

Timber Price Indices

Data to September 2017

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Geographical breakdown: None

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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) for periods to September 2017 and cover the combined:

- Sales in England and Scotland by the Forestry Commission to 30 September 2017; and
- Sales in Wales by the Forestry Commission to 31 March 2013 and by Natural Resources Wales from 1 April 2013 to 28 February 2017*.

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.

Data for the period to September 2017 have not previously been published. The Softwood Sawlog Price Index includes a number of revisions to earlier data, to expand the coverage of the index to include sales by negotiation. Further details on these revisions are provided in the Annex.

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.

* Sales by Natural Resources Wales from March 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 14 years, following an overall decrease in earlier years.
 - The index was 18.4% higher in real terms (21.4% in nominal terms) in the year to September 2017, compared with the previous year.
 - The average price for coniferous standing sales was £20.74 per cubic metre overbark standing in nominal terms in the year to September 2017, an increase from £17.31 in the year to September 2016.
- In the Softwood Sawlog Price Index:
 - The Softwood Sawlog Price Index was 17.3% higher in real terms (20.0% in nominal terms) in the 6 months to September 2017, compared with the corresponding period of the previous year
 - The average price for softwood sawlog sales was £43.35 per cubic metre overbark in nominal terms in the 6 month period to September 2017, an increase from £40.01 in the 6 months to March 2017 and £36.13 in the 6 months to September 2016.

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 18.4% higher in real terms in the year to September 2017, compared with the previous year (Table 1). There has been an overall increase in the index over the last 14 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)

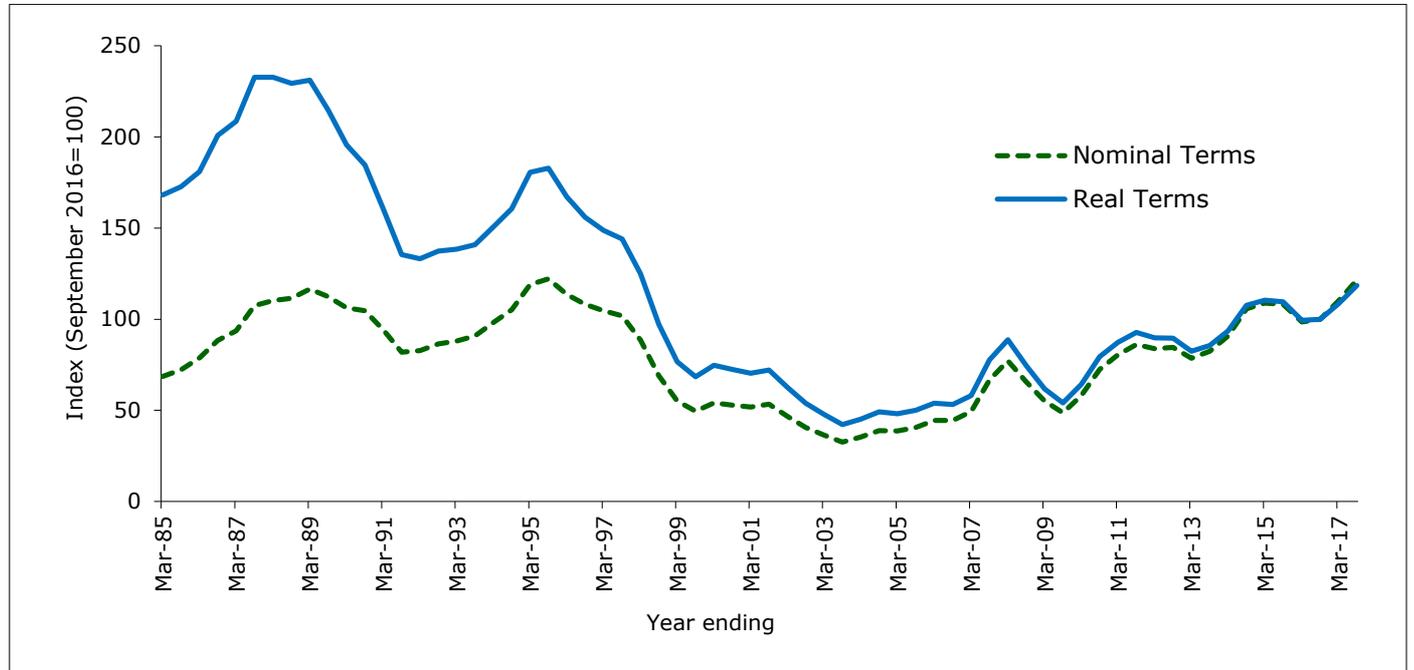
	Percentage change	
	Nominal Terms	Real Terms
Change from previous year		
Year to September 2013	-2.4%	-4.5%
Year to September 2014	28.1%	25.8%
Year to September 2015	2.4%	1.8%
Year to September 2016	-7.6%	-8.8%
Year to September 2017	21.4%	18.4%
Changes over longer periods, up to year to September 2017		
5 Years	43.7%	32.1%
10 Years	82.0%	52.4%
20 Years	19.3%	-17.8%

Note:

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

Timber Price Indices

The average price for coniferous standing sales was £20.74 per cubic metre overbark standing in nominal terms in the year to September 2017 (Table 2).

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

Year to:	Average Price (per cubic metre overbark standing)		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-02	7.34	9.84	46.8	62.7
30-Sep-02	6.38	8.46	40.6	53.9
31-Mar-03	5.75	7.53	36.4	47.7
30-Sep-03	5.15	6.67	32.5	42.1
31-Mar-04	5.60	7.18	35.3	45.2
30-Sep-04	6.18	7.81	38.9	49.2
31-Mar-05	6.13	7.64	38.6	48.1
30-Sep-05	6.58	8.10	40.6	50.0
31-Mar-06	7.25	8.81	44.4	53.9
30-Sep-06	7.13	8.54	44.4	53.2
31-Mar-07	7.97	9.39	49.3	58.1
30-Sep-07	10.79	12.57	66.7	77.7
31-Mar-08	12.48	14.36	77.1	88.7
30-Sep-08	10.68	12.11	65.7	74.5
31-Mar-09	9.15	10.26	55.1	61.8
30-Sep-09	7.95	8.84	48.7	54.1
31-Mar-10	9.61	10.62	58.1	64.2
30-Sep-10	12.15	13.32	72.4	79.4
31-Mar-11	13.70	14.86	80.5	87.3
30-Sep-11	14.77	15.90	86.1	92.7
31-Mar-12	14.10	15.08	83.9	89.8
30-Sep-12	14.03	14.87	84.5	89.6
31-Mar-13	13.29	13.93	78.6	82.4
30-Sep-13	13.93	14.45	82.5	85.6
31-Mar-14	15.62	16.09	90.9	93.7
30-Sep-14	17.90	18.25	105.7	107.7
31-Mar-15	18.48	18.76	108.8	110.5
30-Sep-15	18.24	18.48	108.2	109.6
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	20.23	121.4	118.4

Note:

1. Accompanying tables, providing longer time series of this index and the underlying data used to produce it, are available at: www.forestry.gov.uk/forestry/infid-7m2djr.
2. Excludes sales by Natural Resources Wales from March 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).

Following the initial revisions made to the index in May 2017 to correct inconsistencies in the data, the Softwood Sawlog Price Index has been further extended to include sales by negotiation. Further details on the revisions to the index are provided in the Annex.

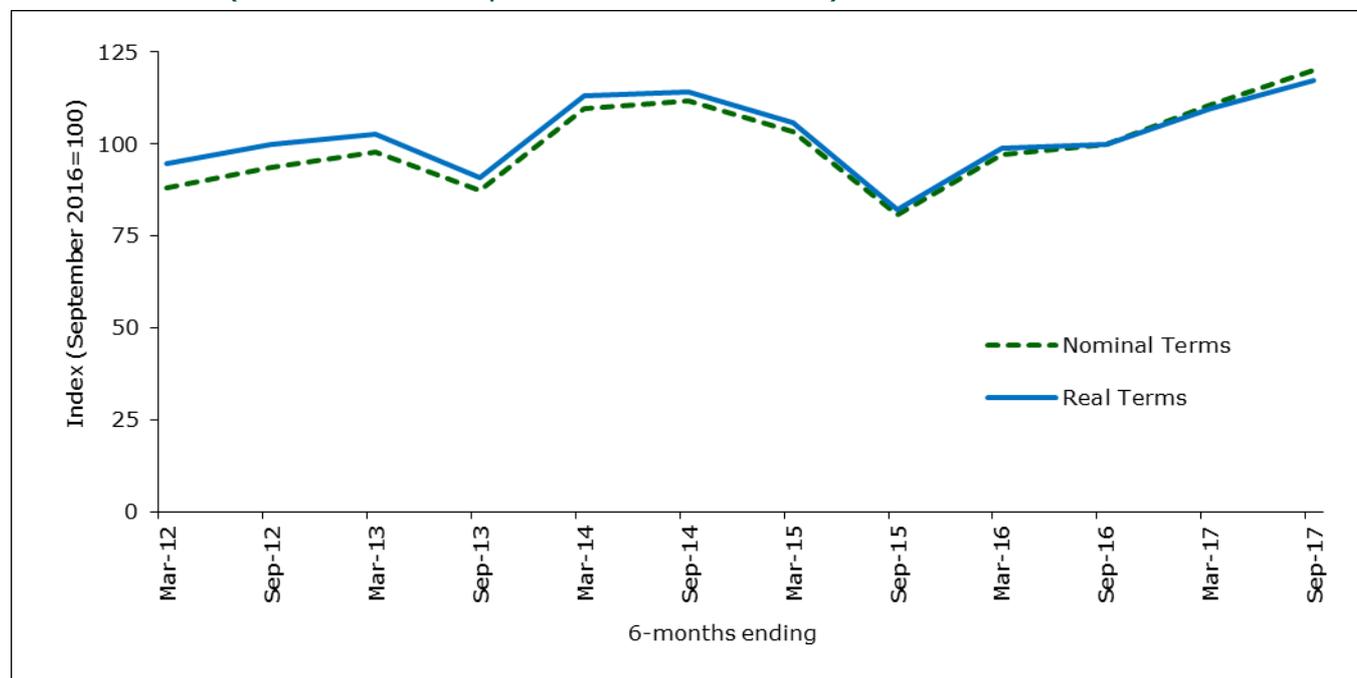
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The Softwood Sawlog Price Index was 17.3% greater in real terms in the 6 months to September 2017, compared with the corresponding period of the previous year (Table 3).

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 September 2013	-7.0%	-8.8%
6 months to September 2014	28.2%	25.5%
6 months to September 2015	-27.8%	-28.1%
6 months to September 2016	23.9%	21.8%
6 months to September 2017	20.0%	17.3%
Changes over longer periods, up to 6 months ending September 2017		
5 years	27.9%	17.5%

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. Excludes sales by Natural Resources Wales from March 2017.

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The average price for softwood sawlog sales was £43.35 per cubic metre overbark (felled volume) in nominal terms in the 6 month period to September 2017 (Table 4).

Table 4: Softwood Sawlog Price Index for Great Britain

6 months to:	Average Price (per cubic metre overbark felled)		Price Index (6 months to Sept 2016 = 100)	
	Nominal Terms (£)	Real Terms (2016 prices in £)	Nominal Terms	Real terms
31-Mar-12	31.87	34.20	88.2	94.6
30-Sep-12	33.88	36.05	93.8	99.8
31-Mar-13	35.36	37.09	97.9	102.7
30-Sep-13	31.51	32.88	87.2	91.0
31-Mar-14	39.54	40.88	109.5	113.2
30-Sep-14	40.40	41.27	111.8	114.2
31-Mar-15	37.29	38.25	103.2	105.8
30-Sep-15	29.15	29.65	80.7	82.1
31-Mar-16	35.09	35.67	97.1	98.7
30-Sep-16	36.13	36.13	100.0	100.0
31-Mar-17	40.01	39.57	110.8	109.6
30-Sep-17	43.35	42.38	120.0	117.3

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. Excludes sales by Natural Resources Wales from March 2017.

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 and (until March 2013) Wales. The Forestry Commission's functions in Wales transferred to a new organisation, Natural Resources Wales, on 1 April 2013. The responsibility for forestry is devolved.

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. Natural Resources Wales is responsible for the functions previously carried out by the Environment Agency in Wales, the Countryside Council for Wales and Forestry Commission Wales.

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 the Forestry Commission's Sales Recording Package (SRP). SRP has also been used by Natural Resources Wales until February 2017, and is being replaced with an alternative system. As a result, the figures presented here do not include any sales by Natural Resources Wales from March 2017 (that were not recorded in SRP). It is intended that sales by Natural Resources Wales, obtained from the new NRW system, will be included in future releases.

Further information on the administrative data is provided in the Statement of Administrative Sources on the FC Sales Recording Package, available at www.forestry.gov.uk/forestry/inf-d-832ey5.

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.forestry.gov.uk/forestry/ahen-589ddl.

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.

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The index has been revised from the previous edition of Timber Price Indices to include sales by negotiation.

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.forestry.gov.uk/pdf/tpiqrpt.pdf/\\$FILE/tpiqrpt.pdf](http://www.forestry.gov.uk/pdf/tpiqrpt.pdf/$FILE/tpiqrpt.pdf)

Further quality information on FC Official Statistics is available at:

www.forestry.gov.uk/forestry/inf-d-7zhk85

Revisions

Figures for the period to September 2017 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.

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For the Coniferous Standing Sales Price Index, average prices for periods to March 2017 in nominal terms have not been revised since the May 2017 edition of this release. Revisions to the GDP deflator have resulted in changes of up to 0.1% in the average prices in real terms and the index in real terms.

For the Softwood Sawlog Price Index, the revisions made to include negotiated sales in the index have resulted in differences to average prices of up to -23%, which has subsequently fed through to the index. The effect of these changes (and the minor revisions to the GDP deflator, noted above) on the index in real terms is presented in figure A1. This comparison highlights the impact on the index of including the volumes and values from the negotiated sale of a number of sawlog parcels that failed to sell through open market competition in 2015.

Figure A1 Effect of revisions on softwood sawlog price index in real terms

(6 months to September 2016 = 100)



Note:

1. Previous = as published in Timber Price Indices: Data to March 2017 (May, 2017); this excludes negotiated sales. Revised = as shown in this release (i.e. all sales, including open market sales and sales by negotiation).
2. 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.
3. Excludes sales by Natural Resources Wales from March 2017.

The Forestry Commission's revisions policy sets out how revisions and errors to these statistics are dealt with, and can be found at:

[www.forestry.gov.uk/pdf/FCrevisions.pdf/\\$FILE/FCrevisions.pdf](http://www.forestry.gov.uk/pdf/FCrevisions.pdf/$FILE/FCrevisions.pdf).

Further information

Accompanying tables to this release, providing longer time series and the underlying data used to produce the indices, are available at:

www.forestry.gov.uk/forestry/inf-d-7m2djr.

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 March 2018) will be released on 17 May 2018;

Timber Price Indices (data to September 2018) will be released on 15 November 2018.

National Statistics

The UK Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics, it is a statutory requirement that the Code of Practice shall continue to be observed.

For more information about National Statistics and the UK Statistics Authority visit

www.statisticsauthority.gov.uk.