International Timber Outlook:
Logs and Woodchips

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RISI
Agenda

• Chinese imports of softwood logs
  ▪ Heading to a new record volume of softwood log imports in 2018
  ▪ Tariff disputes AND other factors causing market adjustments

• Asian imports of hardwood chips
  ▪ Yet another new record volume in 2018
  ▪ But a massive hole is starting to develop on the supply side, and will have a ripple effect on Asian pulp imports over the next 4-5 years

• Climate change and forest investment
Two-thirds of China’s log and lumber imports are softwood, but hardwood imports increased faster in 2018

China Log and Lumber Imports, First Half

Million Cubic Meters, RWE

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<tr>
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<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>Softwood Logs</td>
<td>17</td>
<td>19</td>
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<td>Softwood Lumber</td>
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<td>Hardwood Logs</td>
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<td>Hardwood Lumber</td>
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New Zealand’s market share in China increased to 39% in first half 2018, while most other major sources were lower.
China’s total demand for softwood logs and lumber will end the year slightly higher than 2017 levels; lumber imports are more likely to grow than logs in the future.
New Zealand softwood log exports have tripled in volume over the last decade, primarily to China
Chinese imports of Russian softwood logs and lumber were 10% lumber in 2007, but will be an estimated 75% in 2018.
Unprocessed logs were 61% of Russia’s wood products export value in 2001, but only 17% in first half 2018.

Russia Wood Products Export Value

- **Raw Logs**
- **Other Wood Products**

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<tr>
<th>Year</th>
<th>Raw Logs (Million USD)</th>
<th>Other Wood Products (Million USD)</th>
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<tbody>
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Russia’s softwood lumber exports have doubled over the past decade, but nearly 60% now going to China.
Softwood log exports to China from the US South were growing rapidly, but have recently hit a bump in the road.
Incredibly, over 40% of US softwood log exports to China in 2018 have been from the South, in containers.

* Based on first 8 months data.
Yes, China does have import duties on US logs---but that’s only part of the story

• Current import duties include:
  ▪ 5% on Douglas-fir and hemlock
  ▪ 10% on spruce and true fir (could go to 20% in January)
  ▪ 25% on SYP
  ▪ 25% on oak and 20% on other hardwood logs

• But if the Chinese really want to play hardball, it doesn’t matter what the duty is; China National Forest Products (SOE controlled by the State Council) is the largest player, and finances many of the others by providing letters of credit.
For the ninth year in a row, Asian imports of hardwood chips have set a new record volume; but trouble is ahead.
Despite government efforts to restrict chip exports, Vietnam has increased its share of the market.
All signs point to a major drop in hardwood chip supply; but will companies return to chips from natural forests?
Climate Change: Having a Major Impact and Raising Costs of Wood Worldwide

• Mountain pine beetle in British Colombia
• Year-round fire season in California and increased fire damage throughout the West
• Fires also causing severe disruptions in wood supply in Indonesia, Europe, Chile, etc.
• New pests and diseases attacking fast-growing plantations at an increasing rate
• Plantation forestry companies finding their clones no longer suitable as climate conditions changes, e.g., Brazil, South Africa
• The risks/costs of climate change and opportunities for forest investors will be one of many topics of discussion at the Sixth Forest Investment Conference in London next May
• RISI and DANA have combined forces to bring together the most compelling conference for the financial community, those engaged in tracking companies and assets, or those who own and manage timberlands.

• The two-day conference will take an in-depth look at timberland investments around the globe and how these opportunities will unfold in the near future.