Peer-reviewed review article

U.S. Proposed Tariff on the Wood Sector within North America

Abdallah Akintola, a* Indroneil Ganguly, a Badri Narayanan Gopalakrishnan, b Kent Wheiler a

- a: University of Washington, School of Environmental and Forest Sciences, Center for International Trade in Forest Products, Seattle, WA, USA.
- b: Infinite Sum Modelling LLC and Woods College Faculty, Boston College, Chestnut Hill, MA, USA.
 - *Corresponding author: akintola@uw.edu

ABSTRACT

Keywords

CGE model, cross-laminated timber, forest, global trade model, mass timber, tariff

Citation

Akintola A, Ganguly I, Gopalakrishnan BN, Wheiler K. 2025. U.S. Proposed Tariff on the Wood Sector within North America. J.For.Bus.Res. 4(2): 65-94. https://doi.org/10.62320/jfbr.v4i2.80

Received: 30 August 2025 Accepted: 27 November 2025 Published: 3 December 2025



Copyright: © 2025 by the authors.

Licensee Forest Business Analytics, Łódź, Poland. This open access article is distributed under a <u>Creative</u> <u>Commons Attribution 4.0 International</u> <u>License (CC BY).</u>

This study evaluates the implications of the United States (U.S.) proposed tariffs on North American wood markets. Two scenarios were modeled using a 'wood sector'tailored FOrest Trade Equilibrium Model (FOTEM), which utilizes a general equilibrium model framework. The first scenario considered the U.S. imposing tariffs without retaliation from Canada and Mexico, and the second scenario modeled retaliatory tariffs from Canada and Mexico. Results indicate that U.S. GDP remains largely unaffected. Still, the U.S. wood sector suffers output losses under retaliation, particularly in hardwood lumber and paper-related industries (printing and publishing), which depend heavily on North American trade flows. Both Canada and Mexico experience contraction in their GDP and would be better off without retaliation. Canada emerges as the most affected partner, with severe disruptions in engineered panels and softwood products. Mexico's Fiberboard, Furniture, Oriented Strand Board, and Pellets sectors show increased output due to trade diversion, though domestic resource and production constraints may limit these gains. The study highlights that protectionist measures can shield select industries in the short term but risk disrupting integrated supply chains and weakening overall competitiveness. The study concludes that coordinated trade policies are essential to sustain domestic production while reducing destabilization across North American wood markets.

INTRODUCTION

Forest-based industries are a cornerstone of the United States (U.S.) economy and have long contributed to rural employment, housing, and trade (Poudel and Dahal 2025; USDA 2025). Within this sector, wood products encompassing lumber, panels, and engineered timber, rely on both domestic forest resources and cross-border trade flows, especially within North America. While the sector is nationally integrated in the U.S., regional variations in wood fiber availability exist, with a relative abundance in the U.S. South compared to fiber-constrained areas such as the Pacific Northwest (Bruck et al. 2024; Richard 2003). These differences have shaped how wood products are traded and produced. Moreover, a high proportion (25% to 30%) of the U.S. softwood lumber consumption is sourced from Canada, a dynamic that has repeatedly fueled trade tensions between the two countries.

In early 2025, the U.S. administration proposed a 25% tariff on wood imports from Canada and Mexico, alongside a 10% tariff on imports from other foreign suppliers, citing the need to protect the domestic industry and rectify trade imbalances. Although the full implementation of these measures remains uncertain and politically fluid, this study leverages publicly disclosed policy outlines and past trade dialogues to simulate plausible scenarios. This proactive modeling approach addresses policy ambiguity while offering actionable insights into possible economic outcomes. Such a proposal comes in the context of a long and contentious history of U.S.-Canada softwood lumber trade disputes, often termed the "softwood lumber war," which dates back decades and involves ongoing cycles of countervailing duties, anti-dumping tariffs, and complex trade agreements (Zhang 2010).

Given the high degree of trade integration across North America under the United States-Mexico-Canada Agreement (USMCA), such policies may trigger retaliatory tariffs and unintended disruptions. While the USMCA provides for a generally duty-free framework for qualifying goods, it also features a sunset clause and a review process, creating ongoing potential for trade friction, particularly in sectors with a history of conflict. The proposed tariffs and potential retaliation would create new stresses that might potentially undermine the stability of the USMCA and impact existing dispute resolution mechanisms. For U.S. firms reliant on cross-border inputs, especially in the housing and construction sectors, tariffs could raise costs, lengthen supply chains, and

diminish competitiveness (Jalbert 2025). The National Association of Home Builders (NAHB) estimated that these tariffs would increase the cost of an average new single-family home by \$7,500 to \$10,000 (NAHB, 2025). These situations highlight the potential for wide-ranging spillover effects in a sector already sensitive to price volatility and policy changes.

This study evaluates the economic impacts of the proposed U.S. tariffs on the North American wood sector using the FOrest Trade Equilibrium Model (FOTEM), a computable general equilibrium (CGE) model specifically designed for forest and wood product markets. The analysis simulates two scenarios: a unilateral U.S. tariff imposition on wood imports from Canada and Mexico, and a retaliatory scenario in which Canada and Mexico implement reciprocal tariffs on U.S. exports. CGE modeling is particularly well-suited for this analysis because it captures economy-wide interlinkages, sectoral substitution, and resource reallocation effects triggered by trade policy shifts (Liu et al. 2005; Ochuodho et al. 2016). Given the integrated nature of forest product supply chains and the documented trade volatility from past conflicts (Nagubadi et al. 2009), the FOTEM framework enables a consistent assessment of how tariff-induced distortions affect trade volumes, production, and welfare outcomes across the targeted sectors. This system-wide perspective is essential for capturing the ripple effects of unilateral and retaliatory tariffs within and beyond the wood product trade between North American partners.

The subsequent sections of this paper are organized as follows: Section 2 provides brief background information on the U.S. wood sector economic landscape. Section 3 describes the CGE model and scenarios. Section 4 presents and interprets the simulation results. Section 5 concludes with implications for trade strategy and investment.

Brief background on the U.S. wood sector economic landscape

The U.S forest products industry contributes approximately 4.7% of U.S. manufacturing gross domestic product (GDP), generates about \$280 billion annually, and directly and indirectly creates around 3.84 million jobs (Poudel and Dahal 2025; USDA 2025). These figures highlight not only the scale but also the economic sensitivity of the sector to trade policy shifts.

The U.S. wood sector operates within a highly integrated North American supply chain, particularly with Canada, which accounts for over 50% of U.S. wood product imports by value between 2019 and 2024 (Table 1). This dominant share underscores the importance of cross-border trade in supporting US domestic production and fulfilling local demand, especially in high-volume

wood sectors such as softwood lumber and oriented strand board (OSB). Approximately one-third of U.S. consumption of softwood lumber and OSB is imported, with about 14% of that total specifically coming from Canada (Boubacar 2024; Lamica 2025).

Table 1 U.S. Wood Export and Import (Average annual 2019-2024).

	Export			Import		
		Value	Share		Value	Share
		(\$ Millions)	(%)		(\$ Millions)	(%)
1	Canada	2,387	25.9	Canada	12,857	50.8
2	China	1,130	12.3	China	2,494	9.9
3	Brazil	1,667	18.1	Brazil	1,729	6.8
4	Chile	982	10.7	Chile	1,121	4.4
5	Vietnam	726	7.9	Vietnam	804	3.2
6	Germany	326	3.5	Germany	874	3.5
7	Indonesia	176	1.9	Indonesia	742	2.9
8	Mexico	94	1.0	Mexico	650	2.6
9	Cambodia	64	0.7	Cambodia	272	1.1
10	Sweden	104	1.1	Sweden	347	1.4
11	Others	1,564	17.0	Others	3,396	13.4
	Total	9,221	100	Total	25,286	100

Source: Authors' calculations based on data from Trade Data Monitor (www.TradeDataMonitor.com).

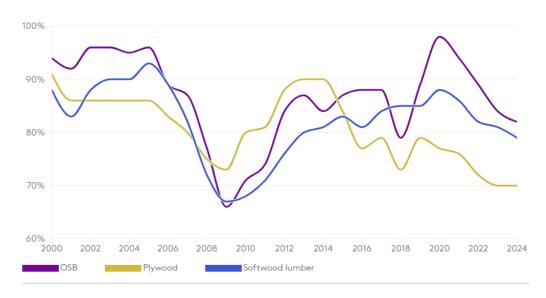


Figure 1. U.S. demand-to-capacity ratio (D/C) for wood products. Source: Fastmarkets (www.fastmarkets.com)

Despite the sector's exposure to import dependence, recent data suggest that slack exists within the U.S. supply chain to absorb partial disruptions. As illustrated in Figure 1, the demand-to-capacity (D/C) ratios for OSB, plywood, and softwood lumber have trended below 90% over the past decade, with all three product categories currently operating closer to 70–80% capacity utilization. This suggests that while tariffs on Canadian imports may create price and logistics pressures, domestic producers may have some capacity to increase output, albeit at higher marginal costs.

However, the exposure to foreign markets is not one-directional. The U.S. also exports a significant volume of wood products, with Canada (25.9%), Brazil (18.1%), and China (12.3%) constituting the top destinations (Table 1). These trade relationships amplify the risk of reciprocal measures, which could affect not only imports but also U.S. export competitiveness.

Broadly speaking, while some domestic buffer capacity exists, the U.S. wood sector remains heavily reliant on international trade flows for both raw material sourcing and as an outlet for finished products. Any tariff-induced disruptions could reverberate across the value chain, from forest operations to construction and housing markets.

DATA AND METHODS

This study utilizes the FOrest Trade Equilibrium Model (FOTEM), an adaptation of the standard Global Trade Analysis Project (GTAP) framework (Hertel 1997). The GTAP framework has been widely applied to study regional trade agreements, trade facilitation, non-tariff measures, environmental and climate change policies, and subsidy interventions (Akintola et al. 2022; Al Shamakhi et al. 2018; Guo et al. 2020; Narayanan Gopalakrishnan et al. 2015; Roos and Adams 2020).

FOTEM leverages the existing GTAP framework and enhances it by adding forestry sector-specific extensions while retaining the core features and the intersectoral connectivity of the GTAP. While the original GTAP model uses high-level aggregations for the forestry sectors (Forestry [frs], Lumber [lum], Paper & Paper Products [ppp]), in FOTEM, we subdivide the original high-level aggregations to a more nuanced 6-digit level Harmonized Systems (HS) code data for the forestry sector. The FOTEM model has 19 forest-related sector with six (6) entries for

Forestry, ten (10) for Wood products, and three (3) under Paper, Printing, and Publishing (detailed in Table A1).

Hence, FOTEM is a multi-region, multi-sector CGE framework that incorporates standard economic assumptions, such as perfect competition and constant returns to scale, providing detailed sectoral output for the forestry sector. The model operates as a system of simultaneous, non-linear equations, which are solved using the GEMPACK solver (CoPS 2022). The model facilitates detailed simulation of trade policy interventions and their effects on the highly disaggregated wood sector.

The FOTEM model allows for substitution between products based on the Armington assumption, which differentiates goods by their origin. In addition, substitution across different wood products within the production structure is incorporated by defining nested CES (Constant Elasticity of Substitution) functions. This enables producers to reallocate inputs between closely related products such as plywood and OSB, depending on relative profitability. Shifts in production in the model involve the interplay of different elasticities of substitution. They are captured through the reallocation of primary factors (labor, capital, land) and intermediate inputs across sectors in response to changing market prices. For instance, if demand for Mass Timber increases, higher profitability in that sector attracts capital and labor. As a result, resources are diverted from less profitable sectors, such as plywood production. This mechanism allows the model to capture aggregate market-wide substitution among competing wood products, though.

The FOTEM is calibrated with the GTAP Database Version 11 (Aguiar et al. 2022), which uses 2017 as the benchmark year. To further reflect global economic and trade structures as of 2023, we updated the database using data from reliable databases like the United Nations COMTRADE Database for detailed bilateral trade flows, bilateral tariff from World Integrated Trade Solution (WITS), the World Bank's World Development Indicators (WDI) for macroeconomic aggregates (such as GDP), and the Food and Agriculture Organization (FAO) for specialized sectoral data (production and consumption), along with specific national statistical publications for Input-Output. For our analysis, we aggregated all non-wood sectors into broader categories and disaggregated the wood-related sectors to enhance resolution in the forest product domain.

During the disaggregation of the wood sectors, the model follows the standard GTAP methodology of share-based parameter preservation. Behavioral elasticities such as Armington elasticities, the

elasticities for factor substitution in production, and the elasticities used in the demand system from the parent sector are carried forward to all child sectors. These values are sourced directly from the GTAP Version 11 parameter file and are not replaced with new estimates (Aguiar et al. 2022). Only the share parameters tied to production, consumption, trade flows, and tariff schedules were recalibrated. These updates rely on detailed external data from reliable databases (as stated earlier) and were processed using consistent CGE tools to perform the initial allocation of flows across the new wood sectors and to ensure that the final Social Accounting Matrix remained balanced and consistent with all required accounting identities (Britz 2022; Horridge 2008; 2011).

The final FOTEM database used in this study includes 62 countries/regions, 19 wood-related sectors, and 14 non-wood sectors (Table 2). However, this paper focuses exclusively on results pertaining to the wood-related sectors, given the primary objective of assessing tariff impacts on the forest products. Details of the mapping of 19 wood-related sectors based on the harmonized code can be found in Appendix A.

Table 2. List of disaggregated sectors in the model.

Region/Countrie	S		Sectors	
				Miscellaneous (Builders' Joinery,
Australia	Chile	Lithuania	Grains Crops	Flooring, Fencing, etc.)
New Zealand	Peru	Luxembourg	Meat & Diary	Paper
China	Uruguay	Malta	Softwood Log	Pulp
Japan	Costa Rica	Netherland	Tropical Hardwood Log	Print Publishing
South Korea	Caribbean	Poland	Temperate Hardwood Log	Heavy Manufacturing
Brunei	Austria	Portugal	Other Forestry	Utilities
Cambodia	Belgium	Romania	Mass Timber (CLT)	Construction
Indonesia	Bulgaria	Slovakia	Extraction	Domestic Transport
Laos	Croatia	Slovenia	Processed Food	Other Transport
Malaysia	Cyprus	Spain	Textiles & Warring apparels	Communication
Philippine	Czech	Sweden	Light Manufacturing	Education & Other Services
Singapore	Denmark	UK	Fiberboard (MDF & HDF)	Business
Thailand	Estonia	Russia	OSB	
Vietnam	Finland	Ukraine	Pellets	
Southeast Asia	France	Saudi Arabia	Particle Board	
India	Germany	UAE	Plywood	
Pakistan	Greece	Egypt	Rough Wood	
Canada	Hungary	Côte d'Ivoire	Seats & Furniture	
USA	Ireland	Ghana	Softwood Lumber	
Mexico	Italy	Rest of World	Hardwood Lumber	
Brazil	Latvia		Veneer	

Scenarios and simulation

In this study, two (2) distinct policy scenarios were modeled to assess the impact of tariff interventions on the wood products trade between the United States, Canada, and Mexico. Tariffs were applied to all traded goods, and all existing tariff rates served as the baseline for the simulations. These scenarios capture the potential consequences of trade escalation on the wood sector, with a particular focus on North American markets.

Scenario 1 (Tariff25per): A unilateral imposition of a 25% tariff by the U.S. on all imports from Canada and Mexico. This includes cumulative applications in sectors with existing tariff rates.

Scenario 2 (Retaliation25per): A reciprocal scenario in which the U.S. imposes a 25% tariff on imports from Canada and Mexico, and both countries respond with a reciprocal 25% retaliatory tariff on imports from the U.S.

Note that Tariff25per and Retaliation25per are used in denoting Scenario 1 and 2, respectively, in the table and the figure under the result section.

In both scenarios, a uniform 25% increase was applied across all sectors (excluding service), consistent with the fact that the U.S. tariff proposal at the time was framed in broad, non-sector-specific terms. For sectors already facing duties, an additional 25% was applied on top of existing rates. For example, Canadian softwood lumber, subject to a combined anti-dumping and countervailing duty of 14.5% (USITC 2023), faces an effective tariff rate of 39.5% (14.5 % + 25 %) under our shock. The model operationalizes this shock through the tms variable, which represents percentage changes in source-specific ad valorem tariff rates. The linkage between tariffs and import prices is specified in Equation (1):

pmsi,r,s = tmi,s + tmsi,r,s + pcifi,r,s Equation 1

, where *pmsi*,*r*,*s* represents the percentage change in the price of commodity (*i*) imported from region (*r*) to destination (*s*). The policy shock is captured by the bilateral tariff variable, *tmsi*,*r*,*s*. The *tmi*,*s* is a source-generic change in the tariff on imports of *i* into *s*, which is set to zero in our simulation as the policy is targeted at specific partners. The variable *pcifi*,*r*,*s* is the percentage change in the corresponding world price and is an endogenous outcome of the model's general equilibrium solution and is not estimated separately.

RESULTS AND DISCUSSION

Impact on GDP

The escalation of tariffs often leads to heightened uncertainty in trade relationships and can have pronounced impacts on investment decisions and economic growth. Figure 2 presents the projected impact on real GDP for the United States, Canada, and Mexico under the modeled scenarios. The results indicate that the U.S. economy remains largely insulated from substantial aggregate macroeconomic effects across both scenarios, while its neighboring economies would be hurt. This can be due to the U.S. relative market size and economic diversity. Specifically, Canada is projected to experience a 1.1% decline in GDP due to the unilateral U.S. 25% tariff, and the GDP further deepens to a 1.75% contraction if Canada retaliates. Mexico experiences a similar pattern, with a 0.5% decrease from the U.S. tariff and a more significant 1.48% contraction when retaliatory measures are in place. In stark contrast, the U.S. sees only minimal aggregate impacts on its GDP, with a -0.08% change in the unilateral scenario and a -0.18% change following retaliation. This broad macroeconomic resilience for the U.S. does not negate the potential impacts on specific sectors, such as the wood products industry, which has high exposure to trade policy changes. The substantial negative welfare impacts (Appendix Table A3) corroborate the significant contractions observed in the Real GDP figures, confirming the heavy economic cost of the tariff regime to Canada and Mexico.

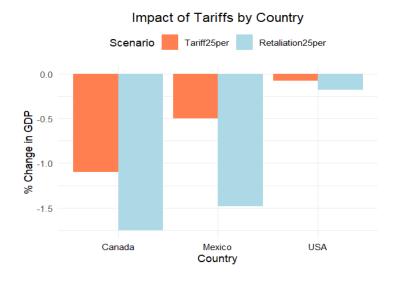


Figure. 2. Impact on real GDP.

Given Canada's heavy dependence on U.S. markets, Canada is projected to suffer the most significant economic repercussions. A 1.1% decline in the Canadian economy, as predicted by the model, represents a substantial negative shock, especially when considering that Canada's GDP growth was approximately 1.5% in 2023 (World Bank 2024). Economic research indicates that contractions of around 2% or more in annual GDP are often associated with recessionary conditions in advanced economies (Claessens and Kose 2012). In this context, Canada's retaliatory tariff on U.S. goods and the resultant economic decline of 1.75% would likely push the country into a recessionary period, considering historical downturns in Canada (Amato 2023; Janzen and Freestone 2024). This indicates the considerable economic vulnerability that tariff measures pose to highly trade-dependent partners within the integrated North American wood supply chain.

Sectoral impact on the U.S. wood products industry

At the national level, the initial impact of the proposed 25% tariffs on Canadian and Mexican wood product imports is projected to incentivize increased domestic production within the U.S. wood products sector. Considering that Canada currently supplies a significant share of U.S. demand for softwood lumber and Oriented Strand Board (OSB), a tariff on those imports would incentivize increased domestic production of those materials.

While individual U.S. regions were not explicitly modeled in this analysis, existing industry structure and resource availability permit a reasoned inference regarding the likely distribution of these national gains. The Southeastern U.S., characterized by a documented wood fiber surplus, extensive private forest ownership, and existing available sawmill capacity, is structurally positioned to capture the majority of the production gains (Capital Press 2022; SGSF 2023). In contrast, fiber-constrained regions such as the Pacific Northwest may face greater difficulty in responding to the demand shift due to decades of restricted timber harvesting and regulatory constraints (Bruck et al. 2024; ResourceWise 2019; Richard 2003; Scott et al. 2025). The southeastern states in the U.S. are expected to gather most of these production gains because they have a wood fiber surplus.

In contrast, some operations in Northwest states like Washington are dependent on Canadian softwood lumber inputs due to regional fiber constraints and integrated cross-border supply chains (Brandt et al. 2021). Although the scale of Mass Timber production in this region remains modest compared to national output, and the majority of Canadian imports are directed toward housing

construction, the presence of this reliance still exposes the U.S. Northwest homebuilders to cross-border supply risks. Based on these structural and logistical dependencies, operations in this region may face higher costs relative to southern producers (Barnes 2024), contributing to regional disparities in production gains and price effects. This situation is anticipated to result in higher wood product prices in the Northwest, potentially affecting downstream sectors such as housing construction. While domestic output may increase in some regions, the broader U.S. market is expected to face constrained wood supply and elevated consumer prices due to ongoing sawmill consolidations and declines driven by economic, environmental, and policy factors (Woodall et al. 2011).

The retaliatory tariffs would inflict substantial damage on the U.S. pulp and paper industry, which faces a combined output loss of \$2,585 million (Paper: \$2,224 million; Pulp: \$361 million). This contraction can be driven by increased costs for essential imported raw materials, likely Canadian pulp, which diminishes overall output and exacerbates financial pressure on U.S. Pulp and Paper producers. In contrast, the Canadian pulp and paper industry shows a split response to tariffs and retaliation, with a net gain of \$1,314 million for the combined sector despite a loss in the Paper sector. This dichotomy stems from Canada's strong position as a raw pulp exporter, which is heavily integrated with the U.S. market (Xinnan 2025).

Moreover, as this study's simulation results show (Table 3a & 3b), retaliatory trade responses by Canada and Mexico can offset these initial regional gains, ultimately reducing the dollar value of total U.S. wood sector output.

Table 3a. Sectoral output impact (percentage change).

		Canada		USA		Mexico
	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per
Softwood Log	-1.73	-1.9	-0.15	-0.24	-2.17	-1.91
Tropical Hardwood Log	-1.59	-1.79	-0.06	-0.2	1.02	0.49
		11/	0.00	V.2	1102	
Temperate Hardwood Log	-1.53	-1.2	-0.16	-0.29	1.38	0.99
Other Forestry	-2	-2.2	0.17	0.02	0.56	0.05
Mass Timber	-3.54	-4.41	0.51	0.33	-1.95	-2.6
MDF and HDF	-4.56	-4.56	0.45	0.27	25.86	45.67
OSB	-5.86	-7.39	0.62	0.44	25.34	40.38
Pellets	-4.37	-4.3	0.46	0.24	26.56	47.07
Particle Board	12.44	12.29	-0.2	-0.46	25.64	25.43
Plywood	-5.28	-8.39	0.05	0.32	21.16	18.28
Rough Wood	-7.33	-8.95	0.72	0.7	31.69	29.61
Seats and Furniture	5.63	4.5	0.05	0.78	43.88	41.05
Softwood Lumber	-3.33	-3.19	0.32	-0.04	31.16	41.4
Hardwood						
Lumber	10.11	13.4	-0.4	-0.68	25.09	72.71
Veneer	-11.32	-10.23	0.23	-0.3	33.62	51.64
Miscellaneous	-9.43	-10.19	0.13	0.02	-5.61	-5.94
Paper	-6.26	-1.17	0.11	-0.97	12.81	19.02
Pulp	9.58	10.92	-0.04	-0.25	29.18	41.65
Print Publishing	4.22	13.4	-0.29	-1.26	9.04	11.81

Table 3b. Sectoral output impact by countries (in million USD).

	Canada		USA		Mexico				
	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per			
Softwood Log	-91	-100	-22	-36	-3	-2			
Tropical Hardwood									
Log	-67	-75	-4	-15	19	9			
Temperate									
Hardwood Log	-51	-40	-21	-38	8	6			
Other Forestry	-9	-10	3	0	16	1			
CLT	-1	-1	0	0	-2	-3			
MDF and HDF	-128	-128	134	80	15	26			
OSB	-195	-246	178	126	17	27			
Pellets	-156	-153	170	87	16	28			
Particle Board	59	58	-10	-22	5	5			
Plywood	-22	-36	4	24	7	6			
Rough Wood	-241	-296	208	202	2	2			
Seats and Furniture	121	96	22	365	1132	1059			
Softwood Lumber	-98	-94	96	-13	4	5			
Hardwood Lumber	63	84	-186	-314	2	6			
Veneer	-79	-72	20	-27	1	2			
Miscellaneous	-744	-804	234	26	-875	-928			
Paper	-1187	-223	256	-2224	713	1057			
Pulp	1350	1537	-52	-361	211	301			
Print Publishing	239	759	-450	-1922	680	886			
Total	-1238	256	580	-4059	1969	2494			

Wood products' sectoral impacts on Canada and Mexico

The sectoral output table (Table 3a and 3b) reveals distinct patterns in the economic consequences of the 25% tariff and retaliation. Notably, Canada faces severe declines in several sectors, particularly in Veneer, Miscellaneous (Builders' Joinery, Flooring, Fencing, etc.), and OSB (-5.86). The significant negative impact of OSB output on the Canadian economy and the parallel positive effect in the US is precisely explained by the sector's extreme bilateral trade dependency and the high substitutability between U.S. and Canadian OSB, as well as the potential for the US producers to scale up. Adherence to similar building codes and engineering standards renders these products close substitutes, a factor critical to understanding market shifts when tariffs increase prices (Zhang and Goodwin 2024). With Canada exporting 97.3% of its OSB to the U.S. (Trade Monitor 2025), a 25% U.S. tariff creates a massive competitive shock for nearly the entire Canadian OSB industry. The model correctly captures this market disruption, leading to a deep contraction in Canadian OSB output as it loses market share to U.S. domestic producers. Conversely, the U.S. OSB sector experiences a strong positive output shock due to the import substitution effect, where domestic demand shifts from now more expensive Canadian imports to U.S.-produced OSB. This domestic gain outweighs the loss of exports to Canada and Mexico, even with retaliation, as the U.S. exports a significant share of its OSB (99.3%) to these North American countries (Trade Monitor 2025).

Conversely, there was positive output growth in Canada in the Particle Board, Pulp, and Print Publishing Sectors, suggesting some resilience. In Canada and Mexico, sectors such as softwood lumber, Miscellaneous (Builders' Joinery, Flooring, Fencing, etc.), and Mass Timber show significant adverse impacts, with contractions exceeding 5% in some cases.

While softwood lumber is a major bilateral trade issue, our model results indicate a smaller increase in U.S. output for the sector compared to OSB. Unlike the OSB sector, where our model result indicates a substantial positive output effect driven by strong import substitution, the U.S. softwood lumber industry faces greater supply-side constraints that dampen its output response. Specifically, the industry is constrained by fixed sawmill capacity and an inelastic log supply. In the CGE framework, when domestic lumber demand increases due to the tariff, these constraints mean the shock is largely absorbed by higher domestic prices rather than a significant increase in production volume. Furthermore, Table 4 shows that U.S. softwood lumber exports decline

significantly under the retaliatory scenario (18.5% decline), a sharper reduction than compared to the unilateral scenario (10.5% decline). These retaliatory export losses effectively negate the modest gains from reduced import competition, explaining the smaller overall output effect projected by the model.

The model projects a substantial increase in output for key Mexican sectors like MDF and HDF (+25.86%), OSB (+25.34%), and Pellets (+26.56%). This outcome should be interpreted as the equilibrium result of a revealed shift in competitive advantage rather than a literal short-term forecast. Retaliatory tariffs make Mexican products far more price-competitive relative to U.S. goods in the North American market, creating strong incentives for supply chains to reconfigure. For instance, around 98% of Mexico's MDF and HDF exports currently go to the U.S. (ITC 2024), a market that would contract under tariffs. At the same time, around 32% of Canada's MDF and HDF imports originate from the U.S. (ITC 2024), meaning Canadian buyers would face higher costs and a new incentive to source from Mexico. In the model, this dynamic appears as a surge in Mexican output, reflecting trade diversion effects and the potential for market realignment. In practice, however, Mexico would need to overcome resource and production capacity constraints to fully realize this advantage, and Canadian producers could also absorb part of the displaced U.S. share. Thus, the results are best seen as indicators of how trade policy shocks create competitive winners and investment incentives, rather than as direct forecasts of production growth.

The model's results for wood pellets, which show a negative Canadian impact and a positive U.S. impact, follow a different logic than OSB, as both Canada and the U.S. primarily export pellets to Europe rather than to each other bilaterally. The tariff shock is likely to exacerbate existing market vulnerabilities in Canada, including rising fiber costs and a shrinking wood supply, making Canadian producers less competitive globally. For U.S. producers, the model likely captures an expansion resulting from a shift in domestic demand or improved relative competitiveness in third markets, facilitated by CGE-simulated effects.

Most of the U.S. sectoral output declined after retaliatory measures by Canada and Mexico, but the impact of the tariff remains minimal. When the dollar value of the wood sector is aggregated and considered (Table 3b), a retaliatory tariff on the U.S. wood sector tends to worsen the overall U.S. wood sector output (\$580 million vs \$-4059 million). While some U.S. producers may experience short-term relief from reduced import competition in the domestic market, these modest

gains are overshadowed by substantial declines in export-oriented segments. Hardwood Lumber and the Paper, Printing, and Publishing sectors, which are strongly integrated to the North American market, experiences the sharpest reductions as market access to Canada and Mexico becomes constrained.

Impact on trade

The imposition of a 25% tariff by the U.S. and subsequent retaliatory measures by Canada and Mexico highlight varying sensitivities among the three countries. As shown in Figure 3, Canada and Mexico exhibit more pronounced reductions in both imports and exports, while the U.S. is relatively less affected.

From an import perspective, Canada faces steep declines, with a -19.25% drop under the initial tariff and a further worsening to -25.53% under retaliation. Mexico experiences the most significant contraction in imports. The U.S.'s import reductions are relatively modest at 3.31% under the tariff and 7.46% under retaliation. The minimal impact on the U.S. overall imports is likely reflected by the country's diversified import base and strong internal demand. Higher tariffs raise the cost of foreign goods, making domestic alternatives more competitive, and prompting a shift in sourcing or a general contraction in trade volumes across all three economies.

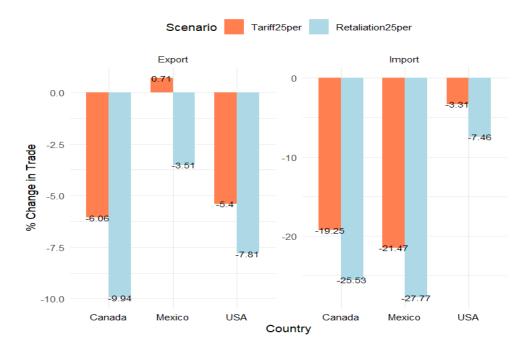


Figure 3. Overall trade impact (real exports and imports).

The exports show varying patterns. Both Canada and the U.S. see declines under both scenarios, while Mexico initially records a slight export increase (+0.71%) under unilateral tariffs before falling to -3.51% under retaliation. This suggests Mexico's wood sector may temporarily benefit from trade diversion in the absence of countermeasures, but becomes vulnerable once full retaliation is implemented.

A closer look at specific sectors reveals a complex dynamic (Tables 4 and 5). While U.S. wood exports fell across most sub-sectors, Canada's exports showed a mixed pattern. However, our FOTEM model indicates the possibility of significant trade diversion for these products. While Canada's exports to the U.S. contract under the tariff scenario, our results suggest that a substantial portion of these wood products will be diverted to other markets, particularly Asian and Oceanian countries. A smaller portion of this diverted trade is also captured by Mexico, which leverages its proximity to serve some of the new demand. This ability to redirect trade demonstrates a key reequilibration effect within the global market in response to the tariff shock, as detailed further in Appendix Tables A4 and A5. Some Canadian wood products, including Softwood logs (+41.01%), Hardwood lumber, Pulp, and Particle board, saw gains under the initial tariff scenario. This contrasts with a decline in Canada's Softwood Lumber exports (-4.30%), despite both products facing the same 25% tariff (Table 4). This divergence is due to shifts in demand and production capacity. With reduced U.S. demand for Canadian processed lumber, Canadian producers had a surplus of raw logs that were likely redirected to other international markets not subject to the tariff. This made log exports a more viable option as compared to processed lumber, which faces greater price competition. However, our model indicates significant trade diversion due to the contraction of Canadian softwood lumber exports, and a single country cannot fill the resultant supply gap. Specifically, while U.S. imports of softwood lumber from Canada contracted under both scenarios, Southeast Asian countries (e.g., Vietnam and Laos), East Asian nations (e.g., Japan), and Oceanian countries (Australia) demonstrated significant increases in exports to the U.S. market. European regions also collectively would likely increase their softwood lumber exports to the U.S., with individual countries often showing gains in the 15-17% range. Moreover, South American (e.g., Brazil) and South Asian countries (e.g., Pakistan) also captured a portion of this redirected trade (Appendix Tables A6 and A7).

In contrast, Mexico's wood sector demonstrates greater resilience, with several sectors, including seats and furniture, softwood logs, and hardwood lumber, showing strong export growth under the

U.S. unilateral tariff. However, these gains are partially eroded under retaliation, underscoring the sector's dependence on access to the U.S. market. Mexico's performance also deteriorates more sharply in high-value manufactured wood products such as MDF and HDF, Seats and Furniture, and OSB under the retaliation scenario.

While Mexico's sectoral output often registers the largest percentage gains or contractions (e.g., MDF/HDF +25.86% and OSB +25.34%), it is essential to contextualize these findings within the overall value of the North American wood trade (Tables 3a and 3b). Mexico is a relatively small player in the global wood product trade, and these high percentage impacts translate to a significantly smaller absolute change in value when compared to the U.S. and Canada.

However, the results for the Seats and Furniture sector present a unique and commercially significant finding that reinforces the country's strategic position. This sector registers the largest projected absolute increase in trade value for Mexico, reaching \$1,132 million under the U.S unilateral tariff (Table 3b), despite being a relatively small player overall. This substantial dollar value shift is consistent with the powerful nearshoring trend and Mexico's established role as a key global furniture exporter with deep ties to the North American market. Specifically, the model output change of +43.88% (Table 3a) and the staggering +104.47% increase in real sectoral exports (Table 4) demonstrate a major shift in production and trade efficiency. This growth, coupled with a significant reduction in imports (30.21%) (Table 5) as domestic production substitutes for foreign supply, strongly confirms a powerful investment incentive for the sector. The results project that Mexico can effectively leverage its proximity and manufacturing capacity to capture substantial value in high-end, finished goods, solidifying its role as the preferred hub for the North American furniture supply chain (Richford 2022).

On the import side (Table 5), all three countries show consistent declines across sectors, further highlighting the broad trade-disrupting nature of the tariffs. Canada's import contractions are particularly severe in MDF, OSB, Pellets, and Pulp, suggesting potential supply shortages in downstream industries. U.S. imports are the least affected and might reinforce the country's narrative of relative insulation and supply chain diversity.

Table 4. Real sectoral exports in percentage change.

		Canada		USA		Mexico
_	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per
Softwood Log	41.01	31.25	-4.75	-1.98	59.25	61.39
Tropical Hardwood Log	38.7	31.91	-5.52	0.43	-3.13	-4.77
Temperate Hardwood Log	26.82	11.19	-3.86	-2.53	90.86	85.71
Other Forestry	-39.89	-44.43	-3.15	-3.01	-1.23	-2.63
Mass Timber	-3.22	-4.74	-3.08	-0.66	20.6	16.59
MDF and HDF	-6.17	-8.47	-9.33	-12.18	-33.56	-44.71
OSB	-8.69	-12.4	-10.04	-15.31	-34.19	-43.07
Pellets	-6.2	-8.63	-9.87	-13.72	-35.8	-47.31
Particle Board	61.36	62.44	-19.49	-66.01	49.2	47.36
Plywood	-13.91	-19.61	-2.7	-0.14	-49.51	-55.57
Rough Wood	-10.01	-14.13	-9.01	-9.89	48.34	45.24
Seats and Furniture	-43.79	-44	-7.4	-25.84	104.47	99.55
Softwood Lumber	-4.3	-5.21	-10.51	-18.47	43.09	37.47
Hardwood Lumber	26.22	17.82	-1.79	-0.08	41.25	26.1
Veneer	-23.56	-29.13	-9.56	-17.68	44.92	37.01
Miscellaneous	-36.74	-37.91	-19.62	-40.29	-12.47	-14.43
Paper	-25.25	-27.61	-9.96	-29.19	-5.21	-16.1
Pulp	22.77	23.11	-4.85	-4.36	87.04	66
Print Publishing	-13.61	-16.33	-10.22	-28.2	2.04	-4.37

Table 5. Real sectoral imports in percentage change.

		Canada		USA		Mexico
	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per	Tariff25per	Retaliation25per
Softwood Log	-24.75	-52.22	-7.44	-10.76	-25.94	-44.67
Tropical Hardwood Log	-23.86	-21.71	-6.57	-9.33	-22.83	-22.03
Temperate Hardwood Log	-22.23	-49.27	-20.98	-27.15	-20.87	-19.65
Other Forestry	-22.99	-21.37	-1.41	-2.64	-23.21	-22.62
Mass Timber	-30.58	-30.9	-9.75	-12.61	-32.03	-31.14
MDF and HDF	-32.31	-57.25	-18.22	-23.16	-10.52	-17.87
OSB	-30.09	-52.39	-17.17	-22.32	-11.6	-18.08
Pellets	-32.61	-56.92	-18.03	-23.05	-9.77	-15.59
Particle Board	-25.47	-38.53	-1.07	-6.82	-12.17	-13.94
Plywood	-29.23	-33.92	-2.78	-7.73	-9.82	-10.13
Rough Wood	-29.91	-52.86	-17.27	-22.2	-5.2	-6.43
Seats and Furniture	-20.11	-24.47	-0.73	-4.07	-30.21	-29.97
Softwood Lumber	-32.68	-56.8	-17.62	-22.96	-4.68	-6.49
Hardwood Lumber	-23.56	-56.11	-5.62	-11.44	-6.93	-11.94
Veneer	-29.18	-57.65	-24.97	-30.87	-3.97	-6.37
Miscellaneous	-17.92	-25.29	-5.97	-10.95	-29.49	-38.79
Paper	-21.55	-42.15	-11.82	-16.83	-9.2	-14.52
Pulp	-25.22	-41.49	-12.08	-16.36	-6.63	-9.49
Print Publishing	-16.75	-29.73	-5.12	-10.58	-20.33	-28.93

CONCLUSIONS

This study evaluated the potential economic impact of U.S. tariffs on the North American wood products sector using a dedicated forest Global Trade Model (FOTEM). Two distinct scenarios were modeled, considering a unilateral 25% tariff on imports from Canada and Mexico by the U.S., and a reciprocal scenario in which both countries retaliate with identical tariffs on the U.S. While aggregate macroeconomic effects on the U.S are minimal, the sectoral consequences are significant and highly differentiated.

For policymakers, the results highlight the strategic risk of blanket trade interventions in integrated markets. Canada, as the primary supplier of U.S. wood, faces the steepest export contraction, particularly in engineered and softwood products. U.S. regions with heavy reliance on Canadian inputs, such as the Pacific Northwest, are more likely to be exposed to production disruptions and price volatility. In contrast, wood-producing states in the U.S. South may benefit from import substitution, signaling localized gains that could attract capacity expansion or re-investment. However, these gains are fragile under retaliation scenarios, where reduced export opportunities and tighter input markets might offset initial domestic growth.

For investors, this asymmetry creates both risk and opportunity. Markets deeply integrated into Canadian supply chains, such as OSB and structural panels, are vulnerable to tariff-induced disruptions and cost inflation. Conversely, domestic firms with diversified sourcing and regional exposure in the U.S. South may capitalize on reduced import competition, especially in non-retaliatory conditions. Mexico's relatively resilient performance under both scenarios also suggests it could emerge as a secondary manufacturing hub if it maintains a neutral trade posture. This can present a strategic entry point in value-added processing for Mexico.

In summary, trade disruptions of this nature do not yield uniform outcomes. Instead, they produce a complex set of redistributive effects such as shifting competitiveness, altering supply chain dynamics, and challenging regional resilience. Tariff design should therefore be calibrated not only to national economic goals but also to sector-specific supply dependencies and regional production profiles. Being precise with trade actions, such as targeting specific wood products or providing support to impacted areas, is more effective than using broad, sweeping rules. This helps companies remain strong without disrupting the interconnected North American wood industry.

More broadly, these results underscore that current tariff proposals must be interpreted within the historical and institutional context of U.S.-Canada trade relations. The long-standing softwood lumber dispute and the evolving USMCA framework illustrate how recurring tariff cycles can strain dispute settlement mechanisms and magnify uncertainty in cross-border investments. Recognizing this path dependency is critical for designing trade policies that enhance competitiveness without repeating past cycles of conflict and retaliation.

Considering the highly aggregated structure of our global CGE models, which limit explicit subnational analysis, a detailed regional CGE study is proposed as a necessary direction for future research to fully unpack these sub-national distributional effects. Future work could also extend the modeling horizon to capture dynamic adjustment over time, offering a clearer view of how Canada, Mexico, and the U.S. might adapt economically under recurring tariff tensions.

CONFLICTS OF INTEREST

The authors confirm there are no conflicts of interest.

REFERENCES CITED

Aguiar A, Chepeliev M, Corong E, Van Der Mensbrugghe D. 2022. The global trade analysis project (GTAP) data base: Version 11. J Glob Econ Anal. 7(2). https://doi.org/10.21642/JGEA.070201AF

Akintola A, Boughanmi H, Antimiani A, Zaibet L, Kotagama H. 2022. Deeper integration or open regionalism in the Indian Ocean Rim Association (IORA). J Econ Integr. 37(4):705-733. https://doi.org/10.11130/jei.2022.37.4.705

Al Shamakhi A, Akintola A, Boughanmi H. 2018. Assessing the impact of WTO Trade Facilitation Agreement on Oman's economy. Int J Trade Econ Finance. 9(6). https://doi.org/10.18178/ijtef.2018.9.6.623

Amato D. 2023. Economic Forecast 2024: A cross-border outlook on interest rates, inflation, housing and more. RBC Royal Bank. Available from: https://www.rbcroyalbank.com/en-ca/my-money-matters/goals-aspirations/travel-and-cross-border/economic-forecast-2024-a-cross-border-outlook-on-interest-rates-inflation-housing-and-more/

Barnes J. 2024. Analyzing the current forest products market. ResourceWise. Available from https://www.resourcewise.com/blog/forest-products-blog/analyzing-the-current-forest-products-market

Boubacar I. 2024. US imports of softwood lumber: assessing the significance of spillover effects. For Policy Econ. 160:103162. https://doi.org/10.1016/j.forpol.2024.103162

Brandt K, Latta G, Camenzind D, Dolan J, Bender D, Wilson A, Wolcott M. 2021. Projected cross-laminated timber demand and lumber supply analysis. BioResources. 16(1). https://doi.org/10.15376/biores.16.1.862-881

Britz W. 2022. Disaggregating agro-food sectors in the GTAP data base. J Glob Econ Anal. 7(1):44-75. https://doi.org/10.21642/JGEA.070102AF

Bruck SR, Chizmar S, Parajuli R, Frey GE, Lamica A, Sills EO. 2024. A qualitative assessment of interrelated impacts of the coronavirus disease 2019 pandemic on the timber supply chain in the southern United States. Soc Nat Resour. 37(10):1491-1507. https://doi.org/10.1080/08941920.2024.2380451

Capital Press. 2022. Northwest vs. Southeast: Timber industry grows where it thrives. Available from: https://capitalpress.com/2022/05/12/northwest-vs-southeast-timber-industry-grows-where-it-thrives/

Claessens S, Kose MA. 2012. Recession: when bad times prevail. IMF Financ Dev. 49(1). Available from: https://www.imf.org/-/media/Files/Publications/Fandd/Back-to-Basics/claessens-recession.ashx

CoPS. 2022. RunGTAP Help: Solution methods. Centre of Policy Studies. Available from: https://www.copsmodels.com/webhelp/rungtap/index.html?hc_solmethod.htm

Guo Z, Zhang X, Feng S, Zhang H. 2020. The impacts of reducing renewable energy subsidies on China's energy transition by using a hybrid dynamic computable general equilibrium model. Front Energy Res. 8. https://doi.org/10.3389/fenrg.2020.00025

Hertel TW. 1997. Global trade analysis: modeling and applications. Cambridge (UK): Cambridge University Press.

Horridge M. 2008. MSplitCom: Programs to disaggregate a GTAP sector. Centre of Policy Studies. Available from: https://www.copsmodels.com/msplitcom.htm

Horridge M. 2011. GTAPAdjust: a program to balance or adjust a GTAP database. Centre of Policy Studies. Available from: https://www.copsmodels.com/archivep.htm

ITC. 2024. Trade Map-Markets for fibreboard of wood or other ligneous materials. Available from: https://www.trademap.org/Index.aspx

Jalbert D. 2025. Does the US really need Canadian wood products supply? Fastmarkets. Available from: https://www.fastmarkets.com/insights/does-the-us-really-need-canadian-wood-products-supply/

Janzen N, Freestone C. 2024. Proof Point: Canada's economy might not be in recession but it feels like one. RBC. Available from: https://www.rbc.com/en/thought-leadership/canadas-economy-might-not-be-in-recession-but-it-feels-like-one/

Lamica A. 2025. Can US federal land offset imported Canadian timber products? Fastmarkets. Available from: https://www.fastmarkets.com/insights/can-us-federal-land-offset-imported-canadian-forest-products/

Liu C-K, Kuo N-F, Hseu J-S. 2005. Effects of tariff liberalization on the global forest sector: application of the GTAP model. Int For Rev. 7(3):218-226. https://doi.org/10.1505/ifor.2005.7.3.218

Nagubadi RV, Thompson H, Zhang D. 2009. Productivity and trade during the softwood lumber dispute. Int Trade J. 23(3):301-324. https://doi.org/10.1080/08853900903012278

NAHB. 2025. NAHB secures lumber inclusion in delay of Mexican and Canadian tariffs. Available from: https://www.nahb.org/blog/2025/03/canada-mexico-tariffs-delayed-higher-lumber-prices-still-likely

Narayanan Gopalakrishnan B, Ciuriak D, Singh H. 2015. Quantifying the mega-regional trade agreements: a review of the models. In: Quantifying Mega-Regional Trade Agreements. p. 93-131. https://doi.org/10.2139/ssrn.2611025

Ochuodho TO, Lantz VA, Olale E. 2016. A computable general equilibrium analysis of the United States-Canada 2006 Softwood Lumber Agreement. For Sci. 62(6):679-689. https://doi.org/10.5849/forsci.15-093

Poudel J, Dahal R. 2025. A comprehensive look at the forest products industry's economic contribution to the United States: pre- and post-COVID analysis. For Policy Econ. 172:103440. https://doi.org/10.1016/j.forpol.2025.103440

ResourceWise. 2019. Structural changes in log supply hinder wood products industry in PNW. Available from: https://www.resourcewise.com/market-watch-blog/structural-changes-in-log-supply-hinder-wood-products-industry-in-pnw

Richard W. 2003. An analysis of the timber situation in the United States: 1952 to 2050. Gen Tech Rep PNW-GTR-560. Portland (OR): USDA Forest Service. Available from: https://research.fs.usda.gov/treesearch/5284

Richford M. 2022. How furniture companies in Mexico are bypassing supply chain issues. NAPS Inc. Available from: https://napsintl.com/uncategorized/how-furniture-companies-in-mexico-are-bypassing-supply-chain-issues/

Roos EL, Adams PD. 2020. The economy-wide impact of subsidy reform: a CGE analysis. World Trade Rev. 19(S1):S18-S38. https://doi.org/10.1017/S1474745620000257

Scott SG, Koch LP, Simmons EA, Morgan TA, Dillon T, Christensen GA. 2025. Washington's forest products industry and timber harvest, 2020. PNW-GTR-1032. USDA Forest Service. https://doi.org/10.2737/pnw-gtr-1032

SGSF. 2023. Suppliers and investors-Southern Group of State Foresters. Available from: https://southernforests.org/suppliers-and-investors/

Trade Monitor. 2025. Trade Data Monitor-OSB trade. Available from: https://www1.tdmlogin.com/tdm/default.asp

USDA. 2025. Forest products. Research and Development. Available from: https://research.fs.usda.gov/forestproducts

USITC. 2023. Certain Softwood Lumber Products from Canada: Investigation Nos. 701-TA-566 and 731-TA-1342 (Review). US International Trade Commission. Available from: https://www.usitc.gov/publications/701_731/pub5479.pdf

Woodall CW, Piva RJ, Luppold WG, Skog KE, Ince PJ. 2011. An assessment of the downturn in the forest products sector in the northern United States. For Prod J. 61(8):604-613. https://doi.org/10.13073/0015-7473-61.8.604

World Bank. 2024. GDP growth (annual %)-All countries. Available from: https://data.worldbank.org

Xinnan L. 2025. Pulp and paper caught in the cross fire of a new North American trade war. Available from: https://media.rabobank.com/m/449c714100241cf7/original/Pulp-and-paper-caught-in-the-cross-fire-of-a-new-North-American-trade-war.pdf

Zhang D. 2010. The softwood lumber war: politics, economics, and the long US-Canadian trade dispute. New York (NY): Routledge. https://doi.org/10.4324/9781936331581

Zhang Y, Goodwin BK. 2024. Substitutability of U.S. and Canadian softwood lumber: a threshold modeling approach. For Policy Econ. 169:103343. https://doi.org/10.1016/j.forpol.2024.103343

APPENDIX A

Table A1. Creation of new sectors in the FOTEM based on GTAP sectors.

Old Sector	New Sectors
Forestry (frs)	Softwood Log
	Tropical Hardwood Log
	Temperate Hardwood Log
	Pellets
	Other Forestry
Wood products	Wood in Rough
(lum)	Softwood Lumber
	Hardwood Lumber
	Veneer
	Oriented Strand Board (OSB)
	Particle Board
	Fiberboard (MDF & HDF)
	Plywood
	Seats and Furniture
	Miscellaneous (Builders' Joinery, Flooring, Fencing etc.)
per, Printing, and	Paper
Publishing (ppp)	Pulp
	Other Print Publishing

Table A2. Mappings from 6-digit HS codes to new sectors in the FOTEM.

Sector Name	HS codes
Fiberboard (MDF & HDF)	441111, 441119, 441121, 441129, 441131, 441139, 441191, 441199
Oriented Strand Board (OSB)	441021, 441029
Particleboard	441011, 441019, 441090
Pellets	440131
Plywood	441213, 441214, 441219, 441222, 441223, 441229, 441292, 441293, 441299
Wood in Rough	440310
Softwood lumber	440710
Softwood Log	440320
Hardwood Lumber	440791, 440792, 440799, 44072x
Temperate Hardwood Log	440391, 440392, 440399
Tropical Hardwood Log	440341, 440349
Veneer	440810, 440890
Miscellaneous	441300, 440500, 441510, 441520, 441850, 441830, 441840, 441400

Table A3. Welfare effect in IORA as a percentage of GDP for North American countries.

	Tariff25per	Retaliation25per
Canada	-5.364	-6.042
USA	0.097	-0.301
Mexico	-6.483	-7.233

Table A4. Canada wood product export under Scenario 1 (Tariff25per).

		Tropical	T			MDF						Seats							
	Softwood	Hardwood	Temperate Hardwood	Other	Mass	and			Particle		Rough	and	Softwood	Hardwood					Print
	Log	Log	Log	Forestry	Timber		OSB	Pellets		Plywood	Wood	Furniture		Lumber	Veneer	Miscellaneous	Paper	Pulp	Publishing
Australia	26.0	26.0	24.9	29.3	43.9	110.2	104.3	112.1	73.1	93.4	99.1	38.7	112.7	31.9	46.2	118.1	91.6	68.1	82.9
Newzea	23.8	24.7	25.5	28.6	39.7	95.5	90.5	96.8	32.1	86.6	86.7	38.6	96.3	32.0	47.4	118.2	90.9	31.8	71.3
RestofWorld	60.9	25.9	25.0	29.7	97.5	98.5	93.5	100.3	32.1	93.7	88.7	83.0	101.3	75.6	45.8	104.7	79.1	66.2	71.0
China	48.9	25.8	48.2	27.0	39.6	87.3	82.5	88.6	60.2	38.6	78.5	38.8	89.4	65.2	115.3	104.9	80.5	52.6	82.8
Japan SouthKorea	39.7 40.4	38.3 40.7	29.3 26.3	28.0 29.9	37.9 38.9	84.4 85.8	80.5 81.8	85.2 87.1	32.5 32.0	38.7 91.1	76.7 77.8	38.9 38.5	85.9 87.9	75.3 31.9	46.6 46.3	101.3 116.5	93.1 91.8	57.4 59.5	84.4 64.9
Brunei	25.0	24.8	24.7	27.1	41.3	43.1	41.4	44.1	30.3	36.7	39.4	38.5	44.3	31.8	44.2	47.0	37.4	31.4	34.5
Cambodia	25.4	26.2	26.5	27.9	43.4	44.1	42.8	45.2	31.1	37.1	41.2	38.4	44.3	30.9	46.3	46.4	37.8	31.9	34.8
Indonesi	27.6	57.8	25.9	28.3	40.6	110.7	105.1	112.7	31.9	38.8	99.9	38.9	113.5	73.2	100.6	47.7	90.9	55.9	34.1
Laos	24.2	26.1	24.0	24.5	37.1	41.5	39.3	42.3	30.6	35.2	37.6	37.0	42.2	29.4	41.7	45.4	37.2	31.0	34.0
Malaysia	25.6	25.1	25.5	27.1	37.9	44.0	42.1	44.7	31.5	38.0	40.6	38.0	45.1	31.4	45.7	116.8	91.4	75.4	83.0
Phillip	24.8	26.1	25.4	27.6	39.0	80.5	77.5	81.5	70.6	86.0	74.9	39.1	82.0	24.8	61.5	119.0	90.7	31.9	82.6
Singapor	27.2	26.7	25.7	28.9	38.2	45.1	43.1	45.8	32.2	38.9	41.4	38.9	46.0	32.9	45.9	117.2	37.2	65.9	82.4
Thailand	26.7	27.6	27.0	28.8	36.9	107.9	102.6	110.0	31.1	37.4	97.6	38.0	110.5	30.9	106.4	114.9	91.3	63.7	34.5
Vietnam	26.3	55.8	58.7	25.8	42.5	111.5	105.1	113.8	31.6	37.3	100.1	38.4	114.2	75.1	46.2	47.2	92.2	63.5	35.1
SEAsia India	25.0 28.2	24.4 26.7	25.4 27.4	27.3 30.5	39.0 40.0	44.4 113.6	42.4 108.1	45.1 115.8	31.4 32.4	38.0 39.6	40.7 102.2	38.1 39.4	45.5 116.6	32.2 75.0	45.7 113.1	46.2 118.5	37.4 79.0	31.6 61.2	34.6 82.9
Pakistan	27.7	56.3	27.6	29.5	40.0	92.4	86.6	91.3	62.2	82.4	82.6	38.2	92.2	68.2	63.8	109.7	78.2	74.6	81.9
Canada	-5.0	-2.5	-2.5	-0.8	-4.1	-2.1	0.1	-2.0	-2.9	-1.9	-1.0	52.6	-2.4	-0.4	2.3	32.5	48.4	-0.9	47.4
USA	-40.4	-41.1	-29.2	-41.1	-18.6	-42.7	-44.5	-42.1	-71.4	-57.1	-45.8	-58.5	-42.8	-59.7	-37.6	-50.1	-42.0	-46.6	
Mexico	-6.5	-2.2	0.6	-0.4	-6.1	84.9	77.3	88.0	16.0	25.5	79.5	-3.5	81.5	21.6	101.6	44.1	65.4	63.0	44.5
Brazil	27.7	26.8	27.5	30.3	40.1	46.1	44.5	46.9	32.5	39.3	42.4	39.2	46.6	32.3	46.0	33.2	91.3	76.2	34.1
Chile	26.5	27.1	25.4	29.2	42.0	46.6	45.3	47.2	32.8	39.8	42.8	39.4	47.7	33.6	47.7	46.9	90.8	31.5	32.0
Peru	26.5	27.2	26.8	29.7	39.9	46.7	45.0	47.3	31.9	39.6	42.4	38.8	47.6	33.0	47.7	43.0	89.0	31.5	30.3
Uruguay	25.7	25.6	25.2	27.0	39.2	46.5	44.4	47.0	31.5	39.9	42.4	39.0	47.7	32.8	45.0	47.3	37.3	31.8	34.0
CostaRica	25.9 26.7	25.9 26.2	26.4 26.2	28.3 28.2	37.3 39.0	49.8 44.8	47.6 43.4	50.2 45.7	33.7 32.0	42.3 38.2	45.3 39.7	40.2 38.5	50.5 45.5	33.2 31.4	48.3 44.3	106.1 45.2	82.8 36.1	65.7 71.6	24.5 33.2
Caribbean Austria	26.7	25.6	25.1	28.5	39.4	45.0	43.4	45.7	31.8	38.5	41.2	38.5	45.5 46.1	32.6	45.4	45.2 46.2	91.4	76.5	83.0
Belgium	27.5	26.8	25.7	29.4	40.1	109.8	88.0	94.1	74.6	92.9	83.8	39.0	113.1	32.6	102.6	118.8	80.5	32.9	74.6
Bulgaria	25.8	26.1	25.1	29.6	39.7	45.0	42.9	45.7	31.8	38.7	41.2	38.5	46.0	32.7	45.5	46.8	37.3	75.6	34.2
Croatia	25.9	25.5	25.6	27.5	39.4	44.8	42.8	45.6	31.7	38.4	40.9	38.3	45.8	32.3	45.5	46.4	37.3	32.0	34.2
Cyprus	24.7	24.5	24.3	26.7	38.4	42.9	42.8	43.6	31.6	36.5	40.9	38.3	45.7	30.8	43.6	46.3	89.0	31.3	33.6
CzechRep	26.5	25.9	25.5	28.2	39.8	44.9	42.9	45.6	31.6	38.4	41.0	38.4	45.9	32.4	45.7	46.0	37.4	32.0	34.6
Denmark	27.0	25.7	25.7	28.7	40.5	45.1	43.1	115.5	31.9	38.7	41.2	38.6	46.1	32.1	46.1	118.0	37.3	75.4	82.5
Estonia	26.6	26.5	25.7	27.8	41.5	44.5	42.5	45.1	31.7	38.5	40.8	38.4	45.5	31.5	45.9	46.5	37.3	31.8	34.2
Finland	26.2	26.0	26.2	27.7	40.0	44.7	42.9	45.3	32.2	38.5	41.1	38.8	45.9	32.4	46.2	117.7	37.6	76.1	82.7
France Germany	27.5 26.7	27.3 25.8	25.6 25.4	29.3 27.3	39.9 39.7	113.0 113.5	107.0 107.4	115.1 115.6	32.2 32.0	93.7 93.9	101.2 101.5	38.7 38.7	116.2 116.6	32.9 76.0	45.6 113.5	118.1 117.9	92.0 91.5	76.8 68.8	73.3 83.0
Greece	27.0	26.2	25.2	28.9	39.1	44.9	43.0	45.6	31.7	38.6	41.1	38.4	45.9	31.5	45.6	46.6	90.7	31.6	34.1
Hungary	26.3	26.1	25.2	29.6	38.8	44.9	42.8	45.6	31.7	38.4	41.0	38.4	45.9	32.3	45.5	46.2	37.5	74.8	82.3
Ireland	30.3	30.0	28.9	32.2	43.8	112.4	105.8	114.7	32.7	39.9	100.9	39.7	114.8	31.8	46.5	47.8	37.8	65.2	83.0
Italy	26.5	58.4	25.4	28.6	33.2	85.2	80.8	86.9	31.5	92.4	76.9	38.2	87.5	31.5	45.1	116.5	79.8	76.5	72.5
Latvia	25.5	25.9	24.3	28.7	38.9	44.2	42.2	44.9	31.4	38.1	40.5	38.2	45.1	32.0	45.6	46.1	37.3	32.2	34.3
Lithuania	25.5	24.9	24.3	26.9	38.3	44.3	42.2	45.1	31.5	37.9	40.5	38.2	45.3	31.7	45.0	46.1	37.2	31.9	34.1
Luxembo	27.7	27.4	26.2	29.5	41.4	45.1	43.1	45.8	31.5	38.5	41.1	39.0	46.1	32.6	43.7	46.6	37.4	32.4	35.1
Malta Netherla	24.8 27.3	24.8 27.0	24.6 25.7	26.7 29.4	39.2 39.2	44.6 111.5	41.1 105.7	45.8 113.7	32.0 31.9	36.8 93.2	39.5 100.1	38.8 38.5	44.3 114.7	31.1 32.5	43.8 45.7	47.3 117.9	37.4 37.5	32.2 65.1	34.7 83.0
Poland	26.1	25.2	25. r 24.8	27.5	39.0	44.8	42.7	45.5	31.6	38.2	40.9	38.3	45.8	32.5 31.9	45.7 45.1	46.2	37.6	32.1	82.8
Portugal	28.2	27.0	26.1	29.9	40.9	45.6	43.6	46.3	31.8	38.7	41.6	38.6	46.7	31.5	46.0	46.6	91.0	31.9	34.4
Romania	25.3	25.6	24.7	28.4	38.9	44.8	42.8	45.5	31.6	38.4	41.0	38.3	45.9	32.3	45.7	45.8	37.4	75.4	82.2
Slovakia	25.9	25.1	24.8	28.5	38.9	44.9	42.8	45.6	31.8	38.2	41.0	38.4	46.0	32.3	45.2	46.3	37.3	32.1	34.3
Slovenia	26.5	26.1	25.4	27.1	39.7	44.8	42.7	45.5	31.6	38.3	40.9	38.4	45.8	32.2	45.5	46.4	37.3	32.0	34.2
Spain	27.8	26.8	25.8	29.5	39.2	45.4	43.2	115.8	31.9	38.7	41.5	38.6	46.5	31.4	110.1	117.7	91.3	65.2	82.4
Sweden	26.8	26.0	25.7	27.9	39.3	44.8	42.9	45.5	31.7	38.4	41.0	38.4	45.9	31.6	45.6	117.7	37.2	31.9	82.5
UK .	29.7	60.0	26.7	29.7	40.0	84.7	80.9	86.2	60.3	74.0	77.1	38.9	87.2	75.2	46.5	92.3	78.7	76.4	72.2
Russia	25.6	25.7	25.6	29.6	38.5	109.3	103.9	111.3	73.7	92.6	98.3	38.4	112.5	32.0	45.7	46.0	37.3	76.1	34.1
Ukraine Saudiñrak	25.1 27.0	26.5 26.4	24.7 28.6	28.3 30.2	41.5 38.3	44.8	42.8 106.5	45.5 113.9	31.7 76.1	38.5 39.9	41.0	38.5 39.5	45.8	32.2 78.0	45.5 48.5	46.7	37.4 91.3	32.0 63.5	34.4 34.3
SaudiArab UnitedArab	27.0	26.4 26.9	28.6 26.3	30.2	38.3	111.9 108.9	106.5	110.8	32.0	92.5	100.5 98.1	39.5 38.6	114.9 111.6	78.0 74.1	48.5 46.1	118.7 116.2	91.3	75.2	34.3 82.3
	26.7	26.5	26.0	30.4	38.5	44.7	42.7	45.3	31.8	38.7	41.3	38.4	45.7	32.4	114.3	46.9	77.3	75.5	82.2
								70.0											
Egypt Cotedly	26.5	26.2	25.6	29.3	40.6	44.8	44.9	46.8	33.0	38.3	41.1	39.5	47.6	33.0	45.7	48.0	37.4	32.1	34.5

Table A5. Canada wood product export under Scenario 2 (Retaliation 25 percent).

	Softwood	Tropical Hardwood	Temperate Hardwood	Other	Mass	MDF			Particle		Rough	Seats and	Softwood	Hardwood					Print
	Log	Log	Log	Forestry		HDF	OSB	Pellets	Board	Plywood	Wood	Furniture	Lumber	Lumber	Veneer	Miscellaneous	Paper	Pulp	Publishing
Australia	20.9	22.1	16.8	25.7	44.0	108.6	99.0	110.2	74.3	82.6	93.1	39.8	111.7	19.8	41.1	115.9	82.5	70.4	70.5
lewzea	19.5	21.5	16.6	24.0	39.4	93.7	85.8	94.7	33.1	77.3	81.4	39.8	95.0	21.4	46.0	115.9	81.8	33.1	61.5
RestofWorld	49.5	23.0	15.6	26.3	98.7	97.2	88.9	99.0	33.0	82.8	83.5	87.1	101.0	60.0	41.2	102.5	71.9	68.5	61.9
hina	38.5	22.7	28.3	22.4	38.6	85.6	78.0	86.5	61.3	35.4	73.3	40.6	88.2	45.0	105.0	103.0	73.2	53.6	71.2
apan	30.0	31.1	17.5	24.2	38.0	84.0	77.4	84.4	33.9	35.9	73.0	40.7	86.0	57.4	44.6	100.3	84.4	58.5	73.5
iouthKorea	32.0	35.1	16.3	26.8	40.2	84.9	78.0	85.9	32.8	80.6	73.5	39.8	87.5	21.4	44.2	114.7	82.3	60.2	56.6
Brunei	21.4	21.7	16.7	23.3	42.4	43.1	40.0	44.2	30.6	33.1	37.6	39.4	44.6	27.6	40.9	47.1	34.6	31.9	30.6
ambodia	19.8	21.2	12.0	22.4	38.9	43.9	41.2	45.2	31.2	33.3	39.9	39.3	43.9	18.0	44.1	45.9	34.8	33.4	31.5
ndonesi	22.8	48.5	17.8	24.3	41.8	107.8	98.9	109.4	32.8	35.1	93.1	40.6	111.1	52.8	87.2	47.6	82.3	55.4	30.4
aos	19.3	19.9	14.5	15.2	28.9	40.2	36.5	40.9	30.2	30.5	34.5	36.7	40.8	23.6	36.5	42.9	34.6	31.5	28.2
lalaysia	19.9	19.1	15.9	23.1	37.4	43.1	40.2	43.7	32.1	34.4	38.3	39.2	44.4	22.0	41.4	114.2	82.6	76.6	71.1
hillip	20.8	23.3	17.1	23.8	39.4	79.9	74.4	80.7	71.9	76.7	71.2	40.8	81.9	21.1	57.7	117.2	81.6	32.4	71.0
ingapor	23.1	21.4	17.1	25.3	38.3	44.2	41.4	44.9	32.9	35.6	39.3	40.3	45.4	28.1	42.6	113.8	34.4	68.0	69.8
hailand	22.8	25.6	19.5	25.8	37.3	105.4	96.5	107.1	31.8	33.5	90.9	39.2	108.5	22.2	97.4	112.4	82.2	63.9	30.2
ietnam	20.4	46.8	35.0	21.9	40.5	105.6	96.0	107.7	31.8	32.1	90.4	39.6	109.0	52.6	42.8	47.2	83.6	63.7	31.5
EAsia	21.0	21.4	17.3	23.6	39.9	44.6	41.3	45.2	31.7	34.8	39.3	39.4	45.9	27.6	43.1	45.8	34.7	31.2	31.1
ndia	24.7	24.2	19.6	27.4	42.2	112.3	103.0	114.2	33.1	36.4	96.5	41.2	115.9	61.3	101.5	116.1	71.3	59.5	70.6
akistan	23.2	48.2	19.8	26.1	41.0	87.9	79.8	86.3	62.8	71.4	75.0	39.1 57.7	88.1 58.5	51.6	59.5	106.3	70.9	75.6 32.3	70.3
anada ISA	59.1 -45.4	-1.3 -45.9	70.2 -36.8	0.7 -45.6	-3.3 -20.5	68.2 -46.0	57.4 -48.5	67.0 -45.6	16.3 -73.0	3.9 -61.2	61.4 -49.7	-59.3	-46.3	121.7 -64.8	111.5 -43.3	44.4 -53.1	145.4 -46.7	-48.5	121.5 -54.2
lom Texico	93.0	-45.5 -3.5	-30.0	-1.2	-3.7	225.4	169.1	228.2	22.3	28.1	80.2	-55.5 -2.6	140.2	226.1	199.4	-53.1 83.4	137.9	142.5	92.3
razil	24.1	23.0	19.5	26.1	40.2	43.0	41.0	43.8	33.9	36.8	38.7	41.3	44.8	21.1	36.3	33.4	82.8	77.8	30.2
hile	24.0	25.3	18.1	26.2	44.9	45.6	44.4	46.6	34.2	37.0	40.9	41.3	47.7	27.5	46.3	47.6	81.5	32.9	28.5
eru.	23.5	25.2	19.4	26.2	41.5	48.7	46.0	49.5	33.3	38.1	42.1	41.4	49.7	30.8	46.4	44.4	80.9	33.2	27.9
lruguay	22.4	23.1	17.7	23.5	39.8	49.0	45.0	49.4	32.9	38.1	41.9	40.5	51.9	28.6	43.4	47.9	34.7	32.9	29.5
ostaRica	21.3	22.6	17.5	24.3	37.3	50.3	49.8	51.0	35.4	41.3	44.4	41.9	54.4	29.9	47.2	101.9	71.3	68.8	20.9
aribbean	20.8	21.4	16.3	22.8	39.3	32.1	29.6	32.7	30.8	24.0	36.2	37.8	33.5	25.2	39.0	33.5	28.7	68.1	26.0
ustria	23.8	23.7	18.1	26.6	40.5	45.7	42.3	46.3	32.7	35.7	40.1	39.9	47.0	28.1	42.1	46.3	82.9	80.0	71.9
Belgium	24.8	24.6	17.7	26.5	41.7	109.0	84.4	93.4	75.7	82.7	79.5	40.6	113.2	24.4	92.1	117.1	73.1	33.2	65.2
Bulgaria	22.5	23.6	17.4	26.6	40.9	45.6	42.1	46.3	32.5	35.8	40.2	39.9	47.0	28.7	42.8	46.8	34.6	78.6	30.5
roatia	22.4	22.5	17.4	23.5	39.6	45.1	41.7	45.8	32.1	35.3	39.5	39.4	46.4	28.0	42.5	46.2	34.5	33.4	30.3
Cyprus	20.7	21.0	15.8	22.3	38.2	42.9	42.1	43.5	31.9	32.9	39.6	39.3	46.5	15.5	40.2	45.9	79.7	32.1	29.5
zechRep	23.6	23.5	16.7	24.9	41.8	45.3	41.9	46.0	32.2	35.4	39.7	39.6	46.7	27.5	42.1	45.7	34.7	31.2	30.8
)enmark	24.7	23.7	17.7	25.6	42.6	45.4	42.2	115.0	32.6	35.8	39.9	40.1	46.8	23.9	43.1	115.9	34.8	76.4	71.1
stonia	23.6	23.9	18.4	24.1	43.0	44.1	41.0	44.7	32.6	35.5	38.9	39.8	45.6	20.1	42.4	46.4	34.7	33.6	30.6
inland	23.3	23.7	19.4	24.4	41.3	45.1	42.2	45.6	33.3	35.7	40.0	40.6	47.1	24.5	43.9	115.9	35.1	79.5	71.6
rance	24.0	24.4	17.3	25.9	41.0	112.7	102.2	114.4	33.1	83.2	95.9	40.0	116.6	27.4	42.4	115.4	83.6	80.1	63.7
3ermany	23.7	23.4	16.1	24.3	41.3	113.2	102.8	115.1	32.8	83.7	96.2	40.2	117.2	58.9	100.5	115.9	82.9	71.2	71.7
Greece	24.0	23.4	17.3	25.4	39.7	44.4	41.5	45.3	32.4	35.6	39.3	39.8	45.9	20.1	39.0	46.7	81.9	31.6	30.4
Hungary	23.7	23.7	17.6	27.0	39.6	45.5	42.0	46.2	32.3	35.5	39.9	39.8	46.8	27.9	42.7	46.1	34.9	78.2	71.0
eland	29.5	30.4	23.6	31.1	47.3	108.4	99.1	110.6	33.4	36.3	93.3	41.8	111.9	18.3	40.8	46.8	34.6	67.5	70.9
taly .	22.1	47.3	15.2	25.1	34.5	84.4	77.0	85.9	32.2	81.7	72.6	39.6	87.2	22.9	40.5	114.0	72.5	78.1	63.0
.atvia	22.2	23.3	16.7	25.2	39.2	44.3	40.9	44.9	31.9	34.9	38.9	39.4	45.5	27.3	42.7	45.7	34.6	33.6	30.6
ithuania	22.4	22.4	16.5	23.2	39.3	44.4	40.9	45.0	32.0	34.8	38.9	39.6	45.7	26.0	42.1	45.7	34.5	33.5	30.4
.uxembo	25.3	25.3	18.2	26.8	44.0	45.9	42.3	46.4	32.3	35.4	40.0	41.4	47.1	28.1	40.6	46.6	34.6	33.9	31.8
/laita	21.0	21.7	16.8	23.1	39.3	38.8	39.3	30.8	31.9	33.1	37.7	39.7	44.1	14.1	40.2	46.6	34.9	33.0	29.8
letherla	24.7	25.1	18.0	25.9	40.7	110.9	101.0	112.8	32.6	82.8	94.7	39.9	114.9	27.2	43.2	115.7	34.8	66.8	71.6
Poland	23.0 25.4	22.6 25.1	16.8 16.2	23.7 26.9	39.8 42.8	45.2 44.7	41.6 41.8	45.9 45.4	32.1 32.4	35.2 35.0	39.6 39.2	39.8 39.8	46.5 45.9	26.8 19.5	42.1 40.2	46.2 46.4	35.0 82.3	32.2 33.5	71.5 30.6
Portugal Romania	21.5	25.1 22.6	16.3	25.0	39.4	45.1	41.0	45.4	32.4	35.0 35.4	39.6	33.6 39.6	45.5 46.7	27.7	40.2	45.5	34.8	78.0	70.9
iomania ilovakia	22.9	22.6	16.8	25.0	39.9	45.5	41.9	46.1	32.2	35.4	39.7	39.8	46.7	28.1	42.0	45.5 46.0	34.6	33.1	30.4
ilovakia	23.7	23.9	17.4	23.6	41.8	45.4	41.9	46.1	32.3	35.4	39.8	39.8	46.7	27.4	42.1	46.3	34.6	33.6	30.4
ipain	24.9	23.4	17.1	26.5	40.7	44.7	41.5	114.0	32.5	35.3	39.4	40.7	46.1	18.1	96.7	115.2	82.5	67.4	71.2
weden	24.4	23.8	18.8	24.2	40.1	44.8	41.8	45.5	32.5	35.4	39.5	39.9	46.3	20.8	43.0	115.5	34.6	33.2	70.8
K	27.6	50.4	18.8	26.3	41.1	81.5	75.8	82.8	61.3	66.8	71.3	40.2	84.8	54.3	42.6	90.2	71.4	79.4	61.5
lussia	22.2	22.8	18.4	26.8	39.0	108.4	99.0	110.1	74.3	82.1	92.7	39.6	112.3	25.8	40.9	45.7	34.7	78.4	30.3
Jkraine	21.2	23.6	16.1	24.1	42.4	45.3	41.9	45.8	32.6	35.5	39.8	40.4	46.5	27.7	42.7	46.7	34.8	33.3	30.3
BaudiArab	22.1	22.1	21.7	27.2	38.5	111.4	102.2	113.1	77.6	36.8	95.3	40.7	115.3	64.4	46.1	116.1	81.9	64.1	30.2
InitedArab	21.0	23.5	18.2	28.6	38.6	107.9	98.7	109.4	32.6	82.1	92.5	39.8	111.1	57.2	38.5	113.3	82.1	76.2	69.5
gypt	19.5	23.5	18.6	27.7	38.7	44.8	41.7	45.3	32.9	35.8	39.5	39.8	46.6	26.5	102.2	46.7	70.2	76.2	68.0
otedly	23.0	23.3	17.3	25.9	41.3	45.9	44.4	47.5	34.5	35.7	40.4	41.5	48.7	29.4	43.3	48.9	34.5	32.9	30.9
CCCUIV	17.3	22.7	13.2	23.4	43.3	38.6	37.8	39.3	32.9	35.9	35.5	40.8	38.4	29.2	44.7	46.1	80.4	77.1	30.1

Table A6. U.S wood product import under Scenario 1 (Tariff25per).

		Tropical Hardwood	Temperate Hardwood	Other	Mass	MDF and HDF	OSB	Б. И.	Particle	DI I	Rough	Seats and	Softwood	Hardwood		na: II	_		Print
Australia	Log 13.6	Log 12.9	Log 36.1	Forestry 8.5	Timber 28.8	25.6	25.1	Pellets 25.6	Board -1.0	Plywood 3.2	Wood 25.6	Furniture	Lumber 23.7	Lumber 3.6	Veneer 35.4	Miscellaneous 6.9	15.0	Pulp 14.5	Publishing 5.4
Newzea	14.7	13.3	35.3	7.8	23.7	25.5	25.0	25.3	-0.9	3.5	25.3	-0.3	23.7	3.9	35.1	7.3	15.4	15.4	6.1
RestofWorld	12.4	11.9	35.4	6.7	23.6	25.6	25.0	25.5	-0.9	3.4	25.7	-0.3	23.7	4.4	35.5	7.4	15.7	15.4	6.2
hina	15.2	12.9	37.3	8.9	23.9	24.8	24.3	24.7	-0.7	2.8	24.7	-0.8	22.9	4.1	34.6	6.7	14.4	15.4	5.0
Japan	16.3	15.4	40.9	9.0	25.2	26.0	25.7	26.1	-1.4	3.8	25.9	-0.4	24.6	4.2	34.5	6.7	13.1	13.0	3.7
BouthKorea	14.7	13.7	35.2	7.6	23.5	25.9	25.4	25.7	-0.9	4.0	25.7	-0.1	23.9	4.4	35.8	7.5	15.2	14.9	4.9
Brunei	14.3	13.6	36.5	9.0	25.6	25.4	24.9	25.2	-0.9	3.4	25.6	-0.1	23.3	4.1	35.6	7.4	15.7	15.4	5.9
Cambodia	13.8	12.5	35.5	8.7	21.2	26.7	26.0	26.3	0.0	3.8	26.4	0.1	24.6	4.7	36.2	8.4	15.6	15.2	6.4
ndonesi	11.4	12.0	35.2	7.2	22.6	25.5	24.8	25.4	-0.9	2.5	25.2	-0.8	23.6	4.1	36.2	6.0	15.5	15.8	5.6
_aos	14.4	12.4	37.4	11.2	27.2	27.0	26.6	26.8	0.5	4.6	27.1	0.9	25.2	5.4	37.5	9.1	16.6	15.7	6.6
Malaysia	13.6	13.8	35.9	9.5	25.0	26.2	25.8	26.3	-0.8	3.8	26.2	0.3	24.3	4.7	36.5	7.8	15.3	14.9	5.7
Phillip	13.5	12.8	35.7	8.7	23.8	26.1	25.8	26.4	-1.2	3.1	25.8	-0.7	24.7	7.5	37.0	6.9	15.4	14.6	5.6
Singapor	13.7	12.5	34.9	7.9	24.2	25.4	25.0	25.3	-0.9	3.4	25.6	-0.2	23.5	4.3	35.8	7.5	15.9	15.5	6.2
Thailand	11.6	10.0	32.5	8.1	26.2	26.5	25.7	26.3	-0.7	3.3	26.2	0.0	24.5	4.2	35.9	7.5	15.9	15.3	6.1
vietnam	12.8	13.9	36.2	9.8	21.8	25.9	25.3	25.9	-0.6	3.4	25.7	0.2	24.0	4.3	35.8	7.0	14.2	14.2	5.1
BEAsia	13.5	13.5	35.5	8.6	24.3	25.6	25.2	25.5	-0.7	3.6	25.7	0.0	23.6	4.4	36.0	7.9	15.6	15.0	6.0
ndia	9.6	11.9	34.3	5.3	22.3	23.0	21.9	22.8	-1.4	1.4	22.6	-1.4	21.0	3.9	35.4	5.6	14.8	15.5	5.2
noia Pakistan	12.4	12.7	35.1	8.0	23.5	26.1	25.6	26.3	-0.5	3.7	26.1	0.0	24.4	4.5	39.5	8.0	15.6	15.1	6.0
Pakistan Danada	-40.4	-411	-29.2	-41.1	_18.C	-42.7	_44.5	-42.1	-71.4	-57 d	_45.0	-58.5	-42.9	-59.7	-37.6	-50.1	-42.0	-48.C	-49.1
USA	13.1	12.7	36.0	7.8	21.8	25.6	24.8	25.5	0.4	3.5	25.4	0.7	24.0	5.0	36.2	8.3	15.6	14.9	6.2
Mexico	-39.2	-28 E	-39.0	-26.1	-0.5	-34.3	-34.2	-37.0	-67.2	-49.9	-59.4	-50.0	-60.5	-67.9	-56.4	-315	-45.7	-57.2	-42.8
mexico Brazil	12.1	12.3	35.3	5.9	23.2	23.3	22.7	23.2	-1.4	2.1	23.4	-1.3	22.2	2.9	33.9	6.3	14.5	14.0	4.7
Orazii Chile	11.0	12.1	34.4	5.6	21.4	22.5	22.0	22.4	-2.3	1.7	22.8	-2.3	21.1	2.3	34.5	5.4	14.1	14.3	4.1
Peru	12.2	12.0	34.0	8.6	23.5	24.6	24.1	24.6	-0.9	2.8	24.9	-0.4	22.6	4.0	32.8	7.4	15.9	15.0	6.2
Jruguay	13.2	13.6	35.8	9.0	24.3	25.4	25.1	25.5	0.7	4.2	25.7	0.1	23.3	4.5	34.2	8.0	16.0	15.8	6.4
DostaRica	12.4	12.1	33.8	6.5	21.6	23.7	23.5	23.8	-1.9	2.4	24.1	-11	21.7	3.4	34.3	6.0	17.2	15.7	6.6
Caribbean	12.3	12.3	35.0	8.2	24.7	25.8	25.2	25.7	-0.5	3.7	26.0	0.1	23.8	4.7	36.1	8.0	16.6	16.0	6.7
Canobean Austria	13.1	12.8	36.0	8.6	24.1	25.3	24.8	25.2	-0.9	3.2	25.4	-0.2	23.4	4.2	35.8	7.5	15.4	14.8	5.7
Belgium	12.6	12.4	35.9	8.1	23.9	25.1	24.5	24.9	-0.9	3.4	25.2	-0.2	23.1	4.2	35.8	7.1	15.4	14.5	4.8
Bulgaria	12.8	12.6	35.8	8.2	23.9	25.5	25.0	25.4	-0.9	3.3	25.5	-0.1	23.6	4.2	35.8	7.4	15.6	15.1	5.9
Croatia	13.0	12.0	35.9	8.4	23.8	25.8	25.2	25.7	-0.7	3.4	25.7	0.1	23.9	4.3	36.1	7.7	15.7	15.1	6.2
Cyprus	13.9	13.8	36.9	9.4	25.0	26.3	25.6	26.2	-0.3	4.0	26.1	0.4	24.1	4.8	36.7	8.2	16.4	15.8	6.6
CzechRep	12.9	12.6	35.8	8.5	24.0	25.2	24.7	25.1	-1.1	3.1	25.3	-0.3	23.3	4.2	35.3	7.4	15.4	15.2	5.8
Denmark	12.9	13.3	35.8	8.2	23.7	25.6	25.1	25.5	-0.8	3.4	25.7	0.1	23.6	4.3	35.8	7.6	15.8	15.2	6.2
Estonia	12.9	12.2	35.4	8.4	23.7	25.8	25.2	25.7	-0.5	3.3	25.8	0.1	23.9	4.4	35.1	7.8	15.9	15.3	6.3
Finland	12.9	12.4	35.6	8.4	23.6	25.0	24.4	25.0	-1.1	2.8	25.0	-0.9	23.0	4.1	35.5	6.8	15.1	14.7	5.2
France	11.7	10.8	35.7	7.5	23.7	24.3	23.8	24.2	-1.2	2.6	24.4	-0.9	22.3	3.5	34.9	6.7	14.6	14.1	5.4
Germany	12.7	12.8	36.0	8.3	24.6	24.9	24.4	24.2	-1.1	2.9	25.0	-0.5	23.0	3.8	34.8	7.1	14.9	14.8	5.4
Greece	12.8	12.9	35.8	7.2	24.3	25.8	25.3	25.7	-0.6	3.6	25.9	0.2	23.9	4.6	36.2	8.1	16.3	15.6	6.7
Breece Hungary	13.0	12.3	35.9	8.3	24.3	25.5	25.0	25.4	-0.8	3.3	25.4	-0.1	23.5	4.2	35.8	7.5	15.4	15.0	5.9
nungary Ireland	11.2	9.8	33.2	6.5	21.0	25.9	25.0	26.1	-1.0	2.7	25.6	-0.1	24.1	4.1	35.8	6.8	15.4	14.9	5.7
ireiano Italy	12.8	12.8	35.6	7.4	24.4	24.8	24.2	24.6	-1.0	3.0	24.8	-0.4	22.8	3.7	34.7	7.0	14.7	14.6	5.1
italy Latvia	13.3	12.5	36.2	8.5	24.2	25.6	25.1	25.5	-0.9	3.3	25.6	-0.5	23.7	4.3	35.7	7.5	15.6	15.0	5.9
_atvia _ithuania	13.6	13.2	36.7	8.9	24.5	25.4	24.9	25.3	-0.9	3.3	25.5	-0.1	23.7	4.2	35.7	7.3	15.0	14.8	5.6
Luxembo	12.6	12.4	35.2	8.0	22.8	25.9	25.5	25.9	-0.4	3.6	26.0	0.2	24.0	4.6	36.6	8.0	16.0	15.3	6.1
Malta	12.9	12.4	35.8	9.2	24.0	25.6	25.4	25.8	-0.4	3.8	25.8	0.2	23.6	4.4	36.3	8.0	15.7	15.1	6.3
Vetherla	12.6	12.3	35.8	7.3	24.9	25.5	24.8	25.3	-0.9	3.3	25.4	-0.2	23.5	4.4	35.9	7.3	15.3	15.0	5.7
Poland	13.1	13.4	36.3	8.8	24.2	25.2	24.7	25.1	-0.9	3.2	25.3	-0.2	23.3	4.3	35.8	7.4	15.4	14.9	5.8
Portugal	12.1	12.3	35.3	7.8	23.2	24.7	24.1	24.5	-0.8	2.9	24.7	-0.2	22.7	4.1	34.9	7.4	15.5	15.0	6.0
Romania	13.4	12.7	36.2	8.6	24.2	25.6	25.1	25.5	-0.7	3.2	25.6	-0.2	23.7	4.3	35.8	7.4	15.6	15.0	5.8
Slovakia	13.3	13.3	36.3	8.5	24.5	25.2	24.8	25.1	-1.0	3.3	25.3	-0.2	23.3	4.1	35.7	7.2	15.3	14.5	5.6
Blovakia Blovenia	13.1	12.8	36.1	8.6	24.0	25.5	25.0	25.4	-0.9	3.3	25.6	-0.4	23.6	4.4	34.6	7.5	15.5	15.0	5.9
olovenia Opain	12.4	11.5	35.5	7.9	24.0	24.7	24.2	24.6	-0.3	3.0	24.9	-0.1	22.6	4.1	35.0	7.1	15.5	15.0	5.9
opain Gweden	12.7	12.6	35.8	8.4	24.3	25.4	24.8	25.3	-1.0	3.1	25.5	-0.7	23.4	4.1	35.7	7.4	15.6	15.0	5.9
JK	11.5	10.8	34.7	6.5	23.4	25.7	25.1	25.6	-0.8	3.5	25.6	-0.3 -0.6	23.4	4.3	35.7	7.0	14.8	14.9	5.7
	14.0	13.0	36.9	8.5	24.5	26.5	25.1	26.5	-0.8	3.5	26.4	-0.6 -0.2	24.5	4.5	35.7	7.6	15.7	15.1	6.0
Russia	13.6	12.8	36.5	8.7	23.3	25.6	25.3	25.6	-0.5	3.5	25.8	0.0	23.8	4.5	35. r 36.1	7.5	15.7	15.1	6.0
Jkraine									-0.7 -1.8										
SaudiArab	13.1 13.9	13.3	36.4 36.8	9.0 9.6	24.6 25.2	24.7 26.0	24.1 25.4	24.7 26.0	-0.9	2.4	24.7 25.9	-1.0 -0.1	22.8 24.1	3.3 4.5	34.1 35.8	6.5 7.4	14.8 15.8	14.8 15.4	5.6 6.1
JnitedArab		14.0	36.8							3.4 3.4									
gypt	12.9 12.5	12.7	35.7	7.9	24.1 23.3	25.7	25.3 23.6	25.6 24.1	-0.6	2.3	25.7 24.3	0.2	23.7 22.2	4.4 3.2	35.6	7.8	15.9 15.4	15.2	6.2 5.7
Dotedly		12.2		7.4 8.5		24.2			-1.8 -1.2			-0.6 -0.4		3.2 4.0	34.4	6.6		14.8	5.7
Ghana	13.7	12.4	34.3	0.5	18.2	24.5	24.1	24.3	-1.2	2.7	24.6	-0.4	22.4	4.0	34.5	7.2	15.7	15.0	5.3

Table A7. U.S wood product import under Scenario 1 (Retaliation25per).

		Tropical Hardwood	Temperate Hardwood	Other	Mass	MDF and						Seats	Softwood	Hardwood					Print
	Softwood								Particle		Rough	and							
	Log	Log	Log	Forestry	Timber	HDF	OSB	Pellets	Board	Plywood	Wood	Furniture		Lumber	Veneer	Miscellaneous		Pulp	Publishing
Australia ••	12.34	10.53	40.94	7.79	25.97	18.64	19.13	18.63	-6.61	-1.15	20	-4.01	16.28	-1.68	29.89	1.77	10.85	8.98	1.02
Newzea	13.68	10.73	40.94	6.95	21.08	18.69	18.99	18.56	-6.58	-0.94	19.72	-3.87	16.43	-1.35	29.31	2.15	11.03	9.74	1.57
RestofWorld	10.27	8.91	40.51	5.14	20.44	18.75	18.97	18.52	-6.45	-1.11	20.04	-3.54	16.21	-1.59	29.99	2.5	11.48	8.78	1.78
China	14.45	10.64	43.26	8.92	22.01	16.81	17.44	16.9	-6.71	-2.33	18.12	-5.35	14.47	-1.62	27.44	0.98	8.75	9.3	-0.48
Japan	15.39	13.08	45.25	8.3	22.45	18.42	19.06	18.52	-7.51	-1 -0.66	19.65	-4.56	16.53	-2.12	27.04	0.51 1.64	7.5	6.09	-1.95 -0.46
SouthKorea	13.41 8.92	10.98	40.59 40.84	6.53	20.54	18.53 18.64	19.05 19.19	18.34 18.44	-6.85 -6.29	-0.66	19.72 20.31	-4.11 -3.86	16.16 15.94	-1.6 -1.67	29.72 30.15	2.58	10.36 11.79	8.99 10.24	1.87
Brunei Cambodia	13.59	10.53 11.16	42.75	7.6 8.64	21.74	21.07	21.52	20.63	-4.75	0.6	20.31	-2.84	18.63	-0.08	32.15	4.72	11.56	9.92	2.43
Indonesi	9.29	9.07	39.55	5.32	18.92	18.55	18.38	18.36	-6.64	-2 19	19.18	-4.92	16.08	-1.22	30.64	0.85	10.93	10.39	1.1
Laos	14.05	12.71	43.9	15.26	32	21.05	21.72	20.84	-4.44	1.08	22.5	-1.83	18.82	0.36	33.03	5.07	13.14	10.74	2.82
Malaysia	12.58	11.55	40.85	9	22.81	19.19	19.64	19.25	-6.5	-0.7	20.51	-3.5	16.83	-1.09	30.59	2.87	11.09	9.3	1.32
Phillip	12.42	10.4	40.63	7.73	21.02	18.77	19.44	19.1	-7.1	-1.5	19.92	-4.69	16.86	0.79	30.8	1.83	11.23	8.89	1.19
Singapor	12.69	10	39.57	7.01	21.75	18.8	19.36	18.71	-6.25	-0.67	20.35	-3.59	16.37	-1.35	30.59	2.94	12.07	10.33	2.3
Thailand	9.14	6.37	35.5	6.37	22.97	19.25	19.28	19.06	-6.42	-1.39	20.18	-4.15	16.73	-1.88	30.07	2.15	11.73	9.68	1.75
Vietnam	12.4	11.51	42.18	9.31	20.62	19.39	19.8	19.36	-6.09	-0.75	20.41	-3.38	17.14	-1.24	30.38	2.7	10.07	8.69	0.87
SEAsia	12.42	11.07	40.35	7.68	20.94	18.82	19.32	18.7	-6.1	-0.8	20.17	-3.62	16.32	-1.55	30.49	2.99	11.6	9.62	1.82
India	6.7	8.98	38.42	2.98	18.63	16.11	15.32	15.64	-7.09	-3.56	16.43	-5.63	13.45	-1.95	29.75	0.39	10.63	10.65	0.95
Pakistan	11.21	10.26	39.91	7.17	20.58	19.52	20.03	19.79	-5.83	-0.39	20.84	-3.36	17.4	-0.96	33.8	3.53	11.79	9.91	2.01
Canada	-45.39	-45.94	-36.78	-45.64	-20,5	-45.98	-48.5	-45,6	-72.97	-61.23	-49.7	-59.33	-46.27	-64.78	-43.32	-53.09	-46.7	-48,5	-54.21
USA	15.61	14.18	45.5	11.05	23.22	26.14	26.17	26.09	1.06	4.51	26.66	1.83	24.59	4.99	39.17	9.61	16.99	14.68	7.31
Мехісо	-42.15	-28.48	-37.19	-27.31	-4.74	-45.52	-43.2	-48.7	-69.46	-56.12	-61.8	-53.3	-64.61	-73.18	-60.6	-35.6	-55.7	-61.6	-50.93
Brazil	10.77	10.47	40.49	5.29	20.28	15.18	15.81	15.13	-7.4	-2.89	16.93	-5.88	12.45	-3.54	27.09	0.58	9.21	7.75	-0.71
Chile	7.65	8.03	36.64	1.06	16.3	13.49	13.59	12.93	-9.08	-4.17	15.37	-7.94	11.54	-6.63	27.53	-1.09	8.36	7.81	-1.33
Peru	10.22	8.74	37.81	7.39	19.49	13.87	14.38	13.8	-7.36	-3.92	16.54	-5.07	11.96	-3.46	24.48	1.36	10.91	7.68	1.09
Uruguay	11.86	11.11	40.12	8.11	21.28	14.66	16.02	14.52	-5.77	-0.96	19.44	-3.87	13.99	-0.58	24.04	2.74	11.73	9.86	1.98
CostaRica	11.3	9.36	38.75	4.72	19.14	16.3	16.81	16.33	-7.97	-2.39	18.07	-5.11	13.4	-2.97	28.06	0.69	12.93	9.44	2.17
Caribbean	12.9	11.58	41.9	8.85	22.04	21	21.36	20.77	-4.48	1.08	22.24	-2	18.4	0.34	32.65	4.77	13.78	11.7	3.66
Austria	11.13	8.73	39.99	7.07	21.08	17.99	18.24	17.76	-6.51	-1.7	19.41	-3.9	15.49	-1.78	30	2.31	10.89	8.98	1.08
Belgium	10.99	9.64	40.84	7.15	20.72	18	18.43	17.82	-6.44	-0.83	19.73	-3.83	15.61	-1.51	30.31	2.19	11.47	8.98	0.06
Bulgaria	11.16	9.87	40.23	7.11	20.75	18.59	18.99	18.42	-6.44	-1.11	19.96	-3.83	16.17	-1.66 -1.08	30.3	2.28	11.5	9.58	1.53
Croatia	11.49	8.89	40.92	7.7	20.98	19.01	19.42	18.9	-6.21	-0.89	20.34	-3.44	16.66		30.82	2.8	11.76	9.72	2.01
Cyprus	13.38	12.39	43	9.55	22.79	19.83	20.16	19.81	-5.47 -6.99	0.04	20.97	-2.79 -4.43	17.17	0.04	31.69	3.78	12.79	10.79	2.8
CzechRep Denmark	11.28 11.13	9.15 10.44	40.85 40.27	7.54 6.87	20.51	17.73 18.89	18.1 19.41	17.65 18.78	-6.2	-1.91 -0.81	19.27 20.33	-3.56	15.41 16.45	-1.82 -1.25	29.3 30.52	2.07 2.99	10.94 11.43	9.68	1.34 2.05
Estonia	11.25	9.11	39.81	7.52	20.54	18.8	18.97	18.68	-6.29	-1.35	20.09	-3.59	16.33	-1.35	29.45	2.78	11.74	9.84	2.03
Finland	11.18	8.9	40.02	7.17	20.04	17.28	17.5	17.27	-6.9	-2.46	18.56	-5.44	14.71	-2.06	29,44	1.04	10.45	8.45	0.3
France	9.72	7.86	40.81	6.16	20.75	17.03	17.43	16.88	-6.87	-2.05	18.5	-4.97	14.57	-2.31	28.97	1.5	9.72	7.85	0.71
Germany	10.08	10.09	40.63	6.34	21.39	17.55	17.87	17.41	-6.74	-1.84	18.98	-4.61	15.08	-2.61	28.22	1.72	10.31	9.03	0.6
Greece	11.2	10.36	40.43	5.88	21.27	19.07	19.55	18.91	-6.07	-0.62	20.49	-3.36	16.59	-0.8	31.1	3.2	12.17	10.2	2.14
Hungary	11.21	8.78	40.6	7.17	21.16	18.53	19.05	18.44	-6.4	-1.02	19.68	-3.75	16.14	-1.58	30.34	2.48	11.04	9.48	1.55
lreland	7.15	4.37	33.96	3.36	15.6	19.26	18.45	19.5	-6.48	-2.71	19.74	-4.08	17.03	-1.22	30.14	1.32	11.74	9.71	1.92
Italy	11.42	10.51	40.72	5.82	21.13	17.4	17.88	17.3	-6.68	-1.66	18.77	-4.53	15.05	-2.32	28.83	1.78	10.08	8.97	0.7
Latvia	11.84	9.36	40.98	7.72	21.27	18.49	18.74	18.33	-6.64	-1.53	19.75	-3.78	16.04	-1.53	29.81	2.39	11.48	9.51	1.47
Lithuania	12.1	10.46	41.32	7.91	21.1	18.37	18.96	18.32	-6.48	-1.02	19.89	-4.2	16.05	-1.62	30.1	2.22	10.53	9.16	0.89
Luxembo	10.8	9.6	39.48	6.85	18.53	19.14	19.82	19.17	-5.86	-0.59	20.63	-3.26	16.75	-0.98	31.24	3.24	12.18	9.9	1.81
Malta	11.13	10.19	39.53	7.85	21.11	20.06	20.49	20.25	-5.33	0.13	21.01	-2.74	17.32	-0.57	31.78	3.99	12.55	10.55	2.93
Netherla	10.77	9.27	40.35	6	21.3	18.47	18.71	18.28	-6.45	-1.18	19.69	-4.12	15.9	-1.33	30.29	2.21	10.93	9.5	1.19
Poland	11.47	9.94	40.98	7.79	20.95	17.78	18.25	17.68	-6.51	-1.64	19.23	-4.21	15.4	-1.66	30.1	2.17	11.11	9.33	1.38
Portugal	10.21	9.4	40.62	6.65	19.7	17.81	17.92	17.47	-6.37	-1.57	18.98	-4.09	15.45	-1.53	29.46	2.28	11.25	9.53	1.79
Romania	12.2	9.88	41.17	7.77	21.17	18.39	18.79	18.29	-6.42	-1.47	19.71	-4.16	16.01	-1.36	29.97	2.27	11.44	9.42	1.33
Slovakia	11.6	10.6	41	7.6	21.39	18.13	18.68	18.07	-6.67	-1.23	19.65	-4.51	15.82	-1.89	29.93	1.88	10.89	8.71	1.1
Slovenia	11.49	10.08	41.19	7.57	20.66	18.56	19.05	18.47	-6.41	-1.03	20.03	-3.75	16.21	-1.71	28.96	2.45	11.42	9.58	1.62
Spain	10.43	7.56	40.18	6.57	20.23	17.59	17.97	17.42	-6.62	-1.62	19.07	-4.77	15.12	-1.34	28.8	1.93	11.14	9.27	1.5
Sweden	10.67	8.71	39.83	7.13	20.98	18.04	18.02	17.86	-7.03	-2.12	19.4	-4.56	15.47	-2.29	29.9	2.01	11.25	9.26	1.52
UK .	9.58	7.5	39.04	4.7	20.24	19.07	19.38	18.92	-6.33	-0.7	20.26	-4.23	16.67	-1.12	30.3	2.29	10.56	9.5	1.5
Russia	12.4	10.32	41.48	7.25	21.5	19.69	19.74	19.64	-6.21	-1.4	20.69	-3.74	17.01	-0.9	29.83	2.75	11.38	9.49	1.71
Ukraine	12.39	10.38	41.86	8.12	20.8	18.68	19.24	18.62	-6.24	-0.96	20.21	-3.63	16.46	-1.48	30.52	2.82	11.73	9.69	1.93
SaudiArab	12.38	11.81	42.01	8.92	22.42	17.81	18.01	17.74	-7.44	-1.91	19.08	-4.59	15.35	-2.43	28.35	1.59	10.96	9.45	1.53
UnitedArab	13.57	12.61	42.78	9.81	23.26	19.28	19.56	19.21	-6.38	-0.83	20.45	-3.65	16.85	-0.82	30.86	2.41	12.25	10.34	2.34
Egypt Cotedly	12.16 11.04	10.31	40.31 40.57	6.87 6.17	21.34	18.58 16.56	19.55 16.88	18.74 16.46	-6.12 -8.01	-0.71 -2.89	20.21	-3.35 -4.54	16.31 14.12	-1.29 -3.15	30.13 27.94	3.05	11.51 11.11	9.59	1.94
Cotediy	11.04	9.51	40.57	8.01	18.15	17.74	18.34	17.64	-6.01 -6.79	-2.89 -1.48	17.99 19.37	-4.54 -3.98	14.12 15.41	-3, IS -1,62	27.94 28.7	0.92 2.46	11.11	9.55	1.28 1.73

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Forest Business Analytics and/or the editor(s). Forest Business Analytics and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.