UNECE/FAO Forestry and Timber Section

International wood markets

Opportunities and risks

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3. Sawn softwood – top producer and exporter
4. Per capita consumption of sawn softwood
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1. UNECE/FAO Forestry and Timber Section
Economic Commission for Europe

... was established in 1947

... is one of five UN regional commissions

... facilitates **greater economic integration and cooperation** among its 56 member States
The forest in the UNECE region covers:

- 41% of the global total
- 85% certified area
- 60% industrial roundwood production
UNECE/FAO Forestry and Timber Section

Working Areas:

WA1 • data, monitoring and assessment

WA2 • policy dialogue and advice

WA3 • communication and outreach

WA4 • capacity building
Forest Products Annual Market Review
2. Sawn softwood – a key commodity
Sawn softwood – a key commodity

• 3.78 billion m³ of roundwood harvested annually

• 1.89 billion m³ of this is used for material uses (IRW)

• 1.09 billion m³ of this is from coniferous species

• 0.83 billion m³ of this is harvested in the UNECE

• 0.53 billion m³ of this transformed by sawmills in the UNECE
Sawn softwood – a key commodity

• Global *production* of sawn softwood
  ... increased by 25% in the past 20 years
  ... 76% of global production @ UNECE (0.26 billion m³)

• Global *export* of sawn softwood
  ... accounts for 37% of sawnwood production
  ... increased by 52% in the past 20 years
  ... 94% of global *export* originates from UNECE
Sawn softwood – key for wood mobilization

WOOD FLOWS IN AUSTRIA

All values given in million m³; values < 0.1 million m³ are not shown; numerical values partially rounded

Issue: June 2018 / Reference year: 2016

Source: UNECE Committee on Forests and the Forest Industry - Market Statement Austria (www.unice.org/forests/market-statements-2018.html)
3. Sawn softwood – top producer and exporter
Top 10 – sawn softwood producer
Top 10 – sawn softwood *producer*

- **US**: housing - crash
- **CA**: Very high dependency on US market
- **CN**: Domestic transformation of imported roundwood
Top 10 sawn softwood exporters
Top 10 sawn softwood exporters

CA: Recovery of US market and new markets (JP, CN and KR)

RF: Roundwood export tariffs

DE: Reacting to additional market opportunities

SE: Why is this market so stable?
Sweden - globalization of softwood trade

Non-European exports from Swedish shows a stable increase since the 80-ies.

Source: Magnus Niklasson, Swedish Forest Industries Federation (www.unece.org/index.php?id=47708)
4. Per capita consumption of sawn softwood
Sawn softwood consumption [m$^3$/capita]
Chinese softwood consumption ...

... was 0.039 m³ / capita in 2017;
... doubled in the past ten years;
... amounted to 56 million m³ in 2017;
... is ½ of per capita consumption of the Russian Federation;
... is ¼ of the per capita consumption of Japan;
... is ⅛ of the per capita consumption of North America;
... is 20 times higher than in India!
Russia has been pushing into North and Inland China: from lower costs and logistics advantages from OB-OR “block trains”

5. 2050 – where are we heading?
By 2050 the world population will be 9 – 10 billion
African population will double until 2050
22% aged over 60 compared to 11% in 2010
Consumers?

Figure 3: Regional shares of global middle class consumption, 2000-2050. Source: OECD

Shifts in the global middle class
**Economic situation?**

** Emerging markets will dominate the world’s top 10 economies in 2050 (GDP at PPPs) **

<table>
<thead>
<tr>
<th>Country</th>
<th>2016</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>US</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>India</td>
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<tr>
<td>Japan</td>
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<td>Germany</td>
<td>5</td>
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<tr>
<td>Russia</td>
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<td>UK</td>
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<td>9</td>
</tr>
<tr>
<td>France</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

** Vietnam, the Philippines and Nigeria could make the greatest moves up the rankings **

<table>
<thead>
<tr>
<th>Country</th>
<th>2016</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>32nd</td>
<td>20th</td>
</tr>
<tr>
<td>Philippines</td>
<td>28th</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>22nd</td>
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</tr>
</tbody>
</table>

**Average annual GDP growth rate, 2016-2050**

- Vietnam: 5.1%
- Philippines: 4.3%
- Nigeria: 4.2%

*Sources: IMF for 2016 estimates, PwC analysis for projections to 2050*
Economic situation?

The US and Europe will steadily lose ground to China and India

Global economic power will shift to the E7 economies

In...
- 1995: E7 were half the size of G7
- 2015: E7 were around the same size as G7
- And in just 25 years...
  - 2040: E7 could be double the size of G7

G7: US, UK, France, Germany, Japan, Canada and Italy
E7: China, India, Indonesia, Brazil, Russia, Mexico and Turkey

Sources: IMF for historical GDP, PwC analysis for projections to 2050

Shifts in the ranking of economies
Global economic centre of gravity moving from west to east
6. Innovation creating new demand
Oil rig mats
– cross laminated boards

> 10,000 drills per year
(US average past ten years)
CLT - the mp3 of the forest products?

• Very similar story - “Oil rig mats” – low value added mass product.
• Innovation to turn it into “structural” panels – high value added.
• Full service production – all in one hand.
• The success story did not happen in the original producing country - first producers were located in DACH countries.
• First high-rise buildings not in producer/forest rich countries – but in cities with suitable building codes.
• First high rise buildings were in London, UK; Melbourne, Australia; Vancouver, Canada; Bergen, Norway; Vienna, Austria.
• Huge advantages in fire safety and earthquake resistance.
• Very likely to be included the global harmonized system rev. 2021.
Despite the hype around the potential of cross-laminated timber (CLT) for very tall buildings, however, most usage will be for low and mid-rise construction, at least until codes and regulations are developed for CLT.

Interest in and the use of CLT continues to grow in the UNECE region, as well as beyond it in countries with traditions of wood construction, such as Japan and Australia.

Most global CLT production is still in Europe; within Europe, the DACH countries (Austria, Germany and Switzerland) accounted for about 70% of global production (about 700,000 m³) in 2017. European production of CLT is forecast to increase dramatically to 1.78 million m³ by 2020.

Estimates of the market potential of CLT in the US range from 2 million m³ to 10 million m³ per year.
7. Conclusions
**Opportunities:**
- Process and product innovation
- Improved horizontal and vertical integration for even better resource efficiency
- Complete value chain
- Globalization of trade
- Diversification of markets
- Capacity building
- Communication

**Risks:**
- Strong global competition
- Changing rules for trade (export/import restrictions)
- Disruptive events (biotic and abiotic disturbances)
- Economic downturn
- Aging workforce
- Changing societal preferences
- Wrong perceptions
Thank you!

UNECE Forestry and Timber: www.unece.org/forests

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Summary

Key issues affecting the European forest-based sector

Environment
- Climate Change: Adaptation and mitigation (Need for carbon storage)
- Biodiversity
- Damage (insects, fires, etc.)

Society
- Preferences regarding:
  - Living
  - Furniture
  - Products (packaging)
  - Life style
  - Building constructions
  - Fashion
  - Forest tourism
  - Recreation / Health

Economy
- EU28 economy
- World economy
- Trade
- Technologies
- Energy
- Bioeconomy/ Circular Economy/ Green Economy