The impact of Vaia storm on the timber market in North-Eastern Italy

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Contents

• Intro: Vaia Storm
• Vaia storm and the timber market in NE Italy
  – Data sources & methodological issues
  – Preliminary data
• Beyond timber market
• Some final considerations
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Source: Gardiner et al., 2013

Lothar e Martin (1999) 240 Mm³
Klauss (2009) 44 Mm³
Kyrill (2007) 52 Mm³
Gudrun (2005) 87 Mm³

Source: Gardiner et al., 2013
Vaia storm (28-30th October 2018)
Forest areas (ha) damaged per municipality

494 Municipalities, 2.4 Mha
42.873 ha damaged forests, 8.7 Mm³
= 7 times average annually harvested industrial roundwood volume in Italy

Source: Chirici et al., 2019

Damaged forest areas

<table>
<thead>
<tr>
<th>Regions/provinces</th>
<th>Damaged forest area (ha)</th>
<th>Timber volume 1 000 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veneto</td>
<td>12 114</td>
<td>2 500</td>
</tr>
<tr>
<td>A.P. of Trento (TN)</td>
<td>18 300</td>
<td>3 300</td>
</tr>
<tr>
<td>A.P. of Bolzano (BZ)</td>
<td>4 200</td>
<td>1 500</td>
</tr>
<tr>
<td>Friuli VG</td>
<td>3 600</td>
<td>950</td>
</tr>
<tr>
<td>Lombardia</td>
<td>3 200</td>
<td>400</td>
</tr>
<tr>
<td>Total</td>
<td>41 491</td>
<td>8 690</td>
</tr>
</tbody>
</table>
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Data sources & methodological issues


Data sources:

<table>
<thead>
<tr>
<th>Area</th>
<th>Source</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomous Province of TN</td>
<td>Legno Trentino (online portal) + Data from Autonomous Province of TN</td>
<td>Standing/Road-side</td>
</tr>
<tr>
<td>Autonomous Province of BZ</td>
<td>Autonomous Province of BZ website (Agriculture &amp; forests Directorate)</td>
<td>Standing/Road-side</td>
</tr>
<tr>
<td>Asiago Plateau (VI)</td>
<td>Auction records by Municipalities</td>
<td>Standing</td>
</tr>
<tr>
<td>Comelico’s Regole familiari (BL)</td>
<td>Auction records by 10 Regole</td>
<td>Standing</td>
</tr>
</tbody>
</table>
Marketed volumes and prices
Standing trees (1/2) Aut. Prov. TN
(online + offline auctions)

<table>
<thead>
<tr>
<th></th>
<th>Oct 17-Oct 18</th>
<th>Nov 18-Mar 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Av. selling price (Euro/m³)</td>
<td>69.20</td>
<td>27.30</td>
</tr>
<tr>
<td>Total marketed volume (m³)</td>
<td>67,000</td>
<td>761,000</td>
</tr>
</tbody>
</table>

Source: own elaborations from Legno Trentino web portal & Autonomous Province of TN data
Growing size of marketed batches
Standing trees - Aut. Prov. TN

<table>
<thead>
<tr>
<th></th>
<th>Oct 17-Oct 18</th>
<th>Nov 18-Mar 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average batch size (m$^3$)</td>
<td>400</td>
<td>4,900</td>
</tr>
<tr>
<td>Average selling price (Euro/m$^3$)</td>
<td>0.00</td>
<td>80.00</td>
</tr>
</tbody>
</table>

Source: own elaborations from Legno Trentino web portal & Autonomous Province of TN data

Grigno (Marcelsina)

The largest timber auction by a single public owner in Italy (Grigno (TN) Feb.’19):

- 276 500 m$^3$ (7 batches)
- 7.6 Mil. Euro
- 2 years, 10 000 trucks estimated
- Specialized Estonian forest enterprises hired
Marketed volumes and prices
Standing trees (2/2) – Asiago & Comelico

Asiago Plateau (Nov. 18 - Mar. 19)
• > 230,000 m³ marketed (Foza, Gallio, Asiago, Rotzo and Enego)
• Total annual removals in Veneto (Istat, 2015): 70,000 m³
• Average selling price (after Vaia): 25,1 Euro/m³

Comelico (Nov. 18 - Mar. 19)
• 250,000 m³ marketed (whole Comelico area)
• Average selling price (before Vaia): 71,3 Euro/m³
• After Vaia: 26,3 Euro/m³
Marketed volumes and prices
Road-side (1/2) – Aut. Prov. TN
(online + offline auctions)

### Marketed volumes and prices
Road-side (2/2) – Aut. Prov. TN & BZ

**Average Selling price (€/m³)**

<table>
<thead>
<tr>
<th></th>
<th>Oct. 18 – Oct. 19</th>
<th>Nov. 18 – Mar. 19</th>
<th>% variation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wood for packaging (Spruce)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous Province of BZ</td>
<td>83,1</td>
<td>51,5</td>
<td>-38%</td>
</tr>
<tr>
<td>Autonomous Province of TN</td>
<td>87,6</td>
<td>55,6</td>
<td>-37%</td>
</tr>
<tr>
<td><strong>Sawlogs (Spruce)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous Province of BZ</td>
<td>103,9</td>
<td>79,4</td>
<td>-24%</td>
</tr>
<tr>
<td>Autonomous Province of TN</td>
<td>103,8</td>
<td>84,9</td>
<td>-18%</td>
</tr>
<tr>
<td><strong>Mixed assortments (Spruce)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous Province of BZ</td>
<td>80,5</td>
<td>68,1</td>
<td>-15%</td>
</tr>
<tr>
<td>Autonomous Province of TN</td>
<td>96</td>
<td>75,1</td>
<td>-22%</td>
</tr>
<tr>
<td><strong>Sawlogs (Larch)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous Province of BZ</td>
<td>133</td>
<td>111,3</td>
<td>-16%</td>
</tr>
<tr>
<td>Autonomous Province of TN</td>
<td>173</td>
<td>120,3</td>
<td>-30%</td>
</tr>
</tbody>
</table>

Source: own elaborations from Legno Trentino web portal & Autonomous Province of TN data + Autonomous Province of BZ website (Agriculture & forests Directorate)
Prices go down, online auctions are less populated (1/2)

Prices go down, online auctions are less populated (2/2)

Source: own elaborations from Legno Trentino web portal & Autonomous Province of TN data
Online vs. offline sales
An increasing incidence of off-line bids for standing tree sales

Source: own elaborations from Legno Trentino web portal & Autonomous Province of TN data

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**Vaia damages to forest resources: a quick preliminary assessment**

<table>
<thead>
<tr>
<th>Regions/provinces</th>
<th>Damaged forest area (ha)</th>
<th>Timber volume 1 000 m$^3$</th>
<th>Damage estimation (M€)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A$^{50}$ €/$m^3$</td>
<td>A$^{20}$ €/$m^3$</td>
</tr>
<tr>
<td>Veneto</td>
<td>12 114</td>
<td>125</td>
<td>50</td>
</tr>
<tr>
<td>A.P. of TN</td>
<td>18 300</td>
<td>165</td>
<td>66</td>
</tr>
<tr>
<td>A.P. of BZ</td>
<td>4 200</td>
<td>75</td>
<td>30</td>
</tr>
<tr>
<td>Friuli VG</td>
<td>3 600</td>
<td>48</td>
<td>19</td>
</tr>
<tr>
<td>Lombardia</td>
<td>3 200</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41 491</strong></td>
<td><strong>434</strong></td>
<td><strong>174</strong></td>
</tr>
</tbody>
</table>

A. Assuming an average stumpage price equal to 50 €/$m^3$ and an actual selling price equal to 20 €/$m^3$

B. Quick estimation via benefit transfer assuming an average value of 470 €/ha/year for ecosystem services (ES) losses (CLIBIO project quoted by ten Brink et al. 2009)

Additional damages:
- **Machinery and equipment** of forestry enterprises
- **Forest-based business activities**
- **Forest roads**
- **Hiking and bike paths**
- Discouraging effects on **tourists/visitors**
- …

Additional damages:
- Dolomites bike path Castelavazzo (BL)
  Credits: A. Pra
- Adventure park Roana (VI)
  Credits: S. Cesca

Credits: A. Pra

Dolomites bike path Castelavazzo (BL)

Credits: A. Pra
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Can a ordinarily foggy landscape (= the domestic timber market) become sunny and clear under extraordinary circumstances?
Some final considerations (1/2)

• Difficulties in accessing data: limited and scattered information

• A forest-wood system largely unready to face an event like Vaia

• Winners and losers

• Market saturation: limited domestic primary processing capacity, no stocking yards → export

• Effects on prices and market dynamics (e.g. online vs offline auctions/sales, middle-men for out-coming companies, sales mechanism…)

• …and likely additional socio-economic impacts in the medium-long term

Some final considerations (2/2)

• Plans/measures for dealing with future extreme events needed (e.g. stocking-yards, procedures for activating private operators, consistent rules across public administrations…)

• Not just a technical issue, a matter of governance of forest resources (horizontal and vertical coordination/integration among actors)

• Tools for monitoring and supporting the market under ordinary conditions → starting from and improving existing best-practices
Can an ordinarily foggy landscape (= the domestic timber market) become sunny and clear under extraordinary circumstances? Very likely not in the short-term... but big-crisis can become opportunities for improving and innovating.