EUROPEAN MARKET OVERVIEW

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UNECE, SILVA 2015, Engelberg, Switzerland
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TOTAL PAPER AND PAPERBOARD CONSUMPTION AND PRODUCTION

[Bar chart showing total paper and paperboard consumption and production from 1995 to 2014, with categories for graphic paper, sanitary and household papers, packaging materials, and other paper and paperboard.]
TOTAL GRAPHIC PAPER CONSUMPTION AND PRODUCTION
TOTAL PAPERBOARD CONSUMPTION AND PRODUCTION

Graph showing total paperboard consumption and production from 1995 to 2014. The graph is divided into two parts, one for consumption and the other for production. The bars are color-coded to represent different types of paperboard materials: Case materials, Cartonboard, Wrapping papers, and Other papers mainly for packaging. The values are given in thousands of metric tons (1000 mt).
SAWN WOOD CONSUMPTION AND PRODUCTION
WOOD BASED PANELS CONSUMPTION AND PRODUCTION
TOTAL WOOD PULP CONSUMPTION AND PRODUCTION

Chart showing total wood pulp consumption and production from 1995 to 2014, categorized by type: mechanical woodpulp, semi-chemical woodpulp, chemical woodpulp, and dissolving grades woodpulp.
RAW MATERIAL

Recovered paper

Chips and particles production

Recovered paper consumption vs. Recovered paper production
<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulp</td>
<td>2.5%</td>
<td>10%</td>
</tr>
<tr>
<td>P&amp;PB</td>
<td>15%</td>
<td>22%</td>
</tr>
<tr>
<td>Sawnwood</td>
<td>5%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Source: UNECE and CEPI Databases, 1995-2014
## ECONOMICS OF MIXED COMPANIES
### Average ROCE in %/yr

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>6.0</td>
<td>3.6</td>
</tr>
<tr>
<td>USA</td>
<td>5.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Japan</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Emerging Asia &amp; Others</td>
<td>8.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Canada</td>
<td>3.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Latin America</td>
<td>8.0</td>
<td>3.8</td>
</tr>
</tbody>
</table>

NEAR-TERM OUTLOOK 2016-2017

- High debt level in many European countries
- Decreasing growth in labor force and productivity
- Falling real raw material prices decreases inflation
- Geo-political unrest with costly immigration
- After 2010s, bungy-jump hovering economic development
- The Great Recession succeeded by the Great Moderation
NEAR-TERM OUTLOOK 2016-2017

The European forest-based industry is extremely dependent on the global economic development.

Source: IMF, World Economic Outlook, October 2015.
LONG-TERM ECONOMIC STAGNATION MAY BE NORMAL
BLACK SWANS or $#*! HAPPENS

Source: www.mapsofworld.com
## GLOBAL GROWTH RATES FOR COMMODITY PRODUCTS TO 2025 – 1

<table>
<thead>
<tr>
<th></th>
<th>News print</th>
<th>Uncoated wood containing P&amp;W</th>
<th>Coated wood containing P&amp;W</th>
<th>Uncoated wood free P&amp;W</th>
<th>Coated wood free P&amp;W</th>
<th>Hygiene</th>
<th>Liner &amp; fluting</th>
<th>Folding box board</th>
<th>Packaging paper</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global growth rates (average %/yr)</strong></td>
<td>-1.4</td>
<td>-1.2</td>
<td>-0.8</td>
<td>+0.5</td>
<td>+0.6</td>
<td>+3.2</td>
<td>+2.8</td>
<td>+2.4</td>
<td>+0.8</td>
</tr>
</tbody>
</table>

GLOBAL GROWTH RATES FOR COMMODITY PRODUCTS TO 2025 – 2

<table>
<thead>
<tr>
<th>Bleached soft wood Kraft</th>
<th>Bleached hard wood Kraft</th>
<th>Mechanical Kraft</th>
<th>Dissolving + specialty pulps</th>
<th>Soft wood lumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global growth rates (average %/yr)</td>
<td>+/- 0-0.5</td>
<td>0.0 (3.0 EUC)</td>
<td>+/- 0-0.5</td>
<td>+4-5</td>
</tr>
</tbody>
</table>

We are in the worst of it now.

But it will be bad for another 15+ years.

It will get worse for 3 - 4 years ...

... then the decline will slow down.

RELATIVE DECLINE IN CONSUMPTION IN MATURE AND EMERGING MARKETS

2005 = US$ 98,000; 2011 = US$ 150,000; 2012 = US$ 160,000

GDP/POP. = 500-550 mill. tons 2025
Cons. = 400-450 mill. tons 2025

EUROPEAN HOUSING STARTS 2004-2015

MONTLY EXPORTS OF SAWN REDWOOD FROM SWEDEN & FINLAND

Source: Woodstat, Database, visited May 4, 2014; prior consent received.
The European Governments and UNECE / FAO Forestry & Timber Section must treat Europe as an integral part of the total world
POLICY – 2 – SECTOR TRANSFORMATION
The European countries and UNECE/FAO Forestry & Timber Section must establish flagship/mission programs on the European sector transformation

- Substantial state support
- Innovation
- Cooperation over borders and sectors
- Stable and long-term policies encompassing several governments being in charge
Bio-economy is a prerequisite for successful transformation. European countries and UNECE/FAO Forestry & Timber Section must urgently move from talk-show to work-shop

• Bio-economy is about political reorientation and fundamentally changed strategic thinking
• Bio-Economy is about integrated policymaking/political economy
• Bio-economy is about quality and includes many R's (reduce, reuse, recycle, replace, redesign, rebuild, redefine, revive, regenerate, reform, re-organize, rethink, re-imagine, re-invent and be resilient
European countries and UNECE/FAO Forestry & Timber Section must ensure that the sawmilling industry is an integrated part of the societal and city planning

- 100 million people in the ECE region have 40%+ of disposable income for housing (UNECE, 2015)
- Elderly, young, middle-income, vulnerable and special groups are especially affected
- The sector must be in the forefront of the development of the infrastructure, inclusive city, climate-smart, sustainable, green buildings, etc.
- Production costs, urbanization, generation Y and Hotel Mama
THANK YOU!

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