



Schafer, Achim 27.09.2016

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# 2016 Market Statement for Switzerland Developments in Forest Product Markets

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Reference: O431-1429



New Conference Hall of the World Intellectual Property Organization WIPO, Geneva

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# 1 General economic trends

## Developments up to mid-2016

For the reporting period 2015 to mid-2016 the Swiss export economy continued to be overshadowed by the difficult economic situation in key euro countries and the associated weakness of the euro in relation to the Swiss franc. The withdrawal of measures to maintain a minimum euro/franc exchange rate of 1.20 CHF/EUR by the Swiss National Bank SNB on 15 January 2015 continues to cast a shadow over economic development in Switzerland. The monthly euro exchange rate ranged from 1.04 to 1.11 CHF/EUR over the current reporting period, and the current trend is for a stabilisation at 1.09 CHF/EUR. Low-margin sectors that are particularly reliant on foreign demand, for example the machinery industry and tourism, still consider this rate insufficient and as posing a threat to their survival. In the tourism sector, the exchange rate problem and various global economic developments are having a clear impact on the numbers of visitors by country. The tourism sector should adapt its services to the habits and needs of new visitors. The application of negative interest to large credit balances with a view to reducing the attractiveness of the Swiss franc has only had limited success up to now and is having a negative impact on major domestic investors, in particular pension funds, charitable trusts etc.

These difficult conditions dealt another blow to the already weakened forestry sector and parts of the timber sector, above all the sawmills and manufacturers of wood-based materials, paper and paperboard, whose products came under even greater pressure on both domestic and foreign markets. This is typical of sectors whose costs arise domestically in Swiss francs and cannot be offset by the acquisition of cheaper raw materials or inputs from the euro zone. The pharmaceutical-chemicals industry proved more resistant. The watch and jewellery industry, which experienced few effects in 2015, recorded a considerable decline in 2016. Up to the fourth quarter of 2015, GDP growth fell to 0.4% and, based on provisional calculations, was 0.8% for all of 2015. Households benefited from the lower import prices and from the price reductions implemented by domestic suppliers in response to cheaper imports. This boosted their purchasing power. However, confidence is being undermined by the gloomy economic forecasts and concerns about jobs, and this is reflected in the consumer confidence index. The retail and gastronomy trade in border regions is particularly severely affected by shopping in neighbouring countries.

## Outlook

The difficult general conditions will continue to have a dampening effect, however, the success of the measures adopted by companies to adapt to the recent economic changes was increasingly felt in 2016, and experts in the federal authorities expect that the Swiss economy will recover in 2016 and 2017 and GDP growth will improve as a result.

It is still difficult to estimate how the debates surrounding migration into Switzerland and the corresponding negotiations with the EU will affect economic development. Great Britain's exit from the EU is also a source of uncertainty. The weaker migration and increase in vacant residential units recorded over the reporting period will not have any major impact on residential construction in 2016/2017 as the low capital interest rates continue to make property investments attractive and the demand for renovation, high-density construction and energy-related upgrades is increasing.

-> For more information, see: <https://www.seco.admin.ch/seco/de/home.html>

# 2 Developments in forest products markets

## 2.1 Overview and general trends

In the Swiss forestry and timber sector, the years 2015 to mid-2016 continued to be marked by the weakening of the euro. The continuing pressure arising from currency-related developments demanded a lot of staying power in some areas of the timber industry. There is growing pressure to cease production or transfer it to the EU in the paper and wood-based materials industries. The sector's structural adjustment continues on the level of sawmills. The increase in the construction of modern timber-framed structures and the workload of timber construction companies ranges between good and very good. However, they latter import most of their processed wood-based materials and semi-finished wood products, hence this positive development has had little impact on sawmills and forestry operations.

- The fact that this overall picture conceals an economy of two parts is demonstrated by the situation in the different branches of the forestry and timber sector:
- The strong construction sector and the increasing popularity of timber as an ecological construction material ensured a stable demand for timber and meant that wood-processing operations in some regions are working at a good capacity.
- The stimulating domestic demand was counteracted, however, by the restraining effect of the strong Swiss franc. While the timber builders could benefit from the cheaper imports of semi-finished wood products, the margins and profits of domestic wood traders, sawmills and exporters came under pressure from the exchange rate.

### **Outlook**

The highly valued Swiss franc is expected to remain the key factor for the Swiss forestry and timber sector in 2016/2017.

- The long-term buoyancy in construction, in particular residential construction, will shore up the demand for soft sawlogs.
- The high valuation of the Swiss franc against the euro will continue to generate strong pressure on imports and impacts on domestic prices in Swiss francs.
- The demand for hard sawlogs will remain weak; and the market for energy wood will grow. However, the low oil price will undoubtedly continue to have a dampening effect on growth in the demand for energy wood in 2016/2017. Together with the low wholesale prices for electrical energy, this poses an additional obstacle to the construction of large wood-fired heating plants with electricity production and creates problems for existing plants.
- Demand for industrial wood may be expected to remain constant; here too the market is significantly influenced by the CHF/EUR exchange rate and part of the demand should be covered by imported wood.

## **2.2 Excellence in Swiss timber construction**

In the residential construction sector, new building and extensions and property remodelling continue to operate at a high level. Timber construction is also gaining ground in multi-story construction and in industrial-commercial building. Capacities in the areas of timber construction, carpentry and interior construction are correspondingly well utilised. The investments made in research on timber construction and in the training of timber construction engineers and timber builders are bearing fruit. New timber construction standards and fire safety regulations that take the current status of timber construction into account are also contributing to this development. These new fire regulations entered into force on 1 January 2015 and have liberated timber construction from certain restrictive conditions, particularly in relation to multi-storey and high-rise residential buildings. This means that it is now possible to use timber construction for many buildings, for which this was not previously possible. Residential, office, school, industrial and commercial buildings, tourist accommodation and retail outlets up to a total height of 30 m can now be constructed in timber. The use of structural timber components and timber components that form fire compartments, which contain combustible elements, is now admissible under certain conditions, even in high-rise buildings. The new timber construction solutions developed by Swiss timber builders are setting global trends for modern and energy-efficient construction based on the CO<sub>2</sub>-neutral construction material wood. Timber is being rediscovered as a construction material by clients and architects and also, increasingly, for buildings in the tourism and transport sectors. The shorter construction periods and the possibilities for the prefabrication of large components, which can be assembled and installed quickly on the building site, also play an important role in this development. More pioneering projects were completed in 2015 and 2016, others are still under construction. Some flagship projects and smaller but exemplary timber buildings are presented below. However, this success has not benefited Swiss forest owners and sawmills to the extent that was hoped for. The timber builders and clients earn their profits in Swiss francs for the most part. At the same time, they can purchase sawn timber, semi-finished wood products and, above all, glued construction timber, derived timber products, and other additional supplies in the euro zone and reduce their costs in this way. As a result, considerable volumes of glued construction timber are being imported, mainly from Austria and Germany. In the case of Austria, in particular, some of this glued construction timber is produced from exported Swiss roundwood.

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### 2.2.1 Timber construction in Switzerland – example 1: Switzerland's first timber high-rise, Suurstoffi-Areal, Risch Rotkreuz



*Fig. 1 Right, Switzerland's first ten-storey wood-concrete composite high-rise*

(Image source: Lignum/Visualisation Zug Estates AG, Zug)

- Start of construction: August 2016  
Completion date: 2018
- Client: Zug Estates AG, Zug
- Architecture: Burkard Meyer Architects BSA AG, Baden
- Fire protection system: Makiol Wiederkehr AG, Ingenieure Holzbau Brandschutz, Beinwil am See, Timber construction engineers: Erne AG Holzbau, Laufenburg
- Number of floors: 10 floors, wood-concrete composite structure

Special feature: A new neighbourhood combining spaces for living, working and leisure activities is emerging in the Suurstoffi-Areal in Risch-Rotkreuz, canton of Zug. When completed, it will provide accommodation for 1,500 residents and over 2,500 jobs. The neighbourhood will also be used by approximately 2,000 students from the University of Lucerne and pupils attending various schools. The Zug Estates Group, a property development company based in Zug, is responsible for the integrated development of the neighbourhood, which covers an area of ten hectares. As part of the development, a composite wood-concrete office building, the first of its kind in Switzerland, is being constructed on a site adjacent to the railway line. With ten floors above ground level, the office building is Switzerland's tallest timber high-rise. The tight project schedule requires highly precise and consistent design and planning, something for which timber construction is particularly suited. The selected wood-concrete composite structure enabled the reduction of the construction period by four to six months as the individual elements, including heating, cooling and ventilation components, can be pre-fabricated in the workshop. The construction costs are no higher than those associated with solid concrete construction.

## 2.2.2 Timber construction in Switzerland – example 2: New summit building Chäserrugg, Alt St. Johann, canton of St. Gallen



*Fig. 2 New summit building Chäserrugg*

(Image source: Blumer-Lehmann AG, Gossau SG)



*Fig. 3 New summit building Chäserrugg*

(Image source: Blumer-Lehmann AG, Gossau SG)



*Fig. 4 New summit building Chäserrugg*

(Image source: Blumer-Lehmann AG, Gossau SG)

Reference: O431-1429

- Building completed: 2015
- Client: Toggenburg Bergbahnen AG
- Architecture: Herzog & de Meuron, Basle
- Timber construction: Blumer-Lehmann AG, SG

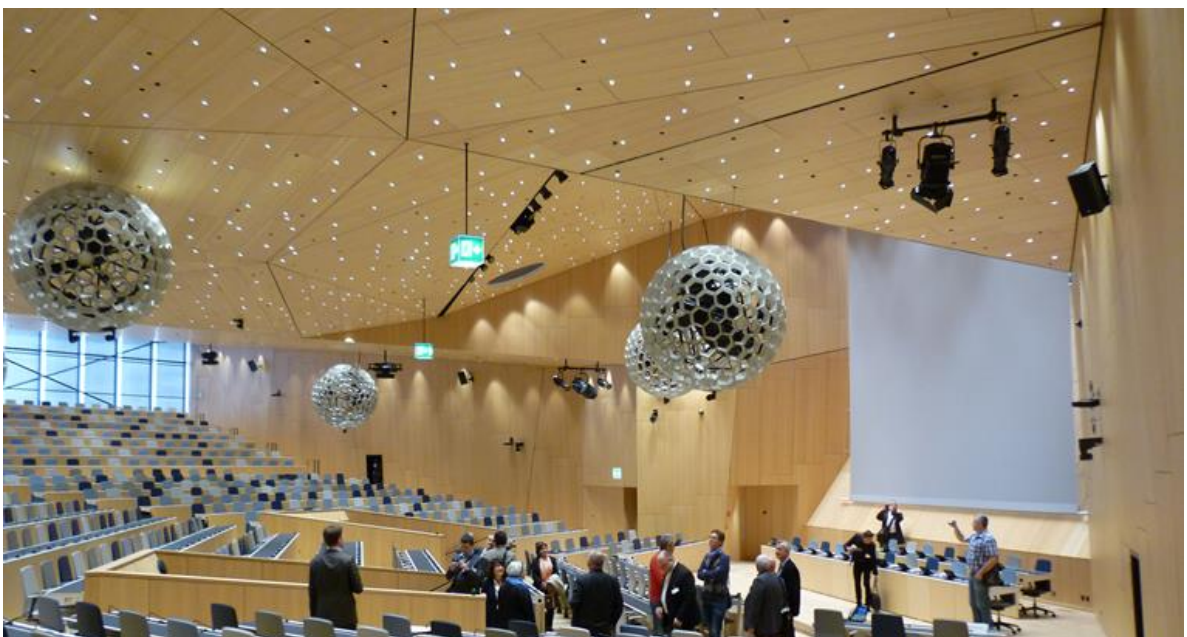
Special feature: The cable-car company Toggenburg Bergbahnen AG replaced its building on the summit of Chäserrugg mountain, a popular excursion destination at an altitude of 2,267 masl in the Appenzell Alps in 2015. The structure, which was designed by renowned Basel architects Herzog & de Meuron, includes the cable car station, a restaurant and various function rooms. Ninety percent of the striking and elegant building, which has a long overhanging roof to the south and east and stands on concrete foundations, consists of wood. The building presents a contemporary and fresh interpretation of traditional elements of the local architectural style, which is still influenced by agriculture. Due to its location, the summit building must be able to withstand high wind speeds and snow loads of up to 1200 kg/m<sup>2</sup>.

### 2.2.3 Timber construction in Switzerland – example 3: New Conference Hall of the World Intellectual Property Organization WIPO, Geneva



*Fig. 5 and Cover image This sculptural timber building contrasts strongly with the glass and steel of the surrounding buildings. By choosing the sustainable renewable resource wood as the main construction material, the client highlighted its commitment to sustainability.*

(Image source: lignum / Corinne Cuendet, Clarens)



*Fig. 6 The walls and ceiling of the conference hall are lined with silver fir (Abies alba) acoustic cladding panels. The fine perforation of the panels creates excellent acoustic properties. The floor is constructed in oak.*

(Image source: Lignum / Michael meuter, Zürich)

Reference: O431-1429

- Start of construction: summer 2011  
Building completed: September 2014
- Client: World Intellectual Property Organization, WIPO, Geneva
- Architecture: Behnisch Architekten, Stuttgart (DE); Project manager: Patrick Stremmer
- Timber construction engineers: Konsortium Bois OMPI, Charpente Concept SA, Perly, SJB Kempter Fitze Bauingenieure AG, Herisau, and Jean-Marc Ducret, Orges
- Timber construction: Consortium Bois OMPI, JPF Ducret SA, Bulle, and Dasta Charpentres Bois SA, Plan-les-Ouates (timber frame), John Schwab SA, Gampelen (acoustic cladding), Baeriswyl AG, Düringen (wood shingle façade), MS Services SA, Geneva (parquet flooring)

Special feature: In 2009, the General Assembly of the member states of the World Intellectual Property Organization approved the design presented by the Behnisch architecture practice in Stuttgart for the construction of a new conference hall that can accommodate 900 delegates in an area of 1,600 m<sup>2</sup>. With its exterior wood-shingle cladding, the elegant and airy structure showcases the successful mixing of traditional craftsmanship and cutting-edge technology. The sustainability argument dictated the use of native timber as the main building material and the use of energy-intensive materials like concrete and glass is restricted to a minimum. Of the approximately 60 companies involved in the construction of the building, over half were Swiss. The building was awarded the Herkunftszeichen Schweizer Holz HSH wood certification label by Lignum, the association representing the Swiss timber industry.

#### 2.2.4 Timber construction in Switzerland – example 4: New building for the Amt für Umwelt und Energie AUE (Office for the Environment and Energy), Basel



Fig. 7 View of the AUE building from the south west.

(Image source: jessenvollenweider)

- Start of construction: First quarter of 2018  
Completion date: Third quarter of 2019
- Client: Canton Basel-Stadt, Amt für Umwelt und Energie AUE
- Architecture: jessenvollenweider, Basel

Special feature: This eight-storey office building with a floor area of 2519 m<sup>2</sup>, a usable area of 1,209 m<sup>2</sup> and a site area of 416 m<sup>2</sup> marks the addition of a first timber building to the rich landscape of contemporary architecture in the city of Basel. The project is intended to provide a model for the architectural implementation of sustainable building based on exemplary energy-related and ecological construction principles. The basement is constructed in concrete and the upper floors are based on a composite structure comprising timber studs and wood-concrete slabs. The ventilated façade cladding is fitted with solar power modules.



## 2.2.5 Timber construction in Switzerland – example 5: Warehouse of the Museum of Communication, Schwarzenburg



*Fig. 8 The exterior view of the building shows its clear structure and lends it a certain lightness despite the considerable size.*

(Image source: Museum for Communication)



*Fig. 9 The appearance of the interior halls is characterised by the V-shaped supports and ceilings constructed from stacked timber elements.*

(Image source: Museum für Kommunikation)

- Building completed: 2012
- Client: Museum for Communication, Bern
- Architecture: Architekturbüro Patrick Thurston, Bern
- Timber construction engineering: Indermühle Bauingenieure GmbH, Thun

Special feature: Museum warehouses have particular technical requirements with regard to providing a constant and balanced indoor climate. To meet these exacting requirements, a low-tech solution with minimal technical air-conditioning was created for the new warehouse of the Museum for Communication in Schwarzenburg, which avails of the building envelope to provide optimal conditions in terms of the air humidity and temperature. This approach also helps to minimise the building's operating costs. The building consists of a timber structure measuring 40 x 50 metres with ceilings constructed in stacked timber elements, which enable optimum humidity regulation. The architect Patrick Thurston was awarded the Swiss "Prix Lignum", an award presented by the construction and timber industries for innovative timber construction, for this building.

## 2.2.6 Timber construction in Switzerland – example 6: Three six-storey residential timber buildings in the Freilager Development, Albisrieden, Zurich



*Fig. 10 View of the Freilager development in the Albisrieden neighbourhood of Zurich. The three timber “Langhäuser” (“Longhouses”) are the structures at the front of the photo extending from the centre to the right.*

(Image source: Renggli AG)

- Buildings completed: 2015
- Client: Zürich Freilager AG, Zürich
- Architecture: Rolf Mühlethaler, Bern
- Timber construction: Renggli AG
- Timber construction engineers: Indermühle Bauingenieure GmbH, Thun

Special feature: Eight hundred residential units and 200 student rooms were built on the site of a former bonded warehouse covering an area of 70,500 m<sup>2</sup> – or around 10 football pitches. They are distributed across ten new buildings and two existing converted structures. This major development is characterized by a wide variety of apartment types, floor plans and material finishes. This variety ensures a healthy mix of tenants with different budgets and requirements. The Freilager development integrates seamlessly into the existing neighbourhood structures and also provides space for shops, workshops, childcare facilities and restaurants. At the same time, around one third of the industrialised area was re-converted into green space and cars are largely banned from the circulation areas between the buildings. The three six-storey timber “Longhouses”, which contain a total of 187 apartments, represent a new high in Swiss timber construction. The sustainable timber structures, which comply with the Minergie-Eco and Minergie-P-Eco sustainable building standards, reflect the high-quality principles, on which this pioneering urban development project is based.

## 3 Roundwood: sawlogs, pulpwood and fuelwood

### 3.1 Developments up to mid-2016

The Swiss forestry sector was spared the effects of major storms and compulsory logging from 2008 to mid-2016. The heat waves and regional drought spells of summer 2015 weakened the spruce stands across the entire Central Plateau and made the trees vulnerable to infestation. The number of new bark beetle infestations increased significantly in 2015. Hence, a further increase in the volume of beetle-infested wood may be expected in 2016/2017, even without storm events.

A total of 4.55 million cubic metres (m<sup>3</sup>) of wood was logged in Switzerland in 2015, around 7% less than in the previous year. This reduction is mainly due to the difficult market conditions and lack of financial incentives for wood harvesting. Wood harvesting was still below the average value for the past 20 years. 68% of the wood harvest, i.e. 3.10 million m<sup>3</sup>, originated from public forests and 1.45 million m<sup>3</sup> from private forests.

The harvesting of softwood decreased by 9% to 3.18 million m<sup>3</sup> and hardwood harvesting decreased by 4% to 1.67 million m<sup>3</sup>. The proportion of harvested wood accounted for by softwood has decreased from 74% in 2006 to 63% in 2015, and the proportion of hardwood has increased from 26% to 37%.

This reflects the trends in natural forest development: two thirds of the standing volume is softwood and declining, while one third is hardwood and increasing.

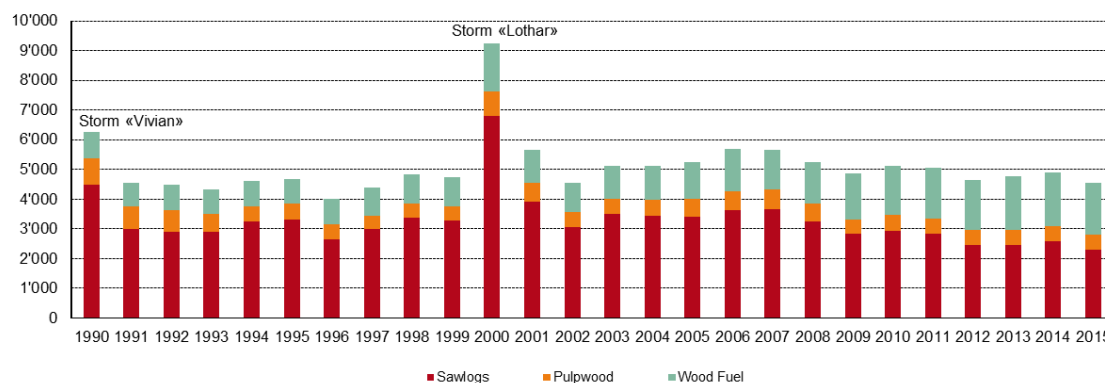


Fig. 5 – Wood harvest in Switzerland 1990 – 2015 in 1000m3

### 3.2 Timber assortments and price trends

Of the 2.31 million m3 of **sawlogs** harvested in 2015, 2.08 million m3 or 90% were softwood and only 10% hardwood. The market for soft **sawlogs** in 2015 and 2016 was influenced by the pressure arising from the low euro exchange rate: due to the changes in the exchange rate, the forestry sector had to accept price reductions to be able to sell the timber abroad and on the domestic market. Moreover, as a result of the clear decline in raw wood exports, particularly to Italy and Austria, in 2015 the wood from Swiss forests was increasingly marketed within the country.

Soft sawlog prices came under pressure in 2015/2016. The average price for spruce/fir sawlogs fell by 2.4 % from May/June 2015 to May/June 2016 and less wood was sold.

Exports of soft sawlogs decreased by 24% to 382,000 m3. The imports increased by 10% to 53,000 m3.

The market for **beech sawlogs**, the most important variety of hardwood in terms of volume, remains weak due to the lack of suitable processors. The majority of the traditional processing capacities for Swiss beechwood in northern Italy ceased operation in recent years. The price of beech sawlogs remained under pressure during this reporting period.

The harvesting of hard sawlogs decreased in 2015 by 6% to approximately 236,000 m3, of which 178,000 m3 was exported. At around 48,000 m3 in 2015, imports of hard stemwood were also considerably lower than exports.

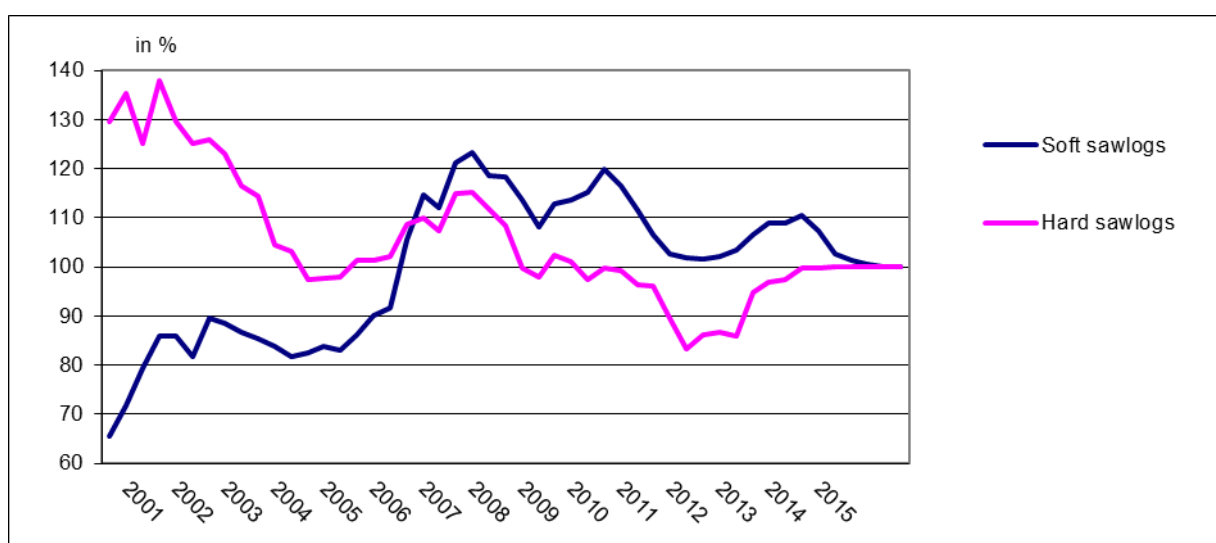


Fig. 6 – Price index for sawlogs, 2001-2015 (Sep-Oct 2015 = 100)

(Source: Federal Office for Statistics)

The harvesting of energy wood decreased by 4% to 1.73 million m<sup>3</sup> and that of wood for the derived wood products and paper industries (“industrial wood”) decreased by 7% to 0.49 million m<sup>3</sup>. Hence the supply of wood shifted further away from higher quality roundwood assortments to lower quality assortments for industrial processing and, above all, energy production. Medium and lower quality beech roundwood, large volumes of which were exported to Italy or processed in Switzerland into the 1990s, now enter the expanding energy wood market.

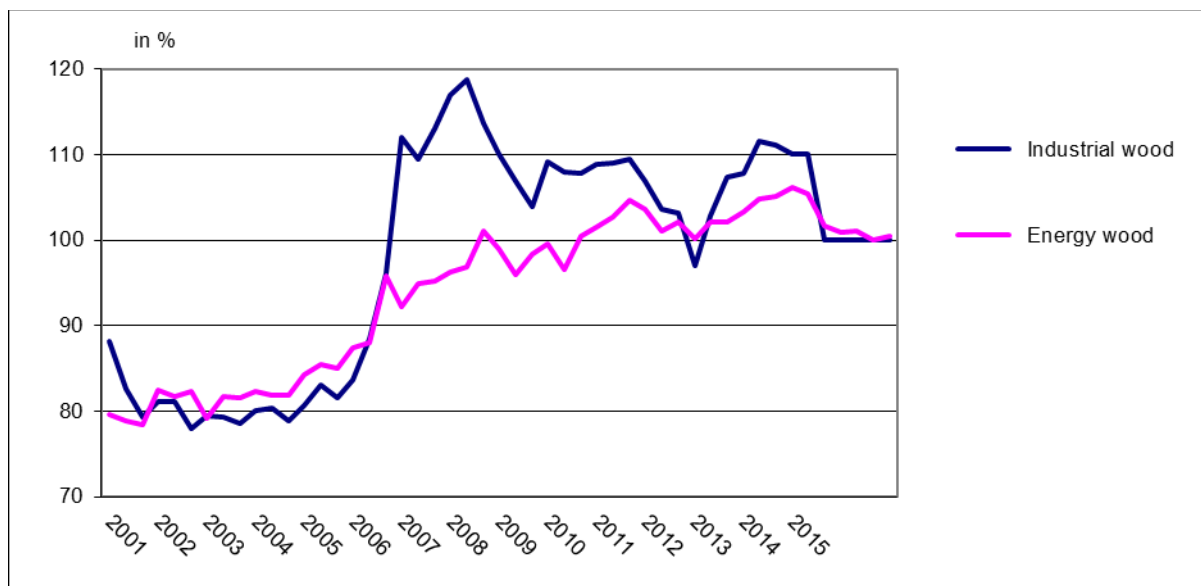


Fig. 7 – Price index for industrial wood (pulp wood) and for energy wood, 2001-2015 (Sep-Oct 2015 = 100)

(Source: Federal Office for Statistics)

### 3.3 Economic situation of the forestry sector

Public forestry operations manage 71% of Switzerland’s productive forest area. Despite the difficult general economic conditions, the situation of the Swiss forestry operations improved slightly over the reporting period. The Swiss National Bank’s decision not to peg the euro-franc exchange rate at 1.20 CHF/EUR, led to an abrupt collapse in wood prices. Compared to the previous year, the price index for raw wood fell by an average of 6% and by as much as 9% for industrial wood. Average wood revenues decreased nominally from 70 to 65 CHF/m<sup>3</sup>. According to the findings of the Forest Statistics and Test Network for Forest Enterprises (Testbetriebsnetz, TBN), however, this contrasted with a reduction in the losses of forestry operations to 55 CHF/ha. This was achieved through better outcomes in the production of material goods and provision of third-party services. When the cost of forest maintenance, forest access, welfare services, infrastructure and administration is taken into account, the uncovered cost of the harvesting of a cubic metre of wood is approximately CHF 12. The costs of wood harvesting and mountain and protective forest maintenance cannot be met without state subsidies.

The Swiss forestry statistics were revised and the sampling network for the Forest Statistics and Test Network for Forest Enterprises was streamlined in 2015. Due to these changes, the comparability of the financial data for this reporting period with those of previous years is limited.

-> For more information, see (German and French only):

<http://www.bfs.admin.ch/bfs/portal/de/index/themen/07/04/blank/data/01.html>

### 3.4 Wood energy

In 2015, Switzerland’s final energy consumption increased by 1.5% to 838,360 TJ compared to the preceding year. One of the main reasons for this was the cooler weather conditions compared to the previous year. Despite this slight increase, final energy consumption in 2015 was the second lowest recorded for the last 18 years – after 2014. In contrast, the factors that will determine the long-term growth trend of energy consumption grew: i.e. the permanent residential population by 1.1 %, gross domestic product by 0.9 %, housing stock (increase, detailed figures not yet available), motor vehicle stock by 1.8 %. 4.4% (36,850 TJ) of the energy required was generated from wood.

-> For more information, see: <http://www.bfe.admin.ch/themen/00526/00541/00542/index.html?lang=de>

Due to the characteristics of this climate-neutral raw material and the subsidising of non-renewable energies, the importance of wood as an energy source continues to increase. The potential offered by energy wood (i.e. forest, slash, wood residues and used wood) will be exploited more extensively in the future. The cost-covering remuneration for feed-in to the electricity grid (CRF) for electricity generated from renewable sources affects the viability of wood-fired heating plants and, together with a desired gain in terms of image, increases the (economic) attractiveness of business with green electricity for the Swiss electricity companies.

Four large wood-fired power plants currently operate in Switzerland. The blanket credit for a second wood-fired power plant in Basel was approved by the cantonal parliament. It is planned that this plant will generate and supply 80 gigawatt hours of thermal energy and 27 gigawatt hours of electrical energy from 185,000 cubic metres of wood chips. This wood-fired power plant will enable the avoidance of 19,000 tonnes of CO<sub>2</sub> emissions from fossil fuels annually. The plant in the Basel region is intended to replace an existing heating-oil and gas-fired power plant. This will enable an annual reduction in CO<sub>2</sub> emissions of 48,000 tonnes. This plant is expected to generate 221 gigawatt hours of thermal energy and 48 gigawatt hours of electrical energy annually. The generated thermal energy will be used primarily as process heat in a neighbouring industrial area.

In view of the planning of this second wood-fired power plant in Basel, a company supported by the regional forest owners established a central location for the storage and processing of waste wood. The wood is accepted, sorted and chipped here. Different ranges of wood chips, which are tailored to customer requirements, are provided for energy and material use in a weather-protected facility. Small to medium-sized wood-fired heating systems of local and regional importance are also being installed on a regular basis. Small to medium-sized wood-fired heating systems of local and regional importance are also being installed on a regular basis. For example, a smaller district heating plant with electricity production is being built in Baden-Dättwil, which will supply, inter alia, a large hospital. Foreign trade in fuelwood is relatively insignificant. In other words, the fuelwood harvested in Switzerland is also burned within the country.

### **3.5 Certified forest and forest products**

#### **3.5.1 FSC and PEFC certification**

Approximately 0.65 million ha of Swiss forest (i.e. 51 % of the total forest area) was certified in 2014. Of these certified areas, more than the half have both FSC and PEFC certification. Of the timber harvested in Switzerland in 2014, 66% was certified. The corresponding data were not surveyed from 2015 since the revision of the Swiss forestry statistics.

At present, over 900 companies operating at all levels in the timber processing sector hold a certificate. In contrast to the situation in the forestry sector, the majority of these companies, only hold the FSC certificate. Thus, the Swiss wholesale distributors, which also hold a significant share of the market in the DIY sector, are FSC-certified. 30% hold both the FSC and PEFC certificate. At present there are no companies in Switzerland that are solely PEFC-certified.

In 2009 a national certification standard, which forms the basis of certification for FSC and PEFC in Switzerland, was introduced by both label organisations. However, this harmonisation is criticised today as the competition between the private labels is disappearing as a result of its introduction. The main driving forces for certification in Switzerland are the DIY sector and the demand for certified paper products. However, the sellers of certified wood cannot demand a higher price ("green premium"). Thus the market does not compensate for the additional costs incurred in certification. For this reason, certification is a contentious issue in the forestry and timber sector.

#### **3.5.2 "Herkunftszeichen Schweizer Holz" (label of origin)**

The origin of the wood is not declared under the FSC and PEFC certification systems. In 2009 the forestry and timber industry introduced a new label ("Herkunftszeichen Schweizer Holz", HSH). It is managed by LIGNUM, the Swiss timber sector umbrella organization. Its main purpose is to show and prove the Swiss origin of the timber products. The intention here is to raise the awareness of end users about Swiss wood that is produced in accordance with the strict sustainability requirements of the Swiss forest legislation and has not caused environmental pollution as a result of being transported over long distances.

The HSH guarantees the traceability and documentation of a wood product from its origin to the end user. Products bearing the *Herkunftszeichen Schweizer Holz* label of origin may contain up to 20% of wood of foreign origin if it comes from a comparable production region (low risk origin) and has a sustainability certificate or declaration of origin.

Since September 2011, all wood origination from Swiss forest areas can be marked with the *Herkunftszeichen Schweizer Holz* label of origin. Use rights are assigned to forest owners if they are prepared to fulfil the conditions of the regulation. The cantonal forestry sector associations monitor compliance with the regulation requirements.

-> [http://www.lignum.ch/fr/technique/certification\\_du\\_bois/](http://www.lignum.ch/fr/technique/certification_du_bois/); <http://www.wvs.ch/fr/taches-centrales/dossiers/certificat-dorigine-bois-suisse.html>

### 3.6 Sawnwood

In 2015, Swiss sawmills only processed 1.87 million m<sup>3</sup> of soft sawlogs, compared to 1.75 million m<sup>3</sup> in 2013, 1.86 million in 2012 and 2.07 million in 2011.

The volume of soft sawn timber produced in 2015 was 1.05 million m<sup>3</sup>. The imports of soft sawlogs declined in 2015 by 4.7% to 345,000 m<sup>3</sup> and the exports declined by 2.2% to 176,000 m<sup>3</sup>.

Whereas 37% of the wood that was harvested in 2015 in the Swiss forest was hardwood, only 6% of the wood cut in the sawmills is hardwood. This can be explained by the fact that the construction sector mainly uses softwood. Hence demand is not quite in tune with the natural wood supply of the Swiss forest. This is problematic from an environmental economics perspective as cascade use<sup>1</sup> is politically and socially desirable.

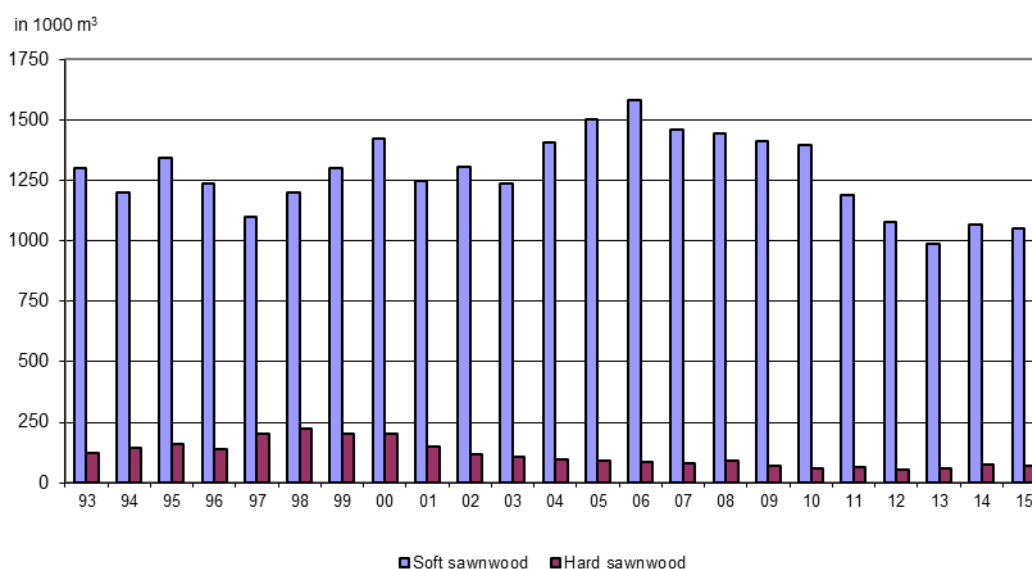


Fig. 8– Sawnwood production in Switzerland, 1993-2015

(Source: Federal Office for Statistics)

Swiss sawmills largely cover their sawlog requirements from domestic sources – at prices charged in Swiss francs. They also export sawnwood and sawnwood residues into the euro zone. As a result they face a double, and correspondingly severe, competitive disadvantage vis-à-vis their competitors from the EU. Moreover, the Italian sawnwood market, a traditional sales channel, is declining, and, on the domestic market, traditional wood boards cut to the customer's specifications for construction purposes, are being increasingly replaced by further processed semi-finished products such as glued construction timber. The prices of imported glued-laminated beams correspond approximately to those that Swiss laminated wood producers have to pay for domestic sawnwood.

Given that the increase in the average prices of the sawnwood assortments was lower than those of sawn roundwood, the economic scope available to the sawmills decreased further.

<sup>1</sup> Cascade use refers to the principle whereby particularly high quality wood is used first for long-lasting products and is only made available for energy use at the end of the lifecycle of these products.

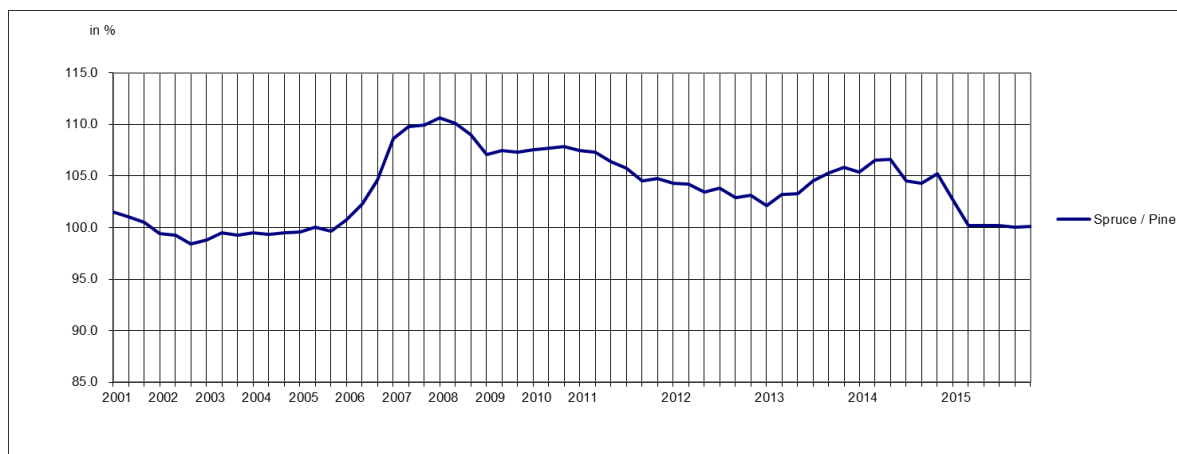


Fig. 9– Price index for soft sawnwood, 2001-2015 (Sep-Oct 2015 = 100)

(Source: Federal Office for Statistics)

In 2014, Swiss sawmills generated 729,000 m<sup>3</sup> of sawnwood residues, of which 18% were used to generate energy within the operations themselves and 19% by third parties; 50% went to the paper and wood-based panel industries and 13% was used in other ways as raw materials.

### 3.7 Pulpwood-processing sector

In 2015, 406,000 m<sup>3</sup> of industrial wood was harvested, of which 51% was softwood. 89,000 m<sup>3</sup> of industrial wood was imported and 82,000 m<sup>3</sup> exported, giving a domestic consumption of industrial wood of 495,000 m<sup>3</sup> for 2015. The volume of wood chips, particles and residues consumed in addition to this industrial wood is calculated at 1.21 million m<sup>3</sup>.

Imports of industrial roundwood are subject to major fluctuations as the internationally oriented industrial wood processors take greater account of the prevailing supply situation and currency developments than the sawmills when purchasing raw wood.

#### 3.7.1 Wood-based panels

The production of wood-based panels in Switzerland is shared by only two companies, one of which produces particleboard and the other various forms of fibreboard. Since early 2010, export figures are no longer published for data protection reasons and have to be estimated.

2015 was again a mixed year for the Swiss particle board and fibreboard industry. Despite the difficult economic climate, the Swiss timber industry is investing. Switzerland's only remaining particle board producer will invest CHF 80 million in the updating and expansion of the facilities at its Swiss base from 2015 to 2017. The measures include the construction of a new particle board production line, an efficient high-bay warehouse and a state-of-the-art assembly line for furniture components. It benefited from the strong construction economy and from energy-based building renovation but is under pressure in the export sector. Particleboard production in 2015 was estimated at around 0.39 million m<sup>3</sup> while that of fibreboard was estimated at 0.42 million m<sup>3</sup>. Soft fibreboard is preferred for the energy-based renovation of buildings and used for high-quality heat and noise insulation.

Particleboard is mainly used in the production of furniture and in interior construction. Hard fibreboard is not produced in Switzerland.

#### 3.7.2 Pulp and paper

The lifting of the minimum euro-franc exchange rate by the Swiss National Bank hit the Swiss paper and paperboard industry hard. However, the impact could be alleviated somewhat over the course of the year. The slight recovery of the euro exchange rate and the comparatively good domestic economic situation were contributory factors here. Although the restructuring process in the European paper industry had further impacts on Switzerland in 2015/2016. A small factory for the production of special high-quality papers in north-west Switzerland closed in early 2016. Raw material and energy prices, excess production capacity and currency difficulties remained the main challenges facing the sector in 2015. At 1.26 million tonnes, the 11 operations supplied 1.7% more paper and paperboard in 2015 than in the previous year. Production capacity was well to very well utilised.

Paper and paperboard consumption in 2015 was 1.25 million tonnes or 150 kg per capita; the corresponding figure for 2014 was 1.30 million tonnes/157 kg per capita.

In 2015, 0.91 million tonnes of paper and paperboard were imported and 0.94 million tonnes or 74% of Swiss production were exported. Switzerland's main trading partner for paper and paperboard is Germany. In 2015, 38% of imports originated from there and 36% of exports were sent there. With a market share of 23%, Italy is the second most important consumer of paper and paperboard from Switzerland. At 8%, Italy's contribution to imports is considerably lower. Over 99% of Swiss paper and paperboard imports originate from Europe and almost 97% of exports go to Europe. This illustrates the central significance. The paper producers import their entire cellulose requirements as cellulose has not been produced in Switzerland since 2008.

in 1000 m<sup>3</sup> <sup>1</sup>  
in 1000 t <sup>2</sup>

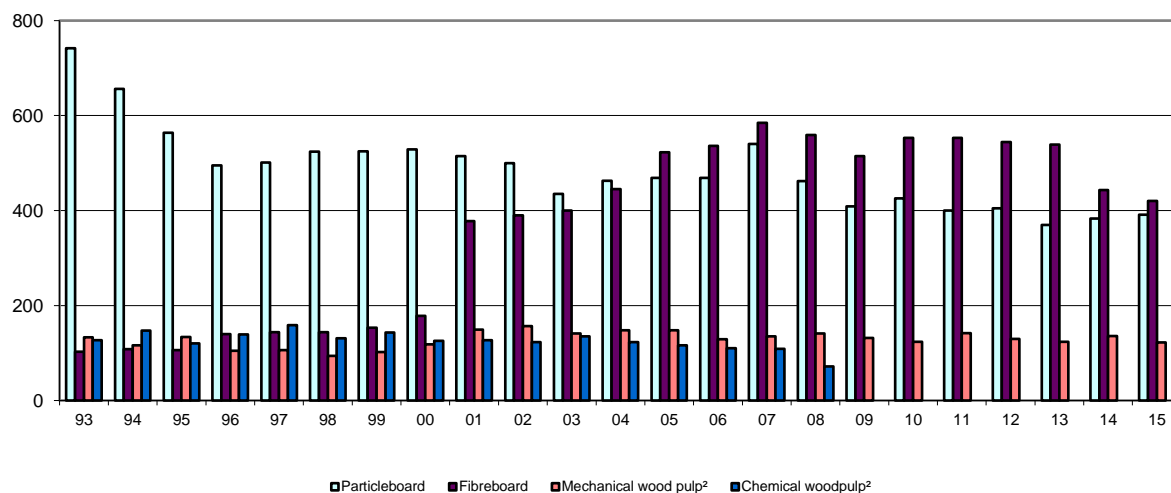


Fig. 10– Production of wood panels and wood pulp 1993-2015

(Source: Estimated values; Federal Office for the Environment FOEN, Forest Division)

## 4 Tables

### 4.1 Economic Indicators for Switzerland

#### Economic Indicators for Switzerland

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 <sup>f</sup>	2015 <sup>f</sup>	2016 <sup>f</sup>	2017 <sup>f</sup>
<b>Economic growth in %<sup>1</sup></b>	0	2.4	2.7	3.8	3.8	2.2	-1.9	3	1.8	1	2	2	0.8	1.5	1.8
<b>Inflation in %<sup>2</sup></b>	0.6	0.8	1.2	1.1	0.7	2.4	-0.5	0.7	0.2	-0.7	-0.2	0	-1.1	-0.4	0.3
<b>Unemployment rate in %<sup>3</sup></b>	3.7	3.9	3.8	3.3	2.8	2.6	3.7	3.5	2.8	2.9	3.2	3	3.2	3.6	3.5
<b>Interest yields in 10-year government bond in</b>	2.6	2.7	2.1	2.5	2.9	2.9	2.2	1.6	1.5	0.7	0.9	0.8	0.7	-0.5	-0.5
<b>Currency rate<sup>4</sup></b>															
<b>EUR</b>	1.52	1.54	1.55	1.57	1.64	1.59	1.51	1.38	1.23	1.21	1.23	1.20	1.07	1.10	1.15
<b>USD</b>	1.35	1.24	1.25	1.25	1.2	1.08	1.09	1.04	0.89	0.94	0.93	0.90	0.96	0.98	1.00

1) State Secretariat for Economic Affairs SECO, revised 2012 in accordance with NOGA 2008 (Nomenclature Générale des Activités économiques), statistical series retrospectively revised


2) Consumer Price Index, Swiss Federal Statistical Office BFS


3) State Secretariat for Economic Affairs SECO

4) Swiss National Bank SNB



## 4.2 Forest products production and trade in 2012–2013; Estimations and Forecasts for 2016–2017

Product Code		Product	Unit	Historical data		Estimate	Forecast
				2014	2015	2016	2017
 <b>TF1</b> <b>TIMBER FORECAST QUESTIONNAIRE</b> <b>Roundwood</b>							
				Country: Switzerland		Date: 16.09.2016	
				Name of Official responsible for reply:			
				Achim Schafer			
				Official Address (in full):			
				Federal Office for the Environment FOEN			
				Worbentalstrasse 68 3003 Bern			
				Telephone:	+41584691796	Fax:	+41584647866
				E-mail: <a href="mailto:achim.schafer@bafu.admin.ch">achim.schafer@bafu.admin.ch</a>			
1.2.1.C	SAWLOGS AND VENEER LOGS, CONIFEROUS						
	Removals		1000 m <sup>3</sup>	2'327	2'077	2'200	2'250
	Imports		1000 m <sup>3</sup>	48 #	53 #	55	50
	Exports		1000 m <sup>3</sup>	500 #	382 #	420	440
	Apparent consumption		1000 m <sup>3</sup>	1'875	1'748	1'835	1'860
1.2.1.NC	SAWLOGS AND VENEER LOGS, NON-CONIFEROUS						
	Removals		1000 m <sup>3</sup>	251	236	240	250
	Imports		1000 m <sup>3</sup>	41 #	48 #	50	50
	Exports		1000 m <sup>3</sup>	175 #	178 #	180	180
	Apparent consumption		1000 m <sup>3</sup>	117	106	110	120
1.2.1.NC.T	of which, tropical logs						
	Imports		1000 m <sup>3</sup>	0 #	0 #	0	0
	Exports		1000 m <sup>3</sup>	0 #	0 #	0	0
	Net Trade		1000 m <sup>3</sup>	0	0	0	0
1.2.2.C	PULPWOOD (ROUND AND SPLIT), CONIFEROUS						
	Removals		1000 m <sup>3</sup>	274	250	270	280
	Imports		1000 m <sup>3</sup>	81 #	89 #	80	80
	Exports		1000 m <sup>3</sup>	61 #	59 #	60	60
	Apparent consumption		1000 m <sup>3</sup>	294	280	290	300
1.2.2.NC	PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS						
	Removals		1000 m <sup>3</sup>	250	238	250	260
	Imports		1000 m <sup>3</sup>	2 #	0 #	0	0
	Exports		1000 m <sup>3</sup>	28 #	23 #	25	30
	Apparent consumption		1000 m <sup>3</sup>	224	215	225	230
3	WOOD CHIPS, PARTICLES AND RESIDUES						
	Domestic supply		1000 m <sup>3</sup>	729 C	701 C	730	750
	Imports		1000 m <sup>3</sup>	635 C	671 C	640	630
	Exports		1000 m <sup>3</sup>	178 C	158 C	160	170
	Apparent consumption		1000 m <sup>3</sup>	1'186	1'214	1'210	1'210
1.2.3.C	OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS						
	Removals		1000 m <sup>3</sup>	9	11	15	15
1.2.3.NC	OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS						
	Removals		1000 m <sup>3</sup>	4	6	5	5
1.1.C	WOOD FUEL, CONIFEROUS						
	Removals		1000 m <sup>3</sup>	568	548	550	560
1.1.NC	WOOD FUEL, NON-CONIFEROUS						
	Removals		1000 m <sup>3</sup>	1'231	1'186	1'240	1'250

 <b>UNECE</b>  <b>TF2</b> <b>TIMBER FORECAST QUESTIONNAIRE</b> <b>Forest products</b>		<b>Country:</b> Switzerland		<b>Date:</b> 16.09.2016		
		<b>Name of Official responsible for reply:</b>				
		Achim Schafer				
		<b>Official Address (in full):</b>				
		Federal Office for the Environment FOEN Worbentalstrasse 68 3003 Bern				
		<b>Telephone:</b>		+41584691796	<b>Fax:</b>	
<b>E-mail:</b> <a href="mailto:achim.schafer@bafu.admin.ch">achim.schafer@bafu.admin.ch</a>						
Product Code	Product	Unit	Historical data		Estimate	Forecast
			2014	2015	2016	2017
5.C	<b>SAWNWOOD, CONIFEROUS</b>					
	Production	1000 m <sup>3</sup>	1'068	1'053	1'080	1'100
	Imports	1000 m <sup>3</sup>	362	345	350	355
	Exports	1000 m <sup>3</sup>	180	176	175	180
	Apparent consumption	1000 m <sup>3</sup>	1'250	1'221	1'255	1'275
5.NC	<b>SAWNWOOD, NON-CONIFEROUS</b>					
	Production	1000 m <sup>3</sup>	73	69	70	75
	Imports	1000 m <sup>3</sup>	53	50	50	50
	Exports	1000 m <sup>3</sup>	20	15	15	15
	Apparent consumption	1000 m <sup>3</sup>	106	104	105	110
5.NC.T	<b>of which, tropical sawnwood</b>					
	Production	1000 m <sup>3</sup>	3	3		3
	Imports	1000 m <sup>3</sup>	11	10		10
	Exports	1000 m <sup>3</sup>	0 E	0 E		0
	Apparent consumption	1000 m <sup>3</sup>	14	12		13
6.1	<b>VENEER SHEETS</b>					
	Production	1000 m <sup>3</sup>	1 C	1 C	1	1
	Imports	1000 m <sup>3</sup>	5 C	5 C	5	5
	Exports	1000 m <sup>3</sup>	2 C	2 C	2	2
	Apparent consumption	1000 m <sup>3</sup>	3	4	4	4
6.1.NC.T	<b>of which, tropical veneer sheets</b>					
	Production	1000 m <sup>3</sup>	0	0	0	0
	Imports	1000 m <sup>3</sup>	0 E	0 R	0	0
	Exports	1000 m <sup>3</sup>	0 E	0 R	0	0
	Apparent consumption	1000 m <sup>3</sup>	0	0	0	0
6.2	<b>PLYWOOD</b>					
	Production	1000 m <sup>3</sup>	9 C	7 C	8	9
	Imports	1000 m <sup>3</sup>	184 C	182 C	180	182
	Exports	1000 m <sup>3</sup>	4 C	4 C	4	4
	Apparent consumption	1000 m <sup>3</sup>	188	185	184	187
6.2.NC.T	<b>of which, tropical plywood</b>					
	Production	1000 m <sup>3</sup>	0	0		
	Imports	1000 m <sup>3</sup>	3 R	3 R	3	3
	Exports	1000 m <sup>3</sup>	0 R	0 R	0	0
	Apparent consumption	1000 m <sup>3</sup>	3	3	3	3
6.3	<b>PARTICLE BOARD (including OSB)</b>					
	Production	1000 m <sup>3</sup>	383	391 R	395	400
	Imports	1000 m <sup>3</sup>	242	238	240	245
	Exports	1000 m <sup>3</sup>	240	229 E	230	235
	Apparent consumption	1000 m <sup>3</sup>	385	400	405	410
6.3.1	<b>of which, OSB</b>					
	Production	1000 m <sup>3</sup>	0	0	0	0
	Imports	1000 m <sup>3</sup>	80	87	90	95
	Exports	1000 m <sup>3</sup>	2 E	1 E	1	1
	Apparent consumption	1000 m <sup>3</sup>	78	85	89	94
6.4	<b>FIBREBOARD</b>					
	Production	1000 m <sup>3</sup>	443 C	420 C	425	430
	Imports	1000 m <sup>3</sup>	229 C	242 C	245	250
	Exports	1000 m <sup>3</sup>	370 C	363 C	360	365
	Apparent consumption	1000 m <sup>3</sup>	302	299	310	315
6.4.1	<b>Hardboard</b>					
	Production	1000 m <sup>3</sup>	0	0 R	0	0
	Imports	1000 m <sup>3</sup>	29	27	25	25
	Exports	1000 m <sup>3</sup>	4 E	5 E	5	5
	Apparent consumption	1000 m <sup>3</sup>	25	22	20	20
6.4.2	<b>MDF/HDF (Medium density/high density)</b>					
	Production	1000 m <sup>3</sup>	220	231 R	240	250
	Imports	1000 m <sup>3</sup>	64	64	65	65
	Exports	1000 m <sup>3</sup>	197 E	215 E	215	220
	Apparent consumption	1000 m <sup>3</sup>	88	80	90	95
6.4.3	<b>Other fibreboard</b>					
	Production	1000 m <sup>3</sup>	223	190 R	195	200
	Imports	1000 m <sup>3</sup>	135	151	150	155
	Exports	1000 m <sup>3</sup>	169 E	144 E	145	145
	Apparent consumption	1000 m <sup>3</sup>	189	197	200	210
7	<b>WOOD PULP</b>					
	Production	1000 m.t.	136 C	122 C	125	130
	Imports	1000 m.t.	157 C	149 C	150	155
	Exports	1000 m.t.	0 C	4 C	5	5
	Apparent consumption	1000 m.t.	293	266	270	280
10	<b>PAPER &amp; PAPERBOARD</b>					
	Production	1000 m.t.	1'258 C	1'279 C	1'285	1'295
	Imports	1000 m.t.	762 C	745 C	750	755
	Exports	1000 m.t.	914 C	953 C	955	965
	Apparent consumption	1000 m.t.	1'106	1'071	1'080	1'085
4.1	<b>WOOD PELLETS</b>					
	Production	1000 m.t.	160	160	160	165
	Imports	1000 m.t.	59	85	90	90
	Exports	1000 m.t.	3	1	2	2
	Apparent consumption	1000 m.t.	216	244	248	253