

Timber Price Indices

Data to March 2019

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Geographical breakdown: None

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National Statistics status

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

The continued designation of these statistics as National Statistics was confirmed in March 2012 following an assessment by the UK Statistics Authority (now the Office for Statistics Regulation) against the Code of Practice for Statistics.

Since the latest assessment of these statistics in 2012, we have made improvements including:

- Implementing more detailed checks on underlying data, resulting in revisions to the softwood sawlog index to improve consistency over time.
- Combining charts that illustrate trends in nominal terms and in real terms, to enable easier comparison of the results.
- Expanding the Annex to provide more detailed information on the data used in the indices.



Introduction

This release contains the latest figures for the Coniferous Standing Sales Price Index and the Softwood Sawlog Price Index for Great Britain. Both are based on sales of softwood (conifers) and cover the combined:

- Sales in England and Scotland by the Forestry Commission to 31 March 2019;
- Standing sales in Wales by the Forestry Commission/ Natural Resources Wales to 31 March 2017*; and
- Sawlog sales in Wales by the Forestry Commission/ Natural Resources Wales to 31 March 2019.

The Coniferous Standing Sales Price Index monitors changes in the average price received per cubic metre overbark for timber that the Forestry Commission/ Natural Resources Wales sold standing, where the purchaser is responsible for harvesting.

The Softwood Sawlog Price Index monitors changes in the average price received per cubic metre of sawlogs (roundwood with a top diameter of 14 cm or more, likely to be sawn into planks or boards) sold at roadside by the Forestry Commission/ Natural Resources Wales. Standing timber and sawlogs are distinct markets and may show different price movements. The data are averages for historic periods, so may be slow to show any turning points.

These indices are used to monitor trends in timber prices and to provide information on the state of the UK timber industry. They are also used by the UK timber industry, alongside other economic indicators, in contract reviews.

Please refer to the Annex for a glossary of terms used in this release.

* Standing sales by Natural Resources Wales from April 2017 are currently excluded from the indices. Please see the Annex for further details on the data sources used in this release.

Key findings

The main findings are:

- In the 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 2018.
- In the 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.

Coniferous Standing Sales Price Index

The Coniferous Standing Sales Price Index monitors changes in the price per cubic metre for timber that the Forestry Commission/ Natural Resources Wales sold standing, where the purchaser is responsible for harvesting.

The index is adjusted for timber size mix using the Fisher method with 5 yearly chain-linking; this method was introduced from 2008. Further information on the methodology used to construct the index is provided in the Annex.

The index is shown in nominal terms (the actual prices at the time of sale) and in real terms (removing the effects of general inflation).

The Coniferous Standing Sales Price Index for Great Britain was 26.8% higher in real terms in the year to March 2019, compared with the previous year (Table 1). There has been an overall increase in the index over the last 15 years, following an overall decrease in earlier years (Figure 1, Table 2).

Table 1: Percentage change in Coniferous Standing Sales Price Index for Great Britain (Fisher 5 yearly index)

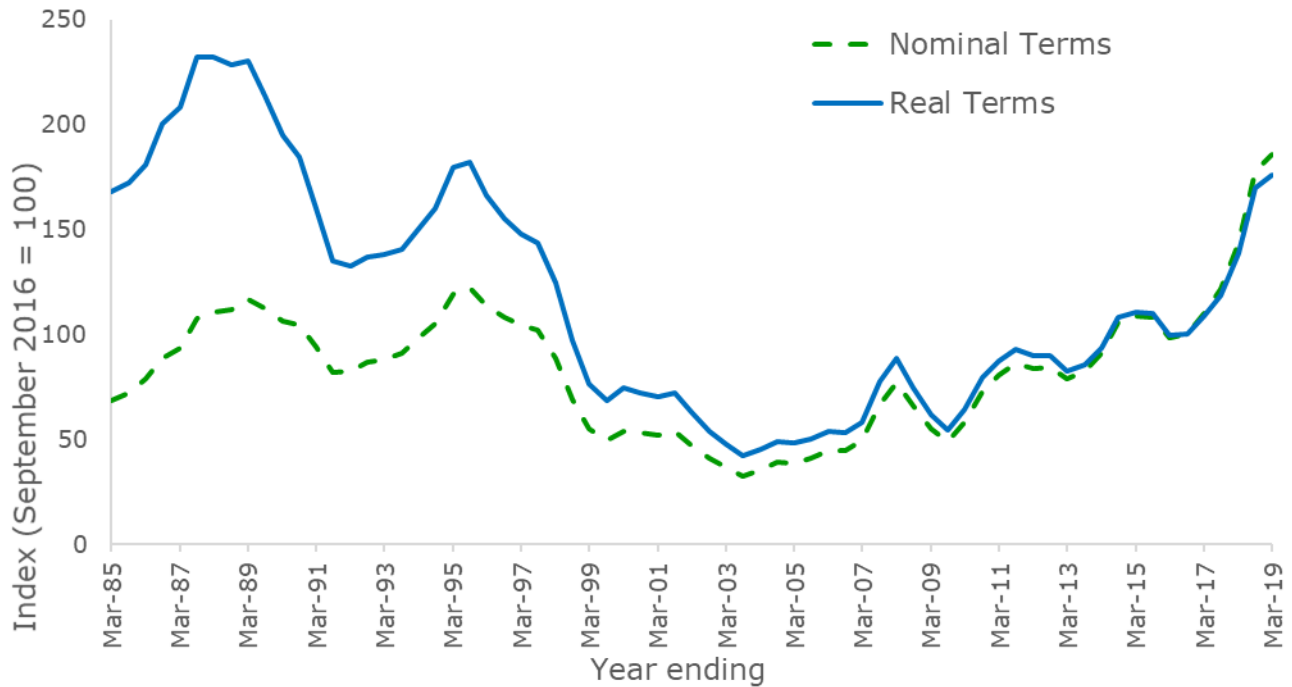
	Percentage change	
	Nominal Terms	Real Terms
Change from previous year		
Year to March 2015	19.7%	18.2%
Year to March 2016	-9.5%	-10.1%
Year to March 2017	11.7%	9.2%
Year to March 2018	30.5%	27.8%
Year to March 2019	29.3%	26.8%
Changes over longer periods, up to year to March 2019		
5 Years	104.1%	88.1%
10 Years	236.7%	185.1%
20 Years	236.7%	130.2%

Note:

1. Excludes sales by Natural Resources Wales from April 2017.

Timber Price Indices

Figure 1: Coniferous Standing Sales Price Index for Great Britain
(Fisher Index year ending September 2016 = 100)



Note:

1. Excludes sales by Natural Resources Wales from April 2017.

Timber Price Indices

The average price for coniferous standing sales was £31.66 per cubic metre overbark standing in nominal terms in the year to March 2019 (Table 2).

Table 2: Coniferous Standing Sales Price Index for Great Britain (Fisher 5 yearly index)

Year to:	Average Price (Per Cubic Metre Overbark)		Fisher (5 yearly)	
	Nominal Terms (£)	Real Terms (2016 prices in £)	Nominal Terms Year to Sept 2016=100	Real Terms (2016 Prices) Year to Sept 2016=100
31-Mar-05	6.13	7.64	38.6	48.1
30-Sep-05	6.58	8.10	40.6	49.9
31-Mar-06	7.25	8.80	44.4	53.9
30-Sep-06	7.13	8.53	44.4	53.1
31-Mar-07	7.97	9.39	49.3	58.1
30-Sep-07	10.79	12.56	66.7	77.7
31-Mar-08	12.48	14.35	77.1	88.6
30-Sep-08	10.68	12.11	65.7	74.5
31-Mar-09	9.15	10.24	55.1	61.7
30-Sep-09	7.95	8.82	48.7	54.1
31-Mar-10	9.61	10.61	58.1	64.2
30-Sep-10	12.15	13.31	72.4	79.3
31-Mar-11	13.70	14.84	80.5	87.2
30-Sep-11	14.77	15.89	86.1	92.6
31-Mar-12	14.10	15.08	83.9	89.7
30-Sep-12	14.03	14.87	84.5	89.6
31-Mar-13	13.29	13.94	78.6	82.4
30-Sep-13	13.93	14.47	82.5	85.7
31-Mar-14	15.62	16.09	90.9	93.6
30-Sep-14	17.90	18.25	105.7	107.8
31-Mar-15	18.48	18.79	108.8	110.6
30-Sep-15	18.24	18.50	108.2	109.7
31-Mar-16	16.79	16.94	98.5	99.4
30-Sep-16	17.31	17.31	100.0	100.0
31-Mar-17	19.05	18.79	110.0	108.5
30-Sep-17	20.74	20.25	121.4	118.5
31-Mar-18	24.64	23.82	143.5	138.7
30-Sep-18	30.26	28.96	177.5	169.9
31-Mar-19	31.66	30.03	185.5	175.9

Note:

1. Accompanying tables, providing longer time series of this index and the underlying data used to produce it, are available at: www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/timber-statistics/timber-price-indices/.
2. Excludes sales by Natural Resources Wales from April 2017.

Softwood Sawlog Price Index

The Softwood Sawlog Price Index measures the average price received per cubic metre of sawlogs sold at roadside by the Forestry Commission/ Natural Resources Wales.

Sawlogs are logs (roundwood) usually of at least 14 cm diameter that are likely to be sawn into planks or boards. Selling at roadside means that the owner (in this case the Forestry Commission or Natural Resources Wales), is responsible for felling the trees and extracting them to the side of the road so that they are ready for the buyer to take away.

The index is not adjusted for any changes in the size mix, as it covers a more limited range of sizes than the Coniferous Standing Sales Price Index.

The Softwood Sawlog Price Index is calculated for separate six-month periods. This differs from the Coniferous Standing Sales Price Index, which is for overlapping one-year periods, so the percentage changes in Tables 1 and 3 are calculated over different periods.

The index is shown in nominal terms (the actual prices at the time of sale) and in real terms (removing the effects of general inflation).

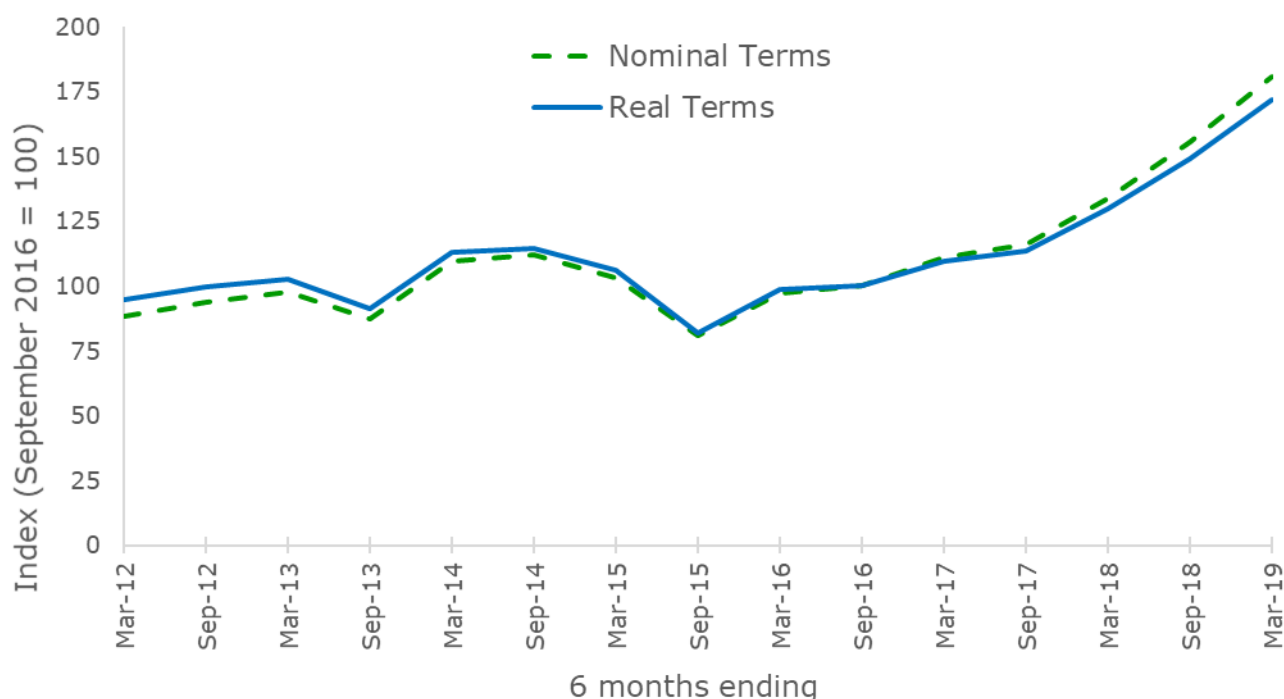
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The Softwood Sawlog Price Index was 32.5% greater in real terms in the 6 months to March 2019, compared with the corresponding period of the previous year (Table 3).

Table 3: Percentage change in Softwood Sawlog Price Index for Great Britain

	Percentage change	
	Nominal Terms	Real Terms
Compared with corresponding 6-month period of previous year		
6 months to March 2015	-5.8%	-6.3%
6 months to March 2016	-5.9%	-7.0%
6 months to March 2017	14.1%	11.0%
6 months to March 2018	20.8%	18.5%
6 months to March 2019	34.9%	32.5%
Changes over longer periods, up to 6 months ending March 2019		
5 years	64.9%	51.8%

Figure 2: Softwood Sawlog Price Index for Great Britain
(6 months to September 2016 = 100)



Notes for Table 3 and Figure 2:

1. The index excludes sawlogs put up for sale that were not sold. There was an unusually high number of unsold lots in Scotland in the six months to September 2015.
2. Sawlog prices in Wales in the year to March 2018 include long term contract rates for the clearance of infected larch.

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The average price for softwood sawlog sales was £65.23 per cubic metre overbark (felled volume) in nominal terms in the 6-month period to March 2019 (Table 4).

Table 4: Softwood Sawlog Price Index for Great Britain

6 months to:	Average Price (Per Cubic Metre Overbark)		Price Index (6 months to Sept 2016 = 100)	
	Nominal Terms (£)	Real Terms (2016 prices in £)	Nominal Terms	Real terms (2016 prices)
31-Mar-12	31.87	34.18	88.2	94.6
30-Sep-12	33.88	36.02	93.8	99.7
31-Mar-13	35.36	37.15	97.9	102.8
30-Sep-13	31.51	32.87	87.2	91.0
31-Mar-14	39.54	40.83	109.5	113.1
30-Sep-14	40.40	41.29	111.8	114.3
31-Mar-15	37.29	38.29	103.2	106.0
30-Sep-15	29.15	29.65	80.7	82.1
31-Mar-16	35.09	35.62	97.1	98.6
30-Sep-16	36.13	36.13	100.0	100.0
31-Mar-17	40.01	39.50	110.8	109.4
30-Sep-17	41.83	40.99	115.8	113.5
31-Mar-18	48.36	46.82	133.9	129.6
30-Sep-18	56.11	53.90	155.3	149.2
31-Mar-19	65.23	62.01	180.6	171.7

Note:

1. The index excludes sawlogs put up for sale that were not sold. There was an unusually high number of unsold lots in Scotland in the six months to September 2015.
2. Sawlog prices in Wales in the year to March 2018 include long term contract rates for the clearance of infected larch.

Annex

Introduction

This annex provides background information on the Coniferous Standing Sales Price Index and the Softwood Sawlog Price Index. It includes a glossary and covers the data sources and methodology used to construct the indices, information on quality measures and on revisions to historic data and links to further information.

Glossary

Broadleaves Trees that do not have needles or cones, such as oak, birch and beech. A few, such as alder, have cone-like structures for their seeds which are not true cones.

Clearfell areas Sites where all trees have been felled at once. In non-clearfell areas, only some of the trees are felled at any one time.

Conifers Trees with needles and cones, such as spruce, pine and larch.

Direct production Timber that is sold after the trees have been felled by the woodland owner or their contractors.

Forestry Commission (FC) The government department responsible for forestry matters in England, Scotland (until March 2019) and Wales (until March 2013). The Forestry Commission's functions in Wales transferred to the Welsh Government and to Natural Resources Wales on 1 April 2013. The Forestry Commission's functions in Scotland transferred to Scottish Forestry and to Forestry and Land Scotland on 1 April 2019.

GDP deflator Gross Domestic Product at market prices deflator. Gross Domestic Product (GDP) is a measure of the total economic activity. Growth in GDP reflects both growth in the economy and price change (inflation). Applying a GDP deflator to time series of prices or price indices removes the effects of inflation to enable a comparison of changes in price that are not caused by inflation.

Great Britain (GB) England, Wales and Scotland.

Hardwood The wood of broadleaved trees, such as oak, birch and beech; a term sometimes used for the broadleaved trees themselves.

Long term contracts (LTC) Long term contracts are sales of roundwood, felled or standing, to customers over a period of more than one year. The second and subsequent years of a long term contract are negotiated after the sale of the first year's volume.

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Natural Resources Wales (NRW) The organisation responsible for advising the Welsh Government on the environment, created on 1 April 2013.

Nominal terms Refers to prices at the time of sale. See also "real terms".

ONS Office for National Statistics.

Overbark The volume of wood including the bark. Can be either standing volume or felled volume.

Price index A measure of the proportionate, or percentage, changes in a set of prices over time. Commonly used price indices include the Laspeyres index, Paasche index and Fisher index.

Real terms Refers to prices at a common date. Prices in real terms are derived by applying a deflator to remove the effects of general inflation to enable a comparison of changes over time that have not resulted from inflation. See also "nominal terms".

Roadside sales Sales of timber after harvesting. The owner is responsible for getting the trees felled and extracting them to the side of the road, ready to take away.

Roundwood Trunk or branch wood, generally with a top diameter of 7 cm or more. Can be in the form of logs (14 cm top diameter or more) or small roundwood (7 to 14 cm).

Sawlogs Material of at least 14 cm top diameter that is destined to be sawn into planks or boards.

Softwood The wood of coniferous trees, such as spruce, pine and larch; a term sometimes used for the coniferous trees themselves.

Standing sales Sales of timber whilst the trees are still standing. The buyer is responsible for getting the trees felled and removed from the site.

Standing volume Measurement of quantity before trees are felled. Usually expressed as cubic metres overbark standing.

Thinning A proportion of stems removed in order to give the best stems space and light to grow into a more valuable crop. This is usually carried out some time after canopy closure and may be repeated at intervals. It is a necessary operation in the production of quality timber. A temporary reduction in standing volume will result.

Underbark The volume of wood excluding the bark.

Data Sources and Methodology

Data sources

The Coniferous Standing Sales Price Index and the Softwood Sawlog Price Index are both based on sales of softwood (conifers) by the Forestry Commission and Natural Resources Wales; they do not include any private sector data. They only cover roundwood from woodland; they do not cover sawmill products or other end products.

The Coniferous Standing Sales Price Index (CSSPI) is based on administrative data for standing sales of conifers (softwood) by the Forestry Commission/ Natural Resources Wales. Around 60% of Forestry Commission/ Natural Resources Wales softwood is sold standing, with the purchaser responsible for harvesting. The standing sales cover a full range of sizes, as they include thinning and removal of trees for environmental reasons, as well as harvesting of mature trees. The data used to compile the index covers volumes sold and values by average tree size.

The Softwood Sawlog Price Index (SSPI) is based on administrative data for sales of softwood sawlogs by the Forestry Commission/ Natural Resources Wales. The data used to compile the index covers volumes and values. Direct production by the Forestry Commission/ Natural Resources Wales (where the softwood is sold after harvesting) also covers a range of sizes, but the price statistics reported are limited to sales of logs (over 14 cm diameter).

Both the Coniferous Standing Sales Price Index and the Softwood Sawlog Price Index include sales by long term contract, where the volume of roundwood covered by the contract is sold over a period of more than one year. To take account of changes in price over the term of the contract, price adjustments are made periodically, as part of the contract. The Coniferous Standing Sales Price Index and the Softwood Sawlog Price Index include roundwood sales by long term contract but, at present, price adjustments are not fully accounted for in the indices.

The data for both the Coniferous Standing Sales Price Index and the Softwood Sawlog Price Index are obtained from:

1. the Forestry Commission's Sales Recording Package (SRP). SRP was also used by Natural Resources Wales until February 2017.
2. the timber sales system used by Natural Resources Wales from April 2017 (there were no sales by NRW in March 2017). As standing sales by size category are not yet available from this system, no figures for Natural Resources Wales from April 2017 have been included in the Coniferous Standing Sales Price Index.

Further information on the administrative data is provided in the Statement of Administrative Sources on the FC Sales Recording Package, available at www.forestresearch.gov.uk/tools-and-resources/statistics/about-our-statistics/code-of-practice/administrative-sources/.

Methodology for Coniferous Standing Sales Price Index

The Coniferous Standing Sales Price Index (CSSPI) is an index of the average prices per cubic metre overbark standing achieved for standing sales of conifers by the Forestry Commission/ Natural Resources Wales. It covers all conifer standing sales (open market and negotiated) by the Forestry Commission/ Natural Resources Wales over the twelve month period. All thinning and clearfell data is combined within the index. It includes all species, tree sizes, working practices and conditions. It does not include any private sector data.

The Coniferous Standing Sales Price Index (CSSPI) is calculated using a Fisher index with 5-yearly chain linking. By using a Fisher index, distortions in the average price caused by variations in the average tree size over time are corrected. Applying chain linking at regular intervals (in this case, every 5 years) ensures that the index remains relevant over time. Other factors that may affect price (e.g. working conditions, timber quality or species) are not taken into account when constructing the index.

The methodology used to calculate the Coniferous Standing Sales Price Index was reviewed in 2008, with the Fisher index with 5-yearly chain linking introduced from the November 2008 publication. Further information on the methodology used to calculate the Coniferous Standing Sales Price Index is provided in the paper *Methodology for the Coniferous Standing Sales Price Index*, available from the Statistical Methodology and Outputs page of the FC website at www.forestresearch.gov.uk/tools-and-resources/statistics/about-our-statistics/methodology-and-outputs/.

A general introduction to index numbers including Fisher indices and chain linking can be found in the *Economic and Labour Market Review, No. 3, March 2007* (article on *Methods Explained: Index Numbers*).

The average prices and the index are expressed in nominal terms (i.e. the actual prices at the time of sale) and in real terms (i.e. the prices converted to 2016). The GDP (Gross Domestic Product at market prices) deflator, produced by ONS, is applied to the nominal figures to derive real average prices and the index in real terms. The GDP deflator data can be downloaded from the ONS Quarterly National Accounts dataset at www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/ybgb.

Methodology for Softwood Sawlog Price Index

The Softwood Sawlog Price Index is calculated from data covering separate 6-month periods to September and March. This means that the changes reported are not covering the same periods as the Coniferous Standing Sales Price Index.

The index measures the average price per cubic metre overbark of sawlog sales, with no adjustment for any change in size mix, as it covers a more limited range of sizes than the Coniferous Standing Sales Price Index. All lengths of log are included.

The index is expressed in nominal terms (i.e. based on the actual prices at the time of sale) and in real terms (i.e. based on the prices converted to 2016 prices, by removing the effects of general inflation). As for the Coniferous Standing Sales Price Index, the GDP (Gross Domestic Product at market prices) deflator is used to convert from nominal to real terms.

For consistency with the Coniferous Standing Sales Price Index, the Softwood Sawlog Price Index is rebased every 5 years; in this release, the period to September 2016 = 100.

Quality

These are the only official statistics published for roundwood timber prices in the UK. So, although they are limited to sales by the Forestry Commission and Natural Resources Wales, they are sometimes used as indicators of price trends for other UK softwood. In recent years, softwood has accounted for more than 90% of all timber harvested in Great Britain, and the Forestry Commission/ Natural Resources Wales have accounted for around 40% to 50% of all softwood sold.

For the Coniferous Standing Sales Price Index, data cover a 12 month period (i.e. data for the year to March and data for the year to September). As these periods overlap, comparisons of values should be made with the same period a year earlier.

Unlike the Coniferous Standing Sales Price Index, the Softwood Sawlog Price Index covers 6 month periods (i.e. data for the period October to March and data for the period April to September), so there is no overlapping.

Detailed information on the quality of the statistics presented in this publication is available in the *Quality Report: Timber Price Indices* at: www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/timber-statistics/timber-price-indices/.

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Further quality information on FC Official Statistics is available at:

www.forestresearch.gov.uk/tools-and-resources/statistics/about-our-statistics/code-of-practice/quality-of-official-statistics/.

Revisions

Figures for the period to March 2019 are published for the first time in this release.

Figures for earlier periods have been previously published but may be revised to reflect late updates to administrative systems or to correct errors. Previous real terms figures may be subject to minor changes depending on revisions to the GDP deflator by ONS.

For both indices, average prices for periods to September 2018 in nominal terms have not been revised since the November 2018 edition of this release. Revisions to the GDP deflator have resulted in changes of no more than $\pm 0.2\%$ in the average prices in real terms and the index in real terms.

The Forestry Commission's revisions policy sets out how revisions and errors to these statistics are dealt with, and can be found at: www.forestresearch.gov.uk/tools-and-resources/statistics/about-our-statistics/code-of-practice/quality-of-official-statistics/.

Further information

Accompanying tables to this release, providing longer time series and the underlying data used to produce the indices, are available at: www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/timber-statistics/timber-price-indices/.

Annual percentage changes quoted in this release are based on unrounded figures.

Release schedule

Timber Price Indices are published every six months, in May for data to end March and in November for data to end September. The next editions will be released on the following dates:

Timber Price Indices (data to September 2019) will be released on 14 November 2019.

Timber Price Indices (data to March 2020) will be released on 14 May 2020;