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September and December quarters 2018

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Notice

The detailed statistical tables in Appendix A are available on the ABARES website.

Acknowledgements

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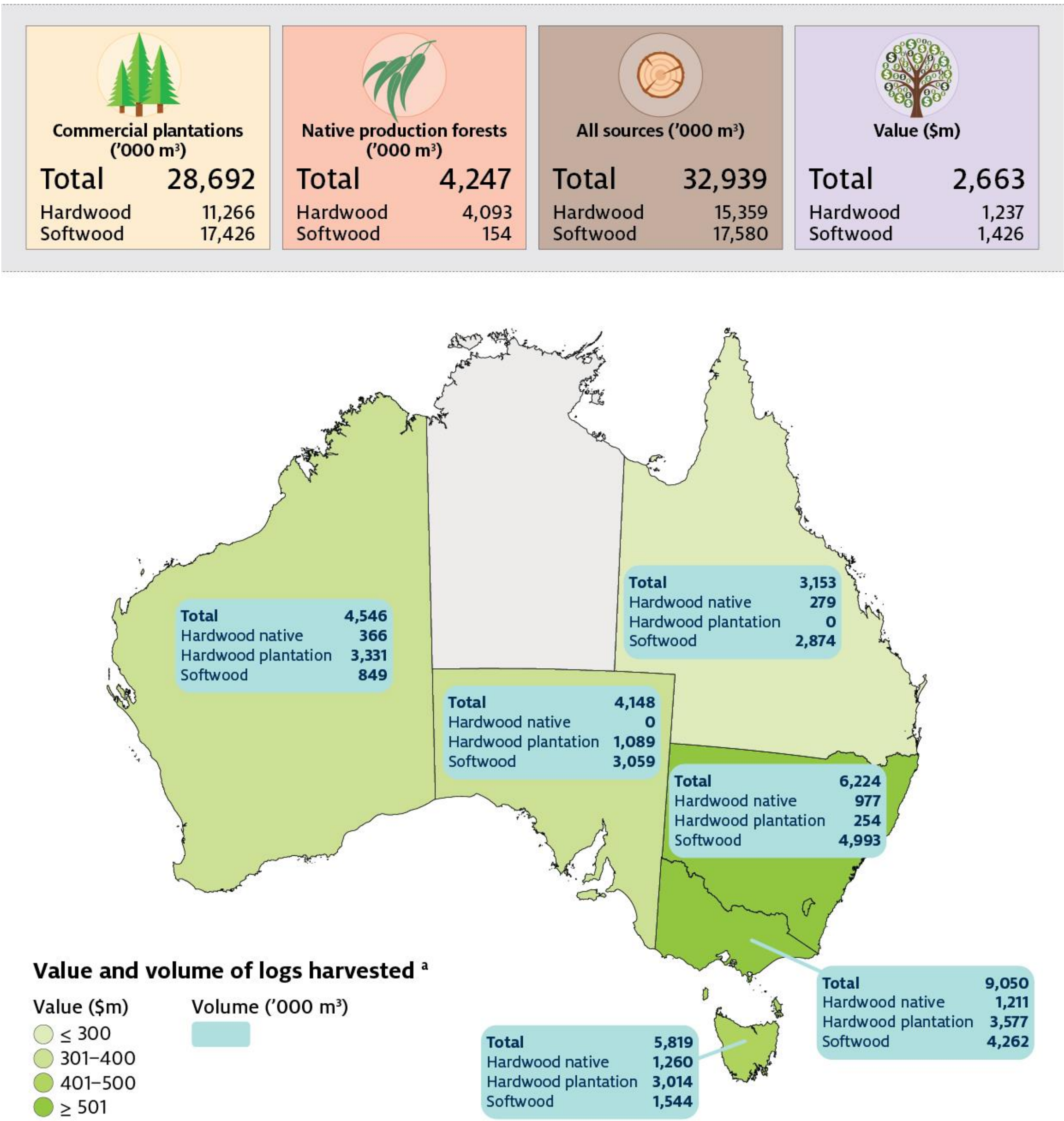


a WA includes NT, NSW includes ACT.
Source: ABARES

Overview

This issue of the *Australian forest and wood products statistics* (AFWPS) includes 2017−18 data for key domestic indicators of forestry sector activity—including Australia's commercial plantation estate, and volume and value of logs harvested—and data on production and trade of wood products. This issue also presents updated quarterly data for housing commencements for the September and December quarters 2018.

Sources of wood and wood-based products

Australia's forests can be divided into three categories—native forest, commercial plantations and other forest. Native forests are dominated by eucalypt forests (77 per cent of total native forest area), acacia forests (8 per cent) melaleuca forests (5 per cent) and rainforest (3 per cent). Australia's commercial plantation comprises exotic softwood species (predominantly radiata pine) and mostly native hardwood species (predominantly eucalypts). Other forest comprises a small area of mostly non-commercial plantations and forests of various types.

Native production forests

The main source of Australia's native production forest wood is multiple-use public forest in New South Wales, Queensland, Tasmania, Victoria and Western Australia. Currently, much of the native forest on leasehold and private land contributes minimally to wood supply. Under relevant state and territory legislation, substantial areas of multiple-use public forest are reserved or excluded from wood production.

Australia has 9.8 million hectares of multiple-use public native forest (23 per cent of total public native forest area). When management and operational restrictions are taken into account, the net area available for harvesting wood from Australia's multiple-use public native forests is 5 million hectares (12 per cent of total public native forest area) (MIG and NFISC 2018). The total area harvested annually from Australia's multiple-use public native forests is approximately 73,000 hectares (0.75 per cent of total multiple-use public native forest area and 0.06 per cent of total native forest area).

Commercial plantations

Commercial plantations are intensively managed stands of native (mainly hardwood) or exotic (mainly softwood) tree species. The primary purpose of commercial plantation forestry is wood production.

Australia's total commercial plantation area was 1,942,700 hectares in 2017–18, a decrease of 12,400 hectares (down 0.6 per cent) from 1,955,100 hectares in 2016–17. The total area of new plantations established in 2017–18 was 3,150 hectares, comprising softwood and hardwood species planted mainly in Western Australia.

In 2017–18 the total area of softwood plantations was 1,037,000 hectares, an increase of 100 hectares from 2016–17. The total area of hardwood plantations was 896,000 hectares, a decrease of 12,500 hectares (down 1.4 per cent) since 2016–17. Softwood plantations accounted for 53 per cent of total commercial plantation area and hardwood plantations constituted 46 per cent. Mixed plantations and unknown species made up the remaining 1 per cent.

In 2017–18 Victoria continued to have the largest total area of commercial plantations of Australia's states and territories (420,600 hectares), followed by New South Wales (393,200 hectares) and Western Australia (361,700 hectares). Western Australia accounted for the largest proportion of Australia's hardwood plantations (28 per cent) and New South Wales had the largest share of softwood plantations (30 per cent).

In 2017–18 the ownership structure of plantations remained relatively unchanged from the previous year. Institutional investors owned 49 per cent of the total plantation area, governments owned 21 per cent, farm foresters and other private growers owned 21 per cent, managed investment schemes owned 5 per cent and timber industry companies owned 4 per cent (Downham & Gavran 2019).

Industry performance

Log harvest volume and gross value of production, 2017–18

Australia's total log harvest (from native production forests and commercial plantations) in 2017–18 was 32.9 million cubic metres, a 1 per cent decrease from the record high 2016–17 log harvest of 33.2 million cubic metres and 44 per cent higher compared with 2012–13. In 2017–18 the gross value of log production reached a record high of $2.7 billion (mill door prices), a 4 per cent increase from 2016–17.

The majority of Australia's annual total log harvest originates from commercial plantations. The remainder is sourced from native production forests. In 2017–18 commercial plantations accounted for 87 per cent of Australia's total log harvest by volume and native production forests contributed 13 per cent.

Native production forests

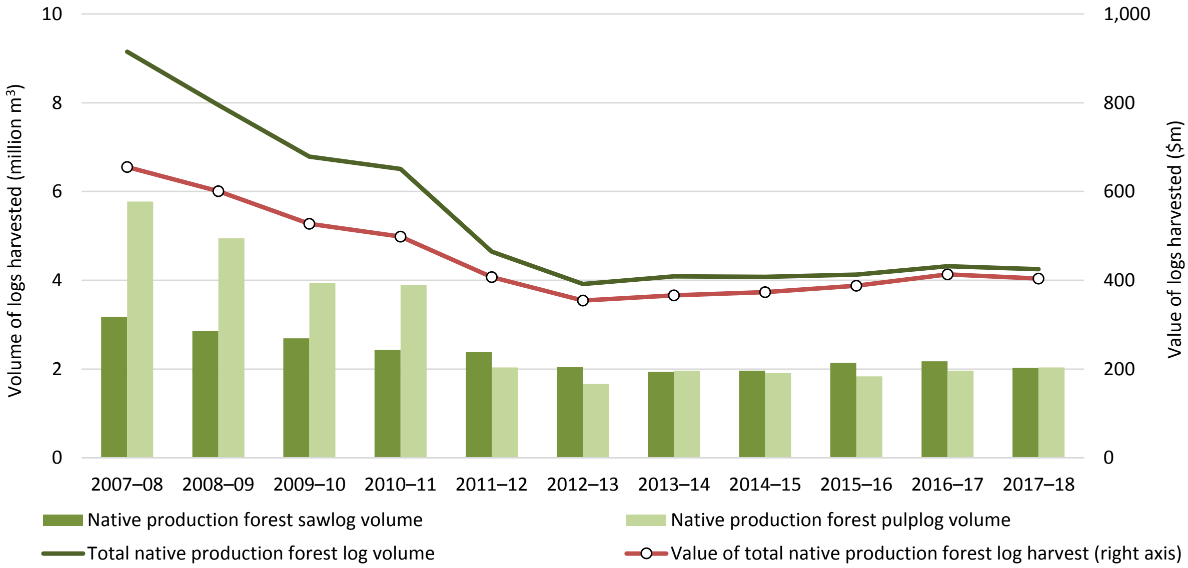
Logs harvested from native production forests comprise hardwood and softwood sawlogs (including veneer logs), hardwood pulplogs and other hardwood products. In 2017–18 the volume of logs harvested from native production forests decreased to 4.2 million cubic metres, down 2 per cent from the previous year (Figure 1). This reduction was largely due to a decrease in the hardwood sawlog harvest (down 7 per cent to 1.9 million cubic metres) and offset partially by a higher pulplog harvest (up 4 per cent to 2.0 million cubic metres). Of all hardwood sawlogs harvested in 2017–18, 70 per cent were produced from native production forests.

Over the past decade the volume of logs harvested from Australia's native production forests has more than halved, from 9.1 million cubic metres in 2007–08 to 4.2 million cubic metres in 2017–18. From 2007–08 the annual native production forest total log harvest declined significantly, reaching a record low of 3.9 million cubic metres in 2012–13 (Figure 1). Since 2012–13 the annual log harvest from native production forests has grown at a low rate.

In 2017–18 the total log harvest from native production forests comprised 96 per cent hardwood species and 4 per cent softwood species (cypress pine). Of this total log harvest, 48 per cent was sawlogs from which high-quality structural and appearance grade products are manufactured, primarily for the domestic market. 48 per cent of the total native production forest log harvest was pulplogs for woodchip exports and domestic paper production. A small proportion of native production forest logs (4 per cent) was harvested to produce other products, including posts, poles, piles and girders.

The total value of native production forest logs harvested in 2017–18 decreased to $404 million (mill door price), down 2 per cent from 2016–17.

Figure 1 Volume and value of logs harvested from native production forests, 2007–08 to 2017–18



Note: Native forest sawlog volume includes a small amount of native softwood (cypress pine). Total native forest log volume includes the category 'other', which comprises poles, piles, fencing and other logs not elsewhere included.

Commercial plantations

In 2017–18 the total volume of logs harvested from Australia's commercial plantations was 28.7 million cubic metres (a 1 per cent decrease from the record high 2016–17 log harvest), valued at $2.3 billion (mill door price). Of the total volume of logs harvested from commercial plantations in 2017–18, hardwood species accounted for 39 per cent and softwood species represented 61 per cent.

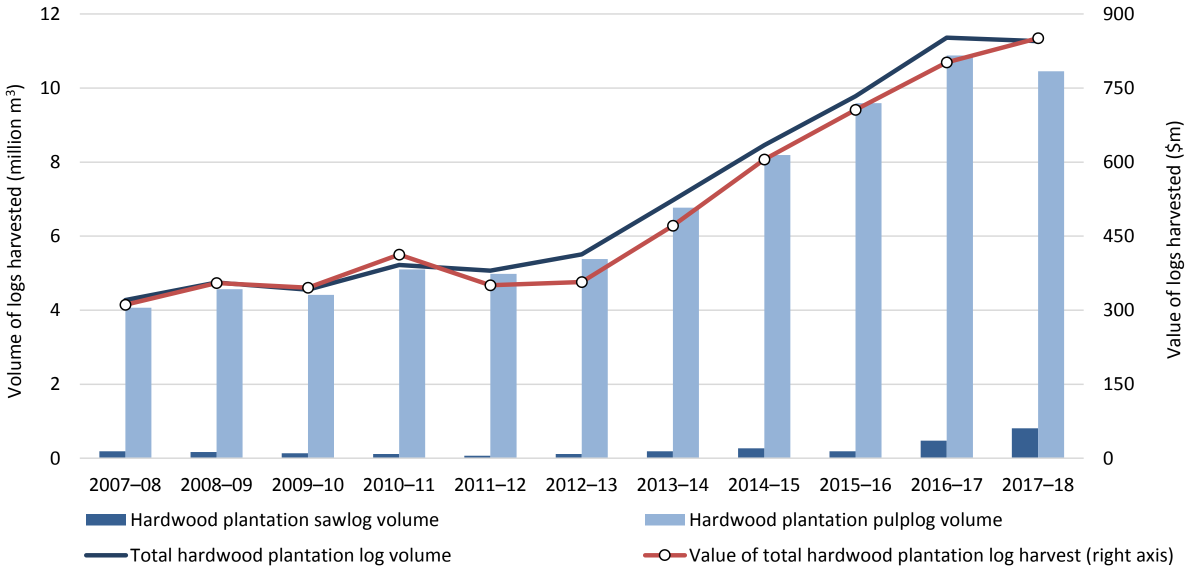
Hardwood plantations

In contrast with the modest growth in the native production forest hardwood log harvest since 2012–13, the hardwood plantation log harvest more than doubled over the past five years to 11.3 million cubic metres in 2017–18, down 1 per cent from the previous year (Figure 2). The pulplog harvest decreased to 10.5 million cubic metres (down 4 per cent from 2016–17) and the sawlog harvest increased to 810,000 cubic metres (up 69 per cent from 2016–17).

In 2017–18, pulplogs harvested mainly for woodchip exports represented 93 per cent of all hardwood logs harvested from commercial plantations. Sawlogs, veneer logs and other log products made up the remaining 7 per cent. Plantation hardwood logs represented 73 per cent of total hardwood logs harvested in Australia in 2017–18.

In 2017–18 the total value of plantation hardwood logs increased to a record $851 million (mill door price), up 6 per cent from the previous year.

Figure 2 Volume and value of logs harvested from commercial hardwood plantations, 2007–08 to 2017–18



Note: 'Total hardwood plantation log volume' includes the category 'other', which comprises other hardwood plantation log products. 'Hardwood plantation sawlog volume' includes veneer logs and logs for plywood.

Softwood plantations

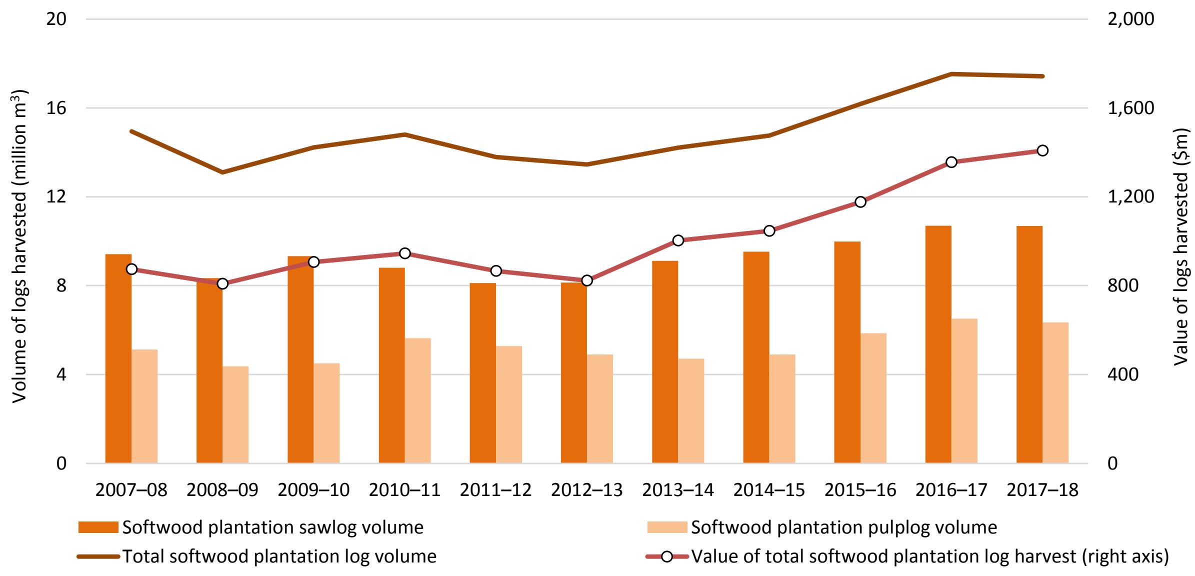
The total volume of softwood plantation logs harvested annually in Australia—comprising sawlogs, pulplogs and other log products—has fluctuated over the past decade, largely in response to changes in housing construction.

Since 2012–13 the annual harvest volume of softwood plantations has been increasing but at an average slower rate than the plantation hardwood log harvest (Figure 3). In 2017–18 the total volume of softwood plantation logs harvested was 17.4 million cubic metres, down 0.6 per cent from the previous year. The softwood plantation sawlog harvest decreased in 2017–18 to 10.7 million cubic metres (down 0.1 per cent from 2016–17) and the softwood plantation pulplog harvest decreased to 6.3 million cubic metres (down 3 per cent from 2016–17).

The majority of softwood logs harvested from commercial plantations in 2017–18 were sawlogs and veneer logs (61 per cent). Softwood plantation pulplogs—used for woodchip exports and domestic paper, paperboard and panel production—comprised 36 per cent of the total plantation softwood log harvest. Other log products, including roundwood, posts and poles, made up the remainder.

In 2017–18 the total value of plantation softwood logs increased to a record $1.4 billion (mill door price), up 4 per cent from the previous year.

Figure 3 Volume and value of logs harvested from commercial softwood plantations, 2007–08 to 2017–18

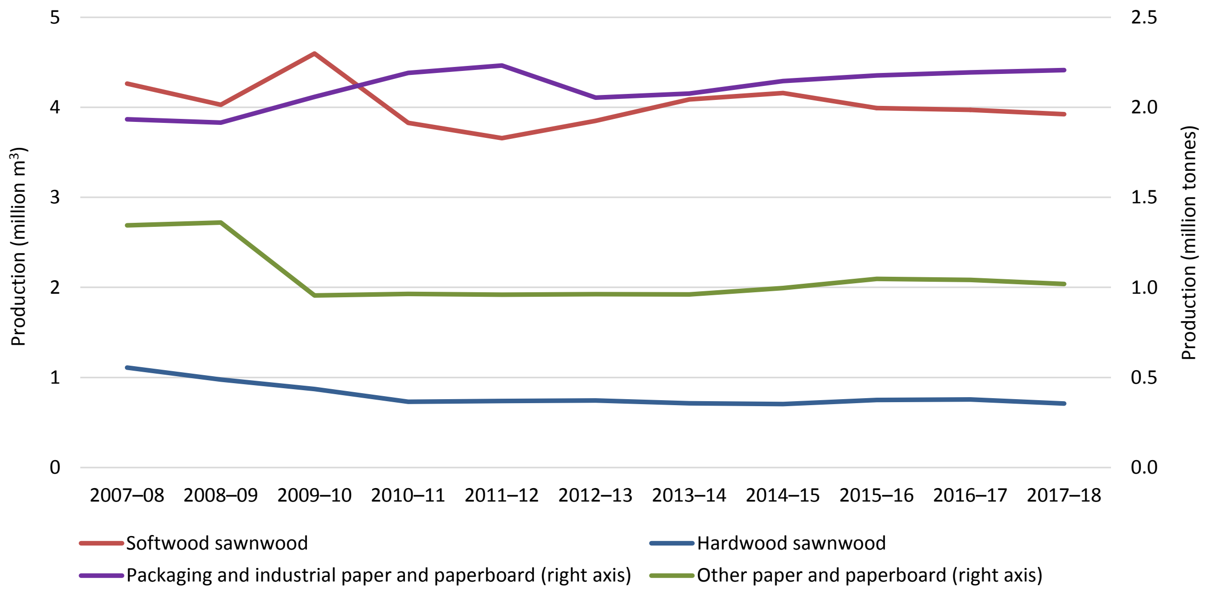


Note: 'Softwood plantation sawlog volume' includes veneer logs and logs for plywood. 'Total softwood plantation log volume' includes the category 'other', which comprises other softwood plantation log products.

Domestic production of wood products, 2017–18

The logs harvested from Australia's commercial plantations and native production forests are processed into a variety of wood-based products for the domestic market. These products include sawnwood, paper and paperboard, and wood-based panels. The production volumes of these wood products have fluctuated over the past decade (Figure 4). The volume of domestic packaging and industrial paper and paperboard production has been gradually increasing since 2012–13 and the volume of softwood sawnwood production has been trending downwards since 2014–15. Production volumes of hardwood sawnwood and other paper and paperboard have been relatively steady since 2015–16.

Figure 4 Volume of domestic production, selected wood products, 2007–08 to 2017–18



Note: 'Other paper and paperboard' comprises newsprint, printing and writing, and household and sanitary.

Sawnwood

Sawnwood is produced in Australia using softwood and hardwood sawlogs sourced from commercial plantations and native production forests.

Softwood sawnwood is mainly used for structural purposes in housing construction—such as wall and floor framing and roof trusses—and accounts for the majority of total sawnwood production (85 per cent in 2017–18). As a result, one of the key factors influencing sawnwood consumption is domestic dwelling commencements. Hardwood sawnwood is generally used for its durability or appearance—for example, in flooring, decking and joinery—and is sourced largely from native production forests.

In 2017–18 Australia produced 4.6 million cubic metres of sawnwood, a 2 per cent decrease from 2016–17. Softwood sawnwood production in 2017–18 decreased to 3.9 million cubic metres (down 1 per cent from the previous year) and hardwood sawnwood production decreased to 711,000 cubic metres (down 6 per cent).

Paper and paperboard

Australia produces a range of paper and paperboard products using pulplogs sourced from commercial plantations, native production forests and residues from wood processors. These products include packaging and industrial paper, printing and writing paper, newsprint, and household and sanitary paper.

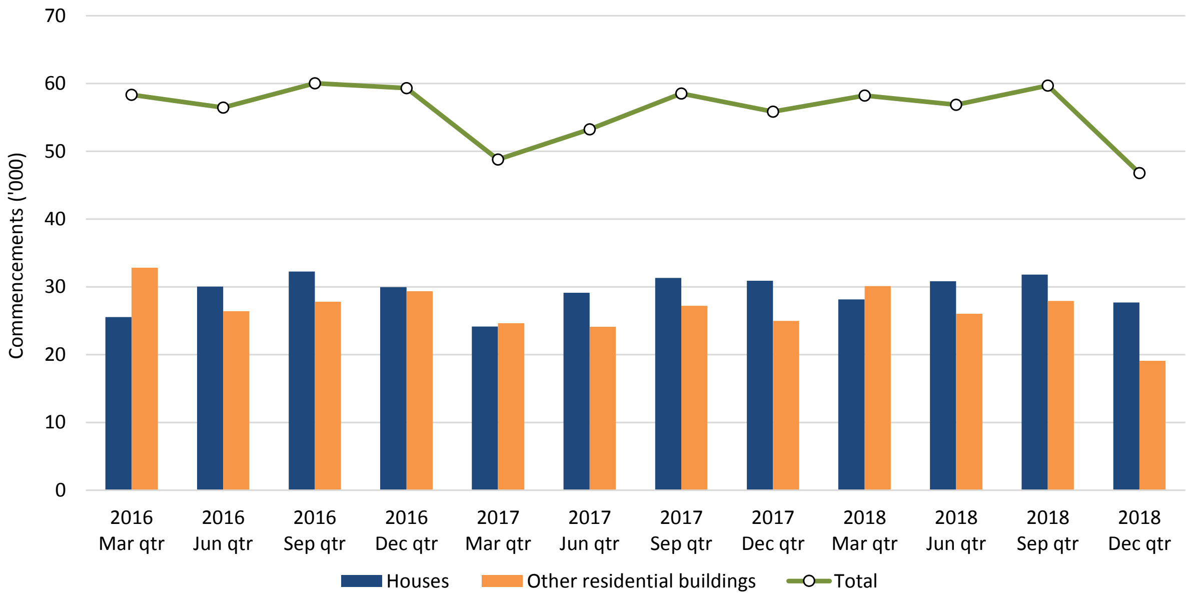
In 2017–18 Australia's total production of paper and paperboard decreased by 0.3 per cent from 2016–17 to 3.2 million tonnes. Production of packaging and industrial paper, which comprises 68 per cent of Australia's total paper and paperboard production, increased to 2.2 million tonnes (up 1 per cent from the previous year). Production of household and sanitary paper increased to a record 244,000 tonnes (up 5 per cent). The growth in these categories was offset by decreases in the production of printing and writing paper (to 456,000 tonnes, down 5 per cent) and newsprint (to 318,000 tonnes, down 3 per cent).

Housing and other residential building commencements

Construction of dwellings—houses as well as other residential buildings, including units, apartments, townhouses and house conversions—is a major market for structural and finished wood products and an important driver of economic growth in the forestry sector. Construction of houses generally requires a higher volume of wood products than construction of other residential buildings.

In 2017–18 dwelling commencements increased by 4 per cent from 221,400 commencements in 2016–17 to 229,500. In the first half of the 2018–19 financial year, 106,500 new dwellings commenced across Australia (Figure 5). Taking into account the seasonal nature of the industry, this represents a decrease of 7,900 commencements (down 6.9 per cent) from 114,400 commencements in the corresponding first half of 2017–18. The number of dwelling commencements in the December quarter 2018 was the lowest it has been in a December quarter since 2012.

Figure 5 Quarterly dwelling commencements, March 2016 to December 2018



The softening of dwelling commencements in the first half of 2018–19 was primarily driven by decreases in the number of new other residential buildings, which decreased by 5,200 (10 per cent) to 47,000 commencements compared with the corresponding 2017–18 quarters. The number of new houses also decreased, by 2,700 (4 per cent) to 59,500 commencements compared with the first half of 2017–18.

Trade in wood products, 2017–18

Australia's annual trade in wood products has grown strongly since 2012–13. Total merchandise trade (imports plus exports) in wood products reached a record $9.2 billion in 2017–18, up 7 per cent from 2016–17. The total value of wood product imports increased by 8 per cent between 2016–17 and 2017–18 to $5.6 billion.

The strong export performance of Australia's wood products industries since 2012–13 continued in 2017–18. The total value of wood product exports increased to $3.6 billion in 2017–18, up 4 per cent from 2016–17 and up 76 per cent since 2012–13.

Australia is a net importer of wood products in value terms and this is reflected in the types of products imported and exported. Australia tends to import lower volumes of more processed and higher value wood products, including printing and writing paper, and finished wooden articles. The main wood products imported include paper and paperboard, wood-based panels, sawnwood and miscellaneous forest products. Australia also imports a significant amount of secondary wood products—mostly wooden furniture.

By contrast, Australia tends to export higher volumes of less processed and lower value wood products, such as woodchips (sourced mainly from hardwood plantation pulplogs) and roundwood (sourced mostly from softwood plantation sawlogs). The main wood products exported are woodchips, roundwood and higher value paper and paperboard.

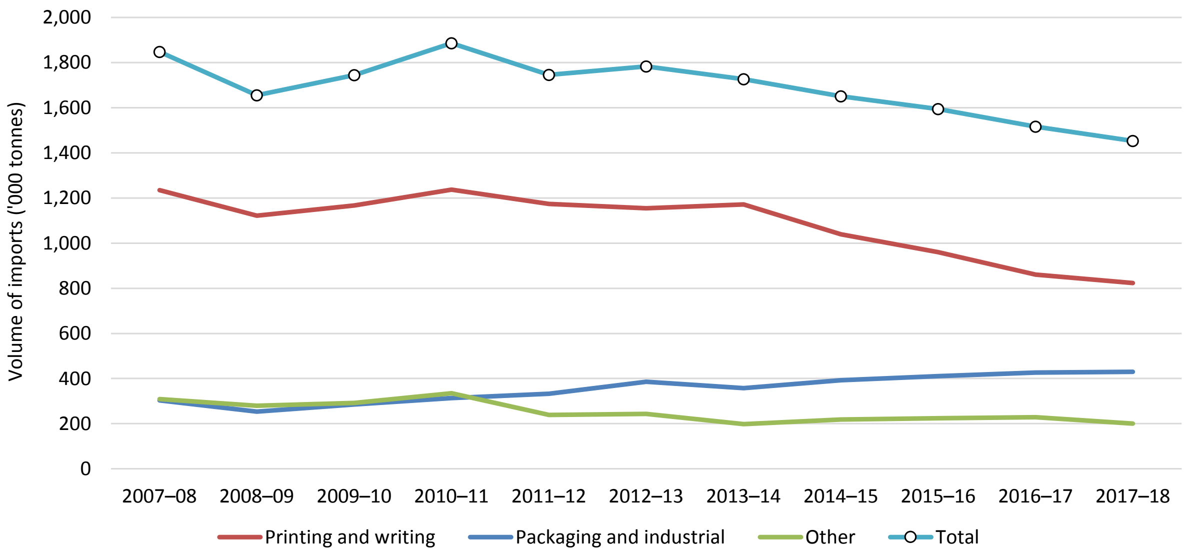
Imports of wood products

The largest category of Australia's wood product imports (by value) is paper and paperboard. In 2017–18 paper and paperboard imports increased by 0.4 per cent to $2.1 billion and constituted 37 per cent of the total value of Australia's wood product imports.

The total volume of paper and paperboard imports has been declining since 2012–13 and further decreased in 2017–18 to 1.5 million tonnes (down 4 per cent from 2016–17) (Figure 6). Printing and writing paper, which accounts for the majority of paper and paperboard imports (57 per cent), decreased to 823,000 tonnes (down 4 per cent from the previous year).

The volume of packaging and industrial products imports has been increasing since 2013–14. In 2017–18 this volume increased to 430,000 tonnes (up 1 per cent from 2016–17), accounting for 30 per cent of paper and paperboard imports.

Figure 6 Volume of paper and paperboard imports, 2007–08 to 2017–18



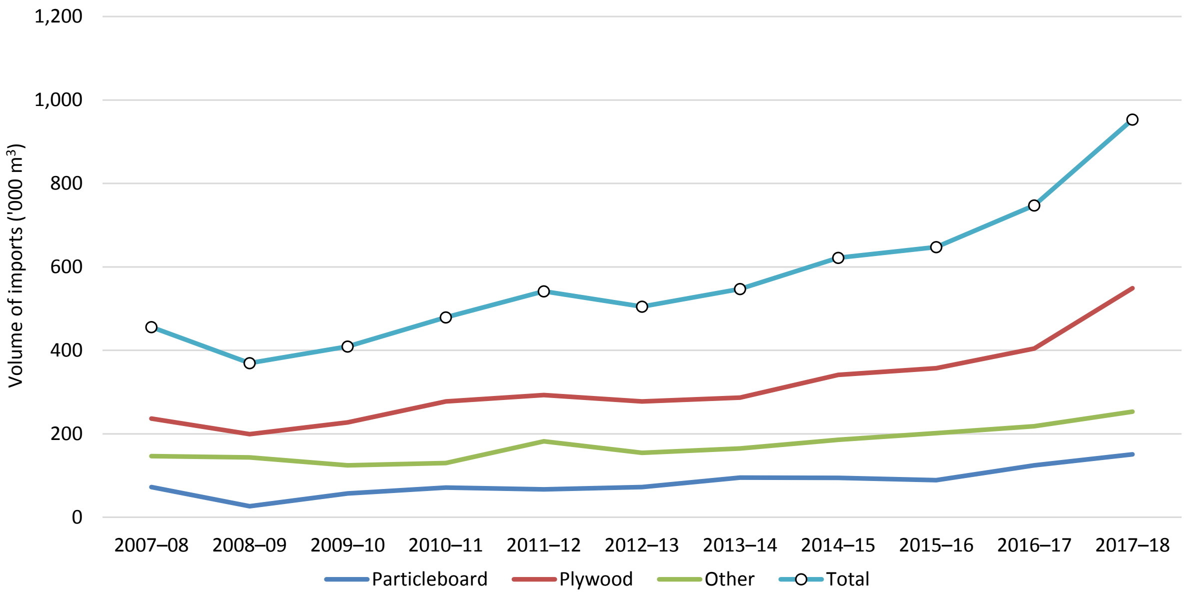
Note: 'Other' comprises newsprint and household and sanitary products.

In 2017–18 the total value of wood-based panel imports increased to $684 million (up 25 per cent from the previous year) and accounted for 12 per cent of the total value of Australia's wood product imports.

Since 2008–09 the total volume of wood-based panel imports has trended upwards. In 2017–18 the volume of wood-based panel imports increased to 954,000 cubic metres (up 28 per cent from 2016–17) (Figure 7).

Plywood panels make up the largest share of Australian wood-based panel imports (58 per cent in 2017–18). The total volume of plywood panel imports increased in 2017–18 to 549,000 cubic metres (up 36 per cent from 2016–17).

Figure 7 Volume of wood-based panel imports, 2007–08 to 2017–18

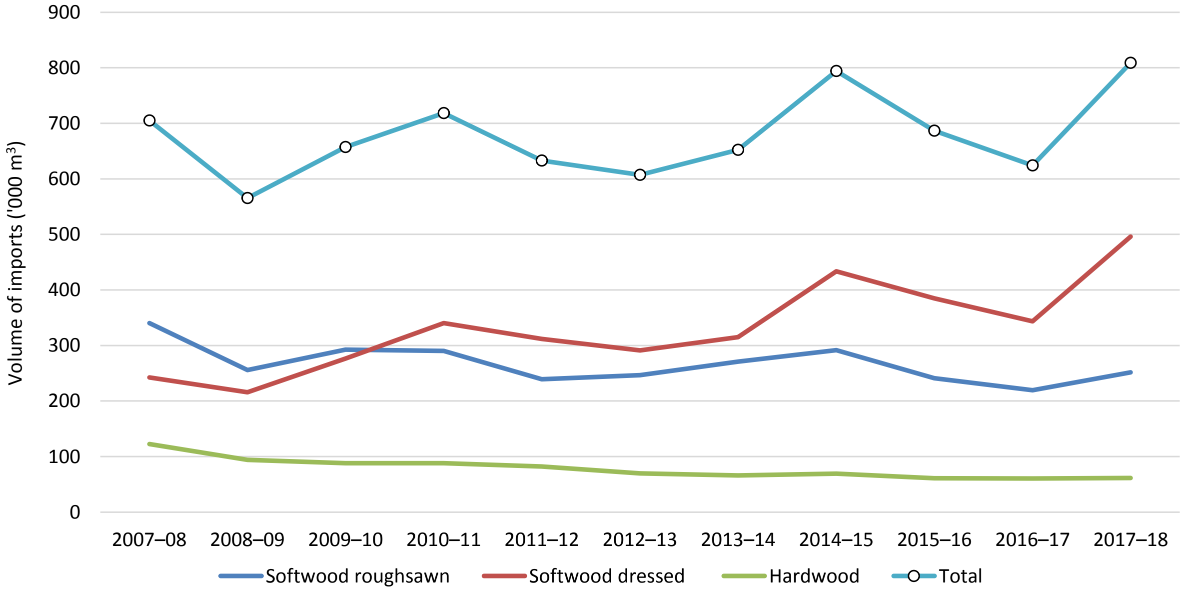


Note: 'Other' comprises veneers, hardboard, medium-density fibreboard, softboard and other fibreboards.

In 2017–18 the total value of sawnwood imports increased to $451 million (up 21 per cent from 2016–17) and accounted for 8 per cent of the total value of Australia's wood product imports.

The total volume of sawnwood imports has varied over the past decade and increased in 2017–18 to 809,000 cubic metres (up 30 per cent from the previous year) (Figure 8). Australia mostly imports softwood sawnwood (92 per cent of total sawnwood imports), comprising roughsawn and dressed softwood. Between 2016–17 and 2017–18 imports of roughsawn softwood increased by 14 per cent and imports of dressed softwood increased by 44 per cent.

Figure 8 Volume of sawnwood imports, 2007–08 to 2017–18



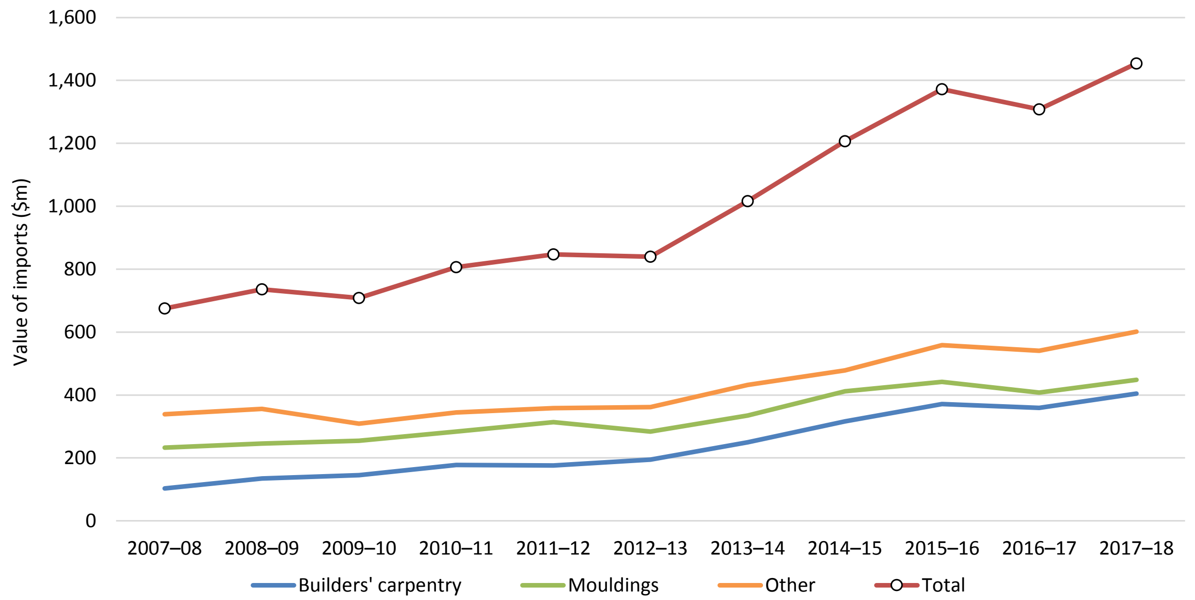
Note: 'Hardwood' comprises roughsawn hardwood and dressed hardwood.

Miscellaneous forest products, which encompass a broad range of wood manufactures, constituted 26 per cent of the total value of Australia's wood product imports in 2017–18.

The total value of miscellaneous forest products imports has trended upwards over the last decade and in 2017–18 increased to $1.5 billion (up 11 per cent from 2016–17) (Figure 9).

Builders' carpentry products and mouldings, both used in housing construction, together accounted for over half of the total value of miscellaneous forest products imports in 2017–18. The value of builders' carpentry increased in 2017–18 to $404 million (up 13 per cent from 2016–17) and mouldings increased to $448 million (up 10 per cent from the previous year).

Figure 9 Value of miscellaneous forest product imports, 2007–08 to 2017–18



Note: 'Builders' carpentry' excludes doors. 'Other' includes (in order of percentage contribution to total value of miscellaneous forest products imports): essential oils; articles of wood (not elsewhere classified); coopers' products and staves; doors; household utensils; cork and manufactures; picture, photograph and mirror frames; other household articles; forest products (not elsewhere classified); wood charcoal; packing cases, boxes, crates and drums; ornamental figures; assembled parquet flooring panels; lac, gums and resins; rosins and wood tar; tools and tool handles; matches; shingles; fuel wood.

Other major wood products imported into Australia include paper manufactures (12 per cent of total wood product imports by value in 2017–18)—which are paper articles that have had some further processing, such as boxes, paper bags and notebooks—and pulp used for paper and paperboard production (5 per cent of total wood product imports by value in 2017–18). The value of paper manufactures increased in 2017–18 to $653 million (up 1 per cent from 2016–17) and the value of pulp increased to $260 million (up 21 per cent from the previous year).

Australia also imports a significant amount of secondary wood products, but the value of these products is not directly related to their wood content. In 2017–18 the total value of wooden furniture imports increased to $2.0 billion (up 4 per cent from the previous year). The majority of these imports were from China (64 per cent). The total value of printed articles imports—including newspapers, printed books, magazines and journals—decreased to $955 million in 2017–18 (down 4 per cent from 2016–17).

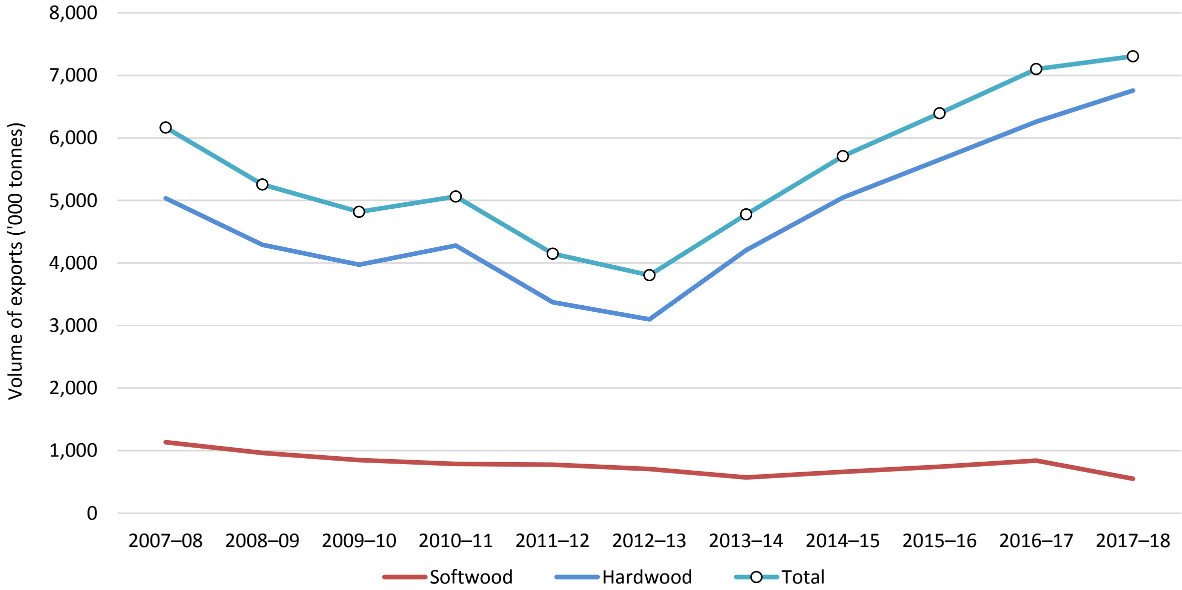
Exports of wood products

The largest category of Australia's wood product exports (by value) is woodchips, which increased to $1.3 billion in 2017–18 (up 6 per cent from the previous year) and accounted for 37 per cent of the total value of Australia's wood product exports.

The total volume of woodchip exports has been growing strongly since 2012–13 (Figure 10). Hardwood woodchips account for the vast majority of total woodchip exports (92 per cent in 2017–18). The majority of Australia's hardwood woodchip exports are sourced from commercial hardwood plantations—in 2017–18, ninety per cent of the total commercial hardwood plantation log harvest volume consisted of pulplogs for export as woodchips.

In 2017–18 the total volume of woodchip exports increased to 7.3 million tonnes (up 3 per cent from 2016–17). This growth was driven by an increase in hardwood woodchips to 6.8 million tonnes (up 8 per cent from the previous year), offset partly by a decrease in softwood woodchips to 549,000 tonnes (down 35 per cent).

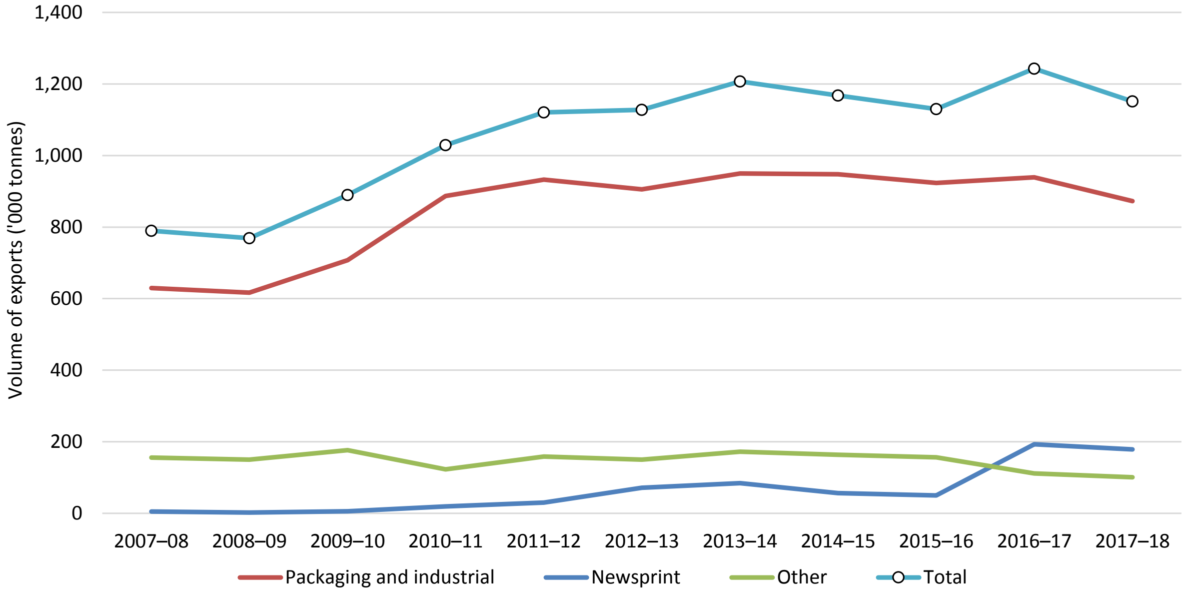
Figure 10 Volume of woodchip exports, 2007–08 to 2017–18



The second-largest category of Australia's wood product exports (by value) is paper and paperboard products. The total value of paper and paperboard exports in 2017–18 increased to $963 million (up 6 per cent from 2016–17) and constituted 27 per cent of the total value of Australia's wood product exports.

The total volume of paper and paperboard exports decreased in 2017–18 to around 1.2 million tonnes (down 7 per cent from the previous year) (Figure 11). This decrease was driven by a reduction in exports of packaging and industrial products to 872,000 tonnes (down 7 per cent from the previous year), which account for the majority of paper and paperboard exports (76 per cent). The volume of newsprint also decreased by 7 per cent, to 178,000 tonnes.

Figure 11 Volume of paper and paperboard exports, 2007–08 to 2017–18

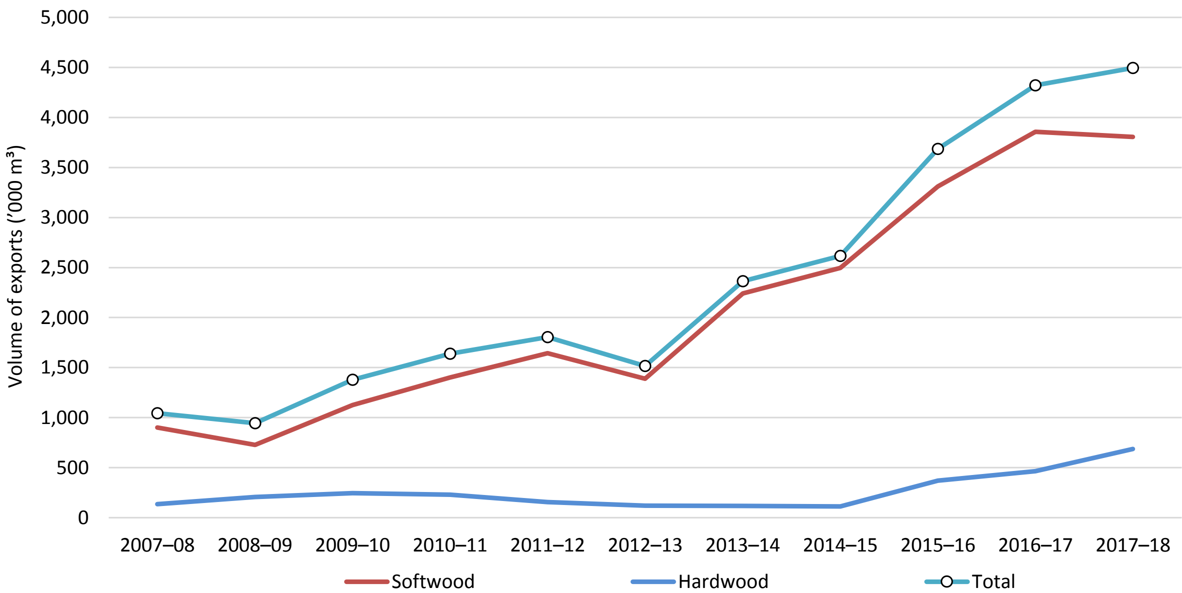


Note: Other comprises printing and writing paper, and household and sanitary paper.

The third-largest category of Australia's wood product exports (by value) is roundwood. The majority of Australia's roundwood exports are sourced from softwood plantations. The total value of roundwood exports in 2017–18 increased to $644 million (up 8 per cent from 2016–17) and constituted 18 per cent of the total value of Australia's wood product exports.

The total volume of roundwood exports has been growing strongly since 2012–13, in line with total woodchip exports, and increased in 2017–18 to 4.5 million cubic metres (up 4 per cent from the previous year) (Figure 12).

Figure 12 Volume of roundwood exports, 2007–08 to 2017–18



Note: Total includes a very small volume of other roundwood exports where log type is unknown.

Australia's other major wood product exports include recovered paper (7 per cent of total wood product exports by value in 2017–18) and miscellaneous forest products (4 per cent of total wood product exports by value in 2017–18). The value of recovered paper in 2017–18 decreased to $248 million (down 5 per cent from 2016–17). The value of miscellaneous forest products— including items such as wooden doors, mouldings, packing cases, parquetry flooring, builders carpentry, cork, gums and resins—decreased to $137 million (down 8 per cent from the previous year).

Australia also exports various secondary wood products, but their relative value is much lower than that of secondary wood product imports. In 2017–18 the value of printed articles, the largest category of secondary wood exports, increased to $284 million (up 7 per cent from the previous year).

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Appendix A: Australian forest and wood products statistics, detailed tables

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AFWPS imports quarterly

AFWPS exports quarterly