# WOOD PRODUCTS MARKET STATEMENT WITH FORECASTS

(Market Statement 2021; Slovenia)

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# 1. General economic trends

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The COVID-19 pandemic, in combination with strict containment measures, affected economic activity in 2020. However, the measures to mitigate its negative impact on the population and the economy have prevented a sharper decline in activity and allowed for a faster recovery. The autumn forecast, issued by the Institute of Macroeconomic Analysis and Development of the Republic of Slovenia, predicts that GDP will grow by 6.1% this year, slowing to 4.7% next year and to 3.3% in 2023. Economic activity is expected to exceed 2019 pre-crisis levels already this year, in part due to the retention of certain measures to mitigate the consequences of the epidemic. Over the next two years, the recovery of the economy will continue, while material supply constraints and related price pressures should subside gradually. Certain containment measures are, however, expected to be retained (particularly in 2022), which will limit a full recovery in certain service activities (especially travel).

Manufacturing, construction and services related to these activities will also continue to grow this year and mostly reach the pre-crisis levels of 2019. Manufacturing, which was relatively less affected during the second wave of the epidemic and already exceeded pre-crisis levels at the end of last year, continues to grow in the first half of the year and is expected to also do so in the second half, when growth is expected to slow due to supply-side constraints, i.e. shortages of skilled labour and problems in the supply of raw materials and intermediate goods. Most manufacturing activities will thus on average already reach their 2019 levels this year. With the gradual recovery in foreign demand, export and import growth will be high in 2021, and the favourable trends are expected to continue in the coming years. On average, total exports and imports will reach pre-crisis levels already this year. Export growth is expected to continue to outpace external demand growth throughout the forecast period. The high forecast growth in 2021 is related to the recovery in economic activity in Slovenia's main trading partners. This year and in the next few years, private consumption is expected to strengthen; consumption is likely to reach its highest growth in 2022, when it will exceed the 2019 level. For 2021, 10% growth in gross fixed capital formation is forecast and it is predicted that high growth will continue in the next few years. In the first quarter of this year, growth was stronger in investment in equipment and machinery, mainly in private investment, as firms expanded their production capacity following the recovery in demand. On the other hand, construction investment is stagnating, which is related to high prices and material supply disruptions. Growth in government consumption, which was 4.2% last year, is gradually slowing from this year on.

After years of favourable developments on the labour market were interrupted last year by the first wave of the epidemic, the employment rate has been rising steadily since the second half of last year, while the unemployment rate has been falling. At the end of 2019, employment was still historically high, while unemployment was approaching record lows. Since mid-March last year, with the adoption of measures to contain the coronavirus epidemic, the labour market conditions have deteriorated sharply: the number of employed persons fell notably in April (by 0.9%) and the number of registered unemployed rose (by 19.9%). Rising demand for labour has led to renewed pressures in some activities in recent months, caused by a shortage of adequately skilled workers. For 2021, 0.8% employment growth is expected and a decline in the average number of unemployed, which will be only 2% higher than in 2019.

# 2. Policy measures

In 2020 and 2021, the forestry and wood processing sector has been marked by the epidemic of infectious disease caused by SARS-CoV-2. In the beginning of April 2020, the Act Determining the Intervention Measures to Contain the COVID-19 Epidemic and Mitigate its Consequences for Citizens and the Economy (Official Gazette of the Republic of Slovenia Nos 49/20 and 61/20) was adopted by the National Assembly of the Republic of Slovenia. In the first relief package to assist in mitigating the consequences of the COVID-19 epidemic (Act Determining the Intervention Measures to Contain the COVID-19 Epidemic and Mitigate its Consequences for Citizens and the Economy) the Government of

the Republic of Slovenia foresaw direct compensation for forest owners. In the second wave the government did not foresee any direct compensation for forest owners due to the loss of income in forest management. Nonetheless, the last adopted package provides some measures, which are intended for forest owners.

At the end of last year (31 December 2020) the Act Determining Intervention Measures to Assist in Mitigating the Consequences of the Second Wave of COVID-19 Epidemic entered into force (Official Gazette of the Republic of Slovenia No 203/20), which represents the 7<sup>th</sup> so-called "relief package to assist in mitigating the consequences of the epidemic".

First among of the measures, intended also for forest owners (Article 58) provides a reduction of the tax base from the potential market incomes for the cultivation on lands in the amount of 50% of the cadastral income, as it is determined on 30 June 2020 or 30 June 2021 following the rules on the determination of cadastral income. Similarly, regarding the fees for the maintenance of forest roads, Article 51 states that cadastral income from forest lands in the amount of 50%, as it is determined on 30 June 2020 following the rules on the determination of cadastral income, is to be considered in the calculation of the fees for the maintenance of forest roads for 2020 for forest owners, who are natural persons. To prevent an excessive loss of resources for the maintenance of forest roads, Article 51 also states that the share of the budget of the Republic of Slovenia, which belongs to specific local communities for co-financing the maintenance of forest roads in accordance to the regulation, which determines the share of co-financing the maintenance of forest roads, is calculated on the basis of the amount of resources for fees for the maintenance of forest roads as it were calculated at the 100% cadastral income. In addition to the above, Article 81 of this law also foresees an option to appoint a provisional operator of the agricultural holding or forest. If the farmer, members of the farm household or employees at the farm, which are registered in the farm register, or the forest owner are unable to perform sanitary felling in the forest due to the COVID-19 disease and it is not possible to ensure forest management in any other way, a provisional forest operator can be appointed.

In 2018 Slovenia prepared the National forestry accounting plan for emissions and sinks of greenhouse gases (NFAP) with reference values from forest management and submitted it in accordance with the Regulation on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry (LULUCF) (Official Gazette of the Republic of Slovenia No 156/18). An important objective of the Regulation is that the stated sector in the period from 2021 to 2025 and from 2026 to 2030 produces no net emissions, i.e. that emissions do not exceed sinks. In October 2020, European Commission officially confirmed the prepared NFAP.

In July 2020, European Commission confirmed a change in the Rural Development Programme (RDP) for the period 2014-2020 (RDP 2014-2020), which provides a strong response to the COVID-19 crisis and enables the start of a strong investment cycle. A key innovation in the areas of forestry and wood industry is in the Sub-measure 8.6 - Support for investments in forestry technologies and in processing, mobilisation and marketing of forest products, i.e. the introduction of collective investments in forestry and in the area of wood processing. The advantage of collective investments over individual investments is that it is significantly easier for a group to carry out a demanding investment, as the financial burden of such an investment can be divided among group members. In July and August 2020 five public tenders for financial incentives were published in the area of forestry and wood industry: (1) public tender for the operation of investment in the purchase of new mechanisation, and logging and harvesting equipment pursuant to the RDP 2014-2020 for 2020, (2) public tender for the operation of investment in operations prior to industrial processing pursuant to the RDP 2014-2020 for 2020, (3) 3rd public tender for the operation of arrangement of forest tracks, needed for the execution of forest rehabilitation pursuant to the RDP 2014-2020, (4) 4<sup>th</sup> public tender for the activity works for remedying damage and restoration of forests pursuant to the RDP 2014-2020, and (5) public tender for the operation of arrangement of forest infrastructure pursuant to the RDP 2014-2020 for 2020.

Smart Buildings and Home including Wood Chain (SRIP PSiDL) is taking part in the revision of Slovenia's Smart Specialisation Strategy (S4), as part of Slovenia's preparatory efforts for the new European cohesion policy in the programming period 2021-2027. At the same time, SRIP PSiDL has revised its own action plan for the period 2020-2023 in the year 2020 and at the beginning of 2021. The

revised action plan for 2020-2023 is based on the experience gained in SRIP's three years of operation and represents an evolution of the SRIP PSiDL operation as it was initially devised in SRIP's basic action plan for the period 2017-2019. The need to revise the plan arose as a consequence of increasing digitalisation and the intertwining of solutions for smart and sustainable buildings and their integration into the smart communities of the future, against the increasingly diverse demands and needs of users. The revised Action Plan SRIP PSiDL for the period 2020-2023 was confirmed by the Government Office for Development and European Cohesion Policy and the key ministries.

At the end of 2020, new Rules on the measurement and classification of timber assortments from forests owned by the Republic of Slovenia were adopted, which determine the manner of measurement and classification by dimensions, quality, and purpose of use of timber assortments from forests owned by the Republic of Slovenia for the purpose of their sales.

With a decision No 31000-2/2021/3 from 24 June 2021 the Government of the Republic of Slovenia adopted the Slovenian industrial strategy 2021-2030, in which strategic baselines and orientations for further development of the wood processing industry are laid down, among other things. Ministry of Economic Development and Technology (MGRT) is also responsible for the area of wood industry, pursuant to the State Administration Act (ZDU-1). To rationalise the strategy, the Ministry of Economic Development and Technology has started the procedure for the selection of contractors to prepare an "implementation plan of measures for the development of wood processing industry until 2030". The aim of the document is to establish orientations for further development of Slovenian industry in the period 2021-2030 with a vision that the Slovenian industry become green, creative, and smart. An important goal, tied to the acquisition and use of wood, is to increase domestic processing of logs to 3 million m<sup>3</sup> annually as well as to achieve 30% share of wood in all new public buildings, to develop new ways of use of wood, to increase the number of employees in industries, linked to wood (an increase of employees in services, linked to these industries, is also included, such as repair, assembly etc., which is not included in the general analysis), and to increase its sales realisation.

In the beginning of March 2021, the Ministry of Infrastructure published the public tender for co-financing of district heating systems based on energy from renewable sources, which enables financial incentives for investments into new district heating systems based on energy from renewable sources (DH RES) and DH RES micro systems as well as into the expansion of DH RES systems.

On 11 March 2021, the Government of the Republic of Slovenia adopted the long-term strategy for the energy renovation of buildings until 2050 (DSEPS 2050), which defines the approaches and policies to the decarbonisation of the national building stock until 2050 as well as defines the measures, which support the headline targets in buildings, written in the Comprehensive National Climate and Energy Plan (NEPN). These two headline targets are, as follows: (1) minimization of GHG emissions in buildings by at least 70% by 2030 compared to 2005 and (2) renewable energy sources (RES) are to represent at least 2/3 of use of energy in buildings by 2030 (share of RES use in the final use of energy products without electricity and district heat). As such the strategy defines and builds upon existing and new measures, which will enable that these goals be achieved. One of the important goals of the long-term strategy for the energy renovation of buildings until 2050 (DSEPS 2050) is that by 2050 as much as 74% of one-dwelling buildings and 91% of multi-dwelling buildings are energy renovated. This will enable the final use of energy decrease by 45% and the CO<sub>2</sub> emissions decrease by almost 75% compared to 2005.

In June 2021, Ordinance on the Climate Change Funding Programme for the period 2021-2023 entered into force, after being proposed by Ministry of the Environment and Spatial Planning. Ordinance on the Climate Change Funding Programme for the period 2020-2023 includes purposes and measures also in the forestry and wood industry, such as:

• Continuation of co-financing of citizen investments through the Eco Fund public call for the replacement of old wood burning appliances with new burning appliances run on wood biomass or with heat pumps;

- Continuation of measures supporting the economy measures "Subsidies for domestic or foreign initial investments in activities, important for the transition into low-carbon, circular and climate-resilient economy"; "Support for the transition into circular, low-carbon and climate-resilient economy" as well as a new measure "Coverage of indirect costs due to the costs of GHG emissions";
- Measures to mitigate climate change and adapt to it in forestry;
- Continuation of measure "Sustainable construction with wood", which will also include the promotion of planning and construction of new dwellings, thereby achieving broader goals of sustainable development;
- Adapting to climate change performing measures of preserving biodiversity and co-financing programmes of remedying damage due to natural disasters;
- Climate change research, development and innovations, where the following measures are listed: "Green jobs", "Low-carbon technological innovation, development and demonstration", "Spatial and environmental digital transformation eMOP", "Climate goals and contents in education".

In the middle of this year, the Ministry of Agriculture, Forestry and Food, together with participating professional institutions, prepared the Report on the Implementation of National Forest Programme in the period 2015-2019, based on the foundations of linking the goals, orientations, and indicators of the National Forest Programme with the system of Pan-European criteria and indicators of sustainable forest management. The report states that in the period 2015-2019 the Resolution on the National Forest Programme, as the basic strategic document, intended for determining, implementing, and monitoring the national policy regarding sustainable forest management, was as a rule respected and the national forest programme as a process was principally implemented. The main principles, goals, and orientations, aimed at preserving forests and ensuring their multifunctional role, including environmental, social, and economic aspects, were adhered to. In the forest management, the narrower forestry sector cooperates with other forest-wood chain links, the field of environmental protection and nature conservation, as well as with all others with ties to the forest and forest land.

In accordance with the decision of the Government No 00403-1/2016/85 from 15 June 2016, the Ministry of Economic Development and Technology has prepared, based on contributions from members of the working group "Forest - wood", a draft of the Report on the Implemented Measures from the Action Plan for Increasing Competitiveness of the Forest-wood Chain in Slovenia until 2020 ("Wood is beautiful"), for 2020. Before the material was submitted to be addressed by the Government, the report was addressed by the working group "Forest - wood", which met in September and confirmed the report.

In July 2021 the National Assembly of the Republic of Slovenia adopted the Act on the Promotion of the Use of Renewable Energy Sources (ZSROVE) (Official Gazette of the Republic of Slovenia No 121/2021), which regulates the implementation of policies at national and regional levels in the area of the use of renewable energy sources, sets forth a binding target for the share of energy from renewable energy sources in the gross final consumption in Republic of Slovenia as well as the measures for achieving this goal and how to finance them, regulates the guarantees of electricity origin, self-supply with electric energy from renewable sources, the use of energy from renewable sources and excess heat in the heating and cooling sector and in the transport sector, and the information and training of installers. If one or more of the national reference values for achieving the share of energy from renewable sources are not achieved, as it is set forth with the action strategy paper NEPN, or if Slovenia fails to maintain, from 1 January 2021, the initial share of 25%, the Government may decide that a financial contribution into the Union renewable energy financing mechanism is to be performed, which was established by Article 33 of Regulation (EU) 2018/1999 and the Commission Implementing Regulation (EU) 2020/1294 of 15 September 2020 on the Union renewable energy financing mechanism (Official Journal of the European Union, L 303, 17 September 2020).

In July 2021, the Resolution on the Slovenian climate long-term strategy 2050 (ReDPS50) was adopted, which follows the commitments under the Paris Agreement and is prepared according to the Framework

of Slovenian climate long-term strategy. Climate strategy is based upon the principles of minimization of GHG emissions, efficient use of energy and minimisation of energy consumption, climate justice, just transition and scientific findings. The main vision of the strategy is that by 2050 Slovenia will be a climate-neutral and climate-resilient society based on a sustainable development. It will be efficient in the management of energy in natural resources, while at the same time maintaining a high level of competitiveness of a low-carbon circular economy.

On 2 July 2021, the Ministry of Agriculture, Forestry and Food (MKGP) published a proposal of specific contents of the Strategic plan of the Common agricultural policy for 2023-2027 (SP 2023-2027), which contains an analysis of the situation, identified needs, interventions, financial breakdown, unit amounts and impact indicators. With the publication of the proposal of specific contents of the CAP Strategic plan for 2023-2027 a public discussion began, which lasted until the middle of August. In the framework of SP 2023-2027, measures for forestry are also foreseen, which remain to a large extent similar to those from the still current Rural Development Programme 2014-2020.

The EU Forest Strategy for 2030, which was published by the European Commission in July 2021 (COM (2021) 572 final), is written at the onset of rapidly accelerating climate and biodiversity crises. The next decade is crucial and the Strategy therefore presents a concrete plan for 2030, combining regulatory, financial and voluntary measures in forestry and sectors, connected to it. It includes measures for strengthening forest protection and restoration, enhancing sustainable forest management, and improving the monitoring and effective planning on forests in the EU. The main goal is to ensure resilient forest ecosystems and enabling forests to deliver on their multifunctional role. To further support sustainable forest-based bioeconomy for a climate neutral future, the strategy proposes measures for innovation and promotion of new materials and products to replace fossil-based counterparts. A special emphasis is put on boosting the use of non-wood forest goods and activities related to such goods, including ecotourism. The Strategy also focuses on sustainable re- and afforestation and is accompanied by a roadmap for planting at least 3 billion additional trees in the EU by 2030.

To help repair the economic and social damage brought by the coronavirus pandemic, kick-start European recovery, and protect and create jobs, the European Commission proposed a major recovery plan for Europe based on harnessing the full potential of the EU budget. To ensure the recovery is sustainable, even, inclusive and fair for all Member States, the European Commission has proposed to create a new recovery instrument, Next Generation EU, embedded within a powerful, modern and revamped long-term EU budget. With the instrument Next Generation EU, worth EUR 750 billion, as well as targeted reinforcements to the long-term EU budget for 2021-2027 the Commission will bring the total financial firepower of the EU budget to EUR 1.824 trillion. In the recovery fund, Slovenia also included two forestry areas, i.e. (1) digitalisation in forestry, and (2) seeds, nurseries, and forest protection, which was confirmed by the European Commission in July. The combined funding for these two areas is around EUR 18 million.

# 4. Market factors

#### Data sources: IMAD, SURS, SFS and SFI

The latest data from SURS show that economic activity contracted by 4.2% last year. After a sharp decline in the second quarter of last year and a rebound in the third quarter, the epidemiological situation deteriorated again and protective and containment measures were reintroduced in the last quarter, restricting or prohibiting the operation of certain service activities. On the other hand, activities related to international trade (manufacturing and transportation) and construction continued their recovery. The recovery continues this year, with the exception of construction, where activity fell q-o-q for the second consecutive time in the first half of the year, mainly because of supply disruptions and high prices of materials. Investments and imports and exports are also growing further. Due to a gradual easing of containment measures, turnover in trade was much higher in the first half of this year than a year ago. Year-on-year GDP growth was thus 8.8% in the first half of the year. According to the available data, it is estimated that growth in activities related to international trade has continued over the summer, as

well as, with the continued easing of containment measures and despite the recovered/vaccinated/tested rule, the recovery in services and private consumption, which will have a positive impact on the growth of overall economic activity. Growth is expected to slow in the final quarter, as an increased number of infections in the colder autumn and winter period, in addition to the restrictions already in place (e.g. the recovered/vaccinated/tested rule), could lead to more cautious (self-limiting) behaviour by the population, which will hamper growth, especially in service activities and private consumption. Growth in manufacturing, which is facing supply-side constraints, is also expected to slow.

Even though 2020 was not marked by natural disasters, sanitation felling nonetheless amounted to 42% of the whole felling in this year. The rehabilitation of damaged forests is a priority activity of the Slovenian Forest Service (SFS), forestry sector, forest owners and contractors for forestry works. Last year saw the beginning of the reconstruction process of regional forest management plans and hunting management plans, which represent the strategic basis for forest management in the next 10 years. These plans are an important instrument of forest policy and of ensuring hunting management goals, and significantly contribute to the development of other areas, such as preserving of natural and cultural heritage, protection of water sources and rural development. The reconstruction process and participatory workshops on this topic are led by SFS; the purpose of the workshops is to address goals and strategies for forest management in the specific forest management area and to manage the population of game in the hunting management area.

This year the import of oak logs from USA into EU has stopped due to the oak disease, called "oak wilt", caused by the quarantine pest *Bretziella fagacearum*. In the EU, the logs of white oak (*Quercus alba*) and red oak (*Quercus rubra*) are used primarily in the veneer industry and, in a lesser manner, in the manufacturing of wine barrels. The prohibition of trade with this type of goods has affected primarily some of the veneer manufacturers from Austria, Germany, Portugal, and Spain. The prohibition measure also affects the Slovenian primary wood processing industry, but in a minimal extent, as there are very few processors of logs of red and white oak in Slovenia.

In the wood processing industry (NACE C16), in the current year 2021, the production index has increased by 20.2% in the first seven months compared to the same period in the previous year. Also, in the industry of paper and paper articles (NACE C17), a positive trend can be detected this year, with the production index 3.2% in the first seven months compared to the same period in the previous year. The greatest growth can be seen in the activity of furniture production (NACE 31), with the production index 27.5% in the months from January to July 2021 compared to the same period in the previous year. Sales revenues in NACE 16 increased by 22.5% in the first seven months compared to the same period in the previous year. Sales revenues in NACE 17 and NACE 31; for a total of 5.9% for the former and 27.5% for the latter.

In 2020 and 2021 various promotional activities took place and efforts were made for the growth and development of wood processing industry and the use of wood products in construction as well as for increasing competitiveness of the wood and furniture industry. Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology (SPIRIT Slovenija) in cooperation with the Wood Industry Directorate was very active in this area. Slovenia adopted the Smart specialisation strategy (S4), where it has in the priority area "Healthy working and living environment" specifically defined the area of application "Smart buildings and homes, including wood chain". A proposal of Slovenian industrial strategy 2021-2030 is drafted, with the aim to increase the quantity of domestic wood processing to 3 million m<sup>3</sup> annually by 2030 as well as to achieve sales revenues of EUR 2.5 billion annually in the wood industry and the number of employees at least 15,000.

#### 5. Developments in the wood products market

Data sources: SURS, IMAD, CCIS: Wood Processing and Furniture Association, CCIS: Paper and Paper Converting Industry, SFI; recalculations, analysis and interpretation of SFI

#### a) Roundwood

#### 2020

In the previous year, the production of forest wood assortments was not significantly affected by the sanitation of damage due to natural disturbances in forests. In 2020 the volume of production of forest wood assortments was 4.0 million m<sup>3</sup> net, which is 16% less than in 2019, the main reason being a lower volume of sanitation felling (-38% compared to 2019), though the felling in 2019 was also smaller in volume compared to the period 2014-2018. In 2020 the production of forest wood assortments from coniferous trees amounted to 2.1 million m<sup>3</sup> (-24% compared to 2019), which is the lowest number since 2013. Production of forest wood assortments from deciduous trees amounted to 1.9 million m<sup>3</sup>, which is 3% less than in 2019. The biggest share in the structure of production of forest wood assortments from coniferous trees was held by the category of sawlogs and veneer logs with 77% and the biggest share in the structure of production of forest was held by fuel wood and firewood (54%).

Acquisition amounts of forest wood assortments from private forests have decreased in industrial coniferous roundwood by 21% compared to 2019, on the other hand, acquisitions of industrial non-coniferous roundwood have increased by 22%. Acquisition of firewood (coniferous and nonconiferous) increased by 26% compared to the year before. The value of acquisition amounts of industrial coniferous roundwood from private forests decreased by 22%, whereas it increased by 8% for deciduous trees. In 2020 the purchase prices of forest wood assortments from private forests reflected the consequences of measures, adopted by the Government of the Republic of Slovenia, to mitigate the negative consequences of the epidemic caused by SARS-CoV-2 for the population and the economy and assist the latter's faster recovery as well as the developments on the European markets and worldwide. The average price of all forest wood assortments combined from private forests has decreased in 2020 by 4% compared to 2019. The average annual purchase prices from private forests were lower in 2020 in all categories of forest wood assortments compared to 2019, with the exception of oak logs. Roundwood export continues to decrease and amounted to 1.56 million m<sup>3</sup> in 2020 (-18% compared to 2019). Such amount of roundwood export was last recorded in 2013. Roundwood import into Slovenia has been rising since 2016 and amounted to record 0.86 million m<sup>3</sup> in 2020, which is 39% more compared to 2019. The foreign trade surplus of roundwood has consequently fallen (0.70 million m<sup>3</sup>), which is the lowest number since 2011. The foreign trade surplus of coniferous logs, which has represented the biggest share of the foreign trade balance of roundwood throughout the years, amounted to a mere 0.16 million m<sup>3</sup> last year, which is the lowest number in the past fifteen years. Last year the biggest foreign trade surplus was recorded for industrial non-coniferous roundwood (0.42 million m<sup>3</sup>).

#### 2021

This year, the volume of production of forest wood assortments is expected to be smaller compared to the volume in the previous year mainly due to a smaller volume of sanitary felling. According to the data of the Slovenian Forest Service, 17% less woody mass was felled in the period from 1 January 2021 to 31 August 2021 compared to the same period last year. Felling of coniferous trees is predominant with 56%, but in the past two years this share has been decreasing compared to the same period in the years before. From January to the end of August this year sanitation felling of coniferous trees was significantly low; it was 63% lower compared to the same period last year and as much as 76% lower compared to the period from January to August in 2019. Due to the lower felling of coniferous trees, which is a consequence of smaller damage caused by bark beetles, there was a lack of industrial coniferous roundwood, especially logs, in 2021. Lack of coniferous logs on Slovenian and European markets as well as high demand for this wood have led to a significant rise in prices of these assortments. For instance, in August 2021 the purchase price of spruce logs of D1 and D2 quality classes from private forests has risen by 75% compared to August 2020, and the price increase is even greater in the C quality

class (+85%). Nonetheless, for this year the import of coniferous logs is forecast to remain on a similar level as last year, however, import from Germany is increasing in the structure of these assortments import.

The consequences of the coronavirus epidemic and measures to contain it have affected the activity in the Slovenian economy in general, therefore the Slovenian Forestry Institute has monitored the impact of the epidemic on the volume of roundwood acquisitions from private forests, among other things, using survey questionnaires. In the first half of this year more than half of the companies, participating in the survey, have reported a decrease in acquisitions due to the epidemic, on average by 27%. In August this year, when the coronavirus epidemic officially ended, the companies reported that the consequences of restrictions due to coronavirus in the industry have reduced. Only a quarter of the participating companies reported a decrease in acquisitions due to the virus at that time. As the main reason, they stated less supply of wood on the market and higher prices of wood. According to the data on acquisitions of forest wood assortments from private forests, prepared on a monthly basis by the Statistical Office of the Republic of Slovenia (SURS), in the first seven months of this year acquisitions decreased by 3% compared to the same period in the previous year, when acquisitions and sale of forest wood assortments stopped almost completely, especially in March and April, due to the stringent measures for the containment of the epidemic caused by SARS-CoV-2. This year acquisitions decreased in firewood and industrial coniferous roundwood (e.g. pulpwood by -13%, coniferous logs by -10%) compared to the first seven month of last year. Acquisitions have increased in industrial non-coniferous roundwood, the most in the category of non-coniferous logs excluding beech and oak, which represents a low share in the total acquisitions of roundwood, and in the category of non-coniferous split and round pulpwood.

Data from SURS show that the purchase prices of forest wood assortments from private forests increased in all categories from January to July this year compared to the same period in the previous year. The price of coniferous logs increased by 29% and was 74.05 EUR/m<sup>3</sup> on average, price of beech logs increased by 3% and of oak logs by 10%. The purchase price of oak logs has been increasing since 2012, the main reason being the increased demand for this wood, especially for logs of great quality. The purchase price of coniferous pulpwood increased by 11% in the first seven months of 2021, whereas the purchase price of non-coniferous split pulpwood increased by 1% compared to the period from January to July 2020. Due to a significant price increase especially in conifer logs in the second half of this year, a much higher average purchase price is expected at the end of this year than the one mentioned above.

According to the currently available data from SURS for 2021, it appears that import and export of roundwood will remain at a similar level as in 2020. The foreign trade structure per categories of roundwood will likely continue to change, however. It is estimated that the export of coniferous logs will continue to decrease this year and will amount to less than 300,000 m<sup>3</sup>. Forecasts show, however, that the export of industrial non-coniferous roundwood will increase significantly and will amount to around 750,000 m<sup>3</sup>, which is a record number. Export of coniferous pulpwood will continue to decrease. It is estimated that the import of coniferous logs will be somewhat lower than in 2020 (between 300,000 and 350,000 m<sup>3</sup>), nonetheless it will likely be greater than the export of this wood, which will happen for the first time, since SURS has been preparing data on foreign trade of roundwood. Import of coniferous pulpwood is also estimated to increase (to around 300,000 m<sup>3</sup>), just as import of industrial non-coniferous coniferous and 300,000 m<sup>3</sup>), just as import of industrial non-coniferous pulpwood.

#### b) Wood biomass for energy

In Slovenia, approximately 50% of households use wood fuels for heating and use on average approx. 1.5 million ton of wood fuel, predominantly logs, followed by pellets, chips and finally briquettes. Heating represents one of the biggest costs in households and as the prices of fossil fuels are rising, the use of wood fuels has been increasing in Slovenia in the last decade. Firewood represents one of the cheapest heating systems and is at the same time one of the most accessible energy products in Slovenia, whereby the households acquire it from their own forests or the market.

Firewood for household use must be air-dry to ensure to optimal combustion and reduce dust particle emissions. On the Slovenian market, the biggest demand is for beech firewood with humidity levels of approx. 20% (air-dry firewood) and lengths between 25 and 33 cm. The price of such firewood amounted to 168 EUR/t at the end of the heating season 2020/2021, which is 2% more compared to the beginning of the heating season. The price of fresh firewood or firewood with humidity above 30% with the same dimensions was 159 EUR/t. The Slovenian Forestry Institute monitors wood fuel prices and regularly publishes them at http://wcm.gozdis.si/cene-lesnih-goriv.



Image 1: The prices of firewood (in EUR/t with VAT) in the period 2011-2021 (source: Slovenian Forestry Institute)

Wood fuels are and will remain an important energy product, mainly in rural areas, and are also environmentally friendly compared to fossil fuels. If wood fuel prices are compared to heating oil prices, it can be determined that wood chips, the cheapest among energy wood products, are 75% cheaper than heating oil, firewood is 56% cheaper than heating oil and pellets as the most expensive form of wood biomass are 40% cheaper than heating oil.

In May 2021 the price of extra-light heating oil was around 96 EUR/MWh (VAT included). The price of pellets, packed in 15 kg bags, cost 270 EUR/t or 57 EUR/MWh (VAT included) on average after the end of the heating season 2020/2021. In 2020 the difference between the prices of pellets and heating oil was the smallest recorded since the beginning of price collection in 2011, due to the drop in heating oil prices. In 2021 the price of heating oil has once again risen significantly - in May the price was 34% higher compared to the same period in the previous year. Data show that the price dynamic is greater with heating oil and that wood fuel prices are more stable than fossil fuel prices.

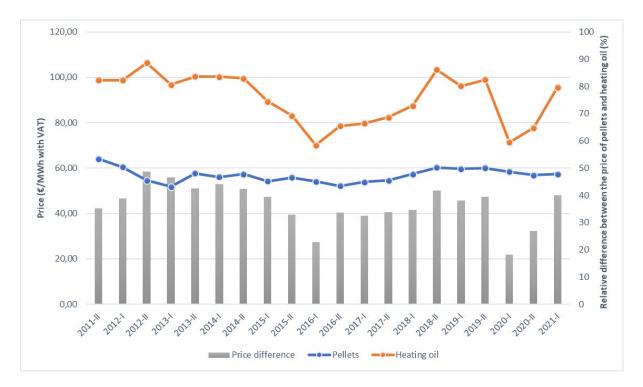


Image 2: Representation of price trends (in EUR/MWh) and differences between the prices of pellets and heating oil (data source: Slovenian Forestry Institute and European Commission)

In the last decade Slovenia was net importer of pellets with the exception of the year 2017, when export was greater than import. Data of the Statistical Office of the Republic of Slovenia show that in 2020 just over 257,000 tons of wood pellets were imported, which is 12% more compared to 2019. The import of pellets has been rising since 2017. The main countries, from which Slovenia has imported wood pellets in 2020, were: Romania (36% of the total import of pellets), Ukraine (23%) and Austria (13%). The main consumers of wood pellets are households, followed by larger public buildings and other users. According to the data on the production of pellets in Slovenia, collected by SFI, the production of pellets in Slovenia. They are predominantly smaller producers, who annually produce up to 10,000 tons of pellets. The production of pellets in Slovenia amounted to 148,000 tons in 2020, which is 10% more compared to 2019.

In the export amounts, the pellets of Slovenian producers are included as well as pellets, which were previously imported into Slovenia (a so-called re-export). Due to vibrant trade with pellets, the indicator of foreign trade deficit or surplus, which is calculated as a balance (import - export), is useful on the national level. Like in previous years (with the exception of 2017) a foreign trade deficit was recorded on the wood pellet market in 2020, which shows that the consumption of pellets was greater than production. According to data from SURS, the foreign trade deficit was more than 59,000 tons last year. The export of wood pellets in 2020 was less than 198,000 tons and decreased by 5% compared to 2019, when it reached a volume above 200,000 tons for the first time. Despite this decrease the export of pellets remains at a high level given the last 10-year period. Italy remains the main export market of wood pellets for Slovenia (83% of total exported volumes), followed by Austria with 9% and with 7% of volumes exported to the neighbouring Croatia.

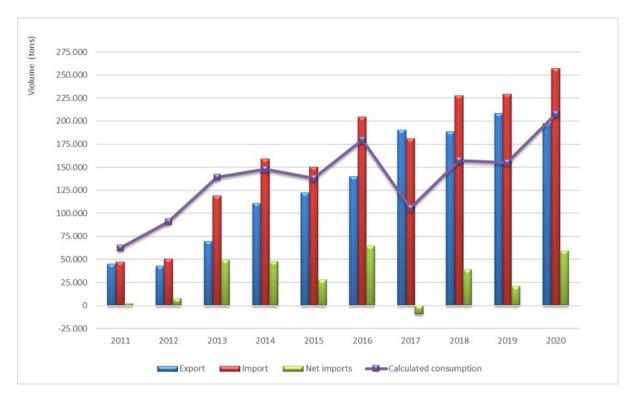


Image 3: Foreign trade and balance consumption of pellets in the past 10 years (data source: Statistical Office of the Republic of Slovenia, recalculations of SFI)

Wood chips are predominantly used for energy purposes, and the Thermal Power Plant Ljubljana is by far the largest consumer with an annual consumption of over 100,000 tons. The consumption of wood chips in the production of wood products (fibre boards, pulp, chemicals) represents less than 20% of the total consumption of wood chips in Slovenia. According to data for foreign trade, Slovenia exported just under 450,000 tons of wood chips to foreign markets in 2020, of which over one half (53%) of volumes went to the Austrian market and 25% of volumes went to the Italian market. Import of wood chips has been decreasing in the past years and was less than 79,000 tons in the last year. The greater part of the volumes (78%) was imported from the neighbouring Croatia.

Wood chips are the cheapest form of wood fuel on the market. The final price of the product is influenced mostly by particle size and water content. The price for best-selling wood chips (humidity approx. 30% and particle size of approx. 31 mm) averaged at 81 EUR/t at the end of the heating season 2020/2021, which is approximately 17% more compared to the beginning of the heating season and approx. 8% more compared to the same period in the previous year. Chips with lower water content are usually more expensive. The price of wood chips of the same size class (approx. 31 mm) with humidity approx. 20% was 91 EUR/t at the end of the heating season.

While the use of wood for energy purposes can indeed have negative consequences on air quality, it is important to acknowledge carbon neutrality and environmental appropriates of wood as an energy product. The use of quality wood fuels in modern wood burning appliances reduces dust particle emissions, which are a common problem in many places in Slovenia during heating season.

### c) Certified wood products

Now, 260,747 ha of forests are certified by the FSC system, which is 2% less compared to the same period last year. This surface represents 23% of the complete forest area in Slovenia and these are predominantly national forests (share of 91%). The company SiDG d.o.o., which manages national forests, holds four group FSC certificates, along with the certification of national forests. In 2020, eight

larger private forest holdings, with a total of 30,032 hectares, were certified in a group scheme FSC FM/CoC of SiDG.

The area according to the system PEFC for certified forests is increasing slightly and now encompasses 293,645 ha. The greater part of this area is represented by national forests, managed by the company *Slovenski državni gozdovi d.o.o.* An increasing number of forest owners, who manage their own forest, are involved in the regional certification scheme PEFC; there were more than 1200 of such owners last year.

Companies use the FSC and PEFC certificates for tracking wood origin predominantly as a marketing mechanism for export markets and compliance with green public procurement policies. The number of companies with the FSC certificate for tracking certified wood (CoC) is currently 263 (+6% from September 2020), and the number of companies with the PEFC certificate for tracking certified wood (CoC) is 80, which is 13% more compared to the same period last year.

#### *d) Value-added wood products*

The Slovenian furniture industry produced net sales revenues in the amount of EUR 353 million in 2020, which is 4% less compared to 2019 and represents 1.2% of net sales revenues in relation to the whole processing industry in the country. The share in the total net sales revenues structure in foreign markets for the furniture industry NACE C31 amounted to 41% last year. Foreign market sales recorded a decrease of 7.9% last year compared to 2019. In 2020 the added value per employee in manufacturing C31 has increased by 0.9% compared to 2019 and amounted to EUR 33,580.

The furniture industry production index (the entire furniture industry in NACE C31), which also includes the production of wooden furniture, increased by 27.5% in the first seven months of this year compared to the same period in the previous year. The net sales revenues within the comparative periods also increased by 27.5%, with 25.9% on the domestic and as much as 29.5% on foreign markets compared to the same period in the previous year.

#### e) Sawn softwood

In 2020 processing of coniferous roundwood remained at a similar level as in 2019. Last year SFI conducted extensive research on the state of the sawmill industry in Slovenia. The registered number of sawmills, dealing exclusively with the sawing of coniferous logs, was 120. An additional 118 companies process both coniferous and non-coniferous logs. One of the sets of questions in research was directed on the impact of the COVID-19 epidemic on the sawmills' activity. 63% of the companies participating in this set of questions responded that they felt the consequences of the epidemic and measures to contain it in the period of the first wave of the epidemic (from March to May 2020). In this period sawmills reduced sawn wood production by 38% on average, the volume of wood acquisitions deceased by 46% on average, and the sale of sawmill products also decreased; by 39% on average on the domestic market and by 50% on the foreign market.

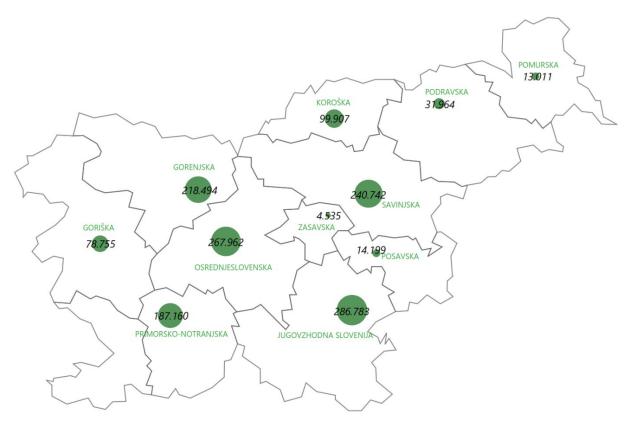


Image 4: Recorded quantities of sawn coniferous logs in 2019 by statistical region (source: SFI research, 2020)

Sawn softwood production amounted to  $877,000 \text{ m}^3$  in 2020, which is 7% more compared to 2019. In 2020, the import of sawn softwood decreased by 12% and the export decreased by 14% compared to 2019.

However, a slight decrease in sawn softwood production is expected in 2021, mainly due to a significant lack of spruce logs both on the domestic and foreign markets. Given the forecasts both import and export of sawn softwood will increase this year.

SFI started a regular monitoring of purchase prices for a total of 42 sawn softwood products in 2021. Purchase prices, not including VAT and transport, are monitored every quarter, and are reported by sawmills across the whole country. In August 2021 the prices of all sawmill products have increased significantly (from 17 to 70%) compared to February and May of this year. Compared to February 2021, in August the average price increase of all products was 44%. The prices of sawmill residues have also increased.

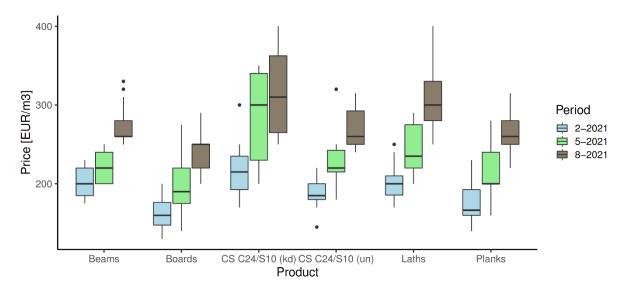


Image 5: Minimal, maximal, and median values of collected purchase prices for **spruce construction wood** for the months of February, May and August 2021. Data for the following products is shown: Construction wood C24/S10, undried (KL C24/S10 (n)); **construction wood** C24/S10, dried (KL C24/S10 (s)); **boards** 24 mm and 38 mm, undried (boards); **planks** 48 mm in 80 mm, undried (planks); **beams** 140 x 140 mm (under 5 m and over 6 m), undried (beams); **laths** 50/30 - 50/50 mm (length 3-5 mm) with a CE marking, dried (laths). Purchase prices are shown in EUR/m<sup>3</sup> not including VAT and transport.

Despite a long-term prediction that the tree composition in Slovenian forests is changing (with the share of deciduous trees increasing), new investments into technological modernisation and the increase of capacity of existing Slovenian sawmills, which process coniferous wood, as well as investments into new sawmills are foreseen in the coming years. In addition to this, the company *Slovenski državni gozdovi d.o.o.* (*SiDG d.o.o.*) will establish multiple centres for collection and modern primary processing of wood in the period 2021-2024.

#### f) Sawn hardwood

Sawn hardwood production amounted to 125,000 m<sup>3</sup> in 2020 and was thus at a similar level as in 2019. In the above-mentioned research it was determined that there are few sawmills, which process exclusively non-coniferous logs (less than 20), in Slovenia. Of this, only two companies process more than 10,000 m<sup>3</sup> of logs a year. That said, there are currently 8 sawmills, which process 10,000 m<sup>3</sup> or more of non-coniferous logs a year, registered in Slovenia. Most of the companies deal with a cutting quantity of up to 5000 m<sup>3</sup>/year.



Image 6: Recorded quantities of sawn non-coniferous logs in 2019 by statistical region (source: SFI research, 2020)

The use of sawn hardwood increased to 121,000 m<sup>3</sup> in 2020 (+3% compared to 2019). Both the import and export of sawn hardwood decreased in 2020 compared to the year before; import decreased by 23% and export by 13%. Due to the larger amounts of non-coniferous logs on the market, there were no problems with the supply of the raw materials on sawmills in the country in 2020, with the exception of the beginning of the first wave of the COVID-19 epidemic.

In 2021 an increase of sawn hardwood production and use is expected. Foreign trade will remain at a similar level as in 2020.

The quantities and values recorded in the production, the import and export of sawn wood from tropical tree species are negligible. A similarly low level of sawn wood from tropical trees foreign trade is foreseen for this year.

#### g) Wood-based panels (including veneer)

Production of all types of wood-based panels (including veneer) was just under 233,000 m<sup>3</sup> in 2020, 63% of which was coniferous. Compared to 2019 production thus decreased by 6%, one of the main reasons being that one of the biggest buyers of lower quality wood and producers of wood-based composite panels in Slovenia halted production in the first wave of the epidemic COVID-19. For the second year in a row, the consumption of wood-based panels has decreased, which shows a reduction in the consumption of these products in residential buildings construction and construction in general. For 2021 we estimate an increased volume of production by approx. 10% compared to 2020. It is also estimated that the consumption of most types of wood-based panels (with the exception of veneer) will increase.

In 2020, 177,000 m<sup>3</sup> of particle boards (including OBS boards) were used in the manufacture of furniture and in construction, which amounts to a 2% decrease compared to the previous year. Some furniture manufacturers faced problems in the supply of particle boards in 2020, mainly due to longer delivery times. For 2021 an increase of particle board consumption is expected, mostly on the account of an

increased import of this type of wood-based panels. Particle boards originate entirely from imports, as the last remaining manufacturer of particle boards in Slovenia filed for bankruptcy at the end of 2015.

The consumption of fibreboards in Slovenia is the lowest compared to other wood-based panels. Over the last ten years it decreased by more than a half and was thus 23,000 m<sup>3</sup> last year. There is one company, engaged in the production of fibreboards of the MDF type in Slovenia.

Plywood panel production is dominated by tri-layer shuttering composite conifer panels, of which the greater part of production is exported. In 2020, the production of shuttering panels decreased by 8% compared to 2019, mainly due to the negative effect of the COVID-19 epidemic and measures to contain it. For 2021, we estimate that the production of this category of wood products will increase again by approx. 15%.

Production of veneer was 10% higher in 2020 compared to 2019 and was more than 19,000 m<sup>3</sup>, despite the negative effect of the COVID-19 epidemic on the production of wood-based composite panels in Slovenia. For 2021 a few percentage points lower volume of production is forecast. The best part of sliced veneer manufacture is performed as a service for customers within the EU.

# h) Pulp and paper

The scope of mechanical pulp production has been stagnating for a third year in a row and was 91,000 tons in 2020. In 2020, the import of mechanical pulp represented 2% of the total import of all types of pulp, while the export represented 31%. Mechanical pulp export volumes are negligible as the production in Slovenia is entirely integrated.

According to CCIS data, the whole Manufacture of paper and paper products industry (C 17) produced 706,000 ton of products in 2020, which is a 2% decrease from 2019. For a third year in a row, a decrease in production is recorded, while even lower production is estimated for this year.

This year *Vipap Videm Krško d.d.*, a company with a long-standing tradition, engaged in the production of newsprint paper, coated graphic paper and kraft wrapping paper, halted production in July due to financial problems. The company is currently undergoing a financial and operational restructuring, and its future is yet unclear. To produce groundwood pulp, the company uses over 50,000 m<sup>3</sup> of groundwood.

In the first seven months of 2021, the C 17 industry recorded a 3.2% increase in the industrial production index compared to the same period in the previous year. Sales revenues in the industry also increased by 5.9% in the first seven months of this year.

# *i)* Innovative wood products

The Slovenian Chamber of Commerce and Industry chose Project Home24h - Smart Home of the Future for a comfortable and healthy living environment, whose partnership is coordinated by TECES, as one of the breakthrough economic achievements in 2021. The project combines technological solutions of 12 Slovenian companies into a conceptual uniform building. Home24h combines several modes under one roof: living in a single-family house, working from home, and active spending of free time.

The 2020 Silver National Innovation Award, awarded each year by the Chamber of Commerce and Industry of Slovenia, was awarded to the company Ledinek Engineering, d.o.o. for their innovation Z-Press - an automatic machine for edge gluing of wood laminations into laminated panels of requested dimensions. The Z-Press is used for edge gluing of wood laminations for assembly bonding of solid wood panels.

On this year's 14<sup>th</sup> *Charm of Wood* event, which is intended for the promotion of wood and wood products, the company M Sora d.d received the 2021 Wooden Masterpiece Award for the ReWin front doors, made from discarded, but still quality wood.



Image 7: ReWin front doors (photo: M Sora d.d.)

On the central national event, called *Day of the Slovenian Wood Industry* the company Marles d.d. received the 2020 Best Wood Construction Award. The Trebelno object for sport and education is a state-of-the-art, almost zero-energy object of a modern design, built in accordance with the new sectoral legislation, which foresees a substantial share of wood or natural materials in the object isolation. In the awarded object, this share has exceeded 75%, therefore the investor received the greatest possible subsidy from the Eco Fund.

#### j) Residential construction and construction

The increasing trend in the value of construction work in the country has stopped in 2019, but this value increased again in 2020 by as much as 47%. Value of construction work has increased in all construction activity types. The biggest value of performed construction work (41% in 2020) is represented by new buildings. The value of construction work increased by as much as 120% in construction of buildings, and the construction of residential buildings increased by even more compared to 2019. The biggest value of construction work, performed in 2020 in the category of residential buildings, were represented by new buildings with 49%.

The decreasing trend in the construction of dwellings came to an end in 2015 and has steadily risen from 2016 onwards. In 2020, 10,958 dwellings were under construction in Slovenia, of which 3,540 were completed by the end of the year, which is 4% more than in 2019. In 2020 most of the dwellings were completed in the Osrednjeslovenska statistical region (24% of all), followed by the Podravska statistical region (19% of all). On the other hand, the fewest dwellings were completed in the Zasavska region (1%). In the first eight months of this year, 4,123 building permits were issued for new buildings and the change of use of buildings, which is 12% more compared to the same period in the previous

year. For residential buildings 6% more building permits were issued and for non-residential buildings 16% more were issued compared to the first eight months of last year.

Company activity within the Manufacture of other builders' carpentry and joinery (NACE: C16.230), which consists of the manufacture of prefabricated wooden buildings, builder's joinery (windows, doors, stairs...) and glued laminated roof trusses and roofing, was again successful last year, with a reported highest net profit in the industry C16 Manufacture of wood and of products of wood. According to CCIS, this segment had a EUR 22.6 million net profit last year, which is 19% more than net profit in 2019. The growth of sales revenues created by companies in this industry on foreign markets increased by 7.7% compared to 2019, and net sales revenues in foreign markets increased by 8.2%.

Even though the export of wooden windows has been decreasing in the last years, Slovenia remains a traditional net exporter of wooden windows and doors. The increasing trend in the import of wooden doors is continuing in 2020 (+13% compared to 2019), and last year the import of wooden windows increased as well, by 16%. The export of wooden doors decreased by 3% last year compared to the year before, while the export of wooden windows increased by 11%, but remains 11% lower compared to the average in the period 2017-2018.

# 6. Tables

# a) Economic indicators

		Autumn forecast (September 2021)		
	2020	2021	2022	2023
GDP				
GDP, real growth in %	-4.2	6.1	4.7	3.3
GDP, nominal growth in %	-3.1	7.3	5.9	5.2
GDP in EUR billion, current prices	46.9	50.4	53.4	56.1
Exports of goods and services, real growth in %	-8.7	10.9	8.2	5.6
Imports of goods and services, real growth in %	-9.6	12.6	8.8	5.8
External balance of goods and services (contribution to growth in p.p.)	-0.1	-0.2	0.2	0.3
Private consumption, real growth in %	-6.6	5.6	6.0	3.1
Government consumption, real growth in %	4.2	1.8	1.5	1.0
Gross fixed capital formation, real growth in %	-8.2	10.0	8.0	6.0
Change in inventories and valuables (contribution to growth in p.p.)	0.1	1.2	-0.3	0.0
EMPLOYMENT AND PRODUCTIVITY				
Employment according to the SNA, growth in %	-0.6	0.8	1.5	1.2
Number of registered unemployed, annual average, in '000	85.0	75.4	67.8	65.0
Registered unemployment rate in %	8.7	7.7	6.9	6.6
ILO unemployment rate in %	5.0	4.7	4.3	4.2
Labour productivity (GDP per employee), real growth in %	-3.7	5.3	3.1	2.1
DALANCE OF DAVIDENTS OF ATISTICS				
BALANCE OF PAYMENTS STATISTICS Current account BALANCE in EUR billion	3.5	2.3	2.1	2.1
- as a % of GDP	7.4	4.6	4.0	
	7.4	4.0	4.0	3.8
PRICES AND EFFECTIVE EXCHANGE RATE				
Inflation (Dec/Dec), in %	-1.1	2.5	1.9	2.0
Inflation (annual average), in %	-0.1	1.4	2.0	1.9
Real effective exchange rate deflated by unit labour costs	3.5	0.1	-1.7	-0.5
ASSUMPTIONS				
Foreign demand (imports of trading partners), real growth in %	-8.9	9.2	6.8	4.1
GDP in the euro area, real growth in %	-6.3	5.1	4.4	2.1
Brent Crude oil price in USD/barrel	41.8	68.1	67.3	64.0
Non-energy commodity prices in USD, growth	3.6	35.0	-1.0	-7.0
USD/EUR exchange rate	1.141	1.193	1.180	1.180

Source: IMAD (Institute of Macroeconomic Analysis and Development of the Republic of Slovenia), Autumn Forecast of Economic Trends, September 2021. Year 2020 SURS, BoS, ECB, EIA, 2021-2023 IMAD forecasts.

# b) Production and foreign trade

Product	Unit	Historical data		Estimate	Forecast		
		2019	2020	2021	2022		
Sawlogs and veneer logs, coniferous							
Production	1000 m <sup>3</sup>	2123	1624	1200	1300		
Imports	1000 m <sup>3</sup>	113	367	350	320		
Exports	1000 m <sup>3</sup>	769	523	290	320		
Apparent consumption	1000 m <sup>3</sup>	1467	1467	1260	1300		
	Sawlogs	and veneer logs, no	on-coniferous				
Production	1000 m <sup>3</sup>	352	348	400	400		
Imports	1000 m <sup>3</sup>	30	32	43	43		
Exports	1000 m <sup>3</sup>	147	145	180	200		
Apparent consumption	1000 m <sup>3</sup>	235	235	263	243		
	• •	of which, tropical	logs				
Imports	1000 m <sup>3</sup>	1	1	1	1		
Exports	1000 m <sup>3</sup>	0	0	0	0		
Net Trade	1000 m <sup>3</sup>	1	0	1	1		
	Pulpwo	od (round and split	), coniferous				
Production	1000 m <sup>3</sup>	492	346	230	280		
Imports	1000 m <sup>3</sup>	231	230	310	280		
Exports	1000 m <sup>3</sup>	399	298	230	230		
Apparent consumption	1000 m <sup>3</sup>	324	278	310	330		
	Pulpwood	l (round and split),	non-coniferous				
Production	1000 m <sup>3</sup>	470	450	490	440		
Imports	1000 m <sup>3</sup>	82	88	130	90		
Exports	1000 m <sup>3</sup>	399	392	480	430		
Apparent consumption	1000 m <sup>3</sup>	153	146	140	100		
	Wood chips, particles and residues						
Domestic supply	1000 m <sup>3</sup>	1330	1080	1150	1200		
Imports	1000 m <sup>3</sup>	186	176	260	200		
Exports	1000 m <sup>3</sup>	963	847	950	950		
Apparent consumption	1000 m <sup>3</sup>	553	409	460	450		
Other industrial roundwood, coniferous							
Production	1000 m <sup>3</sup>	20	15	15	15		
Other industrial roundwood, non-coniferous							
Production	1000 m <sup>3</sup>	44	35	48	41		
Wood fuel, coniferous							
Production	1000 m <sup>3</sup>	147	121	120	120		
Wood fuel, non-coniferous							
Production	1000 m <sup>3</sup>	970	952	950	950		

<b>.</b>	Unit	Historical data		Estimate	Forecast			
Product		2019	2020	2021	2022			
	Sawnwood, coniferous							
Production	1000 m <sup>3</sup>	819	877	717	729			
Imports	1000 m <sup>3</sup>	745	657	670	690			
Exports	1000 m <sup>3</sup>	962	830	995	980			
Apparent consumption	1000 m <sup>3</sup>	602	704	392	439			
	S	awnwood, non-con	iferous					
Production	1000 m <sup>3</sup>	125	125	141	141			
Imports	1000 m <sup>3</sup>	106	98	100	100			
Exports	1000 m <sup>3</sup>	115	102	105	105			
Apparent consumption	1000 m <sup>3</sup>	117	121	136	136			
	of	f which, tropical sav	vnwood					
Production	1000 m <sup>3</sup>	0	0	0	0			
Imports	1000 m <sup>3</sup>	2	2	2	2			
Exports	1000 m <sup>3</sup>	1	0	0	1			
Apparent consumption	1000 m <sup>3</sup>	1	2	1	2			
		Veneer sheets						
Production	1000 m <sup>3</sup>	18	19	18	18			
Imports	1000 m <sup>3</sup>	14	12	14	14			
Exports	1000 m <sup>3</sup>	23	22	29	27			
Apparent consumption	1000 m <sup>3</sup>	9	10	3	5			
	of	which, tropical vene	er sheets					
Production	1000 m <sup>3</sup>	1	1	1	1			
Imports	1000 m <sup>3</sup>	0	0	0	0			
Exports	1000 m <sup>3</sup>	1	1	1	1			
Apparent consumption	1000 m <sup>3</sup>	1	0	0	0			
	Plywood							
Production	1000 m <sup>3</sup>	103	95	109	120			
Imports	1000 m <sup>3</sup>	47	45	64	60			
Exports	1000 m <sup>3</sup>	73	78	90	90			
Apparent consumption	1000 m <sup>3</sup>	78	61	83	90			
of which, tropical plywood								
Production	1000 m <sup>3</sup>	0	0	0	0			
Imports	1000 m <sup>3</sup>	14	16	22	20			
Exports	1000 m <sup>3</sup>	0	0	1	0			
Apparent consumption	1000 m <sup>3</sup>	13	16	22	20			

Product	Unit	Historical data		Estimate	Forecast
		2018	2019	2020	2021
		Particle board (inc	luding OSB)		
Production	1000 m <sup>3</sup>	0	0	0	0
Imports	1000 m <sup>3</sup>	186	182	210	200
Exports	1000 m <sup>3</sup>	6	5	8	6
Apparent consumption	1000 m <sup>3</sup>	180	177	202	195
·		of which, 9	OSB		
Production	1000 m <sup>3</sup>	0	0	0	0
Imports	1000 m <sup>3</sup>	31	35	42	40
Exports	1000 m <sup>3</sup>	1	1	3	2
Apparent consumption	1000 m <sup>3</sup>	29	34	39	38
·		Fibreboa	rd		
Production	1000 m <sup>3</sup>	130	118	128	128
Imports	1000 m <sup>3</sup>	53	49	71	60
Exports	1000 m <sup>3</sup>	159	144	176	165
Apparent consumption	1000 m <sup>3</sup>	24	23	23	23
		Hardboa	rd		
Production	1000 m <sup>3</sup>	0	0	0	0
Imports	1000 m <sup>3</sup>	9	9	9	9
Exports	1000 m <sup>3</sup>	9	8	7	7
Apparent consumption	1000 m <sup>3</sup>	0	1	2	2
		MDF (Medium	density)		
Production	1000 m <sup>3</sup>	130	118	128	128
Imports	1000 m <sup>3</sup>	36	32	54	43
Exports	1000 m <sup>3</sup>	148	132	166	155
Apparent consumption	1000 m <sup>3</sup>	18	17	16	16
		Other fibre	ooard		
Production	1000 m <sup>3</sup>	0	0	0	0
Imports	1000 m <sup>3</sup>	8	8	8	8
Exports	1000 m <sup>3</sup>	2	3	3	3
Apparent consumption	1000 m <sup>3</sup>	6	5	5	5

Product	Unit	Historical data		Estimate	Forecast			
		2019	2020	2021	2022			
	Wood pulp							
Production	1000 m.t.	92	91	83	85			
Imports	1000 m.t.	237	289	275	270			
Exports	1000 m.t.	8	13	5	8			
Apparent consumption	1000 m.t.	321	367	353	347			
Paper & paperboard								
Production	1000 m.t.	719	706	650	600			
Imports	1000 m.t.	713	757	710	710			
Exports	1000 m.t.	642	630	630	630			
Apparent consumption	1000 m.t.	790	832	730	680			
Wood pellets								
Production	1000 m.t.	134	148	160	165			
Imports	1000 m.t.	229	257	215	230			
Exports	1000 m.t.	209	198	210	220			
Apparent consumption	1000 m.t.	155	207	165	175			