

# FOREIGN TRADE RELATIONSHIPS WITH MISSISSIPPI'S FOREST PRODUCTS INDUSTRY



**MISSISSIPPI STATE UNIVERSITY™**  
FOREST AND WILDLIFE RESEARCH CENTER

**Bulletin FO474**

The Forest and Wildlife Research Center (FWRC) at Mississippi State University (MSU) was established by the Mississippi Legislature with the passage of the Renewable Natural Resources Research Act of 1994. FWRC's mission is to conduct research and technical assistance programs relevant to the efficient management and utilization of the forest, wildlife, and fisheries of the state and region, and the protection and enhancement of the natural environment associated with these resources. FWRC scientists conduct research in laboratories and forests administered by the university and cooperating agencies and industries throughout the country. Research results are made available to potential users through the university's educational program and through FWRC publications such as this, which are directed as appropriate to forest landowners and managers, forest products manufacturers and consumers, government and industry leaders, the scientific community, and the general public. Dr. Loren "Wes" Burger is director of the Forest and Wildlife Research Center.

### **Acknowledgments**

This publication is a contribution of the Forest and Wildlife Research Center, Mississippi State University. It is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, McIntire-Stennis project under accession number 1025007. External funds were provided by a USDA Forest Service Landscape Scale Restoration Grant, "Where is all the timber going: analysis of the timber supply chain in the Gulf States," Award No. 22-DG-11083150-208. Drs. Michael Crosby and Shaun Tanger kindly reviewed an earlier version of this manuscript.

### **Authors**

Dr. T. Eric McConnell is an Associate Professor in the Department of Forestry and the Forest and Wildlife Research Center. His research interests are in the areas of forest business and wood utilization.

### **To Order Copies**

Copies of this and other Forest and Wildlife Research Center publications are available from:

*Publications Office  
Forest and Wildlife Research Center  
Box 9680  
Mississippi State, MS 39762-9680*

Please indicate author(s), title and publication number if known.

Publications are also available online at [www.fwrc.msstate.edu](http://www.fwrc.msstate.edu)

### **Citation**

McConnell, T. E. 2025. Foreign trade relationships with Mississippi's forest products industry. Forest and Wildlife Research Center, Mississippi State University, Bulletin FO474. 12 pp.

# **Foreign Trade Relationships with Mississippi's Forest Products Industry**

T. Eric McConnell



**MISSISSIPPI STATE**  
UNIVERSITY™

---

FOREST AND WILDLIFE RESEARCH CENTER

# OVERVIEW

Mississippi has more than 7.78 million hectares<sup>1</sup> of forestland, 62% of the state's total area. Mississippi annual timber product harvest averages 27.2 million tonnes<sup>2</sup>, with the majority coming from pine utilization (20.9 million tonnes). This resource supplies Mississippi's forest sector that currently contributes \$5.29 billion of value added and 67,800 jobs to the state's economy. A small yet

significant portion of those contributions, 15%, is generated from international traders seeking forest products grown and manufactured in Mississippi. This bulletin describes the trade relationships between Mississippi and the countries of the world over a time period spanning from 2002 to 2023. The data were sourced from the USA Trade Online database.

# EXPORTS

Trade between regions varies from year to year due to many factors, including government policy, currency exchange rates, and supply/demand relationships, among many others. Thus, rankings of trade by country for any single year will fluctuate as well. Countries sourcing forest products from Mississippi are no different. Japan, for example, was the leader in receipts by wood products export value in 2023 (Table 1), but the country was #3 in export value for wood products in 2022. Interestingly, Japan was not a top ten destination

for forest products in bulk terms. This suggested a high unit value for the products shipped to Japan that year when trade volume was taken into account (Table 2). The same could be stated for paper products purchased by Mexico and furniture sent to Canada. These products were either closer to the end user or comprised of preferred wood species. In 2023, the total value of Mississippi's forest product exports was \$1.10 billion.

**TABLE 1.** Mississippi top ten export economies by value in 2023 (million 2023 \$USD) and percentage of total export value globally in 2023. Percentages are cumulative and may not add to 100 due to rounding.

Rank	Wood Products			Paper Products			Wood Furniture			Wood Chemicals		
	Economy	Value	%	Economy	Value	%	Economy	Value	%	Economy	Value	%
1	Japan	69.7	36	Mexico	140.9	16	Canada	11.3	40	Mexico	0.672	73
2	Mexico	39.6	21	China	137.7	16	Mexico	5.44	19	China	0.118	13
3	Dominican Republic	17.5	9	Netherlands	64.9	7	Jamaica	1.56	6	Canada	0.088	10
4	Canada	16.9	9	Guatemala	43.9	5	Saudi Arabia	1.07	4	Costa Rica	0.025	3
5	United Kingdom	14.4	8	Japan	42.9	5	Bahamas	0.938	3	Peru	0.023	3
6	Netherlands	6.03	3	Belgium	39.7	5	Venezuela	0.830	3			
7	China	5.74	3	Costa Rica	33.9	4	Panama	0.789	3			
8	France	4.98	3	Canada	30.5	3	Australia	0.632	2			
9	Poland	3.36	2	Brazil	27.4	3	Thailand	0.568	2			
10	Vietnam	2.91	2	Honduras	24.6	3	Jordan	0.564	2			

<sup>1</sup> 1 hectare = 2.47105 acres

<sup>2</sup> 1 tonne = 1.10231 tons

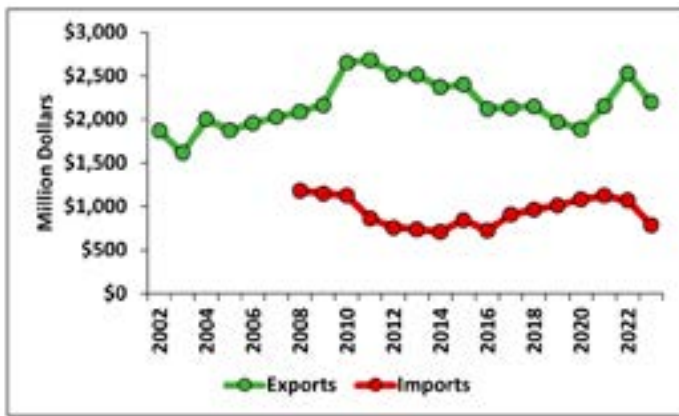


**TABLE 2.** Mississippi top ten export economies by *volume* in 2023 (thousand tonnes) and percentage of total *volume* exported globally in 2023. Percentages are cumulative and may not add to 100 due to rounding.

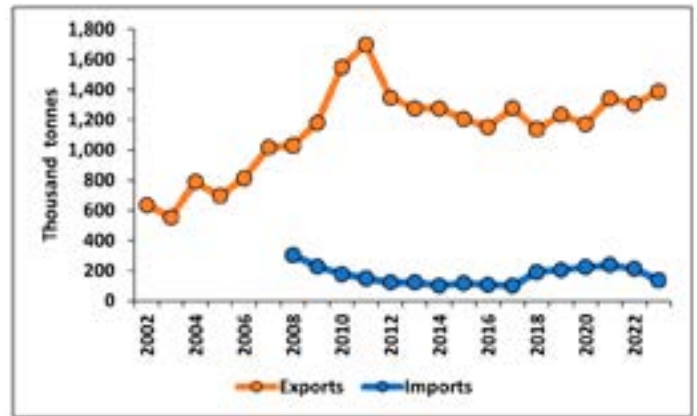
Rank	Wood Products			Paper Products			Wood Furniture			Wood Chemicals		
	Economy	Volume	%	Economy	Volume	%	Economy	Volume	%	Economy	Volume	%
1	China	7.52	38	China	175.0	26	Jamaica	0.320	16	Peru	26.8	82
2	Vietnam	4.21	21	Guatemala	48.9	7	Bahamas	0.225	11	China	5.80	18
3	Dominican Republic	1.52	8	Japan	48.6	7	Saudi Arabia	0.207	10			
4	United Kingdom	1.11	6	Honduras	32.6	5	Panama	0.165	8			
5	Philippines	0.882	4	Brazil	31.3	5	Venezuela	0.155	8			
6	Peru	0.740	4	Hong Kong	30.4	5	Honduras	0.115	6			
7	South Korea	0.540	3	Egypt	24.6	4	Guyana	0.096	5			
8	Bermuda	0.342	2	India	22.8	3	Jordan	0.090	5			
9	Turkey	0.305	2	Ecuador	22.7	3	Br. Virgin Islands	0.049	2			
10	Ireland	0.301	2	Belgium	21.5	3	United Kingdom	0.048	2			

Mississippi has exported an average of \$2.53 million of forest products for every \$1 million it has imported since 2008 (Figure 1). Overall, the export of forest products in Mississippi has recovered from a downward trend in the 2010s of declining export volume. Imports slowed following the 2007 to 2009 global recession and have held steady over the last 15 years. Since 2008, Mississippi has exported an average of 8.50 tonnes of forest products for every one tonne it has imported (Figure 2).

Mexico, Canada, China, Guatemala, and Germany have been preferred trade partners for Mississippi forest products exporters over the past 22 years (Figure 3). Mexico was Mississippi's leading export market by forest products annual average value over the study period. Over the 22 years assessed, China, Guatemala, Germany, Honduras, and Poland have received the greatest volumes of forest products sourced from Mississippi (Figure 4). The implied high unit value for exports to both Mexico and Canada was revealed to be a trend for these two trade partners.



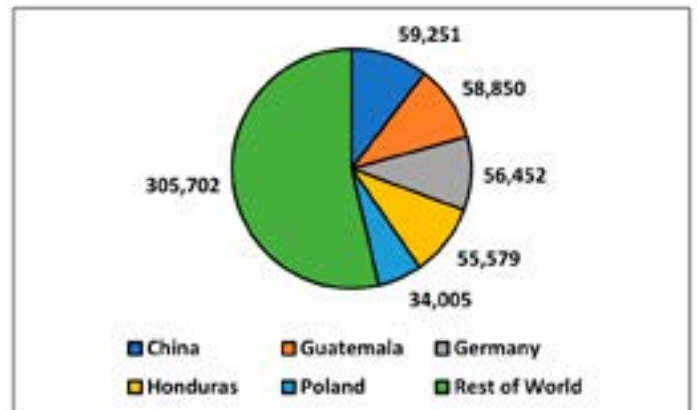
**Figure 1.** Mississippi forest products trade value (2023 constant dollars).



**Figure 2.** Mississippi forest products trade volume (tonnes).



**Figure 3.** Mississippi average annual value of forest products exports, 2023 constant million dollars, from 2002 to 2023.



**Figure 4.** Mississippi average annual volume of forest products exports, tonnes, from 2002 to 2023.

The Tupelo furniture cluster located in northeastern Mississippi is a significant producer of office and upholstered furniture products. Wood furniture’s direct contribution to the state’s economy exceeded \$1 billion in 2023 constant dollars. The 15,700 jobs in wood furniture manufacturing comprised 44% of the total jobs provided by the Mississippi forest sector. However, major manufacturers in the region have either contracted operations or closed facilities in recent years. The trend in wood furniture export value has clearly been downward since 2013 (Figure 5). Export quantities of furniture have been more volatile.

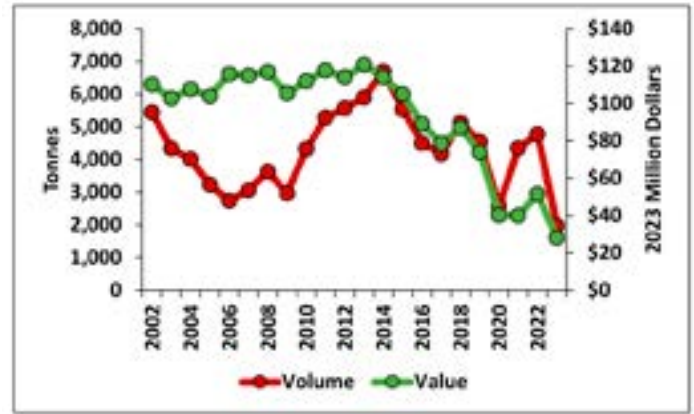


Figure 5. Mississippi wood furniture export volume and value trends.

## IMPORTS

In 2023, specifically, the total value of Mississippi’s forest product imports was \$394.3 million according to the U.S. Census Bureau (Table 3). The state, in value, has imported mainly furniture (\$213.9), followed by paper products (\$115.5), wood products (\$64.6 million), with wood chemicals complementing that (\$362,300). Brazil, China, and Vietnam were the dominant countries shipping forest products volume into Mississippi in 2023 (Table 4). Brazil, China, and Vietnam account for 58% of wood products alone. Germany provided more paper products to Mississippi, which was followed closely by China and Italy. Wood furniture imports in 2023 were sourced primarily from Vietnam at 60%. When including China and Cambodia, 94% of furniture products were imported from these three countries. Imported wood chemicals were sourced almost entirely from Brazil, but this appeared to be a data outlier in that product class’s series.

An important note about importing warrants mentioning. Importing, to use an input-output economic definition, is a leakage from the U.S. economy. This means money from an American buyer leaves the U.S. to pay a foreign producer. When dollars leak from the economy, they no longer generate multiplier effects within the U.S. economy. What leaves the U.S., although significant, is the producer’s margin for the good alone. Other margined activities to move the imported forest products, including those at the port, trucking and rail transportation, along with marketer and wholesaler intermediaries, are produced here in the U.S. and generate local economic contributions. Distributional activities of moving imported forest products across the U.S. contributed \$5.02 billion to gross domestic product (GDP) in 2016, which was 10.3% of the total \$48.6 billion dollars international forest products trade provides to GDP.

**TABLE 3.** Mississippi top ten import economies by value in 2023 (million 2023 \$USD) and percentage of total import value globally in 2023. Percentages are cumulative and may not add to 100 due to rounding.

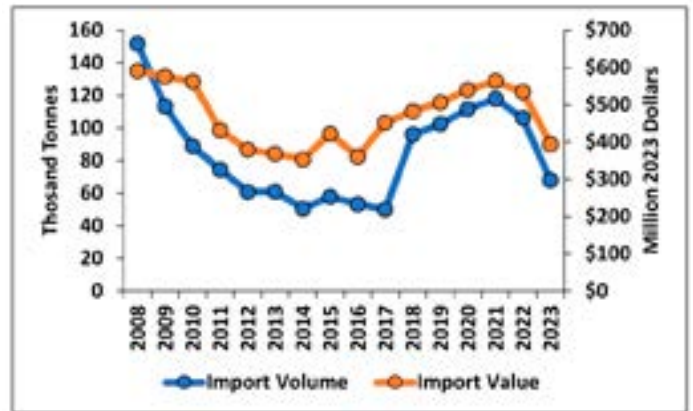
Rank	Wood Products			Paper Products			Wood Furniture			Wood Chemicals		
	Economy	Value	%	Economy	Value	%	Economy	Value	%	Economy	Value	%
1	Canada	23.5	36	Mexico	70.9	61	Vietnam	134.4	63	Brazil	0.356	98
2	Brazil	10.8	17	Canada	25.5	22	China	42.8	20	Japan	0.006	2
3	China	8.80	14	Germany	6.56	6	Cambodia	17.8	8			
4	Vietnam	3.49	5	China	4.53	4	Canada	3.97	2			
5	Chile	3.21	5	Italy	2.53	2	Italy	3.24	2			
6	Netherlands	3.11	5	Hong Kong	0.971	0.8	Malaysia	2.70	1			
7	Mexico	2.04	3	Israel	0.961	0.8	India	1.85	0.9			
8	Uruguay	1.41	2	Finland	0.916	0.8	Indonesia	1.79	0.8			
9	Spain	1.33	2	Vietnam	0.666	0.6	Thailand	1.71	0.8			
10	Guatemala	1.22	2	Taiwan	0.594	0.5	Romania	1.40	0.7			

**TABLE 4.** Mississippi top ten import economies by *volume* in 2023 (tonnes) and percentage of total import *volume* globally in 2023. Percentages are cumulative and may not add to 100 due to rounding.

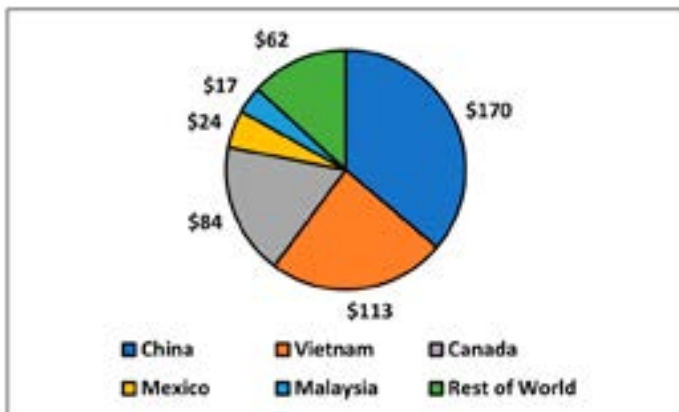
Rank	Wood Products			Paper Products			Wood Furniture			Wood Chemicals		
	Economy	Volume	%	Economy	Volume	%	Economy	Volume	%	Economy	Volume	%
1	Brazil	5,051	27	Germany	2,386	38	Vietnam	25,741	60	Brazil	250.1	99
2	China	2,894	16	China	1,328	21	China	11,806	27	Japan	2.21	1
3	Vietnam	2,703	15	Italy	1,251	20	Cambodia	2,798.6	7			
4	Chile	2,415	13	Finland	379.5	6	India	568.8	1			
5	Spain	980.4	5	Taiwan	222.4	4	Malaysia	550.8	1			
6	Uruguay	933.6	5	Hong Kong	149.7	2	Thailand	476.5	1			
7	Netherlands	578.3	3	Brazil	115.2	2	Indonesia	382.6	0.9			
8	Fiji	544.6	3	India	110.2	2	Italy	293.6	0.7			
9	Poland	353.7	2	Cambodia	90.8	1	Romania	118.4	0.3			
10	Congo	343.0	2	Indonesia	85.1	1	Lithuania	79.5	0.2			

Mississippi import volume and value trended down until 2017, which was followed by upward patterns to near 2008 levels by 2021. From 2021 to 2023 a downward trend in each returned. The average volume imported since 2008 was 85,280 tonnes, but there is much year-to-year variation present. Import value has averaged \$470 million since 2008 (in 2023 constant dollars, Figure 6).

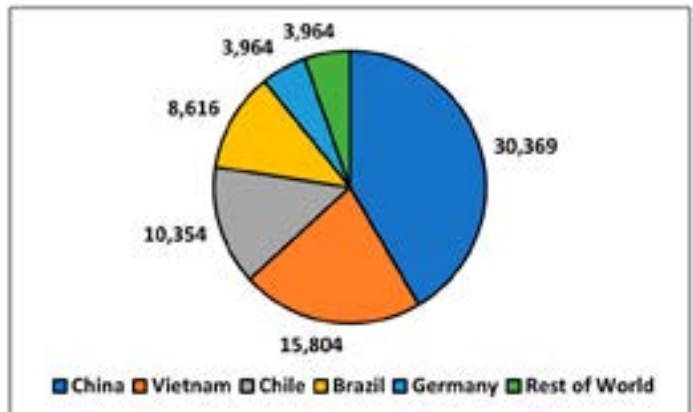
China is Mississippi’s largest import partner by value since 2008 at an average annual value of \$170.1 million (Figure 7). Vietnam’s imports were the second most valued at an annual average of \$112.7 million, and then Canada’s were \$83.9 million. Mexico’s and Malaysia’s imports rounded out the top 5 at much lower values. Since 2008, China has also been Mississippi’s largest partner by import volume, averaging 30,370 tonnes, followed distantly by Vietnam at an average of 15,800 tonnes (Figure 8). Chile, Brazil, and Germany round out the top 5.



**Figure 6.** Mississippi forest products import *value* and *volume* trends



**Figure 7.** Annual average *value* of forest products imported into Mississippi from 2008 to 2023 (2023 million dollars).



**Figure 8.** Annual average *volume* of forest products imported into Mississippi from 2008 to 2023 (tonnes).

# HISTORICAL RELATIONSHIPS OF MISSISSIPPI EXPORTERS WITH TRADE PARTNERS

Trends over the study period were analyzed to learn which countries have been continually strong trading partners with Mississippi, which present emerging opportunities, and those whose trade have declined in importance. This was accomplished by calculating export indexes

$$ExpIndex_i = \frac{\bar{v}_i}{\bar{h}V} \quad [1],$$

where  $ExpIndex_i$  is the ratio of the 11-year average export value of forest products trade with country  $i$  for forest products relative to the 11-year average for all trade partners over the study period. Two 11-year averages were calculated. The first covered 2002 to 2012, and the second spanned 2013 to 2023. Each index described the intensity of Mississippi's exporting to country  $i$  in terms of value (2023 constant dollars) relative to the average trade value across all partners as a benchmark. Above average exporting occurred between Mississippi and country  $i$  for forest products when  $ExpIndex_i > 1.00$ .

The indexes for each time period were then compared to determine those export partners that have been historically strong (countries with indexes  $> 1.00$  for both 11-year periods), those that have emerged (countries with a 2002 to 2012 index  $< 1.00$  but a 2013 to 2023 index  $> 1.00$ ), and those whose purchasing relationships have faded (countries with a 2002 to 2012 index  $> 1.00$  but a 2013 to 2023 index  $< 1.00$ ).

The strongest historical export relationships existed with NAFTA trade partners Canada and Mexico. Countries with strong relationships over time across two categories included China, Guatemala, Germany, and Honduras. Jamaica has emerged in recent years with its purchases of wood products and wood furniture. China has materialized as a market for Mississippi wood chemicals in the past 11 years. While some relationships have weakened for Mississippi exporters, no single country spanned multiple product classes.

**TABLE 5.** Historically strong trade relationships for Mississippi exporters.

Products	Countries
Wood Products	Canada, China, Dominican Republic, Italy, Japan, Mexico, United Kingdom, Vietnam
Paper Products	Belgium, Brazil, Canada, Chile, China, Costa Rica, Ecuador, Egypt, El Salvador, Germany, Guatemala, Honduras, Italy, Japan, Mexico, Netherlands, Poland, Spain, Turkey
Wood Chemicals	Mexico
Wood Furniture	Bahamas, Canada, Costa Rica, Egypt, Honduras, Jordan, Kuwait, Mexico, Panama, Saudi Arabia, United Kingdom

**TABLE 6.** Emerging trade relationships for Mississippi exporters.

Products	Countries
Wood Products	Jamaica
Paper Products	India, Indonesia, Malaysia, Saudi Arabia, South Africa
Wood Chemicals	Argentina, Canada, China
Wood Furniture	Australia, Bahrain, Jamaica, Spain, Trinidad and Tobago, United Arab Emirates

**TABLE 7.** Declining trade relationships for Mississippi exporters.

Products	Countries
Wood Products	Spain
Paper Products	Columbia, Dominican Republic, France, Panama, Sweden, United Kingdom
Wood Chemicals	Belgium, Denmark, Ireland, Japan
Wood Furniture	Guatemala, Israel



# HISTORICAL RELATIONSHIPS OF TRADE PARTNERS WITH MISSISSIPPI IMPORTERS

Import trends over the study period were analyzed to learn which countries are strong trading partners with Mississippi, which present emerging opportunities, and those whose trade have declined in importance. Import indexes were calculated by

$$ImpIndex_i = \frac{\bar{v}_i}{\bar{h}V} \quad [1],$$

where  $ImpIndex_i$  is the ratio of the 8-year average import value of forest products trade with for country  $i$  for forest products relative the 8-year average for all trade partners over the study period (recall import data only were reported from 2008). Two 8-year averages were calculated. The first covered 2008 to 2015, and the second spanned 2016 to 2023. Each index described the intensity of Mississippi's importing from country  $i$  in terms of value (2023 constant dollars) relative to the average trade value across all partners as a benchmark. Above average importing occurred between country  $i$  and Mississippi for forest products when  $ImpIndex_i > 1.00$ .

The indexes were then compared to determine those partners that have been historically strong suppliers (countries with indexes  $> 1.00$  for both 8-year periods), those that have emerged (countries with a 2008 to 2015 index  $< 1.00$  but a 2016 to 2023 index  $> 1.00$ ), and those whose selling relationships have faded (countries with a 2008 to 2015 index  $> 1.00$  but a 2016 to 2023 index  $< 1.00$ ).

Historically strong importing relationships existed with U.S. producers purchasing forest products from China across three forest products categories. NAFTA trade partners Canada and Mexico have been strong across two forest products categories. Strong wood products importing relationships centered on the Americas. Wood furniture importing was concentrated in east Asia. Vietnam has replaced China as the most intensive foreign supplier of wood furniture. Vietnam has also appeared as a significant source of wood products in the last most recent 8 years. Vietnam has been a primary benefactor of outsourcing due to its lower labor costs as compared to China's in recent years. Relationships have not weakened for Mississippi importers across multiple product classes. But it was not unexpected to see Canada's influence in wood furniture lessen, given the emergence of east Asian countries in this sector globally.

**TABLE 8.** Historically strong relationships for Mississippi importers.

Products	Countries
Wood Products	Brazil, Canada, Chile, China, Mexico
Paper Products	China, Germany, Mexico
Wood Chemicals	None
Wood Furniture	China, Malaysia, Vietnam

**TABLE 9.** Emerging relationships for Mississippi importers.

Products	Countries
Wood Products	Vietnam
Paper Products	Italy
Wood Chemicals	Brazil, Japan
Wood Furniture	Cambodia, India

**TABLE 10.** Declining relationships for Mississippi importers.

Products	Countries
Wood Products	Bolivia, Germany, Peru, Uruguay
Paper Products	Taiwan
Wood Chemicals	China, Mexico
Wood Furniture	Canada

---

## **POLICIES AND EVENTS AFFECTING MISSISSIPPI FOREIGN TRADE TRENDS**

Some of these trends are parts of a larger evolution in trade patterns among the U.S. and global partners. Japan was heavily reliant upon U.S. products in the post-World War II economy, but it has been mired in multiple deep recessions over the past 30 years. The U.S.'s trade policy with China has evolved from that of a "favored nation" to a "most favored nation" status, which allowed that country entry into the World Trade Organization in 2000. Mississippi's geographic proximity to Caribbean and Latin American countries has put the state in a good position with exporters since ratification of the U.S.-Central American Free Trade Agreement in 2009. Costa Rica has further strengthened that country's ties to U.S. producers in Mississippi.

The past 30 years have seen a global evolution in trade patterns with the lowering of tariffs and ratifications of numerous free trade agreements. Importing forest products can be more administratively cumbersome due to laws that protect natural resources and combat

illegally sourced products. But at the same time, American law limits domestic water routes to American crews and carriers exclusively. Given Mississippi's location in the Gulf of Mexico, its two seaports in Gulfport and Pascagoula, and those in nearby New Orleans and Mobile, this benefits traders based in the state. Compared to exports, little forest products trade is brought into the U.S. via Mississippi. The main categories are wood products and wood furniture.

The Port of Gulfport historically was a dominant port of exit for both southern pine and hardwood lumber. Recently, it has undergone several renovations and expansions that were originally spurred by funds to revive the port following the destruction brought by hurricane Katrina. Two large bulk terminals were constructed, and dredging has allowed larger vessels to port. Intensive degrees of trade overall occurred between Mississippi and Canada, China, and Mexico for both wood products and paper products. These two-way trade relationships have endured over the study period.

---

## REFERENCES

McConnell, T.E., S.M. Tanger, and J.E. Henderson. 2019. International trade's contributions to the United States forest sector and its import-export chain. *Journal of Forestry* 117(3):210-225.

Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine. 2023. Ag fact book. 40 p. Mississippi State University. Available at <https://www.dafvm.msstate.edu/sites/default/files/2023-12/msag-2023-web.pdf>.

Tanger, SM and MK Measells. 2021. The economic contributions of forestry and forest products: Mississippi. Publication P3562, Mississippi State University Extension, Mississippi State University. 2 p. Available at [https://extension.msstate.edu/sites/default/files/publications/publications/P3562\\_web.pdf](https://extension.msstate.edu/sites/default/files/publications/publications/P3562_web.pdf).

USDC Census Bureau. 2024. USA Trade Online. Available at <https://usatrade.census.gov/>.



**MISSISSIPPI STATE**  
**UNIVERSITY™**

---

FOREST AND WILDLIFE RESEARCH CENTER