Competitiveness of the Russian Sawmilling Industry

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Agenda

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  – Industry Structure
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Indufor

- Independent international consulting company based in Finland, New Zealand, Australia and the US with over 35 years of experience in the field of forestry, forest industry and natural resources
- Provide world class advisory services to a wide range of private and public sector clients
- More than 300 clients in over 800 projects in 5 continents.
Indufor – Forest Industry & Bio Solutions – Service Offerings

Biomass sourcing and wood supply plans
- Site suitability for forest plantation and biomass species and varieties
- Potential and realistic supply availability in biomass supply baskets
- Developing supply models and assessing associated cost structures

Business strategies
- Pre-feasibility/feasibility studies
- Business plans
- Market supply, demand and trade assessments – market entry solutions
- End use segment and client identification studies

Due Diligence and M&A
- Purchaser and vendor due diligence
- Valuations
- Mergers and acquisitions

Process Improvements
- Technology assessments
- Operational improvement analysis

Industry benchmarking
- Industry segment productivity assessments
- Single plant benchmarking studies
Indufor – Russia

- In Russia since late 1980s
- Both strategic and operational projects
- Services cover all strategically important issues for the industry:
  - Forest management and forest inventories
  - Wood supply and procurement
  - Investment analysis - feasibilities
  - Manufacturing processes
  - Sales and marketing
  - Logistics
Industry Overview
Overview – Supply and Demand

Industry development heavily export driven but official statistics somewhat underestimate the role of the domestic market.

- Sawn softwood production has approximately doubled since 2000
- The overall production level and industry development is heavily driven by the exports
- However, both production and domestic demand for sawn softwood is at a higher level than official statistics indicate.
Overview – Supply

Regional shares of sawnwood production have remained almost unchanged with Siberian and North-Western FD account for over 2/3 of the total output. However, Siberian output has increased significantly whereas output in NW Russia has been stagnant.

Production of sawnwood in Russia, 2016

- Siberian FD: 40%
- North-Western FD: 28%
- Volga FD: 13%
- Far-Eastern FD: 7%
- Central FD: 7%
- Ural FD: 4%
- Southern FD: 1%
- North-Caucasian FD: >1%

Total – 34 million m³
Overview – Industry Structure

Very fragmented industry characterized by relatively small sawmills with an annual capacity of less than 100,000 cubic meters. A significant share of these mills is expected to be missing from the official (production) statistics resulting in misleading S&D balance in the country.
Overview – Industry Structure and Sales Focus

*Sales focus is largely dependent on sawmill size. Large mills target their output to export markets.*

- Most of the small and medium sized mills focus their sales to domestic market with local clients
- However, there are naturally also some companies with pure export focus in these size categories
- On the other hand, the largest Russian sawmills sell practically all of their output to the export markets

![Sales Focus According to Sawmill Size](image)
Overview – Exports

Very significant structural changes in the export market focus during the last 15 years towards markets with lower quality requirements with China representing for over 50% of the total. This has been possibly mainly with the existing production technology level.

- The shares of exports to Japan and Europe have shrunk continuously
- The importance of China as the main export destination has skyrocketed (from 3% to 58%), the role of Central Asia has increased as well, though at a much more modest pace
- Together with the Middle East the share of these core export markets accounts for over 80% of total export volume
Competitiveness
Competitiveness – Cost Structure

Raw material dominates the cost structure worldwide.

- In sawmilling, raw material has a dominating share of the total cost and of total productivity.
- Changes in productivity can't be done overnight but there improvements can be achieved through machinery investments.
- The differences between cost structures of the countries are due to the differences in:
  - Product mix
  - Raw material base
  - Input prices
  - Machinery
  - Logistics
Competitiveness – Delivered Log Costs

Russia has the lowest log costs among the main competing suppliers – in relation to different softwood fibre types (fast vs. slow growing) as well as sawnwood end use (structural vs. non-structural) types, but…

Delivered Log Costs in 2016

USD/m³

China
Germany/Austria
Finland
USA
Estonia/Latvia
New Zealand
Sweden/Norway
Canada
Chile/Brasil
Russia
Competitiveness – Log Price Development

...log prices in Russia have risen rapidly in local currency, but the lower value of Ruble has significantly reduced the euro-based prices!

Annual Softwood Log Price Changes in 2010-2015
Competitiveness – Log Price Development

Prices for softwood logs in Russia have increased in the North-West and Siberia, but the development have been relatively stable elsewhere.
Competitiveness – Log Price Development

Several factors put pressure on Russian log price development.

- Russian raw material competitiveness will face serious challenges in the next several years:
  - Unlike in many competing areas, stumpage value in Russia is low, and log cost consists mainly from harvesting and transport costs.
  - Thus, market driven impacts that decline the stumpage price level are smaller than in competing countries.
  - Furthermore, inflation will increase input costs in harvesting and logistics.
  - Road infrastructure will continue to pose a challenge. Capital investments in forest infrastructure are needed.

Indicative Log Cost Breakdown

Share of total log cost

Country A | Country B | Country C | Country D | Russia

- Transport
- Harvesting
- Stumpage

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Competitiveness – Log Price Development

Mill Gate price depends on the companies’ ability to utilize AAC efficiently. Success on high AAC utilization rate should be pursued especially in areas that require major infrastructure investments.

Mill Gate Price per Harvesting Area

Mill Gate Price Sensitivity to AAC Utilization Rate
Competitiveness – Labor Cost

In Russia, the labor price is clearly the lowest and has decreased in euro terms during 2010-2015, but has increased as much as 12% annually in the local currency. Favorable exchange rate development has kept the euro-based labor cost almost unchanged.
Competitiveness – Number of Employees

Despite the favorable development versus the main competing countries Russian sawmilling industry is still heavily labor intensive.

Number of Employees

- Russia
- Canada
- Sweden
- Germany
- Finland

Production per Employee

- Germany
- Sweden
- Finland
- Canada
- Russia

2010 vs. 2015
Competitiveness – Number of Employees

Although the labor productivity has increased somewhat faster than in the competing countries, it has not been able to compensate the price increase and therefore the unit costs have increased. Significant labor productivity improvement opportunities exist!

Annual Change in Number of Employees 2010-2015

Annual Change in Production of Employee 2010-2015
Competitiveness – Product Features and Service

Russia has traditionally had a disadvantage position but latest capacity investments and expansion outside Russia are changing the old unfavorable situation.

- In many cases, Russian sawmill industry continues to lag behind in product sales values relative to its competitors in several markets
- Log quality is good or some times even higher in comparison to competitors
- This disadvantage position been due to perceived product quality issues resulting mainly from
  - outdated technology
  - differences in service levels
    - timeliness
    - ease of payments
    - claim handling
- These service issues are partly resulting from the lack of local presence – Russian companies have fewer sales offices or terminals/landed stock in the key export markets
- In addition, there is improvement potential in experience and skills in export sales, especially among the smaller companies
Competitiveness – Product Value Opportunity

*Sawnwood-log price ratio of Russian sawmills has improved but higher value product opportunities exist.*

- Sawnwood/log price ratio in Russia has developed more favorable than in the competing countries
- Also exchange rate has helped Russia when selling their products to export markets
- While logistics costs from Russia are somewhat higher than from other areas, product value can be increased through improved product offering (grades and sizes) as well as marketing
- High quality raw material allows the production of these higher value specialties

**Softwood Sawnwood/Log Price Ratio 2010-2015**
Conclusions
Conclusions

Outlook showing significant opportunities as well as challenges both in production environment in Russia and at global sales markets.

- Russian sawmill industry has a log cost advantage relative to many competitors
  - largely due to low stumpage costs
  - as inflation pushes logging and hauling costs up the industry loses gradually this advantage
- Other costs (such as sawmill labor) are also increasing rapidly with inflation resulting also in lost cost competitive advantage
- The main means of improving competitiveness are through improving:
  - ⇒ labor productivity and yield (at sawmills and in logging/hauling)
  - ⇒ infrastructure
  - ⇒ product/sawnwood value
Conclusions

*Russian sawmills can not rely on favorable exchange rate forever. Capital investments improving productivity and yield should be a priority. Correct mill size analysis crucial.*

- Productivity, yield and infrastructure
  - **capital investments** in sawmills are a key way to labor productivity and yield improvements
  - however, since the log transport costs are considerable and infrastructure limited, the **correct mill size** has to be considered carefully. Log cost per m$^3$ increases with mill size and other cost savings become marginal once a certain size has been passed
Conclusions
Product and service offering in relation to market selection are among the key decisions regarding the future competitiveness.

- The third area for improving competitiveness is through **product value increase**
  - The raw material quality is high and allows for the production of higher value specialties
    - Planed, MSR, modified/treated products, CTL, EWPs, etc.
  - Investments in grading optimization technology can also increase sales value
    - Especially in North-West Russia

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**March 2017 Spot Prices in the USA**

<table>
<thead>
<tr>
<th>EUR/m³</th>
<th>Framing lumber</th>
<th>Treated KD Decking</th>
<th>Common Boards</th>
<th>Fencing</th>
<th>WRC Decking</th>
<th>Siding</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 2x4</td>
<td>SPF 2x4</td>
<td>Pine 5/4x6</td>
<td>Pine 5/4x6</td>
<td>EU spruce 1x4 #2</td>
<td>EU 1x6 #1</td>
<td>WRC 5/4x6 R.E.D.</td>
</tr>
<tr>
<td>Btr #2&amp;Btr</td>
<td>MSR</td>
<td>Std</td>
<td>Pre</td>
<td>#2</td>
<td>FSR</td>
<td>Gr.</td>
</tr>
</tbody>
</table>

**Abbreviations**
- SPF = Spruce-Pine-Fir
- Btr = Better
- MSR = Machine Stress Rated
- Std = Standard
- Pre = Premium
- WRC = Western Red Cedar
- FSR = Full Sawn Rough
- R.E.D. = Radius Edge Decking
- Gr. = Green
- KD = Kiln Dried

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Conclusions

Detailed market and product opportunity analysis required as global sawnwood market facing changes.

- Global markets will face major changes in supply source structures offering opportunities both in structural and non-structural applications
  - Canadian exports to decrease to the US and Asia (China and Japan)
  - European demand will not grow considerably
  - New market areas are emerging – e.g. India where Russian volumes are limited