

## European Spruce Bark Beetle Infestation Affecting U.S. and EU Softwood Exports

Kelsi Van Veen, Office of Industries, [Kelsi.VanVeen@usitc.gov](mailto:Kelsi.VanVeen@usitc.gov), (202) 205 3086

*A widespread infestation of European spruce bark beetles is destroying millions of hectares of coniferous softwood across Europe, with damages concentrated in Central Europe. Efforts to stifle the spread of the infestation have led to increased logging of both damaged and healthy trees. This unplanned growth in supply has triggered price drops in European softwood logs and lumber products over the past year. The low prices are encouraging European exports to increase in both total value and volume, especially to China. Meanwhile, U.S. softwood exports have declined, likely due to the downward pricing pressure from increased European logging and subsequent diversion away from the U.S. market.*

### What are Bark Beetles?

Bark beetles are small insects that live and reproduce beneath the bark of coniferous trees. Generally, the beetles reside in dying trees with weakened defense mechanisms, but they can also attack healthy trees if beetle populations grow large enough. A majority of bark beetle larvae tend to die off when temperatures drop, but a trend toward longer summers is keeping the beetles alive and allowing them to reproduce at a faster rate, while droughts are weakening the trees' defenses. The past two decades have seen an increase in more detrimental infestations, which many scientists attribute to climate change.

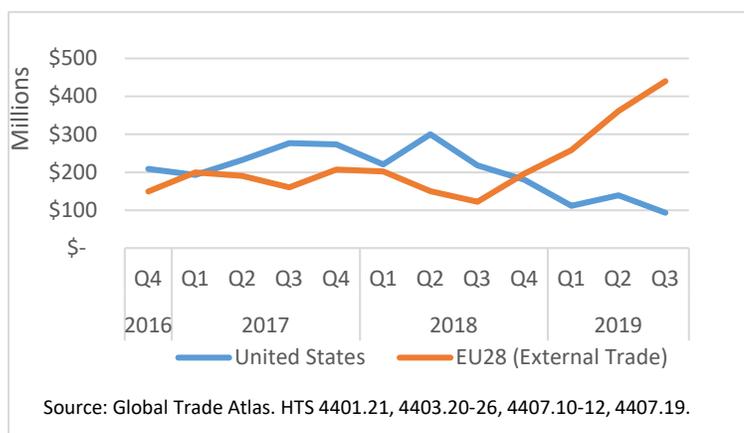
### Current Infestation Affecting Europe

The current infestation of European spruce bark beetles is said to have begun in 2012 but started growing significantly in mid-2018. Central European countries including Germany, Austria, the Czech Republic, and Poland are reporting most of the damages, with infestation of approximately 40 million cubic meters of wood in 2018. However, damage is spreading to other countries as well, including France and Switzerland. The UK is also monitoring the spread of both the European Spruce and Great Spruce bark beetles. In the third quarter of 2018, the European lumber industry began introducing the damaged timber to the market: France's National Forestry Agency "estimates that there are 60 to 100 million cubic meters of infested wood currently on the market throughout Europe."<sup>1</sup> Healthy timber is also being logged in increasing quantities as countries have adopted harvesting policies to stifle the impacts and spread of bark beetle infestations and decrease forest density. This influx of supply has led EU prices to fall to record lows, making European exports highly competitive.

### Effects on Trade with China

China is the world's largest market for logs, and the second largest importer of lumber, with growing demand for softwood products. EU softwood log and lumber exports to China increased by 260 percent between Q3 of 2018 and Q3 of 2019 (\$318 million), while U.S. exports to China fell by 57 percent (\$125 million), reflecting the combination of increased demand from China, lower prices for European material, and added retaliatory tariffs on Chinese imports from the United States in response to U.S. Section 301 actions. (Figure 1). While some

**Figure 1: U.S. and EU Softwood Exports to China, 2016-2019**



<sup>1</sup> Crellin, "French Forests Scarred as Heatwaves Bring Bark Beetle Infestation." Reuters, July 19, 2019.

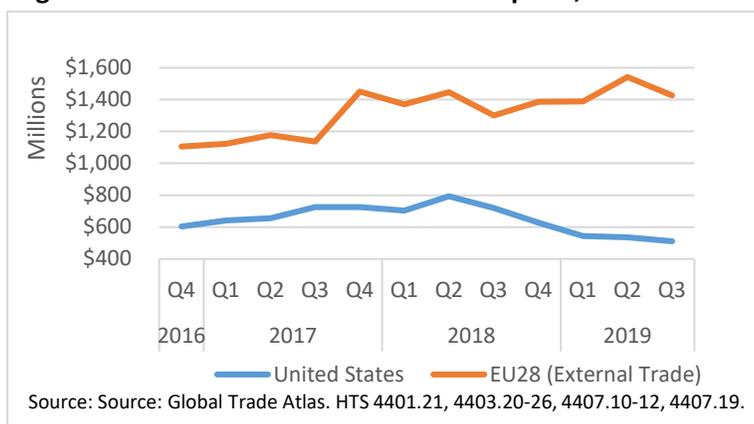
*The views expressed solely represent the opinions and professional research of the author. The content of the EBOT is not meant to represent the views of the U.S. International Trade Commission, any of its individual Commissioners, or the United States government.*

European businesses have complained about the impacts of low prices and an inability to export damaged wood to most markets, exports to China have grown sharply in both total value and volume, pushing out competitors, including the United States. Unlike most other export destinations, China has welcomed the damaged European softwood. China's demand for wood chips and wood pulp products is steadily increasing, which is likely a result of China's recent import ban on wastepaper for recycling starting in 2018, thereby providing demand for the damaged European wood, which is still suitable for papermaking. Although U.S. lumber prices fell dramatically halfway through 2018 as a result of falling demand from both the U.S. housing market and overseas, the lower U.S. prices have not improved the volume of exports to China. Recent trade disputes between the United States and China may be motivating China to seek imports from elsewhere.

**Figure 2: U.S. and EU Global Softwood Exports, 2016-2019**

### Effects on U.S. and EU Global Exports

U.S. exports to the world fell by 29 percent (\$208 million) between Q3 of 2018 and Q3 of 2019, while the EU's global external exports increased by 10 percent (\$127 million), peaking at 19% in Q2 of 2019 (Figure 2). Global softwood export trends largely reflect the effects of China's import trade diversion toward Europe and away from the United States. However, many countries are not taking the damaged wood, so the European surplus has had less effect



on U.S. exports in these markets. In addition, the United States is experiencing an increase in lumber exports to certain EU countries, especially Germany, which support applications that cannot be filled by beetle-damaged trees. There was a 290 percent year-to-date increase in the volume of U.S. softwood lumber exports to Germany between Q3 of 2018 and Q3 of 2019. A rise in U.S. exports to India has also helped make up for some of the losses of exports to China in 2019.

### The Long-Term Impact of Bark Beetles

Though Europe is currently exporting large quantities of softwood lumber, there will likely be a local supply shortage in the future, reflecting the early harvest necessitated by the bark beetle damage. European sawmills are reaching production capacity, and exports of processed lumber, wood chips, and wood pulp are expected to slow. Moreover, though exports of European logs to China may continue to grow for some time until supplies run out, future shortages in Europe may support the United States regaining its share of exports to China as well as continuing supply to European countries until their forests recover.

**Sources:** Biedermann, "[Scientists Alarmed by Bark Beetle Boom.](#)" University of Wurzburg, July 1, 2019. Crellin, "[French Forests Scarred as Heatwaves Bring Bark Beetle Infestation.](#)" Reuters, July 19, 2019. Dalheim, "[Russia Passes Canada to Become World's Leading Softwood Lumber Exporter.](#)" Woodworking Network, December 9 2019. Greene, "[Chinese Tariffs Impacting US Forest Supply Chain.](#)" Forest2Market, June 6, 2019. Katz, "[Small Pests, Big Problems: The Global Spread of Bark Beetles.](#)" Yale School of Forestry & Environmental Studies, September 21, 2017. Lopatka, "[Climate Change to Blame as Bark Beetles Ravage Central Europe's Forests.](#)" Reuters, April 26, 2019. Melnis, "[Surplus of Beetle-Damaged Timber Impacting European Forest Industry.](#)" Forest2Market, November 14, 2019. Spannlang, "[China No. 1 Wood Importer in 2017.](#)" Timber Online, May 23, 2018. Stokstad, "[Beetles are Ravaging Europe's Oldest Forest. Is Logging the Answer?](#)" ScienceMag, December 5, 2017. "[Eight-toothed Spruce Bark Beetle \(Ips Typographus\).](#)" UK Department of Agriculture, Environment, and Rural Affairs. Accessed December 13, 2019. "[Management of Great Spruce Bark Beetle.](#)" UK Forest Research, Accessed December 13<sup>th</sup>, 2019. Random Lengths International Vol. 52, Iss. 20, October 16, 2019. Random Lengths International Vol 52. Iss. 22, November 13, 2019. "[Spruce Bark Beetle Explosion & Storm Damaged Timber – Europe's Rapidly Changing Global Trade Flows.](#)" Forest Economic Advisors, December 4, 2019.

*The views expressed solely represent the opinions and professional research of the author. The content of the EBOT is not meant to represent the views of the U.S. International Trade Commission, any of its individual Commissioners, or the United States government.*