

Market Statement

I. Overview of forest products markets in 2018 and 2019

1. General conditions in forest products markets in the ECE region were mixed in 2018, with consumption increasing (over the previous year) in sawnwood (+1.5%), wood-based panels (+1.4%) and industrial roundwood (+5.8%). In contrast, the consumption of paper and paperboard continued to decline in Europe and North America in 2018, although there was a year-on-year increase in the Eastern Europe, Caucasus and Central Asia (EECCA)³ of 2.6%. Overall, the consumption of paper and paperboard declined in the ECE region by 1.0% in 2018 (table 1).

Table 1
Apparent consumption of industrial roundwood, sawnwood, wood-based panels and paper and paperboard in ECE region, 2014-2018

	Thousand	2014	2015	2016	2017	2018	Change (volume) 2017-2018	Change (%) 2017-2018	Change (%) 2014-2018
Industrial roundwood									
Europe	m ³	397,156	401,593	410,270	407,580	432,628	25,048	6.1	8.9
EECCA	m ³	181,822	185,471	194,721	198,418	226,389	27,972	14.1	24.5
North America	m ³	490,150	494,222	498,494	494,953	506,154	11,201	2.3	3.3
ECE region	m ³	1,069,128	1,081,286	1,103,486	1,100,951	1,165,171	64,221	5.8	9.0
Sawnwood									
Europe	m ³	100,976	103,760	107,552	110,698	113,013	2,315	2.1	11.9
EECCA	m ³	19,247	17,219	16,689	18,041	18,187	146	0.8	-5.5
North America	m ³	106,274	112,603	117,570	118,392	119,530	1,138	1.0	12.5
ECE region	m ³	226,497	233,582	241,811	247,132	250,730	3,599	1.5	10.7
Wood-based panels									
Europe	m ³	66,931	68,659	71,916	74,299	75,670	1,371	1.8	13.1
EECCA	m ³	17,190	17,164	16,836	18,485	20,265	1,780	9.6	17.9
North America	m ³	50,392	52,623	53,601	56,603	55,509	-1,094	-1.9	10.2
ECE region	m ³	134,513	138,446	142,353	149,388	151,445	2,057	1.4	12.6
Paper and paperboard									
Europe	m.t.	89,361	88,365	88,430	89,565	88,465	-1,100	-1.2	-1.0
EECCA	m.t.	9,397	9,106	9,561	9,520	9,772	252	2.6	4.0
North America	m.t.	76,053	75,651	75,602	75,037	74,205	-832	-1.1	-2.4
ECE region	m.t.	174,811	173,123	173,593	174,122	172,442	-1,680	-1.0	-1.4

Notes: Sawnwood include sleepers after 2016. m.t. is metric tons.

Source: FAOSTAT, 2019.

A. Economic developments with implications on the forest sector

2. The pace of economic expansion in the ECE region was more or less unchanged in 2018, although the dynamics of various groups of countries differed. Economic growth accelerated in the US, supported by fiscal stimulus and a robust labour market. Economic

³ The term Eastern Europe, Caucasus and Central Asia (EECCA) refers collectively to 12 countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

activity moderated in the euro area as export growth weakened throughout the year. The new EU member countries fared relatively well in a more adverse external environment, and output continued to accelerate in a number of countries. A recovery gained strength in the EECCA, driven by the improved performance of the Russian Federation. A more widespread slowdown is emerging in 2019, however, amid trade tensions, which remain a major source of uncertainty and are dampening investment.

3. Labour market dynamics continued to improve throughout the region in 2018. In the US, the sustained economic expansion was accompanied by rising wages, dragging additional workers into the labour force. Labour markets became tighter in the euro area, leading to accelerated wage growth that, however, has not yet translated into significant price pressures. Employment is at record levels, with particularly strong increases in the construction sector. Increases in the number of hours worked have trailed behind the growth of employment, however, reflecting a compositional shift towards a higher share of part-time employment. There are large disparities in unemployment rates between countries. In some new EU member countries, labour shortages have appeared in particular sectors despite an improved migratory balance. In the EECCA, wage growth accelerated amid falling unemployment.

4. Supported by growing incomes, housing prices continued to climb throughout the region in 2018. In the US, however, the growth deceleration that started in 2018 extended into early 2019. Construction activity in 2019 started slowly but is recovering to 2018 levels. The situation in the EU differed by country but, overall, housing prices continued to climb at a steady pace. Increasing housing demand has been supported by growing incomes and the availability of finance. Although house prices are above pre-global financial crisis levels in the euro area, residential investment is significantly lower. The growth of construction output decelerated, driven by the slowdown in building, which, in contrast, increased at double-digit rates in some new EU member countries. Survey data point to a softening of activity in early 2019. Labour shortages are increasingly mentioned as a factor limiting construction production, particularly in the large euro-area countries. Despite some deceleration, the ongoing recovery of housing markets is expected to continue, and this will support overall economic activity. In some EECCA countries, the rapid growth of mortgage financing has sparked concerns among monetary authorities. Housing prices have picked up in the Russian Federation after years of decline. Although construction activity recovered in 2018, the number of new residential buildings fell.

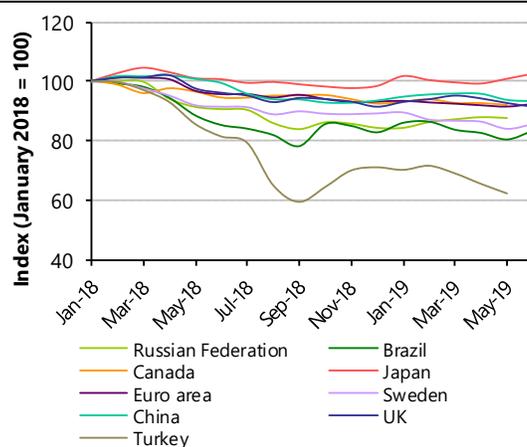
5. Despite the acceleration of economic growth and increasingly tight labour markets, inflationary pressures remained muted in the US. Monetary policy normalization continued in 2018, with four hikes in interest rate. In early 2019, however, monetary authorities clearly signalled the end of tightening, and there are growing market expectations that a cut could take place this year. The toll on the dollar of this monetary policy reversal has been relatively contained (graph 1.2.1). The nominal trade-weighted dollar exchange rate rose through most of 2018, with limited weakening in mid-2019. Monetary policy was highly accommodative in the euro area. The European Central Bank ended its quantitative easing programme in December 2018 but indicated that a significant monetary stimulus was still required for price stability over the medium term. Amid increased concerns about a deteriorating economic outlook and inflation well below target, further loosening is anticipated. In the EECCA, monetary authorities are expected to continue to cut rates, which remain relatively high in some countries, in a context of moderate growth prospects.

6. In the US, fiscal expansion contributed to the acceleration of economic activity in a context of weakening global growth, but the effects of this looser fiscal policy are expected to fade. Rising investment in 2018 mainly reflected an increase in demand due to additional spending, and the impact of tax cuts appears limited. Fiscal austerity has come to an end in the euro area and the expansionary stance in 2019 is helping to offset negative trends. Rather than a concerted effort, fiscal loosening reflects a variety of national initiatives, and fiscal space differs widely across countries. Low financing costs have made debt more affordable and slowed the growth of public debt-to-gross national product ratios, but high debt is restricting fiscal expansion in those economies with higher unemployment rates. Conservative fiscal policies have continued in most EECCA countries, with energy-exporting

economies rebuilding fiscal buffers, while external constraints and debt growth push others into fiscal consolidation.

7. The pace of economic activity has, as expected slowed in 2019, with waning momentum for growth throughout the region. The demand boost from the US fiscal stimulus is declining and the cyclical recovery is also losing steam in a number of economies with increasingly tight labour markets. In a context of lingering trade tensions and decelerating cross-border exchanges, domestic factors will play a greater role in driving future expansion. The projected economic slowdown has exacerbated concerns about the accumulation of corporate debt and the deterioration of credit quality. The process of the withdrawal of the UK from the EU has generated negative spillovers for other countries and damaged confidence. Many middle-income countries in the region are highly dependent on foreign financing and remain vulnerable to a deterioration in external conditions. In the EECCA, weaker commodity prices would weigh negatively on growth. The balance of risks in the ECE region remains firmly tilted to the downside, buffeted by continued policy uncertainty.

Article II. Graph 1.2.1
Article III. Major currencies used to trade forest products indexed against the US dollar, January 2018–
June 2019



Note: A diminishing index value indicates a weakening of the currency value against the US dollar; an increasing index value indicates a strengthening of the currency value against the US dollar.

Source: International Monetary Fund (IMF Data), 2019. Available at: <http://data.imf.org/?sk=388DFA60-1D26-4ADE-B505-A05A558D9A42>

B. Policy and regulatory developments affecting the forest products sector

8. The leadership of various levels of government is increasingly apparent in responsible-sourcing strategies, carbon programmes, renewable energy development and green building standards. After one year of the Comprehensive Economic and Trade Agreement (CETA), which came into force provisionally in September 2017, exports from the EU to Canada had risen 7%, including a 10% increase in furniture exports (according to annualized statistics for the October 2017 to June 2018 period).

9. It was estimated that, of the €3.78 billion of tropical wood products imported into the EU in 2017, 21% were Forest Law Enforcement, Governance and Trade (FLEGT)-licensed products from Indonesia and 54% were from the other 14 countries engaged on FLEGT with the EU. An assessment of Ghana's timber legality assurance system has been initiated which could lead to Ghana becoming the first country in Africa to issue FLEGT licences.

10. The two major certification schemes – the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) – released data in February 2019 on their certified forest areas and the extent of double-certified forests indicating a further increase in the area of double-certification and a decline in the total (net) area of certified forest globally.

11. Between mid-2017 and mid-2018, the amount of double-certified forest increased from 71 million hectares to 86 million. The two certification programs reported a combined total of 510 million hectares certified as of mid-2018; after accounting for the double-certification, the total net certified forest area as of mid-2018 is 424 million hectares representing a decrease of 7 million hectares compared to the prior reporting period.

12. In 2018, FSC reported that approximately 423 million cubic meters of wood are harvested per year in FSC-certified forests around the world, representing 22.6% of global industrial roundwood production (all roundwood excluding fuel wood).

13. The EU's revised Renewable Energy Directive 2018/2001/EU entered into force in December 2018 as part of the Clean Energy for all Europeans package, the aims of which are to ensure the EU remains a global leader in renewables and, more broadly, to help the EU meet its emissions reduction commitments under the Paris Agreement on climate change. The Sustainable Biomass Program (SBP) reported the production and sale of more than 9 million tonnes of SBP-certified biomass in 2018, an increase of 80% over 2017 and now accounting for the majority (65%) of EU28 pellet consumption. Five more countries are now active in the SBP, including Brazil.

14. Green building and the use of wood in the built environment continue to expand. The Government of the Russian Federation has approved incentives for the purchase of wooden houses. The 2018 provision will subsidize interest rates to banks providing credits to individuals purchasing prefabricated wooden houses from manufacturers. The International Code Council (ICC) has approved 14 changes to the tall mass timber code following a multiyear effort by the ICC Ad Hoc Committee on Tall Wood Buildings.

15. As leadership roles continue to evolve in the forest sector, it is evident that diverse private and public partnerships are vital for supporting innovations that aid the growth and success of forest product markets.

II. Summary of regional and subregional markets for key forest products

A. Wood raw materials

16. The total consumption of roundwood – comprising logs for industrial uses and fuel – in the ECE region was estimated at 1.4 billion m³ in 2018 after a sixth consecutive years of increase. The apparent consumption of logs for industrial purposes trended upward in the ECE region in the five years to 2018, to 1.19 billion m³, 5.1% higher than in 2014. Of the total volume of roundwood harvested in the ECE region in 2018, about 18% was used for fuel (257.1 million m³), an increase of 9.2 million m³ (+3.7%) over 2017. Europe accounted for 54% of total woodfuel consumption in the ECE region in 2017.

17. China was (again) the number-one importer of industrial softwood roundwood globally in 2018 (importing 40.1 million m³), followed by Austria (9.1 million m³), Germany (8.2 million m³), Sweden (6.6 million m³) and the Republic of Korea (3.9 million m³). The major log trade flows in 2018 were in the Pacific Rim, with shipments to China from New Zealand, the Russian Federation, the US and Australia accounting for four of the top five of these worldwide. In Europe, the major trade flows were from Czechia to Austria, from Poland to Germany and from Norway to Sweden.

18. It is estimated that storms and beetles have damaged about 140 million m³ of timber in Europe in the last two years, mainly in Austria, Czechia, France, Germany, Italy, Slovakia and Switzerland.

19. Chinese importers have gradually shifted their historical preference for logs away from the Russian Federation towards New Zealand and instead are importing softwood lumber from the Russian Federation.

20. North America's log exports declined by 11.7% in 2018, to 18.4 million m³. China retaliated against US tariffs by imposing tariffs on some US forest products in the second

half of 2018. US log shipments to China declined in the second half of the year and the fall continued into early 2019 (the first quarter of 2019 was down by almost 30% over the same quarter in 2018). Canada's log exports to China fell by 19% in 2018.

21. Sawlog price movements were mixed worldwide in 2018, although prices were mostly higher than in 2017. The biggest price declines between the first quarter of 2018 and the first quarter of 2019 were in Europe, especially in the central and eastern parts. In North America, sawlog prices fell in the western US and eastern Canada, increased slightly in the US South, and jumped by 16% in Interior British Columbia.

22. The Committee forecasts that removals of industrial roundwood are expected to increase in the ECE region at an annual rate of 1.4% in 2019 and to increase 0.4% in 2020. The subregional breakdown is as follows: Europe is showing an increase of 1.3% in 2019, partly driven by the removals of bark beetle damaged wood (140 million m³) and a decline of 1.1% in 2020; the EECCA is expected to increase 2.3% in 2019 and then to gain 1.2% in 2020; and North America to increase by 1.1% in 2019 and 1.2% in 2020.

B. Sawn softwood

23. The three ECE subregions recorded mixed results in the consumption of sawn softwood in 2018, with modest increases in Europe and North America and a small decline in the EECCA. The production of sawn softwood increased in all three subregions, however. The recovery continued in North America for the ninth consecutive year, with sawn softwood consumption increasing by 1.0%, although it slowed in the second half of 2018 and into 2019. Consumption increased by 2.6% in Europe and decreased by 0.5% in the EECCA subregion.

24. Sawn softwood production increased by 1.7% in Europe in 2018, to 112.5 million m³. The increase was driven more by an increased European demand rather than by overseas exports.

25. Production increases in central Europe were well above European averages, due partly to timber salvage programmes to harvest trees damaged by storms and beetles. Output from Nordic mills was more moderate.

26. Prices increased for European sawn softwood in the first half of 2018 and dropped off in the second half; nevertheless, prices in 2018 were generally better than in 2017 and there was further improvement in early 2019.

27. Germany, Italy and the UK are the largest importers of sawn softwood in the subregion, accounting for 40% of the total volume. Imports to the UK and Italy declined by 11% and 4.6%, respectively, in 2018 but increased by 6.0% in Germany.

28. The volume of European sawn softwood exports was steady (+0.2%) in 2018, at 51.9 million m³. There was an increase in intraregional exports within Europe, but demand declined in the key overseas markets of China and Japan. Combined exports to the Middle East and North Africa increased by 3.6% in 2018 after a sharp drop in 2017.

29. The EECCA subregion produced almost 48 million m³ of sawn softwood in 2018, up by 7.1% over 2017. The Russian Federation made up the majority of this volume.

30. Domestic demand for sawn softwood in the Russian Federation is currently slightly less than 10 million m³ and is expected to increase dramatically to 24.7 million m³ in 2030. Export markets for sawn softwoods from the Russian Federation are expected to grow from 29.8 million m³ in 2018 to more than 37 million m³ in 2030, with China the main destination.

31. Sawn softwood exports from the EECCA amounted to 36.3 million m³ in 2018 (up by 10% from 2017), about 86% of which was provided by the Russian Federation.

32. Demand in North American sawn softwood markets started to slow in the second half of 2018 and barely grew in the first half of 2019, mainly a function of slowing US housing starts. A portion of this was weather-related, with exceptionally cold or wet weather the norm since the fourth quarter of 2018.

33. US sawn softwood output was 59.5 million m³ in 2018, up by 3.2% over 2017. Production gains were highest in the US West (+4.3%), followed by the US South and the

Midwest/Northeast regions (both +2.4%). The ongoing depressed prices for standing timber in the US South are a result of excess and unused growing stock. The US South accounts for more than 55% of US production and continues to achieve the highest earnings in North America.

34. Canadian sawn softwood production was 45.2 million m³ in 2018, down by 2.3% from 2017. All regions were hit with antidumping import duties (averaging 20.2%) on shipments to the US, and a slowdown in China's imports started a series of short-term mill curtailments in Canada that were still occurring in the second quarter of 2019.

35. The price of lumber in the US market (as measured by the Random Lengths framing lumber composite price index) peaked in early June 2018 at an all-time high of \$582 per thousand board feet (US\$365 per m³, net count). In the fourth quarter of 2018 and again in the second quarter of 2019, prices fell to well below cost in some regions, to as low as US\$300 per thousand board feet (US\$190 per m³).

36. Canada continues to dominate US imports, with a 91% share in 2018 (25.5 million m³). US imports from Europe soared to 2.0 million m³, up from 1.3 million m³ in 2017, but were lower by almost 10% in the first quarter of 2019 as prices fell. US exports were almost 20% down in the first quarter of 2019, due in part to the China-US trade dispute.

37. The Committee forecasts that production of sawn softwood is expected to increase in the ECE region at an annual rate of 2.3% in 2019 and 1.1% in 2020. The subregional breakdown is as follows: Europe with a gain of 2.0% in 2019 and a decline of 0.3% in 2020; The EECCA is expected to increase 7.2% in 2019 and 4.5% in 2020; and North America will gain 0.3% in 2019 and increase 0.9% in 2020.

C. Sawn hardwood

38. Sawn hardwood consumption and production continue to stagnate in the ECE region, despite relatively good economic conditions in most of the region in 2018.

39. Exports of sawn hardwood outstrip imports in all three ECE subregions, with the region as a whole exporting about double the volume it imports.

40. The sawn hardwood industry faces a number of challenges in the ECE region, including an increasing consumer preference for inexpensive home furnishings and for cabinetry made from composite wood products and non-wood materials (away from traditional hardwood furniture).

41. European hardwood lumber production contracted by 2.0% in 2018, to 14.3 million m³. In the EECCA, sawn hardwood production increased by 10.5%, to 4.2 million m³, and consumption also grew – by 16.0%, to 1.7 million m³. North American sawn hardwood consumption increased by 210,000 m³ (1.0%) in 2018, and production was relatively flat at 24.3 million m³.

42. Asia continues to dominate the tropical sawnwood trade, with China and, to a lesser extent, Thailand and Viet Nam the major importers and Cameroon, Gabon, Malaysia and Thailand the major exporters. World imports of tropical sawnwood increased each year from a low in 2012 to reach 12.3 million m³ in 2017; the volume declined in 2018, however, to 11.7 million m³.

43. The Committee forecasts that production of sawn hardwood will increase in the ECE region at an annual rate of 2.8% in 2019 and 2.1% in 2020. The subregional breakdown is as follows: Europe is expected to increase by 1.4% in 2019 and remain flat in 2020 (0.0%); the EECCA increases 6.4% in 2019 and 4.1% in 2020; and North America with an expected increase of 3.1% in 2019 and an increase of 3.1% in 2020.

D. Wood-based panels

44. In general, 2018 was mixed for the wood-based panel sector in the ECE region. Strong economic growth in North America and a mild winter in the EECCA helped drive demand

for wood-based panels in most end-use applications. Overall, panel production was up by 1.1% in the ECE region and apparent consumption grew by 1.4%. Growth in the wood-based panels sector is projected to continue into 2019, with production expected to increase by 2.1% and apparent consumption by 0.5%.

45. Wood-based panel production was almost unchanged overall in Europe in 2018, at nearly 75 million m³. There was a sizeable (4.8%) drop in plywood production, however, and the production of oriented strandboard (OSB) retracted slightly (by 0.4%). Production increased by 0.4% for fibreboard and by 0.3% for particle board.

46. The apparent consumption of wood-based panels increased by 9.6% in the EECCA in 2018, to 20.3 million m³. Production increased in the subregion by 9.7% in 2018, to 24.9 million m³. The Russian Federation's production of wood-based panels was 17.3 million m³, an increase of 11.2% over 2017.

47. North American demand for structural panels subsector is expected to increase overall by 2.4% in 2019, comprising an increase of 6.2% for OSB and a decrease of 1.6% for plywood. Production capacity in the North American structural panel subsector increased by 2.1% in 2018, to 38.9 million m³.

48. As in previous years, Indonesia and Malaysia were the dominant tropical plywood exporters in 2018, together supplying 73% of world exports.

49. The Committee forecasts that production of wood-based panels will increase in the ECE region at an annual rate of 2.0% in 2019 and by 2.3% in 2020. The subregional breakdown is as follows: Europe will grow 0.4% in 2019 and 0.8% in 2020; the EECCA should increase by 7.3% in 2019 and 7.5% in 2020; and North America is forecast to shrink by 0.3% in 2019 and increase by 0.8% in 2020.

E. Paper, paperboard and woodpulp

50. The global pulp, paper and paperboard industry continued its resurgence in early 2018, driven by a much tighter supply–demand balance for woodpulp and continued strong demand for packaging and sanitary and household products. Prices for virtually all products rose throughout the ECE region in 2018. By the middle of the year, however, signs of stress had begun to appear in Asia (particularly China) and Europe as costs in the pulp and paper segments began to have a negative impact on apparent consumption.

51. The production and apparent consumption of graphic papers continued to decline in virtually every market in 2018 as end users reduced their advertising budgets for print media. The decline in the apparent consumption of graphic papers accelerated in early 2019. This is partially compensated by the increase in packaging materials

52. The apparent consumption of paper and paperboard fell slightly in the ECE region in 2018, with Europe and North America both declining by just over 1% and the EECCA increasing by 2.6%.

53. Paper and paperboard production were flat in Europe, the EECCA had an almost 4% increase, and North America experienced a slight drop. Woodpulp production and consumption followed similar trends, with a notable increase in the EECCA but almost no change in Europe and North America.

54. A slowdown in China's economic performance in 2018 fuelled by rising costs and trade tensions created price weakness in that country, which spread through economies in the ECE region in late 2018 and persisted to mid-2019.

55. The Committee forecasts that production of paper and paperboard will decline in the ECE region 1.2% in 2019 and by 0.2% in 2020. The subregional breakdown is as follows: Europe declines by 2.0% in 2019 and is flat (0.0%) in 2020; the EECCA is forecast to gain 1.2% in 2019 and 2.0% in 2020; and North America is expected to decrease by 0.7% in both 2019 and 2020.

F. Wood energy

56. Wood energy consumption changed little overall in the ECE region in 2018. The trans-Atlantic trade of wood pellets reached new heights, however, and continues to dominate the international woodfuel trade. A combination of increased demand and slower-than-expected growth in operative production capacity led to higher prices for industrial wood pellets. Policy restrictions in developing Asian pellet markets slowed expectations of trans-Pacific North American pellet trade.
57. Primary energy production derived from solid biofuels in the EU28 was 3,986 PJ in 2017, up by 1.5% from 2016. Total primary energy production from solid biofuels in the EU28 grew by 30.7% in the ten years from 2007 to 2017. Imports comprised 9.4% of total primary energy production from solid biofuels in 2017.
58. European wood-pellet-based power-plant generation capacity exceeded 6,000 MW in 2018 and is forecast to surpass 8,000 MW by 2020. European wood pellet production reached 18.0 million tonnes in 2018, while consumption was 25.4 million tonnes.
59. It was reported that cost, insurance and freight spot prices for industrial wood pellets at Amsterdam, Rotterdam and Antwerp increased steadily in 2018 and through February 2019, with the highest annualized growth (above 50%, year-on-year) in January 2018.
60. European wood pellet imports continue to grow. The volume exceeded 17 million tonnes in 2018, up by 1.9 million tonnes (3.0%) compared with 2017. More than half (by weight) of imports into the EU28 from outside the EU were from the US (60%), followed by Canada (17%) and the Russian Federation (13%).
61. Fuelwood is the primary form of wood energy consumed in the EECCA, where many rural areas lack access to natural gas and other forms of affordable energy. In contrast to traditional fuelwood markets, the production and trade of wood pellets in the EECCA are highly dynamic. Wood pellet production increased by 11.5% in the EECCA in 2018 (to 2.7 million tonnes) and is expected to increase by another 3.8% in 2019. The largest portion of the production (as well as of the increase in production) was in the Russian Federation. Apparent consumption in the EECCA was just 442,000 tonnes in 2018 (less than 20% of EECCA production).
62. The Russian Federation produced 1.8 million tonnes of wood pellets in 2018, 300,000 tonnes of which (about 17%) was sold domestically. The total capacity of all Russian wood pellet plants increased by 3% in 2018, to an estimated 3.6 million tonnes. Most of the pellet enterprises are in the northwest. Siberian wood pellet producers became more active between 2016 and 2018; today, Siberia is the Russian Federation's second-largest pellet-producing region. Production in the Far East has good potential to grow, due primarily to the attractiveness of exports to Asia. The average price (in roubles) increased by 40% in 2018, due to favourable export markets and a weakening rouble.
63. In Canada, the majority of wood energy generated in 2017 was from solid wood waste, including bark and wood-processing residues (12.1 million tonnes) and pulping liquor consumed in recovery boilers (17.9 million tonnes); this is expected to continue through 2018. In the US, residential use is projected to increase after 2018, but overall wood energy consumption is projected to decline by 3.3% between 2018 and 2020.
64. North American wood pellet production reached 10.5 million tonnes in 2018 and is expected to exceed 11 million tonnes in 2019. Additional growth is expected to come from new and restarting operations.
65. Outside the ECE region, the Republic of Korea and Japan have become important in the global wood pellet market, importing 3.5 million tonnes and 1.1 million tonnes of wood pellets, respectively, in 2018.
66. The Committee forecasts that production of wood pellets will increase 5.6% in the ECE region in 2019 and 4.6% in 2020. The subregional breakdown is as follows: Europe increases by 5.4% in 2019 and by 3.0% in 2020; the EECCA is forecast to gain 6.2% in 2019 and 9.5% in 2020; and North America is expected to increase by 5.7% in 2019 and 5.9% in 2020.

G. Value-added wood products

67. The value of global furniture production was estimated at \$470 billion, up by 7% (\$20 billion) from 2017. Globally, the furniture trade has grown more quickly than furniture production in the last ten years. The migration of production to lower-cost regions has not ended, despite challenges such as increased risk and difficulties in sourcing materials.

68. The value of the world furniture trade has grown by 65% in the past ten years, from \$96 billion in 2009 to \$150 billion in 2018. This growth has benefited many emerging economies, led by Poland and Viet Nam. Asia and the Pacific accounts for about 54% of global furniture consumption and the ECE region for 41%. Africa, the Middle East and Latin America together are responsible for only 5% of global furniture consumption.

69. US import markets for builders' joinery and carpentry (BJC) have grown for eight consecutive years. The source of these imports is shifting away from Asian exporters, and Latin American exporters are gaining market share. The three largest importers of BJC in Europe – France, Germany and the UK – obtained most (two-thirds) of their supplies from other European countries in 2017 and 2018. Similarly, Japan sourced about two-thirds of its BJC from Asia.

70. US profiled-wood imports were valued at \$1.4 billion in 2018. For the first time in history, intra-subregional (i.e. Canadian) imports amounted to less than 10% of this value. High-quality South American pruned plantation pine has dominated US softwood moulding imports for decades but, today, China is the second-largest supplier to the US after Brazil. Profiled-wood markets in Europe, which are serviced mainly by other European producers, declined slightly in 2018.

71. Austria is the largest producer of glulam in Europe, at about 1.5 million m³ in 2018. CLT production was about 530,000 m³ in 2018. Italy was the single-largest importer of laminated timber products from Austria in 2018, followed by Germany.

72. The overall production and consumption of North American glulam timber increased year-over-year by 4.5% in 2018, to 467,700 m³. The forecast is for production and consumption to remain steady in 2019 (well below the 2006 production peak of 750,000 m³).

73. North American production and consumption of wooden I-beams fell by 2.8% in 2018, to 233.5 million. The production and consumption of LVL also dropped – by 2.4%, to 2.2 million m³.

74. The use of CLT (often categorized as a mass timber product) continues to grow, both inside the ECE region and in countries outside the region with a tradition of wood construction, such as Australia and Japan. Proponents of the wood industry see great potential for this product in enabling the use of wood in the construction of large and tall structures that previously were the sole domain of steel and concrete.

75. The value of the global CLT market was estimated at \$603 million in 2017, and it is projected to reach \$1.6 billion in 2024.

76. The European subregion leads the world in CLT production, providing about 60% of global production (currently about 700,000 m³), and production in the subregion is forecast to continue increasing into the foreseeable future.

77. In late 2018, ten CLT manufacturing plants were in operation in North America (five in Canada and five in the US), with a combined annual production of about 400,000 m³; two plants were under construction (both in Washington state), with a forecasted production of roughly 185,000 m³; and three more plants had been announced.

78. The Segezha group (Vologda Oblast) has initiated construction of its first CLT plant in the Russian Federation to be completed in the second half of 2020. It is investing almost \$48 million in the plant, which will have a capacity of 50,000 m³ per year of CLT panels.

H. Housing

79. Housing prices have generally performed better than economies in most countries in the ECE region. The Bank of International Settlements (BIS) reported that residential housing prices increased by 1.9% globally in 2018 and by 2.2% in the euro area, 2.0% in the US and 1.0% in the Russian Federation. Canadian house prices retreated, however, by 0.06%. According to BIS, real residential prices (adjusted for inflation) are still substantially higher than in the wake of the global financial crisis.

80. Housing markets continued their growth in 2018, recording a fifth consecutive year of growth. New residential building remains a value driver in the Euroconstruct region⁴ accounting for nearly 25% (€342 billion) of the construction market value, and residential remodelling comprised 26% (€422 billion) of the volume. Combined, new residential and residential remodelling comprised 48% of construction value in 2018. New residential spending has increased by 26% (€72.3 billion) since 2015.

81. The total value of all construction in the Euroconstruct region (residential, non-residential and civil engineering) is projected to increase by 1.9% in 2019, year-on-year (to €1.64 trillion).

82. Residential construction in the Russian Federation declined by 4.6% in 2018 compared with 2017. The estimate for total buildings (residential plus non-residential) declined by 4.8% over 2017. The total new housing put in place in the Russian Federation has averaged 4.5 million m² per year since 1996, but it is projected to reach 5.9 million m² in 2019.

83. The US housing construction market grew moderately in 2018, but total new housing starts remained below the 1959-to-2007 average of 1.547 million total units and 1.102 million single-family units. Housing starts were estimated at 1.250 million in 2018, a 3.9% increase from 2017. Looking forward, the Mortgage Bankers Association projected that US housing starts will be 1.31 million units in 2019, 1.38 million units in 2020 and 1.41 million units in 2021.

84. The number of new Canadian housing starts is projected at 201,000 units in 2019 and 197,000 units in 2020. The slowdown is linked to the perception among financial institutions of rising risk in the Canadian housing market, the primary concerns being affordability, household debt, overbuilding in some provinces, and price acceleration. Nationwide mortgage guidelines, including what is known as the B-20 stress test, have helped stem price acceleration, but there is evidence that implementation of the B-20 has also hindered Canadian housing sales.

85. Housing affordability and availability are problems in Europe, the EECCA and North America, with insufficient new buildings to meet population growth. To many observers, off-site manufacture might enable the building and sale of less-expensive housing units. Conceptually, modular houses can be built in shorter-time frames, and more houses could potentially be delivered to buyers. Thus, modular construction could offer reduced project completion times and material costs, greater quality control, the mitigation of labour shortages, improved safety, and year-round manufacturing.

⁴ The Euroconstruct region comprises 19 countries. The western subregion consists of Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK. The eastern subregion comprises Czechia, Hungary, Poland and Slovakia.