FORISK NEWS

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NEW OPTIONS FOR MILL DATA

Forisk's North American Mill Capacity Database is now offered as a one-time "Snapshot" in addition to the annual subscription! Forisk's Mill Data is also now available on the Acres platform. Contact Heather Clark to learn more at hsclark@forisk.com.

ABOUT FORISK

Forisk helps the forest industry make better decisions. We discover how things work through conducting applied research related to timber markets, wood bioenergy, and forest operations. Founded in 2004 and headquartered near Athens, Georgia, Forisk conducts original, nationally cited research. Leading media outlets – including *The Wall Street Journal*, *New York Times*, and National Public Radio – cite our analysis.

Current Forisk clients account for over 250 million tons of annual wood use and over 100 million acres of timberland ownership in North America. You can learn more about our company, our services, and our products at www.forisk.com.

FORISK

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Welcome to the Q4 edition of the Forisk News!

Since the previous *Forisk News* went to press, our team communicated with forest industry professionals in the U.S., Canada, Japan, the UK, and the EU on topics including <u>wood supply agreements</u>, <u>wood fiber markets</u>, <u>wood pellet exports</u>, and <u>GDP forecasts</u>. Since August, Forisk team members delivered presentations on timberland markets, forest supplies, and mill capital investments to audiences in Alabama, Georgia, and Texas. Forisk research has been featured and cited by *Fast Company*, *LandThink*, *Biomass Magazine*, and the Georgia Forestry Association.

In October, <u>Forisk announced a partnership with Acres</u> to support online analysis tools for timberland investors.

Finally, Forisk is hiring! If interested in roles in forest economics or business development, please visit here for more information.

Next Forisk Webinar: Applied Forest Finance

March 14, 2024

This class details the step-by-step financial analysis required to answer key investment and forest management questions. Attendees will learn how to identify, value, and rank timber and forestry investments. Course qualifies for 6.0 CFE hours.

Visit Forisk's website to learn more.

RESEARCH HIGHLIGHTS FROM FORISK'S BLOG

- U.S. Housing Starts Outlook, Q4 2023 Update
- Timber Supply Forecasts for the U.S. South and Northwest
- Timber REIT Performance and Estimating Net Asset Values
- Adventures in Forecasting: Scenarios and Volatility
- Export Pellet Snapshot
- Soft End Markets Continue to Affect Fiber Prices and Woodyard Inventories
- Timberland Ownership and Wood Supply Agreements
- Assessing Mill Health and Risk when Evaluating Timber Markets and Wood Baskets
- Pulp and Paper Closures and Conversions Trim Wood Fiber Demand
- Mill Investments and Closures in the U.S. South

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SELECT FINDINGS FROM THE Q4 2023 FORISK RESEARCH QUARTERLY (FRQ)

The Q4 2023 <u>Forisk Research Quarterly (FRQ)</u> includes industry analysis and market forecasts through 2032 for timber prices, logging costs, softwood lumber production, structural panels production, paper and paperboard production, forest supplies, and wood bioenergy markets. **Select summary findings from the Q4 FRQ report include:**

- Macro and Housing: The economy continued to grow in Q3, with real GDP increasing 4.9%, versus a revised 2.1% in Q2. Labor markets added 799 thousand jobs while the unemployment rate rose to 3.7%. Yields on 10-year U.S. Treasuries rose to 4.38%, the highest since 2007. In Q3 2023, U.S. housing starts decreased 6.2% year-over-year. Canadian housing starts also fell in Q3, declining 9.3% year-over-year.
- <u>Lumber:</u> Through August 2023, total lumber exports decreased 14% year-over-year led by hardwood exports (-23%). Softwood exports decreased 3%. Canada, Mexico, and China accounted for 65% of all U.S. lumber exports through August. Softwood lumber prices were flat in Q3 2023. Capital investments in sawmills continue with over \$2.5 billion in announced projects representing 3.8 BBFT of increased capacity by 2026 in the U.S. South alone.
- Structural Panels (OSB & Plywood): Through Q3 2023, OSB production decreased 5% year-over-year and plywood production decreased 2%. Net imports for both products fell: OSB declined 10% and plywood declined 31%, through Q3 2023. Quarter-over-quarter OSB prices increased 64% and plywood increased 2%. Announced mill openings and investments add at least 3 BSF to North American panel capacity through 2026.
- Pulp & Paper: Paper and paperboard production through Q3 2023 dropped 9% year-over-year. Packaging production rose 1.8% for the quarter but remains 5% below Q3 2022 levels. Tissue production rose 1.7% for the quarter, up 0.3% yearto-date. OCC prices rose 27% in Q3 but remain 48% lower year-over-year.
- Wood Bioenergy: As of October 2023, Forisk's wood bioenergy database tracks 417 operating and announced projects. Based on Forisk's viability screening, 285 projects pass with potential wood use of 90.0 million tons per year. The North still leads all regions in total projects, though the South leads in projected fiber use. Most bioenergy projects are in the biomass-to-electricity and pellet segments, though renewable hydrocarbon (liquid biofuel, biochar) projects are increasing. Through August 2023, U.S. wood pellet exports increased 7.2% year-over-year while Canadian wood pellet exports decreased 9.4%.

- Log & Chip Exports: Through August 2023, Canadian & U.S. softwood log exports were up 4% and down 18% respectively. U.S. softwood chip exports for the same period rose 19%. Southern softwood log exports dipped 36% year-over-year, likely related to slowing economic activity in Asia. The top three U.S. forestry commodity trade partners, China, Canada, and Japan account for 83% of U.S. wood product exports.
- <u>Timberland Investments:</u> All three timber REITs are trading below where they started 2023. As a sector, timber REITs declined 6.9% over the past twelve months according to the market cap weighted Forisk Timber REIT Index (FTR). Over 2.7 million acres of industrial timberland transactions closed in the U.S. (versus 3.4 million for the prior FRQ) over the last four quarters. TIMOs accounted for the largest portion of acreage bought and sold.
- Forest Operations: Four-quarter average logging employment declined 3% year-over-year in the U.S. West, South, and West Canada. Logging wages rose >4% year-over-year across most of North America as tight labor markets and inflation pushed wages higher. Trucking employment remained elevated in Q1 2023, contrasting with falling freight demand.
- Timber Markets, U.S. South: Pine sawtimber prices declined less than 1% in Q3 2023 and hardwood sawtimber prices rose 3% according to Timber Mart-South. Pine pulpwood prices rose 1% while hardwood pulpwood prices fell 9%. The 2023 forecast for pine sawtimber implies a 1% decrease in prices from 2022 levels, driven by further supply accumulations and lower housing demand. Prices recover to 2022 levels in four years. Updated timber supply forecasts project sawtimber inventories grow 1.7% per year for the next ten years; pulpwood is flat.
- Log Prices, Pacific Northwest: Domestic and export log prices continued to fall through Q3 2023. Forisk's "base case" projects a drop for Douglas-fir prices in Oregon in 2023 and 2024, followed by increases in 2025. Updated supply forecasts project 4% more inventory growth than models last year due to lower lumber production and mill demand.
- Hardwood Markets, U.S. North: Forisk's Hardwood
 Price Index increased 1% in Q2 2023, falling 17% yearover-year. Last 4Q starting prices were led by white
 oak in the Middle Atlantic, red oak in New England, and
 hard maple in the Lake States, where prices decreased
 for all species except oak and black cherry.

To learn more about the Forisk Research Quarterly (FRQ) subscription, click here or contact Heather Clark at hsclark @forisk.com.

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FORISK IN THE NEWS

- Forisk and Acres Announce
 Partnership to Enhance Timberland
 Analysis for Industry Professionals
- ► Forisk article "Timberland Ownership and Wood Supply Agreements" featured in LandThink
- Forisk article "North American Wood Fiber Pricing And Demand" featured in Biomass Magazine
- Forisk research quoted by Fast
 Company on the mass timber industry
- Forisk research and analysis quoted in Panel World article about wood demand
- Dr. Brooks Mendell, President and CEO of Forisk Consulting, participated in an interview with Dr. Aaron Shew, Director of Data Science at Acres, to discuss the timberland industry.
- Brooks Mendell was featured in Georgia Forestry Association's "Market Minute" to discuss updates in the forest industry markets

WE'RE HIRING!

- ▶ Forisk is seeking (at least) two individuals to join our team! These roles are ideally based at our headquarters near Athens, GA.
- ▶ For anyone interested in roles in forest economics or business development, please click here for more information.

FORISK RESEARCH & DATA SUBSCRIPTIONS

- ► Forisk Research Quarterly (FRQ)
- ► Forisk Market Bulletin
- ► Forisk Wood Fiber Review (WFR)
- Forisk North American Mill Capacity
 Database & GIS Shapefiles

Contact Heather Clark (<u>hsclark@forisk.com</u>) to learn more about any of these products.

SPECIAL RESEARCH IN THE Q4 FRQ

Featured Research Article: Forest Industry Economics and the Ability to Pay for Wood: The forest products universe has a natural economic order, and the ability-to-pay (ATP) for wood raw material clarifies this hierarchy. Forisk has evaluated the ATP for delivered wood since 2013 to develop a sense for the relative economic "power" of different sectors. In this article, we update Forisk's ongoing research into the maximum ability-to-pay per delivered green ton of wood to break-even on a cash basis for lumber, OSB, plywood, pellets, newsprint, fluff pulp, and linerboard.

Market Update, Q4 2023: In this edition of quarterly observations and summary analysis of forest industry trends, we begin by evaluating the implied net asset values (NAVs) of public timber REITs. This article also reviews the market for sustainable aviation fuels (SAFs) and analyzes the forest acreages associated with solar leases.

Forisk Facts & Figures: Forisk's quarterly "story in three slides" examines future timber supplies. How may timber supplies develop in the U.S. South and Pacific Northwest in the next ten years?

FORISK TRACKING OF FOREST INDUSTRY MILLS AND CAPITAL INVESTMENTS INDICATES NET INCREASES IN WOOD USE EXCEEDING 40 MILLION TONS IN THE U.S. SOUTH, WEST, AND NORTH COMBINED.

While some forest industry mills have closed, investments into new wood-using facilities and expansions of existing ones from 2021 and planned through 2026 indicate a net increase in wood use exceeding 40 million tons per year according to data from Forisk's *North American Forest Industry Capacity Database*. However, this growth varies significantly by U.S. region. For example, in the U.S. South, 106 mills plan to open or expand, and 24 mills closed or plan to reduce wood use. The net change in the South is 37 million tons of wood demand, with openings and expansions adding 53 million tons, while closures and reductions removing 16 million tons of wood use. Most of the increase comes from sawmills and wood pellet plants. Closures at pulp/paper mills account for nearly 60% of the reductions. Read the full Research Release here.

CANADIAN WOOD FIBER PRICE INCREASES OUTWEIGHED BY PRICE DECREASES IN THE U.S.

North American wood fiber prices decreased 4% year-over-year through Q2 2023 according to the *Forisk Wood Fiber Review* (*WFR*). Tepid fiber demand from pulp and paper mills coupled with generally favorable logging conditions contributed to excess supplies and falling fiber prices throughout North America..

Canadian roundwood prices increased 15% year-over-year and chip prices rose 22% year-over-year. U.S. roundwood and chip prices fell around 4% and 7% year-over-year, respectively. U.S. South fiber prices fell year-over-year for all product types in the South Central and Southeast regions. Prices for the Northeast softwood roundwood and residual chips dropped 3% and 11%, respectively. Read the full Research Release here.

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