

**THE NETHERLANDS
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1. General economic trends affecting the forest industries sector

COVID-19 impact

The coronavirus has gripped our society for more than a year now. Many people have become ill or know relatives or friends who became infected. And it was clear from the start that the economic consequences of the corona crisis would be significant. We now know how big: the overall Dutch economy shrank by 3.8% last year, comparable to the credit crisis in 2009. Some groups were hit harder than others. Young people and flex workers took the first blows on the labour market. The number of employees with a flexible contract at the end of 2020 was approximately 180,000 lower than a year earlier. Employees with a permanent contract often kept their jobs. The fact that the damage was not even greater is partly due to the large-scale support measures taken by the Dutch government. For example, the NOW scheme, which supports employers in wage costs, reached more than 2.6 million employees at its peak. Additional to this, about 374,000 self-employed people applied for emergency support. Spending on support measures in 2020 and 2021 is estimated to be over EUR 61 billion so far and are expected to reach at least EUR 80 billion in total.. The fact that the government had the space to pay for these support packages is partly due to the fact that it had reduced the national debt in the previous years, thus creating a buffer for worse times. Now that debt is rising again. (source: <https://www.dnb.nl/coronacrisis-impact-en-de-weg-vooruit/>).

Despite these huge governments' spending on support measures, the Dutch economy is, according to the Netherlands Bureau for Economic Policy Analysis(CBP) contracted by 3.8% in 2020, but this is followed by a 3.8% growth in 2021 again. Unemployment rate stayed fairly stable at a 3.8% in 2020 (3.4% in 2019) and is expected to recover to a 3.4% again over 2021, assuming that no large-scale contact restrictions or a total lockdown are needed again in the near future.

Additional to these indicators, purchasing power increased by 2.5% in 2020 and may grow an additional 0.8% in 2021. Consumption by households and the government grew by 0.9% and 2.8% respectively in 2019, but in 2020 household spending contracted by 6.6%. Over the same years, corporate investments increased by 7.7% (2019) and then contracted at a comparable rate: -5.4% in 2020. However, a recovery is reflected by the 2021 and 2022 data.

According to the CPB forecast the Dutch economy is projected to improve, due to the lifting of COVID-19 restrictions and higher vaccination coverage. Since the second quarter of 2021, consumption has been on the rise again as shops, restaurants and the cultural sector have gradually reopened. Now a large share of the population has been vaccinated, there are good reasons for being optimistic about the pandemic remaining under control, with positive effects on consumer and producer confidence.

As household savings have been increasing substantially since the coronavirus outbreak, consumption could recover in the coming quarters. Business investments are also increasing, following optimistic revenue expectations. For the fourth quarter of 2021, GDP in the Netherlands is projected to exceed its level of two years earlier, which will be slightly ahead of other countries in the eurozone. GDP will increase by 3.8% in 2021 and 3.2% in 2022, following a decline of 3.8% in 2020. These projections are based on the government's current policy proposals, in which support measures are set to expire in late September of this year.

Support measures again bolster the economy, and particularly the labour market, in 2021. In May, the Dutch Government extended its support measures up to the end of the third quarter. Support measures such as the NOW wage cost subsidy scheme and the TVL compensation of fixed costs for SMEs keep pace with business turnover levels. As turnover levels are recovering strongly, the impact of support measures on the government budget will be modest.

The Netherlands will also benefit from economic recovery elsewhere in Europe and in the United States. Goods exports, which already exceeded pre-COVID-19 levels at the end of 2020, will continue to grow both this year and 2022. Total exports are projected to increase by 6.8% in 2021 and 5.4% in 2022, following a 4.38 decrease in 2020.

The economy is currently showing great resilience again after relaxation of the lockdown measures, which means that the degree of permanent damage is likely to be small. The continuing moderate trend in unemployment also point to only limited permanent damage. For 2021, unemployment is expected to average out at 3.4% of the labour force and, for 2022, this is projected to be 3.6%.

Inflation will increase, mainly due to higher commodity prices. The global economic recovery and the continuing supply constraints by OPEC have led to oil prices rising from just above USD 40 per barrel at the end of March 2020 to USD 70 in August 2021. A slight decrease in the oil price is assumed for 2022. Other commodities are currently also seeing strong price increases because of the global economic recovery which - similar to the oil prices - also have an impact on consumer prices. Other factors such as container transport are also contributing to higher prices. The consumer price increase is expected to rise from 1.1% in 2020 to 1.9% in 2021, CPB expects inflation to level off again at 1.8% in 2022.

Next year, the government deficit will be 2.0% of GDP, which is well below that of 4.3% in 2021. The decrease in the deficit next year will be due to the discontinuation of covid support measures and higher tax revenues as a result of the rebounding economy.

Vaccinations are bringing the pandemic under control in rich countries, although regional outbreaks remain a possibility, especially in regions with low vaccination coverage. In poorer countries, the pandemic is certainly not yet under control. The risk of new virus variants, therefore, is high and the current types of vaccinations may not be effective enough against some new virus variants. Such variants may lead to new waves of infection, cautious behaviour amongst households and new restrictions by governments, with negative consequences for the economy.

Housing market

The housing industry is traditionally important for the softwood industry. After the sharp decline in completed house-buildings of approximately 40% from 2008 to 2012, in recent years the situation has turned around. Partly resulting from stimulating measures of the Dutch government and also due to the low mortgage rates. However, after years of increasing numbers of completed houses, the number of newly built houses in 2020 decreased by 2.2% compared to the year before, followed by again an estimated slight decrease of 1.6% in 2021, reaching numbers of 69,985 and 86,825 respectively.

The number of house building permits granted decreased substantially between 2018 and 2019. This slowdown in growth was the consequence of lacking construction sites and development capacity at municipalities and private developers, as well as the impact of building constraints due to NOx-deposition, but despite the COVID-19 pandemic recovered in recent years again resulting in a steep growth of 15.5% and 28.8% in 2020 and 2021 respectively.

Due to uncertainties regarding to the effects of the COVID-19 pandemic, the consequences of the nitrogen emissions and with PFAS contaminated soil, there is large uncertainty surrounding the predictions for housing construction in the Netherlands in the coming years. However, after year with decreasing numbers of 'House-build completed' (2020 and 2021) for 2022 an increase in the number of newly build houses is expected by all relevant information sources (ING Bank, Bouwkennis and EIB).

2. Policy measures influencing timber trade and marketing

Sustainable procurement policy

In the view of the Dutch government, public procurement of sustainably produced timber is very important to give timber producing countries a clear signal regarding consumers' willingness to purchase sustainably produced products at reasonable prices and thus increase such purchases. It also sets an example for semi-governmental organisations and the private sector to introduce sustainably produced timber in their procurement criteria and by doing so, contribute to sustainable forest management.

In June 2008 the Dutch national government established its sustainable procurement policy. By implementing this policy the government intended to increase the use of sustainably produced products. Therefore all governmental organisations must use sustainability as an important criterion when purchasing goods. This way the Dutch government intends to stimulate the market for sustainable products and promote innovation within companies. Clear goals were set. As of 2010 the Dutch government has the ambition that all timber procured by central government should come from a sustainable source.

Part of the sustainable procurement policy is a set of criteria for sustainably produced timber, the Dutch Procurement Criteria for Timber. Based on these criteria the government can assess whether the offered timber is produced sustainably. The Timber Procurement Assessment Committee (TPAC) is responsible for the assessment of certification systems for sustainable forest management according to the Timber Procurement Assessment System (TPAS). TPAC advises the Dutch Ministry of Infrastructure and Water Management. The minister decides on the final acceptance. Information on the TPAS criteria and the TPAC judgements can be found on the TPAC website (www.tpac.smk.nl).

The website www.inkoopduurzaamhout.nl has been set up to support procurers and suppliers in their efforts to procure or supply sustainably produced timber.

EU Timber Regulation

The Dutch Competent Authority, the NVA, carried out about 30-40 inspections in 2020 and the first half of 2021. Based on these inspections and further criminal investigations two timber traders will be prosecuted because of violation of the EU Timber Regulation.

Sustainable Energy Agreement

Based on its sustainable energy policy the Ministry of Economic Affairs and Climate made a significant amount of subsidy available for biomass based sustainable energy production. But burning woody biomass such as pellets has become a hot political issue, as Parliament expressed concerns regarding the clear cut of large areas of forests for burning, which is not climate neutral. There are also local protests by people living in the

neighbourhood of small biomass based power plants due to the air pollution they cause. Consequently, parliament intends to phase out subsidizing woody biomass for low-temperature heat.

Climate agreement

At the end of June 2019 the National Climate Agreement of the Netherlands was presented by the coalition and cabinet. The aim of this agreement is at least a 49% reduction in CO₂ emissions by 2030 compared to 1990. The underlying aim is compliance with the Paris Climate Agreement, in other words a maximum 2-degree temperature increase compared to 1990, and preferably just 1.5 degrees.

Climate Agreement contains a package of measures which has the broadest possible base of societal support, which has the active support of as many contributing parties as possible and which will achieve the political reduction target of 49% in 2030. The agreement was established through meetings of authorities, companies and interest groups at five so-called climate tables. The five tables are: Electricity, Built Environment, Industry, Agriculture & Land Use, and Mobility. At each table a package of measures have been formulated and agreements between parties have been concluded that together comprise the contribution of each of the five sectors to achieve the climate objective.

The forestry- and timber sector is covered by the sector table Agriculture & Land Use. A specific sub-table titled 'trees, forests and nature' is dedicated to the optimization of the contribution of forest and nature (including the timber- and other related sectors) to reach the climate goals, but to also play its role in climate change mitigation. The goals are afforestation, revitalisation of forests, agroforestry and landscape restoration, and carbon storage in biomaterials like wood. Budget has been made available by the government for government bodies to develop tools that can be used within the sector to optimize the contribution of the sector. Main framework for the implementation of the Climate Agreement for forests and timber is the National Forest Strategy.

In 2021 the EU adopted a new binding goal of at least 55% reduction in CO₂ emission reduction by 2030, which is a 6% increase from the Dutch Climate Agreement. In July 2021 the European Commission presented the Fit for 55 package with proposals to deliver this goal. The EU Forest Strategy is part of this package and aims to protect and restore EU forests and their vital role in tackling climate change and biodiversity loss. Part of the EU Forest Strategy is the pledge to plant 3 billion trees by 2030. This translates to approximately 11.000 hectares of forest in the Netherlands, which is in line with the National Forest Strategy.

National Forest Strategy

In November 2020 the Dutch minister of Agriculture, Nature and Food Quality together with the provinces presented a National Forest Strategy. This strategy has been developed in close cooperation with the most important partners such as local authorities and forest managers (public and private). The forest strategy will be aligned with the forest visions, which the provinces have announced within the climate table of the National Climate Agreement (see above). The national forest strategy is needed to ensure greater coherence with regard to forest, nature and climate policy. The forest strategy covers four main topics/issues:

1. More forest

The aim is to increase the Dutch forest area by 10% by 2030. An increase of approximately 37,000 hectares of forest.

2. Vital forests
To improve the quality of forests it is important to improve environmental factors and to give a quality boost to forests and to adjust the management in certain areas in order to increase the resilience of forests against the backdrop of a changing climate. This requires action in various policy areas and programmes. For example, the reduction in nitrogen deposition, which is envisaged in the government's nitrogen approach, is crucial for the vitality of many forests. This is achieved through the nitrogen policy that will be further developed in the coming years.
3. Trees outside forests
By supporting the partners in the Delta Plan Biodiversity Recovery the aim is to increase the area of trees outside the forest by 10%.
4. Sustainable use of trees and forest
The strategies aims to increase the sustainable use of the forests for recreational and educational purposes and to increase the percentage of Dutch timber used in long-lasting products.

Netherlands Circular in 2050

The outcome of latest Dutch government climate change and wider environmental policy decisions could be increased market opportunity for wood. The country's aim is to create a truly 'circular economy' over the next 30 years, with the stress on using products and materials that can be re-used, recycled and ultimately disposed of in an environmentally sound way. To this end the government submitted the policy paper 'Netherlands Circular in 2050' to the House of Representatives in 2016. In the follow up of this policy ambition the National Agreement on the Circular Economy has been signed by more than 300 businesses and social partners like NGO's. At the beginning of 2019 the Dutch Cabinet presented the implementation program for the circular economy. This implementation program presents concrete actions and projects for the period 2019-2023 for the sectors: biomass and food, plastics, manufacturing industry, construction and consumer goods.

Sustainability framework for bio-based raw materials

Bio-based raw materials, including wood, play an increasing, important role in the transition towards a circular and climate-neutral economy. This is the case for bio-based raw materials for material applications such as the building industry as well as raw material in chemicals and the use of residual flows for energy applications.

The Dutch government has sent a Letter to Parliament in October 2020 with the Sustainability Framework. The government is convinced that the use of biomass is essential in the transition to a climate-neutral and circular economy by 2030 and 2050. However, only sustainable biomass can contribute to this transition, and sustainable raw materials must ultimately be used for the highest-value applications possible. These are applications with lower carbon emissions than processes using fossil fuels, which contribute to the transition to a circular economy and have a positive effect on employment and the economy. This gives rise to the following categories:

1. Low-value applications are applications that do not comply with this desired end state. Alternatives are available, or will become available in the near future, and policy must be focused on phasing out.
2. Bridging applications dovetail with the transition perspective, and policy on them should focus on conversion.
3. High-value applications are the desired end state, and policy on them should focus on phasing in

Sustainable use of bio-based raw materials requires that the materials themselves are sustainably produced – in other words, without negative effects on the environment (availability of water, biodiversity, emissions, soil quality and carbon stocks) or the social circumstances of the local population, and with respect for the rights of workers (people, planet, profit). The government has developed sustainability criteria for all bio-based raw material flows and applications, insofar as they are promoted or regulated. These are sent to Parliament in June 2021.

A key document on which this sustainability framework is based is the advisory report by the Social and Economic Council of the Netherlands (SER) entitled ‘Biomass in the Balance’. The report draws on many sources, including analyses by the Netherlands Environmental Assessment Agency (PBL) of the availability and uses of biomass and an independent report on sustainability criteria.

3 Developments in Dutch forest products markets sectors

a) Wood raw materials

Removals of roundwood, chips and shreds from the Dutch forests and other wooded area’s in 2020 are estimated as 2,965,000 m³ under bark in total. A 3% decrease compared to 2020. Industrial roundwood has a share of app. 22% (app. 660.000 m³ under bark) within the total removals. The rest of the removals mainly consist of wood fuel as logs or chips and shreds, including those from landscape care wood and municipal waste streams.

The share of export within the total removals of industrial roundwood in the Netherlands was 46% in 2020 and more or less the same as in 2019. The export of pulpwood has a share of almost 75% in the total exports of industrial roundwood.

b) Wood energy

The share of renewable energy in the Netherlands increased from 8.8% in 2019 to 11.1% in 2020¹. Almost 40% of the increase of 2.3 percentage point can be attributed to an increase in the production of renewable energy from biomass, as biodiesel and biogasoline and co-firing of biomass in utilities. Based on the current trend and the expected future developments the Dutch National Climate and Energy Outlook 2020 expects that the renewable energy share will be 25% in 2030².

Total gross consumption of energy from biomass increased by 10% in 2020 compared to 2019. Biomass has a share of 54% within the total consumption of renewable energy in 2020. It is mainly used in the production of electricity and heat in utilities, waste incinerations, domestic heating and as biofuel for road transport. The co-firing of biomass in utilities increased by 149% between 2019 and 2020. The fuel input for co-firing almost tripled between 2019 and 2020.

If waste incineration is excluded the biomass fuels for the production of heat and energy can be generally categorized as fuelwood, wood chips and shreds/shrips, agricultural residues, residuals from the food and snack industry, bio-oil and animal waste.

In 2020 app. 21% of the renewable energy produced in the Netherlands was derived from woody biomass. Slightly less than 4.5 million ton dry matter of woody biomass is estimated to be used for the production of energy and heat in the Netherlands. Due to the major increase in the use of energy pellets the share of imports substantially increased within the total consumption of wood for energy production.

1 <https://www.cbs.nl/nl-nl/nieuws/2021/22/11-procent-energieverbruik-in-2020-afkomstig-uit-hernieuwbare-bronnen>

2 <https://www.pbl.nl/sites/default/files/downloads/pbl-2020-netherlands-climate-and-energy-outlook-2020-summary-4299.pdf>

c) Certified forest products

The market share of certified primary timber products (sawn wood and wood-based panels) on the Dutch market in 2017 was 84.7%, which corresponds to a volume of 5.1 million m³ roundwood equivalents under bark. This concerns primary timber and timber products (sawnwood and wood based panels) that meet the Dutch Procurement Criteria for Timber. Differences between the product groups are large. While sawn softwood and wood-based panels have a market share of respectively 84.8% and 92.5%, sawn tropical hardwood (67.1%) and sawn temperate hardwood (37.8%) are lagging behind.

Results from an internal monitoring system of the Netherlands Timber Trade Association for the year 2020 indicates growth stabilises at a very high level within the product group of sawn softwood. Growth continues within the product groups of temperate and tropical hardwoods and within the product group of wood based panels.

d) Sawn softwood

After a period of decreasing imports and consumption since 2007 (see figure 2), the sawn softwood market in the Netherlands recovered in 2015 and this recovery continued until 2019. After a small decrease in 2019, the recovery continued in 2020. The imports and consumption for the year 2020 show an increase of 3% and 9% respectively. Exports however decreased by 23% between 2019 and 2020. Imports of rough sawn softwood timber decreased by 8%, while imports of further processed (planed) sawn softwood timber increased by 19%. Rough sawn softwood has a share of roughly 55% of the total softwood import (Table 2). Stocks remain at a low level and are expected to stabilise, with a COVID-19 induced dip in 2021.

Table 1

Key facts of the Dutch sawn softwood market

x 1000 m³

| Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Domestic Production | 169 | 137 | 159 | 163 | 129 | 126 | 110 | 82 | 80 | 76 |
| Net Imports | 2,120 | 1,861 | 1,779 | 1,789 | 1,987 | 1,928 | 2,187 | 2,315 | 2,158 | 2,366 |
| Stock Change | 0 | -50 | 0 | 0 | 10 | 5 | 5 | 0 | 0 | -20 |
| Apparent Consumption | 2,289 | 2,048 | 1,938 | 1,952 | 2,106 | 2,049 | 2,292 | 2,397 | 2,238 | 2,422 |

Sources: Statistics Netherlands (CBS) / Netherlands Timber Trade Association (Royal VVNH)/ Probos

Table 2

Sawn softwood imports (volume in m³)

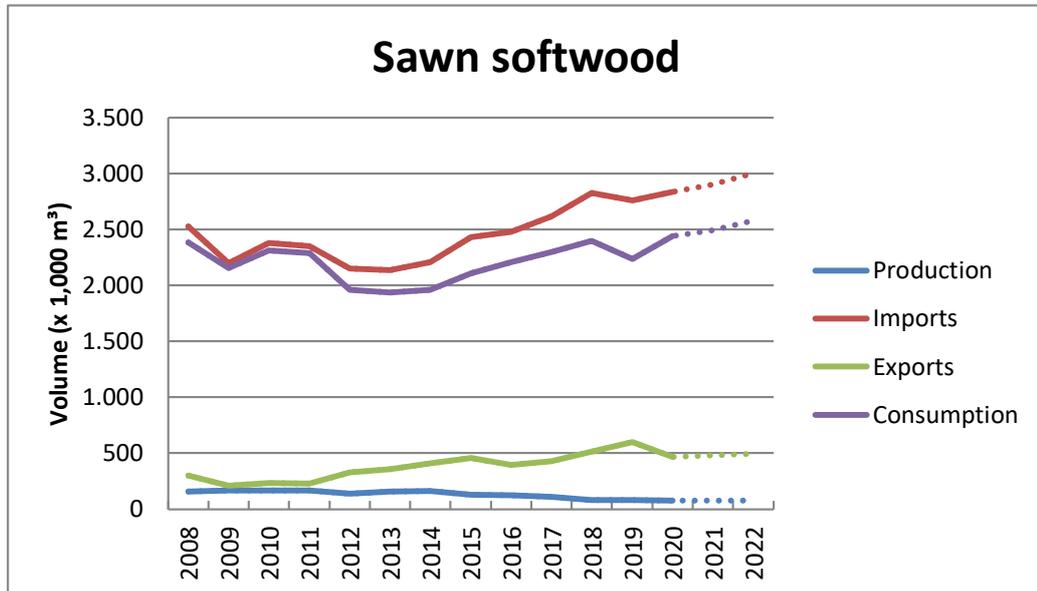
| Countries | 2019 | | | | 2020 | | | | Sawn | Planed | Total |
|---------------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----|------|--------|-------|
| | Sawn | Planed | Total | % | Sawn | Planed | Total | % | | | |
| 1 Sweden | 280.248 | 513.563 | 793.811 | 28% | 217.502 | 633.123 | 850.625 | 31% | -22% | 23% | 7% |
| 2 Germany | 414.206 | 172.857 | 587.063 | 21% | 386.203 | 201.707 | 587.910 | 21% | -7% | 17% | 0% |
| 3 Russia | 175.645 | 109.437 | 285.082 | 10% | 177.286 | 121.987 | 299.273 | 11% | 1% | 11% | 5% |
| 4 Finland | 153.943 | 38.434 | 192.377 | 7% | 135.550 | 42.924 | 178.474 | 6% | -12% | 12% | -7% |
| 5 Belarus | 189.538 | 8.136 | 197.674 | 7% | 158.878 | 6.872 | 165.750 | 6% | -16% | -16% | -16% |
| 6 Latvia | 92.287 | 60.954 | 153.241 | 5% | 78.773 | 79.320 | 158.093 | 6% | -15% | 30% | 3% |
| 7 Belgium | 94.380 | 45.341 | 139.721 | 5% | 82.186 | 47.966 | 130.152 | 5% | -13% | 6% | -7% |
| 8 Estonia | 40.106 | 38.165 | 78.271 | 3% | 31.768 | 44.702 | 76.470 | 3% | -21% | 17% | -2% |
| 9 Poland | 46.445 | 20.195 | 66.640 | 2% | 44.020 | 25.822 | 69.842 | 3% | -5% | 28% | 5% |
| 10 Luxembourg | 8.841 | 20.847 | 29.688 | 2% | 8.912 | 38.415 | 47.327 | 2% | 1% | 84% | 59% |
| Other | 172.588 | 64.225 | 236.813 | 8% | 210.027 | 60.329 | 270.356 | 10% | 22% | -6% | 14% |
| Total | 1.668.227 | 1.092.154 | 2.760.381 | | 1.531.105 | 1.303.167 | 2.834.272 | | -8% | 19% | 2,7% |

* Other: This group consists of 38 countries with exports to the Netherlands of less than 46,000 m³

(Source: CBS trade statistics edited by Probos and international trade statistics of Sweden, Germany, Finland, Latvia and Estonia for verification)

The top ten countries for softwood import in the Netherlands have slightly changed between 2019 and 2020 (table 2); Luxembourg surpassed Ukraine and now represents the 10th largest

country of imports of soft sawn wood. Sweden and Germany remain by far the foremost suppliers of softwood timber to the Netherlands. The total import volume from Sweden increased and those from Germany remained stable compared to last year. The imports from Russia showed a small increase where Finland showed a small decrease. Imports from Belarus decreased substantially between 2019 and 2020. Imports from Latvia, Poland and New Zealand show a small increase, where Belgium and Estonia have decreased compared to 2019.



(Source: CBS trade statistics edited by Probos, Probos roundwood survey and NTTA estimates and forecasts)

Figure 1

Development of production, import, export and consumption of sawn softwood in the Netherlands in the period 2007-2020 and expectations for 2021 and 2022.

e) Sawn hardwood (temperate and tropical)

The imports of temperate hardwoods slightly decreased (-8%), but stayed more or less at the same level as in the last three years and lays much higher than before 2017. This high imports are the result of an increase in the imports of so called mixed hardwoods by the packaging industry from for instance the Baltic states and Ukraine. Due to the expected contraction in international trade resulting in less demand for wood packaging the demand is expected to further decrease between 2020 and 2021. Higher demand for flooring and interior design was not able to compensate for this. An increase in the consumption of temperate hardwoods is expected between 2021 and 2022.

The market for temperate hardwoods is expected to benefit from the recovery of the construction sector and the housing market from 2021 onwards as well. As interior products and furniture are bought at the end of the construction cycle, there is a delay compared to tropical timber used in construction. European oak is by far the most popular species within the temperate hardwoods. There is a huge demand for European oak, with almost daily price increases. Due to constraints in the availability supply might limit market developments.

After a dip in the imports of tropical hardwood in 2019 the imports increased by 22% in 2020, but are still well above level of 2016 and 2017. Despite the COVID-19 pandemic the actors within the Dutch market for (tropical) hardwoods are positive about the medium term market

development. The productivity within the construction sector is recovering and shows a growing trend. The DIY and gardening sector significantly benefits from the fact that people - due to the COVID measures - are limited in commuting and travelling and thus spent more time at home and in their gardens. Next to this, the increase in construction leads to more demand as well. The demand side is not the limiting factor with regards to market development. Delays in shipments and high freight costs are much bigger problem. Higher import volumes are expected from Africa in 2022 as supply from South America and Asia was problematic in 2021.

The share of further processed/optimized tropical sawnwood keeps increasing in the Dutch joinery industry resulting in more demand for timber from Asian producing countries, but the share of African timber species within these imports are increasing. Demand is shifting from Meranti, traditionally the species most used in the Dutch joinery industry, to Mahogany.

According to Statistics Netherlands the turnover of the timber industry increased by almost 14% the third quarter of 2021 compared to the third quarter of 2020. The companies within the timber industry expect that prices will slightly increase during the end of 2021 and the first months of 2022. The producer confidence of the timber and construction materials industry increased by approximately 20% between March and October 2021 indicating an increase in production. Making it the most positive industry sector in the Netherlands again. Due to the current increasing COVID infections and new restrictions imposed a reduction in production is expected.

Timber might also benefit from the increased environmental awareness among consumers and architects. Although competition with other building materials is still heavy, timber seems to recover market share, E.g. in renovation, where now and then PVC plastic is replaced by timber. Increasingly new Life Cycle Analyses studies are published³.

The demand for civil engineering lags behind and is not expected to pick up. Tenders for civil engineering projects are delayed due to the COVID-19 outbreak. This sector has suffered less during the financial crises, due to governmental investments. As a result, the market does not recover as it does in the construction sector. The sector drafted an Action Plan to encourage the use of timber in civil engineering. This Action Plan seems to have a positive effect on the use of (tropical) timber within civil engineering, but due to the COVID situation the results in volume terms are hard to estimate.

Table 3

Key facts of the Dutch sawn hardwood market

| | x 1000 m ³ | | | | | | | | | |
|----------------------|-----------------------|------|------|------|------|------|------|------|------|------|
| Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Domestic Production | 69 | 53 | 59 | 66 | 56 | 58 | 60 | 58 | 51 | 54 |
| of which tropical | 11 | 7 | 5 | 11 | 7 | 6 | 6 | 7 | 6 | 6 |
| Net Imports | 268 | 276 | 231 | 201 | 224 | 230 | 273 | 385 | 305 | 292 |
| of which tropical | 196 | 194 | 172 | 148 | 156 | 136 | 125 | 218 | 152 | 162 |
| Apparent Consumption | 337 | 329 | 290 | 267 | 280 | 288 | 333 | 443 | 356 | 346 |
| of which tropical | 207 | 201 | 177 | 159 | 163 | 142 | 131 | 225 | 158 | 168 |

Sources: Probos, Statistics Netherlands (CBS)

f) Pulp and paper

The turnover within the Dutch paper and board industry decreased by almost 8% between 2019 and 2020 to EUR 1,673 million. Not surprising in a time in which the country is suffering from a pandemic and the catering industry was closed for a long time. The total paper production was more or less stable (-0,9%). Total production accounting for 86,7% of the total production

³ <http://www.europeansttc.com/environment/>

capacity. The production capacity slightly increased in the Netherlands. Signs for the near future are mixed. The demand for packaging materials, which made up 78% of the production of the Dutch paper and paper board industry in 2020, is very promising. The production of packaging materials increased by more than 25% in the last ten years. The graphical sector isn't developing very well resulting in less demand for graphical papers. The advantage is that the paper and board industry in the Netherlands is one of the leading sectors in recycling and energy reduction. This is due to the large collection of waste paper by consumers and the biobased production process. Export accounted for 77% of the total production. Germany remains the most important export country (30%), followed by Belgium (13%), France (13%) and the UK (9%).

Paper and board producing factories in the Netherlands almost solely produce paper and board from recovered paper and/or imported pulp. From the total of 22 factories in the Netherlands there is only one factory that is producing mechanical wood pulp for the production of board for folding boxes. The species used are Poplar and Norway spruce.

In 2017 76.7% of the imported market pulp was certified sustainably (FSC or PEFC) sourced. A slight increase compared to 2015.

Table 4
Fibre furnish of the Dutch paper and board industry X 1,000 m³ round wood equivalents under bark

| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------|-------|-------|-------|-------|--------|--------|--------|--------|
| Cellulose | 2,496 | 2,611 | 2,275 | 2,377 | 2,181 | 2,083 | 2024 | 1867 |
| Recovered paper | 7,170 | 7,179 | 7,254 | 7,426 | 8,561 | 8,541 | 8379 | 8453 |
| Total fibre input | 9,666 | 9,790 | 9,529 | 9,803 | 10,741 | 10,624 | 10,402 | 10,320 |

Source: Probos and Royal VNP

In 2020 the total number of employees in the paper and board industry slightly decreased by 1,6% compared to 2019 and reached the number of 3,803 employees. As a result of improving labour productivity in the last decade and closure of mills. the number of employees in the industry in the Netherlands already decreased by almost 33% since 2005.

Table 5
Recent developments of the Dutch paper and board industries

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Change in production in %: | | | | | | | | | |
| Thermo-mechanical pulp (integrated) | 15 | 3,1 | 8 | 0% | 2,3% | 2,3% | 0,0% | 0,0% | 0,0% |
| Graphic papers | 1 | -0,4 | 0 | 4% | -2,6% | -3,3% | -5,7% | -8,3% | -13,2% |
| Packaging papers | 4 | 3,5 | 0 | 1% | 4,3% | 30,1% | 2,8% | -0,6% | 2,5% |
| Case materials | 4 | 3,5 | 0 | 1% | 4,3% | 30,1% | 2,8% | C | C |
| Other packaging paper and board | 5 | 3,3 | 2 | 4% | 0,9% | 4,8% | 0,3% | C | C |
| Sanitary & household | 2 | 0 | -6 | -3 | -0,9% | 0,0% | -1,8% | -14,5% | -0,0% |
| Total paper & board | 1 | 1,1 | -1 | -4 | 1,1% | 11,7% | -0,1% | -2,9% | -0,9% |
| (Turnover [million Euro]) | 1,813 | 1,786 | 1,809 | 1,737 | 1,693 | 1,859 | 1,956 | 1,813 | 1,673 |
| Price change of production of paper and board industries | n,a, | n,a, |

Source: Royal VNP C = confidential

h) Wood pellets

The production of wood pellets was almost 300,000 m.t. in 2020. More than 60% of this quantity is exported. Especially to Germany. The imports of wood pellets have increased substantially in 2020 due to the fact that the utilities further increased co-firing of wood pellets. In 2020 almost 2.3 million tons (+119%) of wood pellets were imported by the Netherlands.

Two of the three companies that acquired SDE+ grants⁴ have started co-firing wood pellets in their utilities. The third company has not started yet. As a consequence of this it is expected

⁴ With the SDE + subsidy scheme the Ministry of Economic Affairs encourages the development of a sustainable energy supply in the Netherlands. Businesses and (non-profit) institutions who (will) produce renewable energy, can utilize the SDE +.

that the imports of wood pellets will further increase in 2021. The total quantity of biomass allowed for co-firing in utilities is set at 25 PJ (delivered energy). In 2020 73% (18.6 PJ) of this maximum was used.

For co-firing all grants within the SDE+ have been granted. However, there are still grants available to produce industrial steam by firing wood pellets and a new category is added for large scale district heating systems based on wood pellets. This will result in an expected extra demand for wood pellets in the Netherlands from 2022 onwards.

5, Tables

A, Economic indicators for the Netherlands

| Change in %, unless otherwise specified | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|-------|------|------|------|------|------|
| GDP | 2.2 | 2.9 | 2.4 | 2.0 | -3.8 | 3.8 |
| Private consumption | 1.1 | 2.1 | 2.2 | 0.9 | -6.6 | 2.5 |
| Private gross fixed investment (excl, housing) | -15.9 | 2.2 | 3.9 | 8.5 | -6.3 | 3.3 |
| Exports of goods and services | 1.7 | 6.5 | 4.3 | 2.0 | -4.8 | 6.8 |
| Imports of goods and services | -2.0 | 6.2 | 4.7 | 3.2 | -5.5 | 6.5 |
| Consumer Price Index (inflation) | 0.1 | 1.3 | 1.6 | 2.7 | 1.1 | 1.9 |
| Labour share in enterprise income (in level %) | 73.6 | 73.3 | 73.4 | 73.9 | 74.9 | 73.3 |
| Active labour force | 1.3 | 2.1 | 2.3 | 1.6 | 0.4 | 0.3 |
| Unemployment level, % of labour force ¹ | 6.0 | 4.9 | 3.8 | 3.4 | 3.8 | 3.4 |
| EMU-debt level (ultimo year, in % GDP) | 61.9 | 56.9 | 52.4 | 48.5 | 54.3 | 57.4 |
| EMU-balance level (in % GDP) | 0.0 | 1.3 | 1.4 | 1.7 | -4.2 | -5.3 |

Source: CPB (Netherlands Bureau for Economic Policy Analysis)

¹ According to the international definition

B, Forest products production and trade in 2020, 2021 and 2022

| Product Code | Product | Unit | Estimate | | Forecast |
|-------------------|---|---------------------|----------|-------|----------|
| | | | 2020 | 2021 | 2022 |
| 1,2,1,C | SAWLOGS AND VENEER LOGS, CONIFEROUS | | | | |
| | Removals | 1000 m ³ | 154 | 180 | 180 |
| | Imports | 1000 m ³ | 65 | 83 | 83 |
| | Exports | 1000 m ³ | 85 | 75 | 75 |
| | Apparent consumption | 1000 m ³ | 134 | 188 | 188 |
| 1,2,1,NC | SAWLOGS AND VENEER LOGS, NON-CONIFEROUS | | | | |
| | Removals | 1000 m ³ | 60 | 80 | 80 |
| | Imports | 1000 m ³ | 82 | 90 | 90 |
| | Exports | 1000 m ³ | 55 | 55 | 55 |
| | Apparent consumption | 1000 m ³ | 87 | 115 | 115 |
| 1,2,1,NC,T | of which, tropical logs | | | | |
| | Imports | 1000 m ³ | 14 | 20 | 20 |
| | Exports | 1000 m ³ | 10 | 7 | 7 |
| | Net Trade | 1000 m ³ | 4 | 13 | 13 |
| 1,2,2,C | PULPWOOD (ROUND AND SPLIT), CONIFEROUS | | | | |
| | Removals | 1000 m ³ | 255 | 260 | 260 |
| | Imports | 1000 m ³ | 82 | 80 | 80 |
| | Exports | 1000 m ³ | 195 | 200 | 200 |
| | Apparent consumption | 1000 m ³ | 142 | 140 | 140 |
| 1,2,2,NC | PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS | | | | |
| | Removals | 1000 m ³ | 147 | 160 | 160 |
| | Imports | 1000 m ³ | 21 | 20 | 20 |
| | Exports | 1000 m ³ | 103 | 130 | 130 |
| | Apparent consumption | 1000 m ³ | 65 | 50 | 50 |
| 3 + 4 | WOOD RESIDUES, CHIPS AND PARTICLES | | | | |
| | Domestic supply | 1000 m ³ | 953 | 960 | 970 |
| | Imports | 1000 m ³ | 631 | 630 | 630 |
| | Exports | 1000 m ³ | 646 | 660 | 670 |
| | Apparent consumption | 1000 m ³ | 938 | 930 | 930 |
| 1,2,3,C | OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS | | | | |
| | Removals | 1000 m ³ | 37 | 35 | 35 |
| 1,2,3,NC | OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS | | | | |
| | Removals | 1000 m ³ | 9 | 10 | 10 |
| 1,1,C | WOOD FUEL, CONIFEROUS | | | | |
| | Removals | 1000 m ³ | | 425 | 425 |
| 1,1,NC | WOOD FUEL, NON-CONIFEROUS | | | | |
| | Removals | 1000 m ³ | | 1.900 | 1.900 |

| 5,C | SAWNWOOD, CONIFEROUS | | 2020 | 2021 | 2022 |
|----------|----------------------------------|---------------------|-------|-------|-------|
| | Production | 1000 m ³ | 95 | 100 | 100 |
| | Imports | 1000 m ³ | 3.132 | 2.900 | 3.000 |
| | Exports | 1000 m ³ | 596 | 480 | 500 |
| | Apparent consumption | 1000 m ³ | 2.631 | 2.520 | 2.600 |
| 5,NC | SAWNWOOD, NON-CONIFEROUS | | | | |
| | Production | 1000 m ³ | 54 | 51 | 51 |
| | Imports | 1000 m ³ | 380 | 357 | 362 |
| | Exports | 1000 m ³ | 87 | 80 | 80 |
| | Apparent consumption | 1000 m ³ | 347 | 328 | 333 |
| 5,NC,T | of which, tropical sawnwood | | | | |
| | Production | 1000 m ³ | 6 | 6 | 6 |
| | Imports | 1000 m ³ | 197 | 183 | 183 |
| | Exports | 1000 m ³ | 35 | 30 | 30 |
| | Apparent consumption | 1000 m ³ | 168 | 159 | 159 |
| 6,1 | VENEER SHEETS | | | | |
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 30 | 30 | 30 |
| | Exports | 1000 m ³ | 12 | 12 | 12 |
| | Apparent consumption | 1000 m ³ | 18 | 18 | 18 |
| 6,1,NC,T | of which, tropical veneer sheets | | | | |
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 13 | 6 | 6 |
| | Exports | 1000 m ³ | 0,2 | 0,20 | 0,2 |
| | Apparent consumption | 1000 m ³ | 13 | 6 | 6 |
| 6,2 | PLYWOOD | | | | |
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 635 | 670 | 670 |
| | Exports | 1000 m ³ | 89 | 85 | 85 |
| | Apparent consumption | 1000 m ³ | 546 | 585 | 585 |
| 6,2,NC,T | of which, tropical plywood | | | | |
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 109 | 111 | 109 |
| | Exports | 1000 m ³ | 40 | 40 | 40 |
| | Apparent consumption | 1000 m ³ | 69 | 71 | 69 |
| 6,3 | PARTICLE BOARD (including OSB) | | | | |
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 627 | 674 | 674 |
| | Exports | 1000 m ³ | 85 | 85 | 85 |
| | Apparent consumption | 1000 m ³ | 543 | 589 | 589 |

| 6,3,1 | of which, OSB | | 2020 | 2021 | 2022 |
|--------------|-------------------------------|---------------------|-------------|-------------|-------------|
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 171 | 190 | 190 |
| | Exports | 1000 m ³ | 4 | 5 | 5 |
| | Apparent consumption | 1000 m ³ | 167 | 185 | 185 |
| 6,4 | FIBREBOARD | | | | |
| | Production | 1000 m ³ | 29 | 29 | 29 |
| | Imports | 1000 m ³ | 540 | 585 | 585 |
| | Exports | 1000 m ³ | 106 | 145 | 145 |
| | Apparent consumption | 1000 m ³ | 463 | 469 | 469 |
| 6,4,1 | Hardboard | | | | |
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 64 | 65 | 65 |
| | Exports | 1000 m ³ | 21 | 20 | 20 |
| | Apparent consumption | 1000 m ³ | 43 | 45 | 45 |
| 6,4,2 | MDF (Medium density) | | | | |
| | Production | 1000 m ³ | 0 | 0 | 0 |
| | Imports | 1000 m ³ | 399 | 435 | 435 |
| | Exports | 1000 m ³ | 81 | 120 | 120 |
| | Apparent consumption | 1000 m ³ | 318 | 315 | 315 |
| 6,4,3 | Other fibreboard | | | | |
| | Production | 1000 m ³ | 29 | 29 | 29 |
| | Imports | 1000 m ³ | 78 | 85 | 85 |
| | Exports | 1000 m ³ | 5 | 5 | 5 |
| | Apparent consumption | 1000 m ³ | 102 | 109 | 109 |
| 7 | WOOD PULP | | | | |
| | Production | 1000 m,t | 37 | 37 | 37 |
| | Imports | 1000 m,t | 1.782 | 1.900 | 1.500 |
| | Exports | 1000 m,t | 682 | 880 | 800 |
| | Apparent consumption | 1000 m,t | 1.137 | 1.057 | 737 |
| 10 | PAPER & PAPERBOARD | | | | |
| | Production | 1000 m,t | 2.869 | 2.870 | 2.870 |
| | Imports | 1000 m,t | 2.278 | 2.300 | 2.300 |
| | Exports | 1000 m,t | 2.539 | 2.500 | 2.500 |
| | Apparent consumption | 1000 m,t | 2.608 | 2.670 | 2.670 |
| 4,1 | WOOD PELLETS | | | | |
| | Production | 1000 m,t | 300 | 300 | 300 |
| | Imports | 1000 m,t | 2.297 | 2.429 | 3.000 |
| | Exports | 1000 m,t | 155 | 120 | 120 |
| | Apparent consumption | 1000 m,t | 2.442 | 2.609 | 3.180 |