas of previous light infection where trees have been destroyed. The areas not under Notice were found to be as a result of other causes or are inconclusive and will be monitored.

¹⁰ Core Disease Zone (CDZ) – refers to areas in Wales with high levels of infection in larch stands and that have a geographically defined outer boundary. In Scotland there is a statutory disease management zone.

A total of 4 new 10km grid squares were found to contain infected larch, and these lie within already notified counties. Total number of infected 10km grid squares is 108 and three counties within Wales have no recorded infection in larch. The 2018 increase has followed the early predictions on the Climex modelling of the high-risk areas. The Welsh Government's *Phytophthora ramorum* Disease Management Plan is currently being reviewed with a proposal to amend the Core Disease Zone.

Management of the disease is through time bound destruction outside the core disease zone. NRW carry out annual compliance checks and compliance with Statutory Notices is very good. Over 450 ha of infected trees were stem injected during 2017/18 period. And the remaining areas outside the Core Disease zone have been felled. Non-compliance is generally confined to stem injected tree where low percentage of trees maintain some living components or where some elements for felling have been delayed due to other constraints, such as protected species. NRW has no active enforcement actions.

The 2018 aerial surveillance programme in Scotland covered over 1.3 million hectares of woodland across Scotland. Follow up field surveys have confirmed a significant increase in the number of areas of larch containing trees infected with *Phytophthora ramorum*. These recently symptomatic trees are mainly in areas where infection has been confirmed before i.e. Dumfriesshire & Ayrshire. It is likely that the favourable, damp conditions experienced in these areas during the summer to autumn 2017 period has been the main cause for the observed increase in infection. Outlying infections have been restricted to individual trees with underlying stress conditions already present.

These new areas are on a scale that makes it impossible to fell all of the necessary trees under SPHNS this year, priority is therefore being given to dealing with infections occurring furthest from the '*P. ramorum* Management zone' in SW Scotland. Newly infected areas within 10km of the edge of the *P. ramorum* Management Zone will still be dealt with, but some may not be felled until 2019. The market conditions have been favourable in 2018 with material being sold that would in previous years have been felled to waste.

3.3 National Forest Inventory (NFI)

The National Forest Inventory of Great Britain (NFI) provides a record of the size and distribution of forests and woodlands in Great Britain and information on key forest attributes. This information, together with Forestry Commission growth and yield models, is used to forecast softwood and hardwood timber availability.

In 2017 a report providing an [estimate of the amount of tree cover outside NFI woodland areas¹¹ in Great Britain](#) was published. This report estimated that there are 742 thousand hectares of tree cover outside woodland in total, representing 19.4% of all tree cover (both woodland and outside woodland) and 3.2% of land area. The findings in this report are relevant to UK policy and practice in a number of areas including tree health, ecological networks, woodfuel, carbon accounting and urban planning¹².

3.4 Climate Change

The total carbon stock stored within UK forests is estimated to have increased between 1990 and 2015, and to continue increasing to 2020. The carbon stored in forest soils accounts for

¹¹ Woodland is tree cover over half a hectare in extent and greater than 20 metres in width.

¹² For more information see the [National Forest Inventory](#).

around 70% of total forest carbon stock¹³. The UK's LULUCF Action Progress Report (2016) sets out the relative contribution of afforestation, reducing deforestation, improved management, woodland enrichment and enhanced resilience to GHG emissions abatement, concluding that afforestation has the greatest potential as an abatement measure. The [Climate change and Forestry: position statement](#) was published in September 2019.

The [Clean Growth Strategy](#) sets out broad aspirations to increase the rate of afforestation and use of timber in construction in an illustrative pathway to meet the fifth carbon budget (2028-32) and longer term emissions reduction commitments. The 'headline scenario' includes assumptions that woodland cover will increase by 130,000 hectares in England by 2032 and by 493,000 hectares across the UK, recognising the cost-effectiveness of afforestation in emissions abatement. The role of forest biomass and new 'energy forestry' in emissions reduction is also highlighted.

The second UK Climate Change Risk Assessment was published in 2017 and identified six priority risks, two of which are relevant to forestry: risks to natural capital, including terrestrial, coastal, marine and freshwater ecosystems, soils and biodiversity; new and emerging pests and diseases, and invasive non-native species, affecting people, plants and animals. The second National Adaptation Programme (NAP) was published in 2018, with forestry-related actions brigaded around four goals for the five year period of the National Adaptation Programme: (1) Woodland resource is expanded and better linked to enhance its resilience at stand and landscape scale; (2) Existing woodlands are more resilient to the impacts of climate change and pests and diseases; (3) Adaptation is embedded within future forestry policy to contribute to long-term reduction of climate change risks; and (4) Woodlands are more resilient to natural hazards.

Climate change adaptation is included in the UK Forestry Standard, which underpins forest certification through the UK Woodland Assurance Standard and the Woodland Carbon Code, and meeting its requirements is a consideration of receiving grant aid in the four devolved administrations.

Resilience and climate change adaptation are at the core of the Science and Innovation Strategy for Forestry in Great Britain, with three of Forest Research's seven research programmes focussing on different aspects of resilience.

3.4.1 Carbon reduction initiatives

3.4.1.1 Woodland Carbon Code

Private sector investment in woodland creation under the Woodland Carbon Code is continuing to increase. The [Woodland Carbon Code](#), launched in July 2011, sets out requirements of voluntary woodland creation projects in the UK wishing to make claims about the carbon they sequester. From April 2019 all large companies in the UK (around 12,000) are mandated to report their emissions and smaller companies are encouraged to voluntarily do so. They can use verified Woodland Carbon Units to come to a net emissions figure. Companies should follow the government's Environmental Reporting Guidelines. Companies can also use verified Woodland Carbon Units in claims of 'Carbon Neutrality' as set out in the British Standards Institute's PAS2060: 2014 Specification for the Demonstration of Carbon Neutrality.

¹³ [Forestry Statistics 2019](#), Forest Research

3.4.1.2 Carbon Markets in the Forest Sector

The Woodland Carbon Code has generated much interest among landowners and investors alike. As of 31 March 2019, 187 projects were validated¹⁴ to the Code and are predicted to sequester around 3.4 million tonnes of carbon dioxide equivalent over their lifetime (up to 100 years)¹⁵. Of the validated projects, 70 projects are now verified¹⁶ and projected to sequester 1.1 Million tonnes of carbon dioxide equivalent over their lifetime.

A proportion of the revenue for each project comes from private sector investment, from companies considering their Corporate and Social Responsibility or looking to offset their unavoidable emissions. Well over half of the validated carbon has been sold upfront for CSR reasons, but there are now also sales of verified Woodland Carbon Units to companies who are looking to formally offset their emissions. Case studies of buyers and of example projects are available on the Woodland Carbon Code [website](#).

There are developing policy mechanisms that will provide a boost to either the supply or demand side of the UK carbon market; In England, the government has committed £50 million to offer woodland owners the option to sell their verified carbon credits to government at a guaranteed price over the next 30-35 years¹⁷. The UK Government is currently consulting on whether to mandate public transport providers to offer a carbon offset scheme to their customers¹⁸.

3.5 UK Grown Timber Initiatives

Since 2013 the not-for-profit, government backed [Grown in Britain](#) campaign has developed and promoted the case for increasing British grown timber. The Grown in Britain programme combines efforts to increase private sector forest/woodland creation and management, grow the British timber processing sector, and encourage the promotion of Grown in Britain branded products in the eyes of merchants, retailers and consumers in the UK. Grown in Britain has over 1 million tonnes of UK timber licensed to use the 'Grown in Britain' brand and over 300,000 hectares of trees, woods and forests within the scheme.

Following on from the [2016 Grown in Britain Woodstock report](#) that found that UK grown hardwood sawlog supply has the potential to double to 2050, Grown in Britain has launched an online portal. This is aimed at the non-professional owner and contains a video on valuing hardwoods along with up to date guidance of potential prices for a range of UK grown hardwoods¹⁹.

¹⁴ **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.

¹⁵ [Provisional Woodland Statistics](#), published June 2019, *Forestry Research*.

¹⁶ **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 Code.

¹⁷ <https://www.woodlandcarboncode.org.uk/woodland-carbon-guarantee>

¹⁸ <https://www.gov.uk/government/consultations/carbon-offsetting-in-transport-a-call-for-evidence>

¹⁹ [Selling Hardwood Trees](#) (2017) Grown In Britain

4 Market Drivers

4.1 UK forests²⁰

Demand for UK forests continued at unprecedented levels for most of the year but the market softened in the last quarter of 2018 and into early 2019. The drivers behind the popularity of UK 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.

4.1.1 Area and value

Savills Research report that the total value of the UK forestry investment market increased from £112 million in 2017 to £118 million in 2018. In line with recent trends, 2018 was another strong year of value growth for the UK forestry market, with supply down by 19%, but overall market value up by nearly 6%. Analysis by Savills Research shows that in 2018 within the 14,750 hectares of forest 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.

4.1.1.1 Regional trends

Forest values are influenced by several local factors; location, quality and scale of the forest, resulting in significant regional variation in average price. 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. South Scotland (extending into northern England) benefits from good growing conditions, good infrastructure and competitive timber markets, with these benefits reflected in the trend of increasing value of forests in this area in recent years.

4.2 Wood and Wood Products

Timber prices remain a big influence on the market value of forests in the UK. The weak £GBP in 2018 led to increased demand for domestic wood as imports became more expensive. Although, notably in 2019 compared to 2018, there has been a large increase in very competitively priced imported sawn spruce from Europe in response to the increased harvest of spruce in central Europe as a result of the *Ips Typographus* epidemic.

The value of UK manufacturers' products sales of wood and wood products increased from £6.6 billion in 2017 to £6.9 billion in 2018, representing a 4.5% increase in sales²¹. Notably within the sector in 2018 there was significant growth within the manufacture of wooden kitchen furniture, increasing by 20.3% to £1.8 billion. There was also an £128 million (11.5%) increase in sales of wooden prefabricated buildings such as sheds, holiday homes and mobile homes²².

²⁰ [The Forestry Market](#) (March 2019) Savills Research

²¹ Referring to data from the [Office for National Statistics, PRODCOM](#), UK Manufacturers' sales by product: provisional estimates 2018 (July 2019): Data from division 16: 'Manufacture of wood and of products of wood and cork; except furniture; manufacture of articles of straw and plaiting materials'.

²² [UK Manufacturers' sales by product: 2018 provisional results](#), Report July 2019, Office for National Statistics

In the UK in the past 18 months there has been a significant increase in companies bidding for small roundwood as a source of woodfuel. The additional competition has driven up bid prices from the traditional wood panel manufacturers and given sawmills more outlets for their chips and sawdust at better prices than previously achieved.

Demand within the construction industry also remains a large influence on the timber market within the UK. Government initiatives to meet housing needs mean that this demand within the construction industry is unlikely to diminish in the short term.

4.3 Construction, manufacturing and distributive trades

4.3.1 Construction

The value of UK manufacturer sales of builders' carpentry and joinery²³ increased by 0.4% from 2017 to £3.7 billion in 2018.

There has been a steady increase in the Construction Material Price index within the UK since the latter end of 2015²⁴. The material price index of 'All Work' increased by 3.1% in May 2019 compared to the same month the previous year.

Construction output increased by 0.4% in the three-month on three-month all work series in April 2019; this increase was driven predominately by the all repair and maintenance series, which grew by 1.0%²⁵. The increase in all repair and maintenance in the three-month on three-month series in April 2019 was driven by non-housing repair and maintenance, which increased by 2.3%²¹.

4.3.1.1 Housing Starts

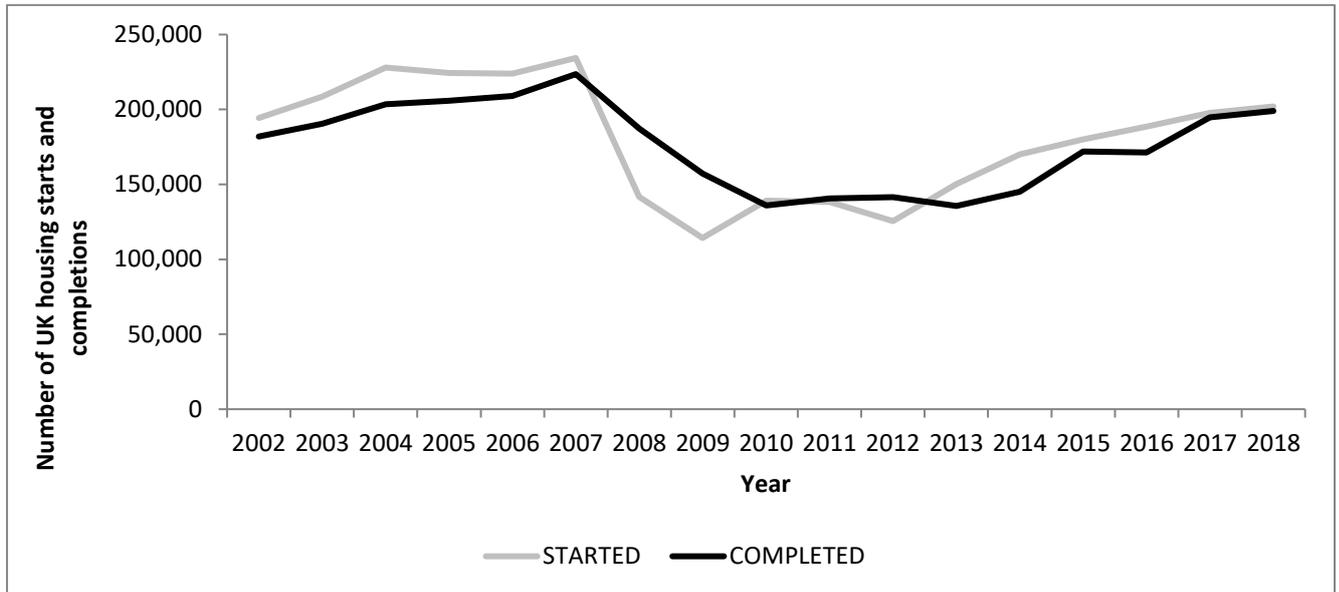
Across the UK 202,000 permanent dwellings were started in 2018, compared to 198,000 in 2017, representing a 2% increase (see Table 1.1). Housing completions also increased in 2018 with 199,000 permanent dwellings completed in 2018 compared to 195,000 completed in 2017, representing a 2% increase (Figure 4.1).

²³ Referring to data produced by the [Office for National Statistics, PRODCOM](#). Data set: UK Manufacturers' sales by product: provisional estimates 2018 (July 2019), Data from Division 16: 'Manufacture of wood and of products of wood and cork; except furniture; manufacture of articles of straw and plaiting materials'. SIC(07) 1623 – *Manufacture of other builders' carpentry and joinery: Total UK manufacturer sales of products in this product group*.

²⁴ [Monthly Statistics of building Materials and Components](#) (June 2019) Department for Business, Energy and Industrial Strategy.

²⁵ [Monthly Statistics of building Materials and Components; commentary](#) (June 2019) Department for Business, Energy and Industrial Strategy.

Figure 4.1 UK Housing Starts and Completions, 2002-2018



Source: Ministry of Housing, Communities and Local Government (August 2019) [Live tables on house building: new build dwellings](#). Table 211: permanent dwellings started and completed, by tenure, United Kingdom (quarterly). Accessed 01 August 2019.

The majority of housing starts and completions occur in England, accounting for over 74% of starts and completions each year for the last decade, with the latest figures suggesting this is over 85% for 2017/18²⁶. The private sector dominates housing starts and completions in the UK, accounting for 82% of housing completions in the UK in 2017/18²⁶. However, the greatest percentage increase in output was reported within the infrastructure sector, with an increase of 5.4% between 2017 and 2018 (Figure 4.2).

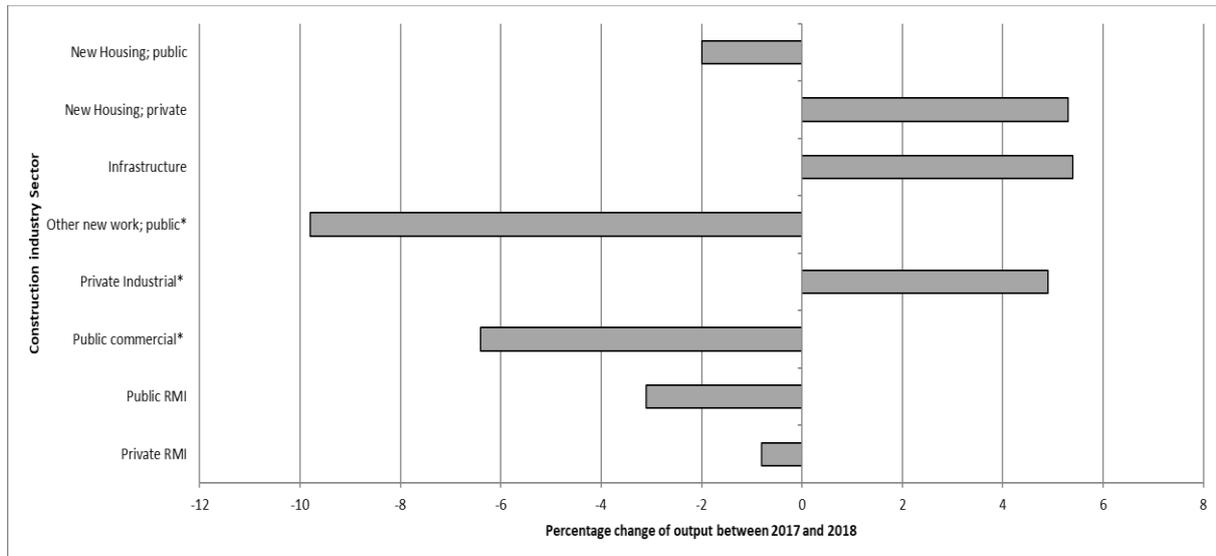
4.3.1.2 Other construction

All construction industry sectors²⁷ decreased output between 2017 and 2018, with the exception of new housing; private, infrastructure and private industrial (Figure 4.2).

²⁶ For detail on other countries see Ministry of Housing, Communities and Local Government (August 2018) [Live tables on house building: new build dwellings](#). Table 209: permanent dwellings completed, by tenure, and country and Table 209: permanent dwellings started, by tenure, and country. Accessed 07 August 2018.

²⁷ Construction industry sectors refer to: public and private housing, infrastructure, public and private industrial*, private commercial*, public and private housing repair and maintenance, *excluding infrastructure.

Figure 4.2 Construction Industry Sector Output: volume seasonally adjusted, percentage change period on previous year, by sector, 2018



Source: [Output in the construction industry: reference tables](#) ; Table 3b (September 2019) Office for National Statistics. R&M = Repair and Maintenance. * Excluding Infrastructure.

4.3.1.3 Forecast²⁸

Output for Britain’s construction industry is expected to be less than previously forecast over the next three years. The Construction Products Association’s (CPA) Summer Forecast for 2019-2021 anticipates a 0.3% decline in total construction output for 2019, in line with previous projections, and the forecasts for 2020 and 2021 have been revised down to 1.0% and 1.4% from 1.4% and 1.7% respectively since the Spring.

The CPA Summer Forecast identifies the infrastructure sector as a main driver of growth and vital to the fortunes of the construction industry in the next few years. Total construction output would fall by 1.7% in 2019 and experience no growth up until 2021 without the delivery of major infrastructure projects like HS2²⁹ and Hinkley Point C³⁰.

While the overall figure for construction output signals growth, it also masks a high degree of variation across regions, sectors and sub-sectors. Levels of construction activity remain high in the Midlands, the North West as well as Yorkshire and the Humber, whilst declines in activity can be found in key regions such as London, the South East and parts of the East of England.

On a sectoral basis, activity levels remain high in private and public housing, industrial warehouses and infrastructure while sub-sectors such as commercial offices, commercial retail and industrial factories continue to endure falls in activity.

Private housing is the largest construction sector, worth £36 billion in 2018, and it has been the key driver of industry growth over the past five years. Activity in the sector is currently slowing and private housing starts are forecast to fall by 2.0% this year before growth of 1.0% in 2020. The sharpest falls in new housing demand are occurring in London and the

²⁸ This section has been taken from [The Construction Products Association Summer Forecasts](#), July 2019.

²⁹ HS2: [High Speed Two](#)

³⁰ Two new nuclear reactors are being built at [Hinkley Point C](#).

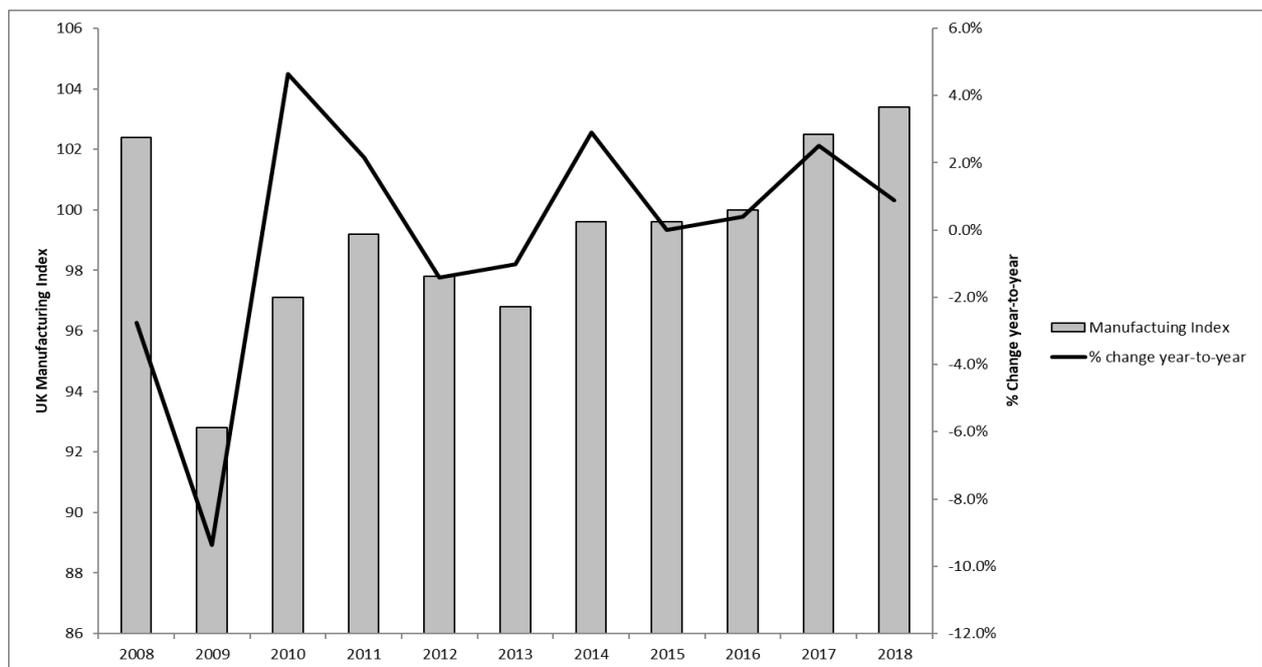
South East, particularly for prime residential flats. However, these falls are currently being partially offset by house building growth in the North West, Yorkshire and the Midlands, buoyed by Help to Buy³¹.

Commercial is the second largest construction sector in the UK and was worth £29 billion in 2018. However, commercial output fell by 6.4% in 2018 and is forecast to fall by 6.9% in 2019 and a further 4.7% in 2020. due to decline in investment in the offices sub-sector, in particular investment in new offices towers in London, as well as the impact of continued shift of consumer spending online and its adverse impacts on new investment in retail construction.

4.3.2 Manufacturing and distributive trades

UK manufacturing output rose by 0.9% between 2017 and 2018 (Figure 3.3). The UK Index of Production³² suggests that the wood, paper and printing sector has seen a 0.5% growth in March-May 2018 compared to the same three month period in 2017, and the index reports a 0.4% increase over the three months to May 2019 compared to the three months to February 2019.

Figure 4.3 UK Manufacturing Index, 2007-2018 and percentage change year-to-year



Source: Time series: [C: Manufacturing \(Index\): CVM](#) (July 2019) Office for National Statistics. Index year 2016 = 100.

4.3.3 UK Timber Price Indices

There are variations in price movements among the different product groups, but the general trend of rising prices for timber and panel products has continued in 2018.

2018 saw the third highest percentage rise (46.2%) in UK timber prices recorded during the last 35 years. Commodity price fluctuations are normal and the price of timber will be entirely influenced by supply and demand and the efficiencies or otherwise of the production

³¹ [Help to Buy](#) is a collection of UK Government schemes designed to help people take steps towards buying their own home.

³² [Index of Production, UK: April 2019](#): Table 1. Office for National Statistics.

chain. The domestic market is complicated by the degree to which the UK is reliant on imports and exports. Timber deliveries are relatively unresponsive to increasing demand and, therefore, open to demand led price inflation.

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 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.

4.3.3.1 Coniferous Standing Sales Price Index

There has been an overall increase in the index over the last 15 years, following an overall decrease in earlier years. The index was 26.8% higher in real terms (29.3% in nominal terms) in the year to March 2019, compared with the previous year. The average price for coniferous standing sales was £31.66 per cubic metre overbark standing in nominal terms in the year to March 2019, an increase from £24.64 in the year to March 2018³³.

4.3.3.2 Softwood Sawlog Price Index

The Softwood Sawlog Price Index was 32.5% higher in real terms (34.9% in nominal terms) in the 6 months to March 2019, compared with the corresponding period of the previous year. The average price for softwood sawlog sales was £65.23 per cubic metre overbark in nominal terms in the 6-month period to March 2019, an increase from £56.11 in the 6 months to September 2018 and £48.36 in the 6 months to March 2018.

4.3.3.3 Forecast³⁴

It is well reported that the UK is reliant on timber imports but the investment in the UK wood processing industry and recent pricing trends highlight the buoyant and world class nature of this sector in the UK. Current conditions favour UK producers but the potential harvest is limited by availability of the resource and the practicality of harvesting more timber than is currently being produced. Current felling rates can be considered as sustainable for the next 20 plus years meaning that, subject to external shocks disrupting demand, there is little on the horizon to suggest a change to current pricing structures.

4.3.4 Wooden Pallets³⁵

In 2018 41 million new pallets were sold in the UK, representing an 4% increase since 2017. Following a period of steady decline this is the first increase in sales of new pallets since 2012, although sales are still far below those reported in 2012. In 2018 39 million refurbished pallets were sold, continuing with the upwards trend seen in recent years with a 2% increase since 2017³⁶.

³³ For more information see [Timber Price Indices: data to March 2019](#). Forest Research.

³⁴ Savills, [Outlook for the timber market](#), April 2019

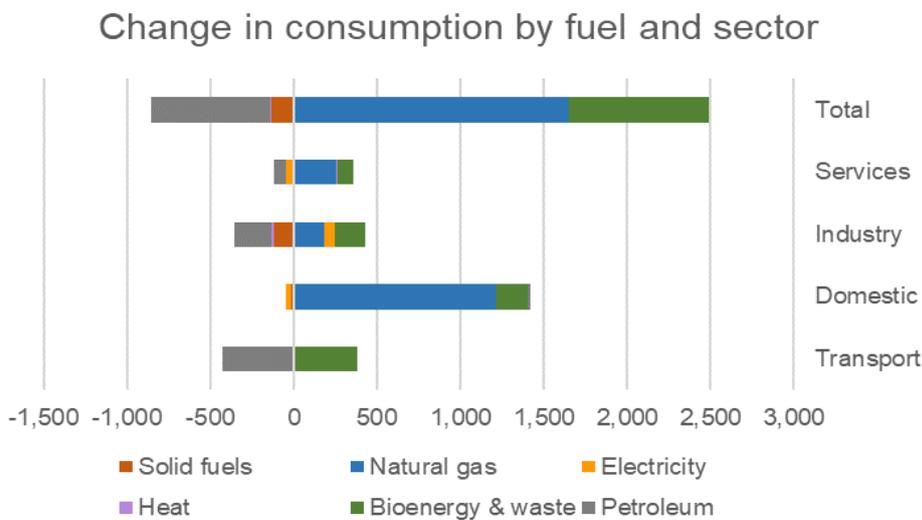
³⁵ <https://www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/timber-statistics/timber-utilisation-statistics/>

³⁶ For more information see [UK manufacturers' sales by product](#) (July 2019) Office for National Statistics. Division 16: Manufacture of Wood and of Products of Wood and Cork, except Furniture, Manufacture of Articles of Straw and Plaiting Materials.

4.4 Energy Markets

Final energy consumption in the UK in 2018 was 143 mtoe (million tonnes of oil equivalent), this represents a 1.1% increase since 2017. This increase was driven by growth in gas final consumption of over 1.6 mtoe; nearly three quarters of which was in the domestic sector because of the severe weather early in 2018 brought by the ‘Beast from the East’ (Figure 4.4). Figure 4.4 also shows the increase in use of bioenergy and waste in each sector in 2018 compared to 2017 but most notably in transport where bioenergy reached a record 3.3 per cent share of total road fuel. Consumption of petroleum fell by 1.1 per cent primarily because use for transport fell by 0.8 per cent. These were the first decreases in petroleum demand since 2013.

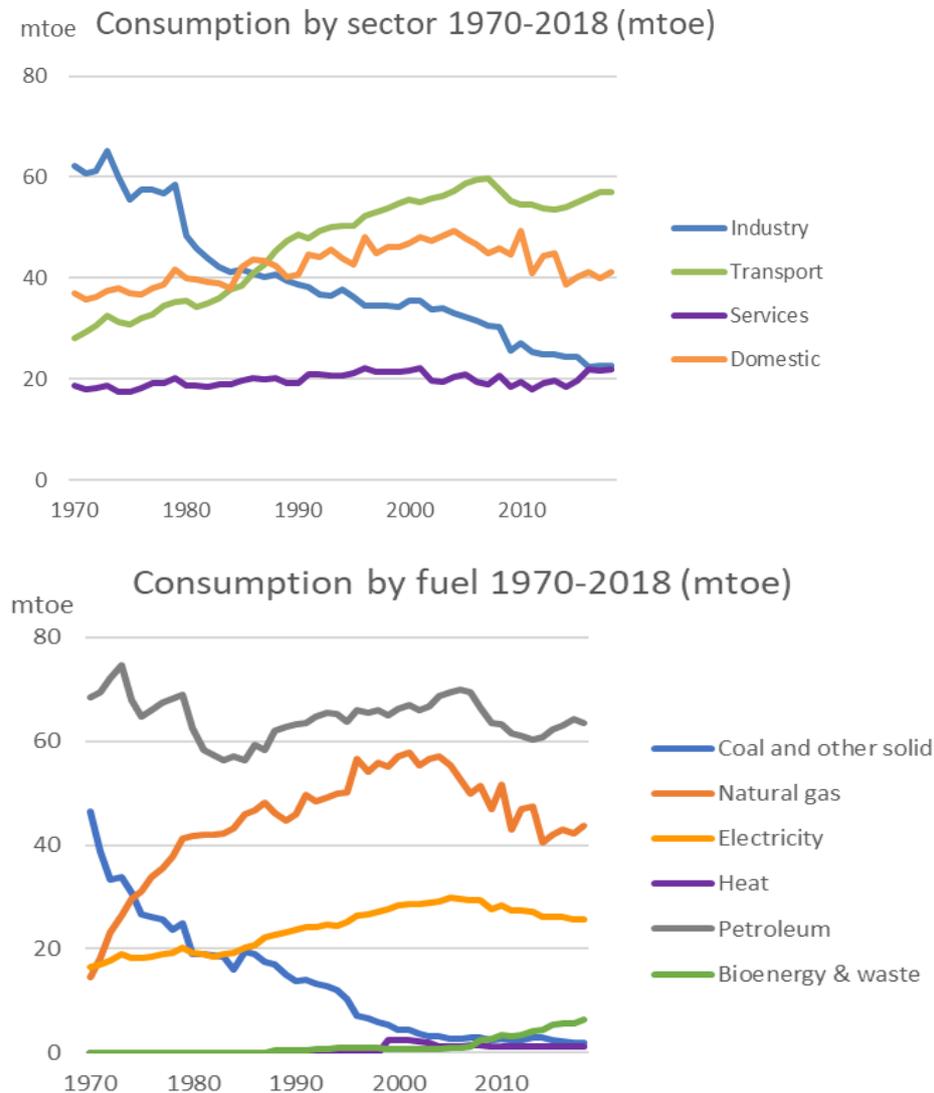
Figure 4.4 The change in energy consumption from 2017 to 2018 split by fuel and sector



Units are Ktoe = thousand tonnes of oil equivalent: this is a common unit of energy measurement which enables different fuels to be directly compared and aggregated. One tonne of oil equivalent is set equal to 41.868 Giga Joules (GJ) or 11,630 kilo Watt hours (kWh). Source: [Energy Consumption in the UK](#) (July 2019) Department for Business, Energy and Industrial Strategy.

Figure 4.5 below shows the long-term trends in consumption by sector and fuel; by sector the most notable element is the growth in transport consumption and fall in industrial. By fuel, coal has fallen considerably since 1970 (by 96%) with gas consumption more than tripling (though has since fallen by a quarter since consumption peaked in 2001). Consumption of bioenergy and waste has also shown a steady increase in the last 15 years and has now overtaken coal and other solid fuel.

Figure 4.5 The consumption of energy in the UK by sector and fuel, 1970-2018



Source: [Energy Consumption in the UK](#) (July 2019) Department for Business, Energy and Industrial Strategy. Figures are weather corrected; details of the methodology for these adjustments can be found in articles in [Energy Trends \(June 2011 and September 2011 editions\)](#). Bioenergy and waste are predominantly used for renewable heat; includes liquid biofuels from 2006. mtoe = million tonnes of oil equivalent: this is a common unit of energy measurement which enables different fuels to be directly compared and aggregated. One tonne of oil equivalent is set equal to 41.868 Giga Joules (GJ) or 11,630 kilo Watt hours (kWh).

Biomass consumption also increased (by 196 ktoe) which could be due to additional heating requirements due to the 'Beast from the East' alongside the increasing contribution of renewables in the fuel mix. Although, the share of biomass is still relatively small compared to gas consumption which accounts for 64% of total domestic consumption, down from 69% in 2004 when gas consumption in the domestic sector peaked. This compares to just 24% in 1970 (before North Sea Gas came on line) and when solid fuels (coal, and other manufactured fuels) accounted for 49% of domestic consumption³⁷. The increase in interest in renewable energy in the UK, and the increasing number of wood fuelled installations used

³⁷ [Energy Consumption in the UK](#) (ECUK) 1970 to 2018

in the commercial and public sector has resulted in a rapidly expanding UK market for biomass.

4.4.1 Renewable electricity³⁸

Of electricity generated in the second quarter of 2019, coal accounted for only 0.6 per cent, a new record low, whilst gas accounted for 43.6 per cent. Nuclear generation accounted for 17.1 per cent of total electricity generated in the second quarter of 2019. Renewables' share of electricity generation (wind, solar pv, hydro and bioenergy) increased from 32.0 per cent in the second quarter of 2018 to 35.5 per cent in the second quarter of 2019, mainly due to increased capacity. Renewable electricity generation was 27.1 TWh in the second quarter of 2019, an increase of 9.9 per cent on the 24.6 TWh in the second quarter of 2018. Low carbon electricity's share of electricity generation fell slightly to 52.6 per cent in the second quarter of 2019, compared to 53.6 per cent in the second quarter of 2018. Renewable electricity capacity was 45.9 GW at the end of the second quarter of 2019, a 7.9 per cent increase (3.4 GW) on a year earlier, with two thirds of the annual increase coming from wind. Switching rates increased in the second quarter of 2019, by 12 per cent compared to the levels of a year earlier for electricity and by 6.8 per cent for gas, based on data provided by Ofgem. An average of 510,000 households per month switched electricity supplier, with 413,000 households per month switching their gas supplier in the quarter.

4.4.2 Forecast

The domestic Renewable Heat Incentive (Domestic RHI)³⁹, introduced in April 2014, is a government incentive to homeowners. The scheme offers a financial incentive for homeowners producing clean, green renewable heat. There is also a non-domestic RHI that has been running since November 2011. The main renewable sources used by individuals within these schemes are: air and ground source heat pumps, solar thermal and biomass; wood pellets form a large component of this biomass sector. The number of installations receiving payment since the introduction of these schemes was 19,584 non-domestic and 72,403 domestic⁴⁰.

Analysis of future investment in renewables showed that substantial cuts have occurred in recent years. These cuts will impact wind, solar, biomass power and waste-to-energy projects, future investment is predicted to decrease by 95% by 2020. Many of the current renewable energy subsidy schemes and projects are dependent on EU emissions target legislation.

³⁸ [UK Energy Statistics](#), Q2 2019, September 2019, *Department for Business Energy and Industrial Strategy*

³⁹ [The Domestic Renewable Heat Incentive](#)

⁴⁰ [Renewable Heat Incentive Statistics](#)

5 Developments in forest products markets

The forest industries, including forest products, are a significant sector within the UK and with more importance being placed on sustainability within the construction industry and energy production sectors, the need for enhanced water management, and the wider government agendas to build more housing, create jobs and encourage growth, means there may be great potential for more growth within this sector⁴¹.

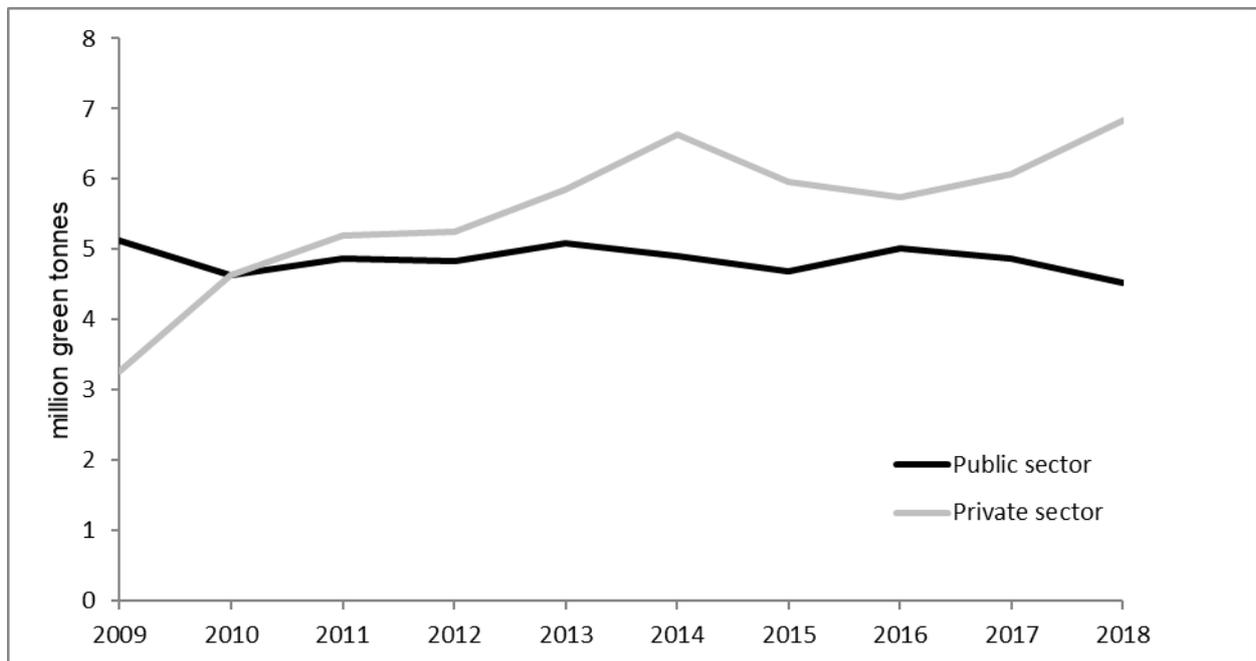
5.1 Wood Raw Materials

5.1.1 Removals of roundwood

Removals refers to the harvesting of roundwood (trunk and branch wood) from coniferous (softwood) and non-coniferous (hardwood) trees. It is estimated that a total of 12.2 million green tonnes of roundwood was removed from UK woodlands in 2018, a 4% increase from the level in 2017. Softwood accounted for the majority (93%) of removals from UK woodland and totalled 11.4 million green tonnes in 2018, up 4% from 2018 (Figure 5.1). Hardwood removals totalled 0.8 million green tonnes in 2018⁴².

There has been an overall increase in the level of UK private sector softwood removals in the last decade; in comparison, softwood removals by the public sector (FE/FLS/NRW/FS⁴³) have been relatively stable over the last decade although showing decline in recent years (Figure 5.1).

Figure 5.1 Softwood removals from UK forests by private and public sectors, 2009-2018



Source: Forestry Statistics (2019) Forest Research

Public sector: FE: Forestry England, FLS: Forestry and Land Scotland; NRW: Natural Resources Wales, FS: Forest Service.

Private sector: removals from all other woodland (including some publicly owned woodland).

⁴¹ Roots to prosperity: a strategy and action plan see <http://rootstoprosperity.org/>

⁴² For more information see [Forestry Statistics \(2019\) Forest Research](#)

⁴³ FE: Forestry England; FLS: Forestry and Land Scotland; NRW: Natural Resources Wales; FS: Forest Service

5.1.2 Deliveries of roundwood

5.1.2.1 Softwood

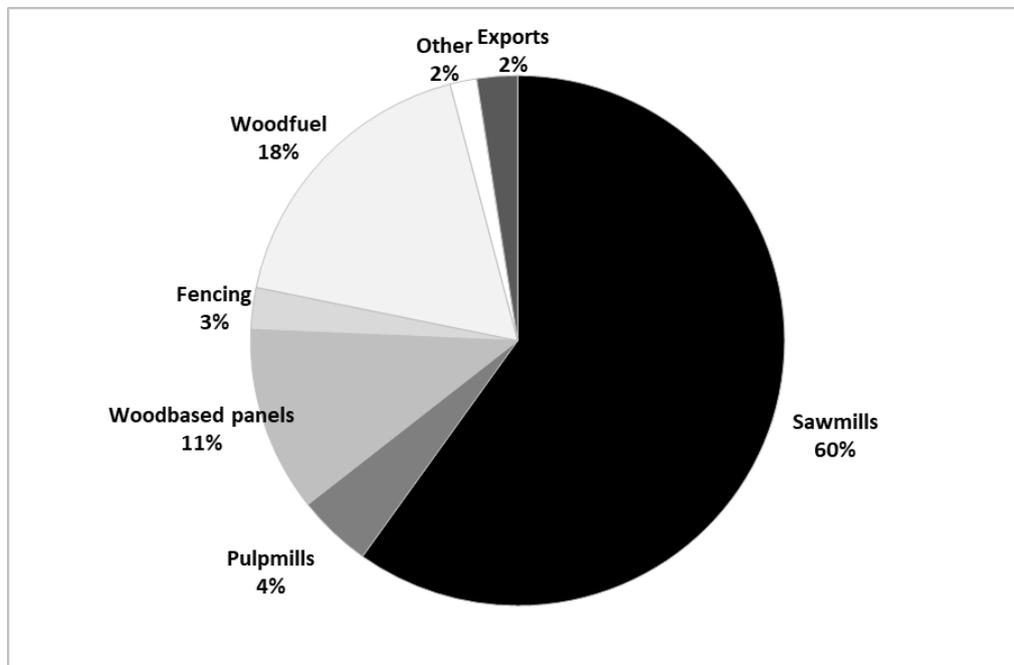
Figures for deliveries relate to the quantity of UK-grown roundwood that is delivered to wood processors and other users. There is a difference between reported softwood removals and deliveries which can be caused by variations in the level of stocks between harvesting and delivery to the wood processor, and/or by the differences in data sources and methodologies used to compile removals and deliveries statistics⁴⁴.

In 2018, deliveries of UK roundwood totalled 11.6 million green tonnes, representing a 3% increase from the previous year. Most roundwood deliveries (93%) were softwood⁴⁴.

Softwood deliveries totalled 10.7 million green tonnes in 2018. 6.4 million green tonnes (60% of UK softwood deliveries) were used by sawmills, a 2% decrease from the previous year. A further 1.9 million green tonnes were used for wood fuel (19% increase), 1.2 million green tonnes were used to produce wood-based panels (14% increase), 0.5 million green tonnes by integrated pulp and paper mills (a 10% increase), and 0.7 million green tonnes for other uses (11% decrease), including round fencing, shavings and exports of roundwood⁴⁴ (Figure 5.2).

The increase in softwood deliveries for woodfuel in recent years reflects an increase in wood use for heating and energy production in the UK (Figure 5.3).

Figure 5.2 Deliveries of softwood from UK forests to wood processors and others, 2018

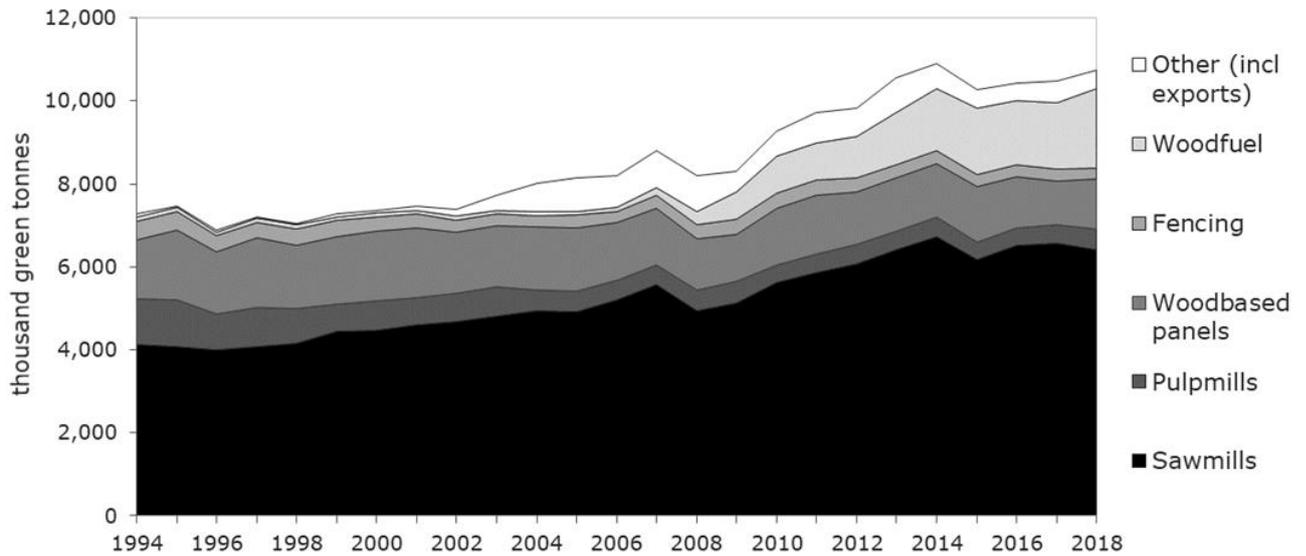


Source: [Forestry Statistics 2019](#) Forest Research

Woodfuel: Wood fuel derived from stemwood. Includes estimates of roundwood use for biomass energy. Other: Includes shavings and poles.

⁴⁴ For more information see [Forestry Statistics 2019](#) Forest Research

Figure 5.3 Deliveries of UK-grown softwood, 1994-2018



Source: industry surveys, industry associations. [Forestry Statistics 2019](#), Forest Research

5.1.2.2 Hardwood

There was a total of 0.8 million green tonnes of UK hardwood deliveries in 2018. The majority of UK hardwood deliveries (84% in 2018) were used for woodfuel⁴⁵.

5.2 Wood Energy

5.2.1 Consumption and production

Wood used for energy generation includes sawmill products (including wood chips, sawdust and bark), recycled wood and wood pellets. The main incentives for wood pellet use in the UK are through climate change targets, renewable energy targets and subsidy initiatives that support these⁴⁶. Wood pellet consumption in electricity generation in the UK has increased significantly in line with the support provided through the Renewables Obligation (RO)⁴⁷. Imports of wood pellets into the UK were around 8.0 million tonnes in 2018⁴⁸, a 16% increase from 2017. A total of 279 thousand tonnes of wood pellets and briquettes are estimated to have been produced in the UK in 2018. This represents a 3% decrease from the 2017 estimate of 287 thousand tonnes. Almost 40% of energy consumption from renewable and waste sources is from Biomass (Figure 5.4).

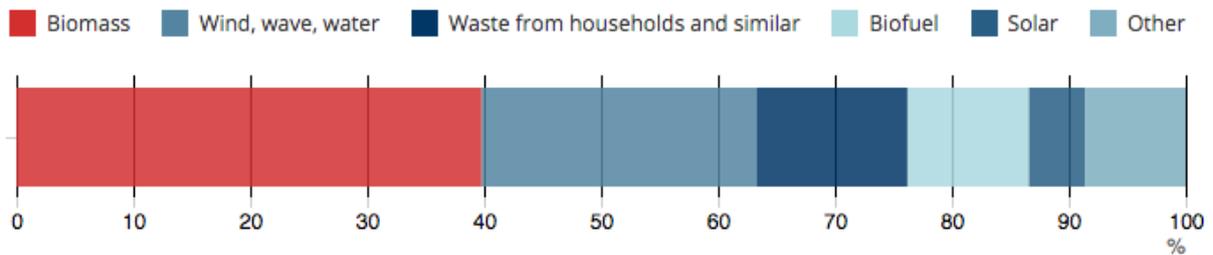
⁴⁵ [Forestry Statistics 2019](#), Forest Research

⁴⁶ For more information see [Global Wood Pellet Industry and Trade Study 2017](#)

⁴⁷ For more information <https://www.ofgem.gov.uk/environmental-programmes/ro>

⁴⁸ HM Revenue and Customs; UK overseas trade statistics

Figure 5.4 Energy consumption from renewable and waste sources, by source, UK, 2017



Source: Office for National Statistics – UK Environmental Accounts: 2019

[A burning issue: biomass is the biggest source of renewable energy consumed in the UK](#), August 2019, ONS

(1) The "Biomass" category includes plant (e.g. straw or crops) and animal biomass (e.g. poultry litter), wood (e.g. wood pellets) and charcoal. (2) The "Wind wave and water" category includes offshore wind, onshore wind, wave, tidal and hydroelectric. (3) The "Biofuel" category includes liquid biofuels, biodiesel, bioethanol and biogas. (4) Waste from households and similar is also known as Municipal Solid Waste (MSW). This is "regular" waste from non-industrial sources, such as homes, residential homes, restaurants, retail centres and office buildings. Typical MSW includes paper and discarded food. (5) The "Other" category includes sewage gas, landfill gas and geothermal aquifers.

Over the last decade there have been multiple changes made to the RO and more recently the UK government introduced the Contracts for Difference (CfDs)⁴⁹. Currently there are no further policies planned to incentivise the use of wood pellets in bioenergy and current support under the RO is due to end in 2027, meaning that any new conversion projects would be limited to a 10 year period in which to recover the investment required to convert. This limited time frame on the current policies may have a significant impact on future investment in of biomass use in the UK.

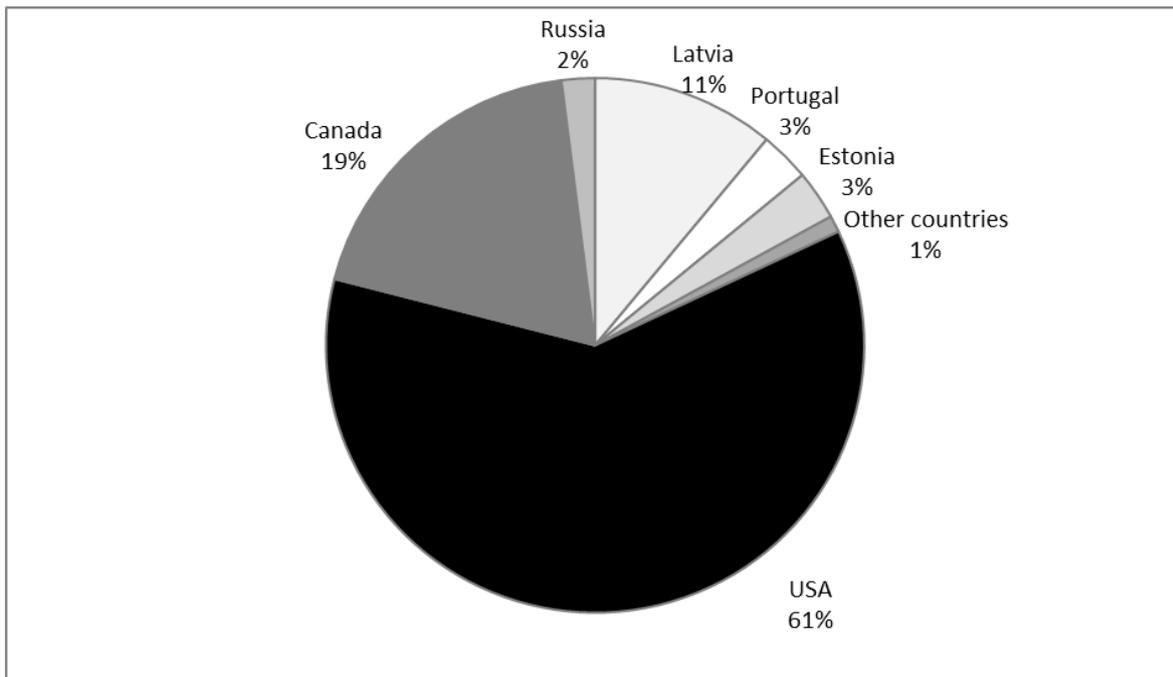
5.2.2 Imports of wood pellets

The majority of wood pellet imports into the UK in 2018 came from the USA (61%), and within the EU Latvia provided the largest proportion of wood pellet imports (11%) (Figure 5.5). The rate increase in pellet imports has increased substantially in recent years, with an increase of almost 8 million tonnes in the last 10 years. This is probably the single biggest change in the UK bio-economy in the last decade⁵⁰.

⁴⁹ See <https://www.gov.uk/government/publications/contracts-for-difference/contract-for-difference>

⁵⁰ <https://www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/forestry-statistics-2019/trade/uk-import-quantities-by-product/>

Figure 5.5 Country of origin of wood pellet imports to the UK, 2018



Source: UK overseas trade statistics (HM Revenue & Customs), industry associations. See [Forestry Statistics 2019](#). Per cent based on volume.

5.3 Certified forest products

As of March 2019, the total area of certified woodland⁵¹ in the UK stood at 1.4 million hectares, with 44% of all woodland area certified⁵². The majority (64%) of the wood (softwood and hardwood) consumed by UK sawmills was certified in 2018⁵³.

[The Forest Stewardship Council \(FSC\)](#) and the [Programme for Endorsement of Forest Certification \(PEFC\)](#) are the two major international schemes that oversee and promote development of forest certification. UK government policies and EU legislation⁵⁴ also play a key role in promoting sustainable forest management.

5.4 Apparent consumption and production of wood in the UK

UK production of roundwood totalled 11.3 million m³ WRME⁵⁵ underbark in 2018. A further 49.0 million m³ WRME underbark of wood and wood products were imported to the UK and

⁵¹ All certified woodland in 2019 is certified under the Forest Stewardship Council (FSC) scheme. The estimates are based on UK data published by FSC, supplemented by data from individual certificates and other sources. Where possible, figures are for the woodland area certified, rather than the land area certified.

⁵² Area of certified woodland includes; FE: Forestry England; FLS: Forestry and Land Scotland; NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland). NRW estimates only relate to woodland formerly owned/managed by FC Wales. Private sector: all other woodland, includes woodland previously owned/managed by the Countryside Council for Wales and the Environment Agency in Wales, other publicly owned woodland (e.g. owned by local authorities) and privately owned woodland.

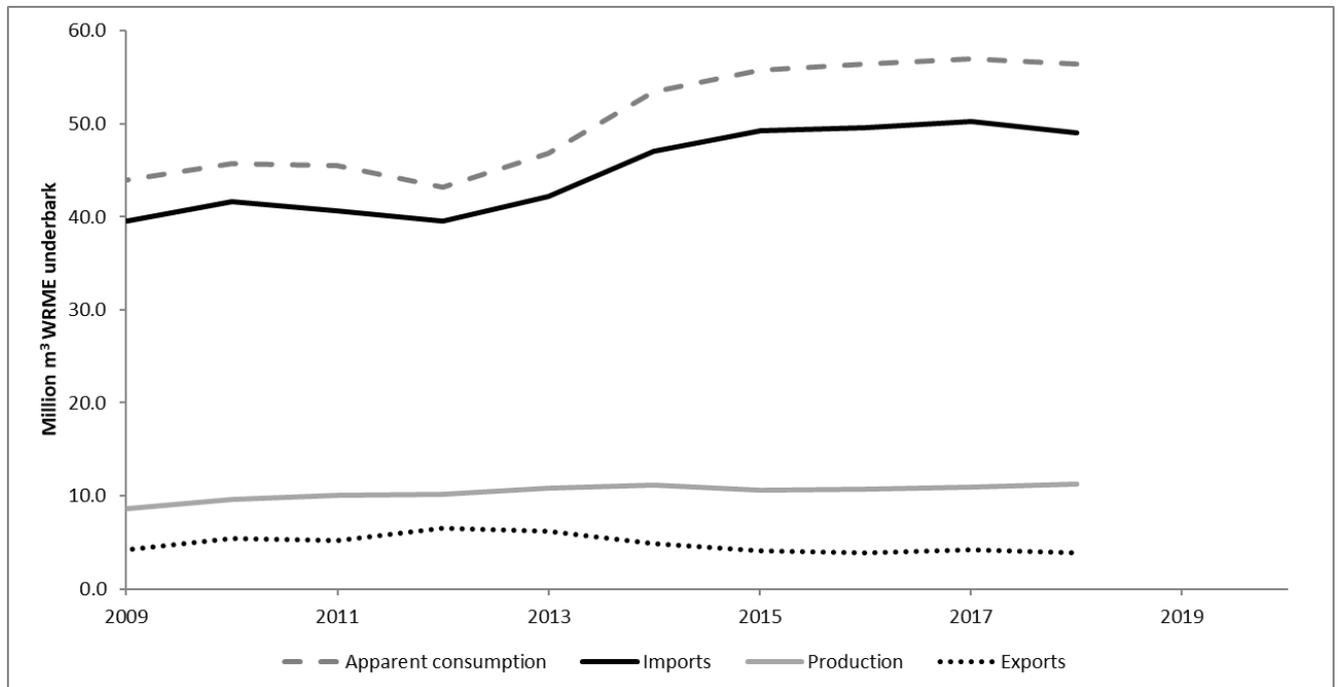
⁵³ See [Forestry Statistics 2019](#) for more information.

⁵⁴ See the [EU's Forest Law Enforcement Governance and Trade \(FLEGT\) Action Plan](#), which has developed a number of initiatives, e.g. [EU Timber Regulation \(EUTR\)](#), [Voluntary Partnership Agreements \(VPA\)](#), and [Central Point of Expertise on Timber \(CPET\)](#).

⁵⁵ Wood Raw Material Equivalent.

3.9 million m³ WRME underbark were exported, giving apparent consumption⁵⁶ of 56.4 million m³ WRME underbark (Figure 5.6). This represented a 1% decrease in apparent consumption from the previous year. Imports accounted for 81% of all wood (production + imports) in the UK in 2018.

Figure 5.6 Apparent consumption of wood in the UK, 2009-2018



Source: [Forestry Statistics 2019](#). Figures exclude recovered paper. UK production of roundwood is estimated from deliveries to wood processing industries and others, refer to the Source for more information.

5.4.1 Illegal logging

Illegal logging is of concern with regards to hardwood production. FLEGT (Forest Law Enforcement, Governance and Trade) plays a core role in aiming to reduce illegal logging by strengthening sustainable and legal forest management, improving governance and promoting trade in legally produced timber. FLEGT has projects operating in Africa, Asia, Central and South America, and has been instrumental in setting up Voluntary Partnership Agreements (VPA), which are legally binding trade agreements between the EU and external timber-producing countries. By signing up to these agreements the EU can ensure that purchased timber products are legally sourced and help timber producing countries improve regulation and governance of the forest sector while enabling sales of these timber products within the EU.

5.4.2 Wood-based panels

Particleboard (including OSB) and MDF consumed in the UK are both produced domestically and imported, while all veneer sheets, plywood and other hardboards consumed in the UK are imported. In 2018 UK apparent consumption of wood-based panel products increased

⁵⁶ Apparent consumption is the amount of timber used as wood and wood products by people and industries in the United Kingdom. It is calculated as total United Kingdom production plus imports, minus exports. Apparent consumption differs from actual consumption by the extent of changes in the level of stocks. It is not practical to collect information on actual consumption.

from 6.2 million m³ in 2017 to 6.6 million m³ in 2018. This follows a period of continual increase in apparent consumption of wood-based panel products since 2012.

UK imports of wood-based panel products in 2018 were estimated to be 3.9 million m³, representing a 13% increase compared to 2017. UK production of wood-based panel products in 2018 decreased by 3% compared to 2017. Exports of panel products from the UK decreased to 0.3 million m³ in 2018.

5.4.3 Paper and paperboard

Apparent consumption of paper and paperboard in the UK decreased by was 8.6 million tonnes in 2018, slightly below the level in the previous year. UK production of paper and paperboard was estimated to be 3.9 million tonnes in 2018, representing a 1% increase compared to 2017, while imports were estimated to be 5.5 million tonnes in 2017, representing a 1% decrease compared to 2017.