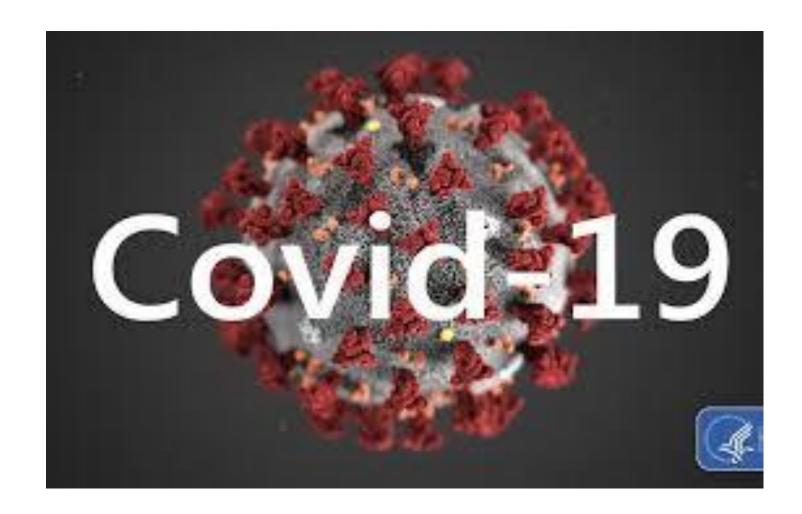
### **US Hardwood Market Trends**

Prepared for HMA
November 11, 2020
Presented by
David Caldwell
HMR
Memphis, Tennessee
USA

Voice: (901)767-9126

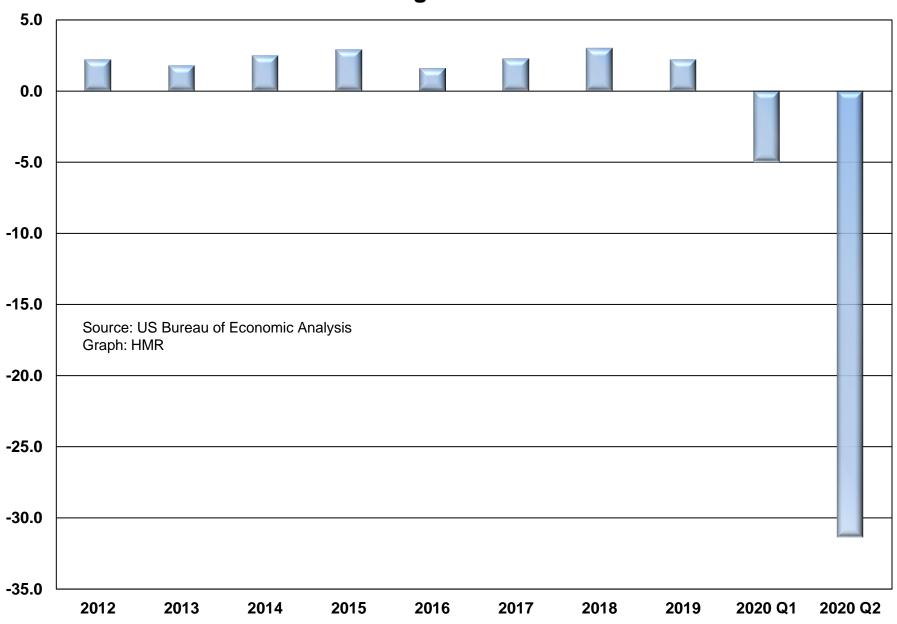


# 





#### **GDP Percent Change Based on 2012 Dollars**



### Consumption Recap 2019 to 2020

**Hardwood Lumber Exports** 

**-159MMBF** 

**Domestic Grade Lumber** 

**-723MMBF** 

**Total Grade Lumber** 

-882MMBF

**Industrial Products** 

-1,100MMBF

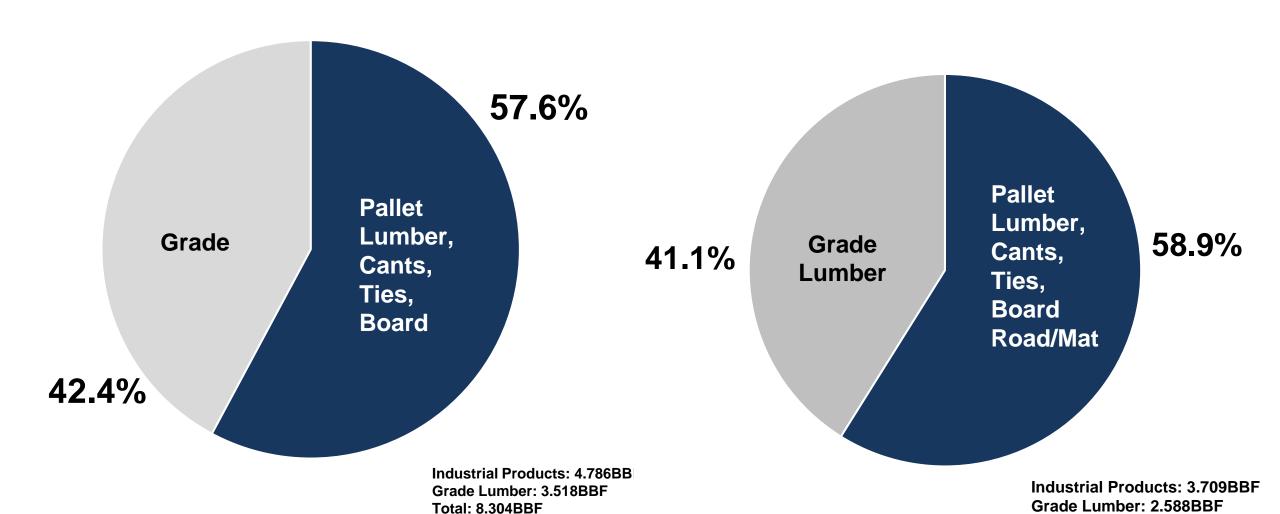
**Total Consumption** 

-1,982MMBF

#### **2019 Hardwood Consumption**

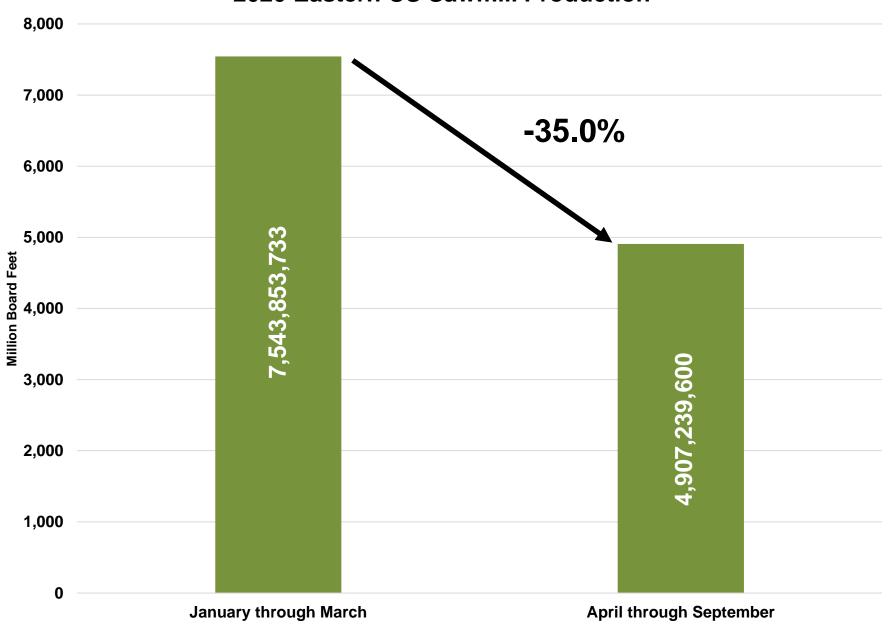
#### **2020 Hardwood Consumption**

Total: 6.297BBF

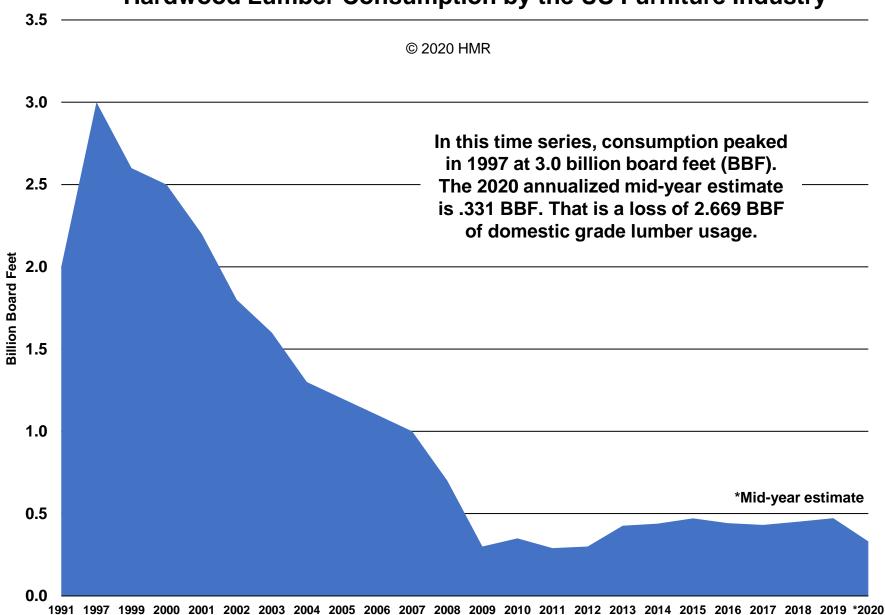


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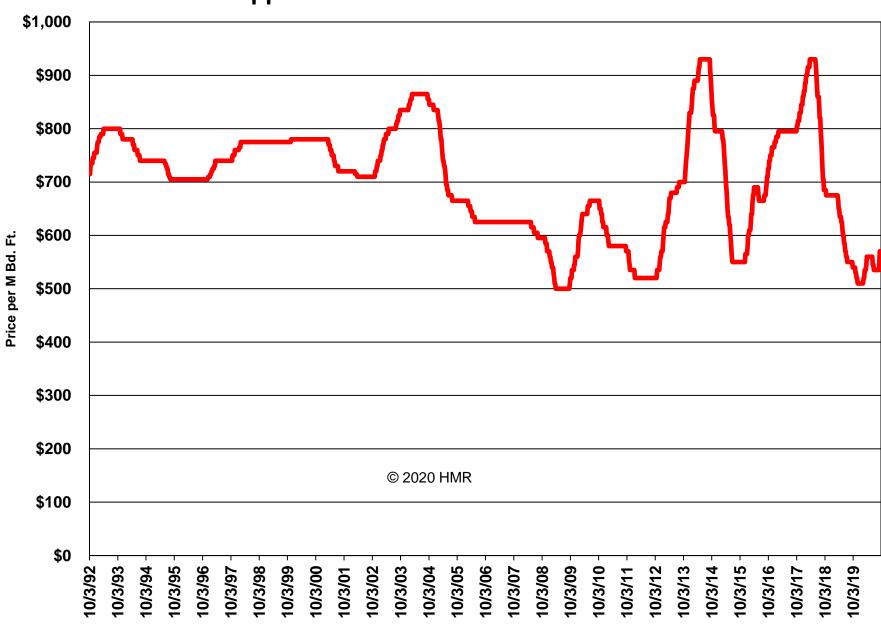
#### 2020 Eastern US Sawmill Production



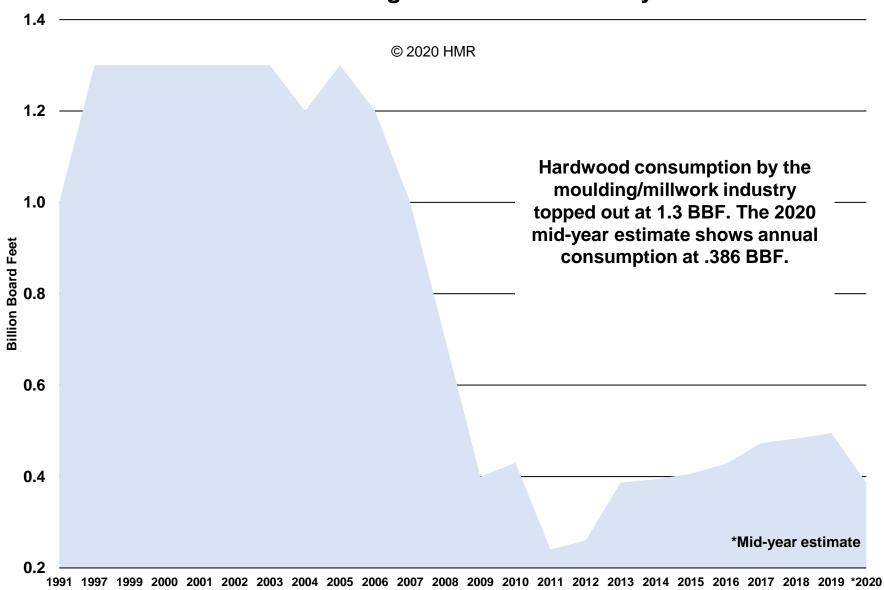
#### Hardwood Lumber Consumption by the US Furniture Industry



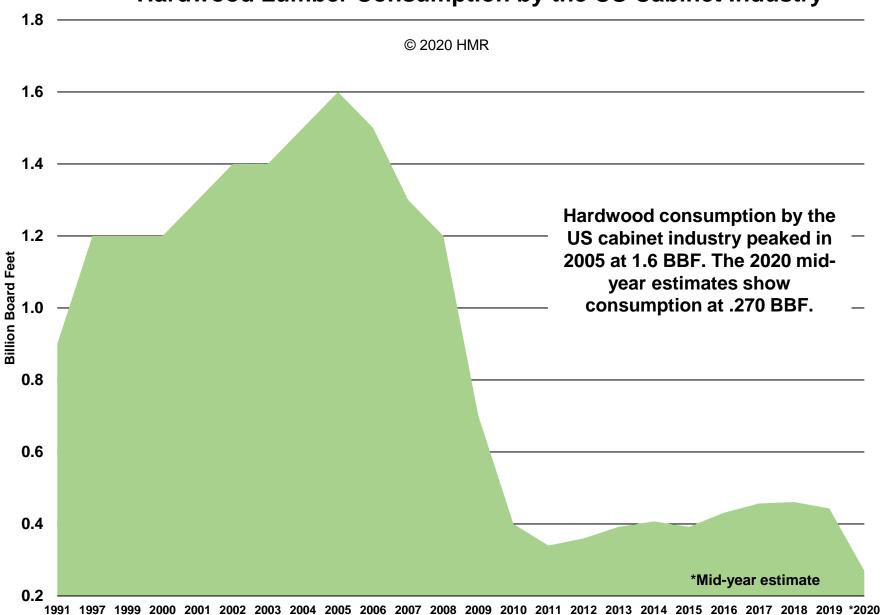
#### Appalachian Green 4/4 #1C Red Oak

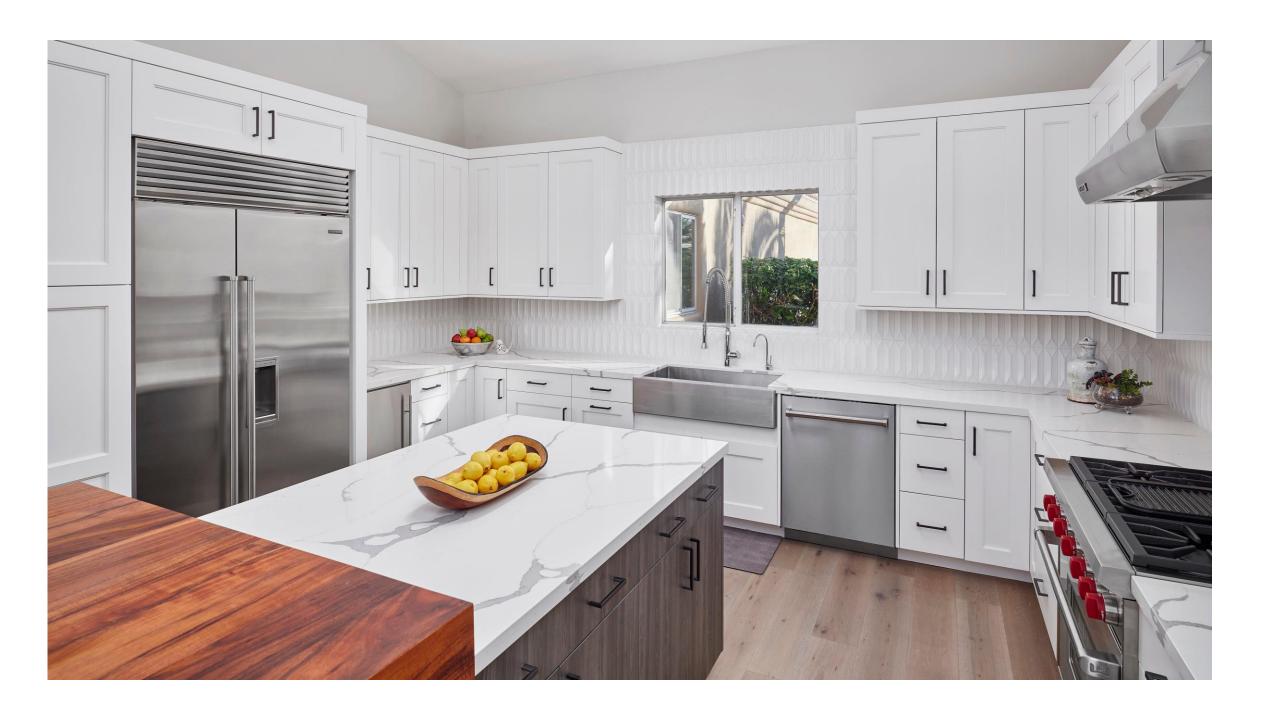


### Hardwood Lumber Consumption by the US Moulding and Millwork Industry

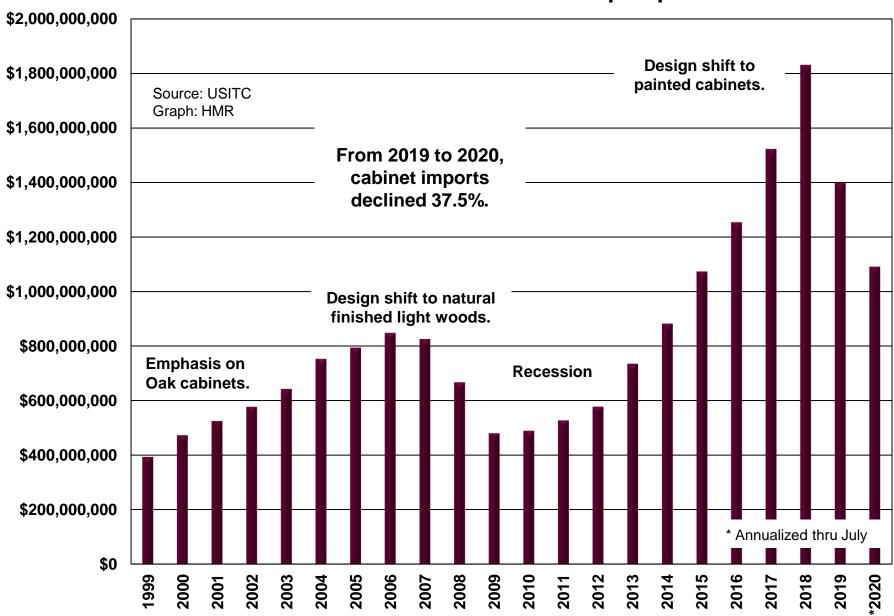


#### Hardwood Lumber Consumption by the US Cabinet Industry

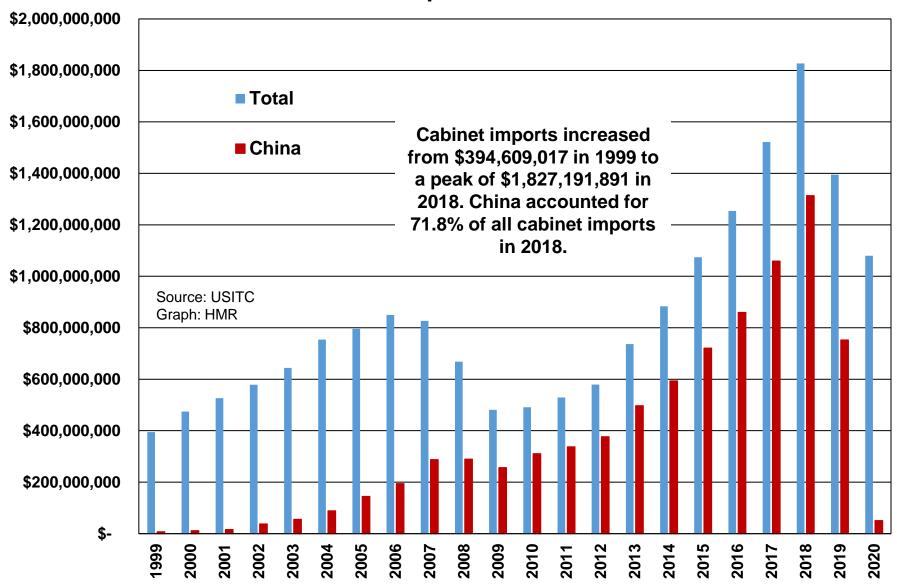




#### **Wood Kitchen Cabinet and Countertop Imports to the US**

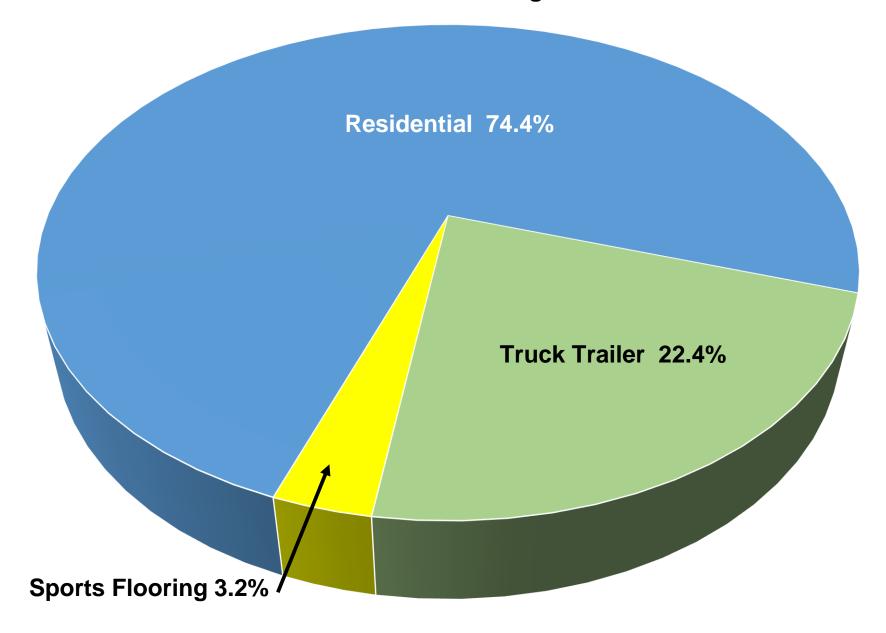


#### **Cabinet Imports to the US**

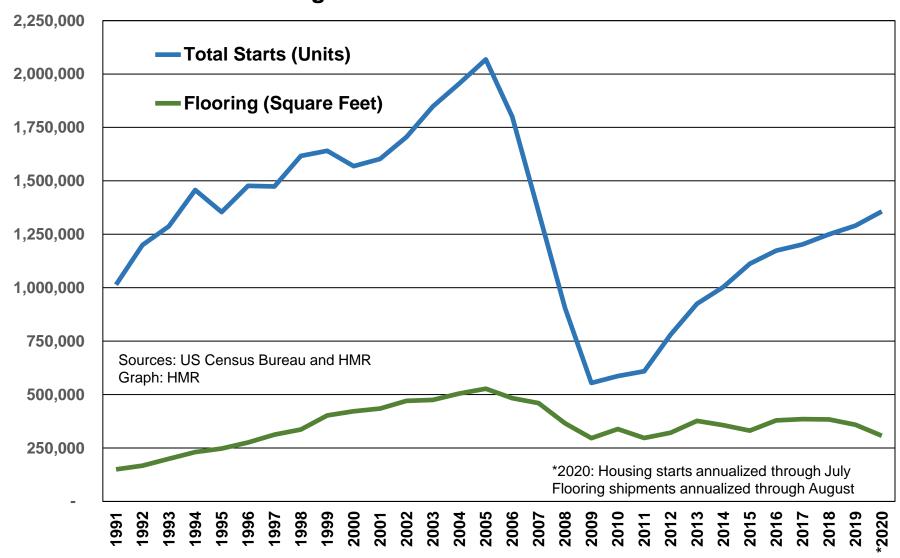


## Opportunity?

#### **Solid Hardwood Flooring Sectors**



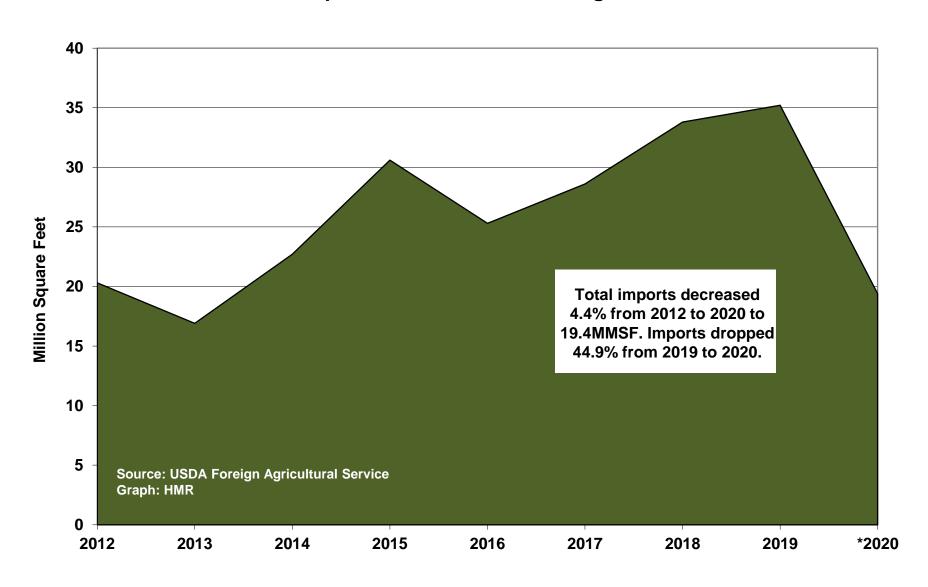
### US Manufacturers' Shipments of Residential Solid Wood Flooring and Total US New Home Starts



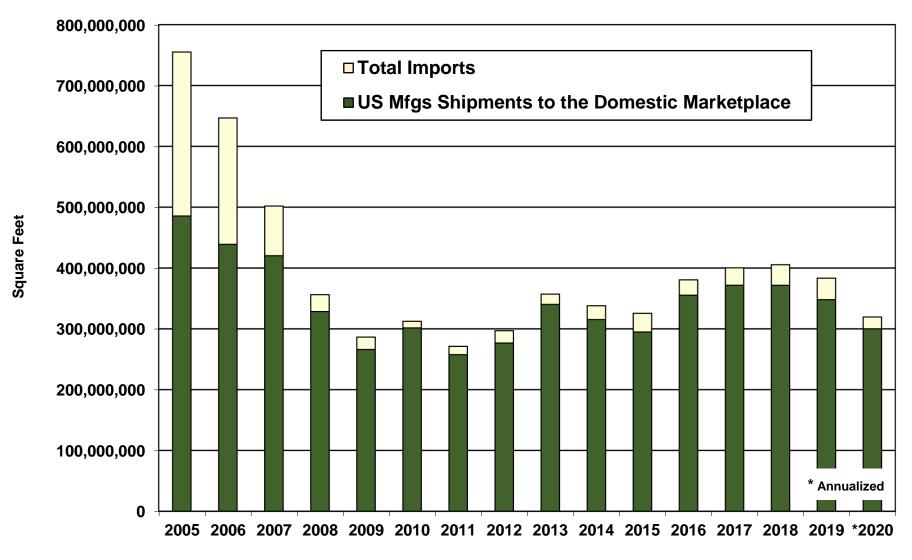
## **Luxury Vinyl Tile**



#### **World Imports of Hardwood Flooring to the US**



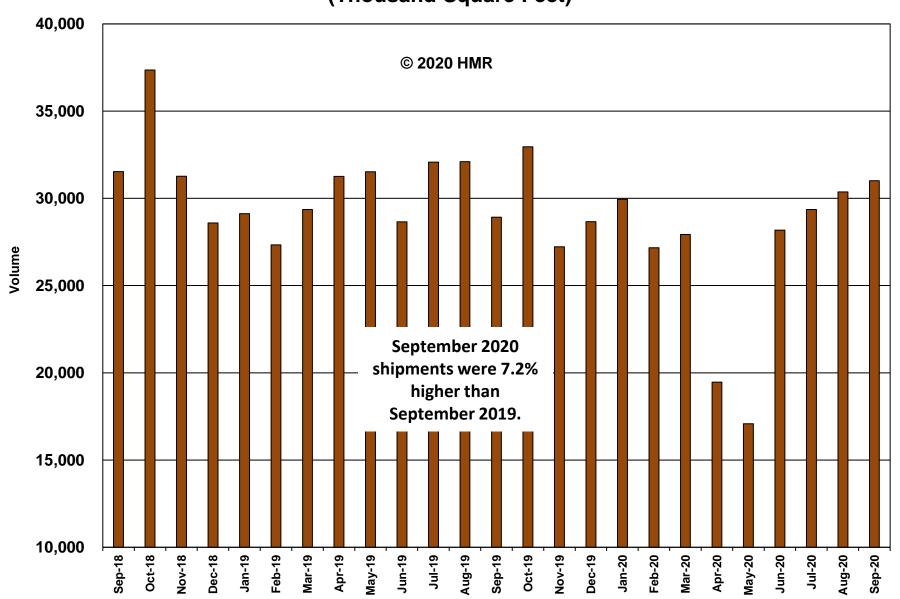
#### **US Market Consumption of Solid Hardwood Flooring**



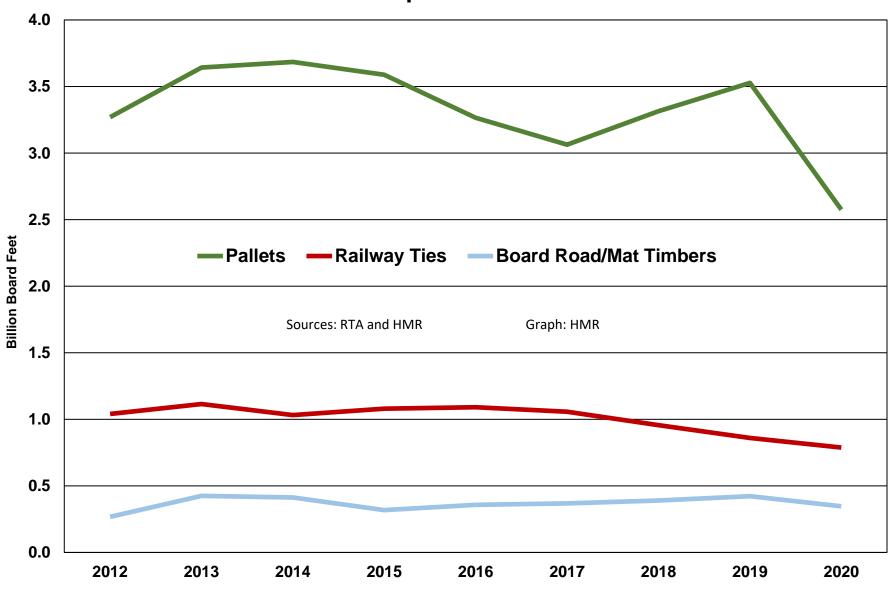
Sources: USDA FAS and HMR

Graph: HMR

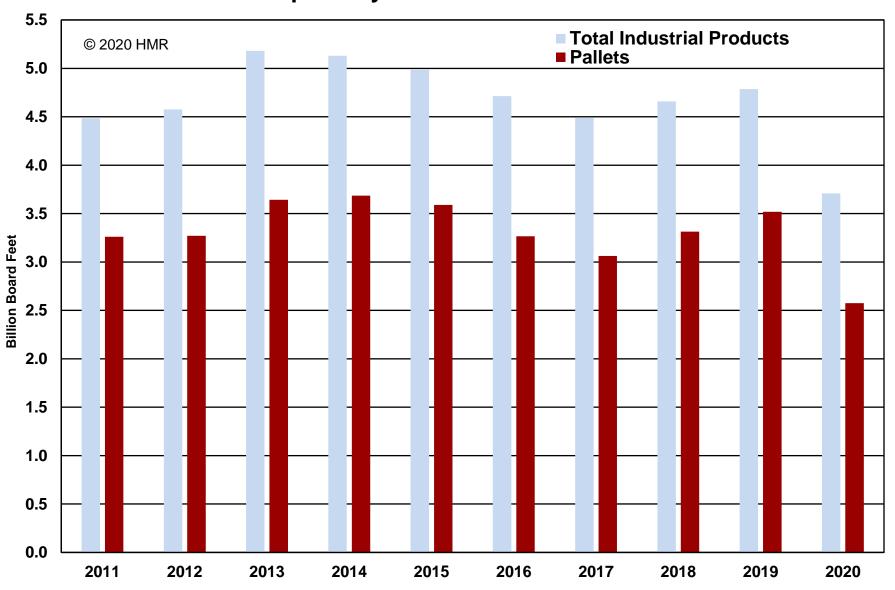
### US Manufacturers' Shipments of Solid Wood Flooring (Thousand Square Feet)



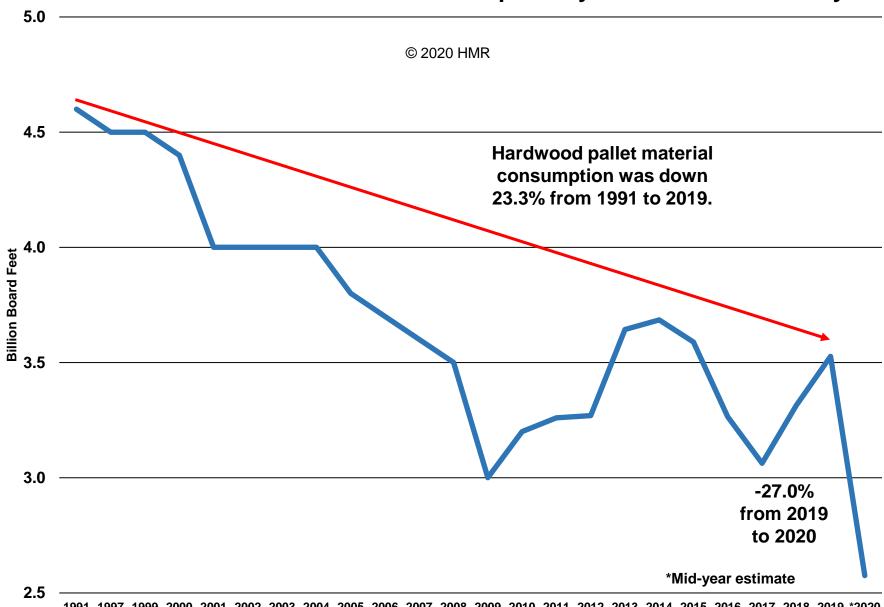
#### **Consumption Estimates**



#### **Consumption by Industrial Product Markets**



#### **Hardwood Lumber Consumption by the US Pallet Industry**



#### The Pallet Industry

Statistics from NWPCA, Virginia Tech, HMR, and USDA Forest Service

	2011	2016
New Pallets	406 Million	508 Million
Recycled Pallets	324 Million	341 Million
Total Pallets	730 Million	849 Million
Hardwood Usage (HMR)	3.26 Billion Bd. Ft	3.527 Billion Bd. Ft.





#### Fortune Business Insights –

July 23, 2019

**Global Pallet Market 2018 to 2026:** 

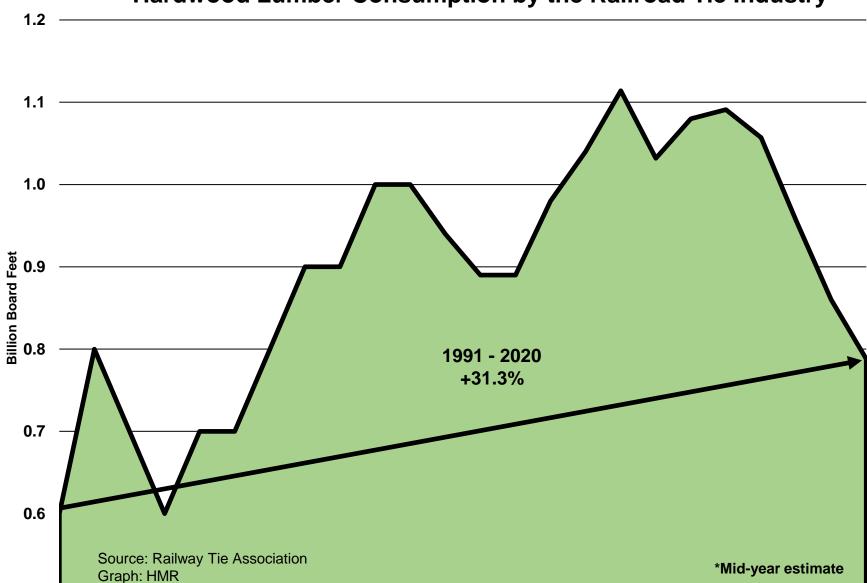
2018 \$59.91 billion

2026 \$88.69 billion

**Compound Annual Growth Rate 5.1%** 

Wood pallets are expected to account for the largest share of the global market

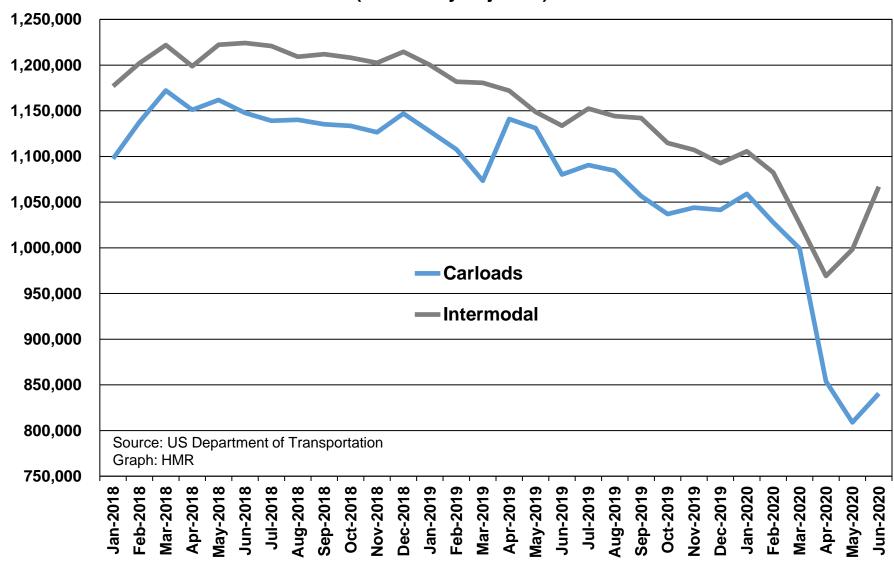
#### **Hardwood Lumber Consumption by the Railroad Tie Industry**



0.5

#### **US Rail Freight**

(Seasonally Adjusted)

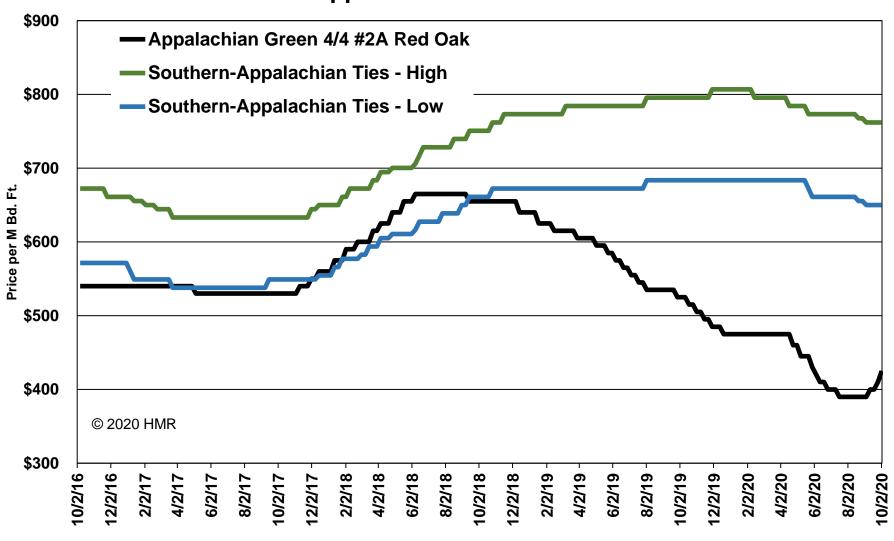


#### **US Department of Transportation 30-Year Forecast**

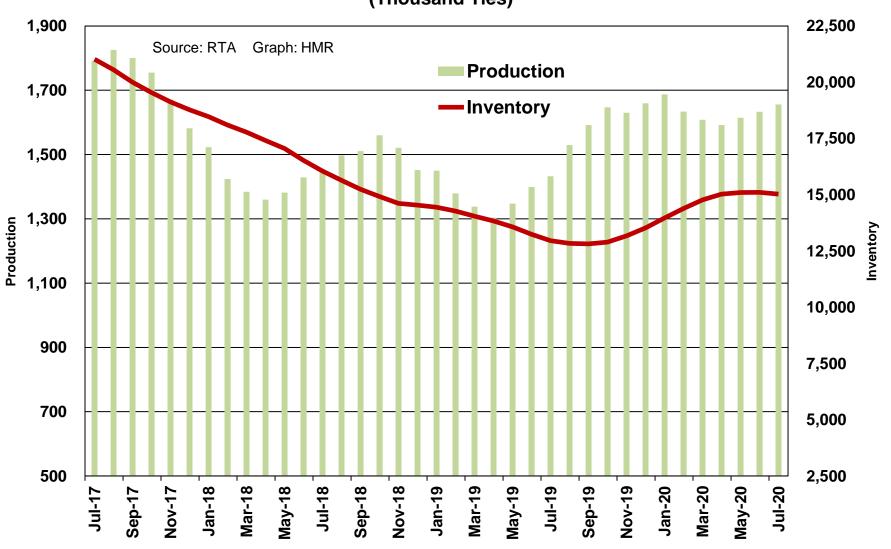
Mode	2015	2045	Change
Truck	11,513	16,529	+ 44%
Pipeline	3,303	4,554	+ 38%
Rail	1,694	2,094	+ 24%
Water	835	1,156	+ 38%
Multiple Modes and Mail	398	646	+ 62%
No Domestic Mode*	273	297	+ 9%
Air	7	24	+ 234%
Total	18,056	25,331	+ 40%

Weight (Million Tons)

### Appalachian Green 4/4 #2A Red Oak and Southern-Appalachian 7x9x81/2' Crossties



#### Crosstie Production and Inventory Six-Month Moving Average (Thousand Ties)



### Railway Tie Association Annual Survey Estimated New Hardwood Crosstie Requirements

Class I Railroads		Small Markets	Total		
2019	14,471,000	4,105,000	18,576,000		
2020	13,836,000	3,831,000	17,667,000		
2021	13,731,000	4,427,000	18,158,000		

## **Board Road/Crane Mat Industry Overview**

#### **Demand Buckets**

- Transmission Lines
- Pipelines
- Drilling
- Roads and Bridges
- General Construction

## **Board Road/Crane Mat Industry Overview**

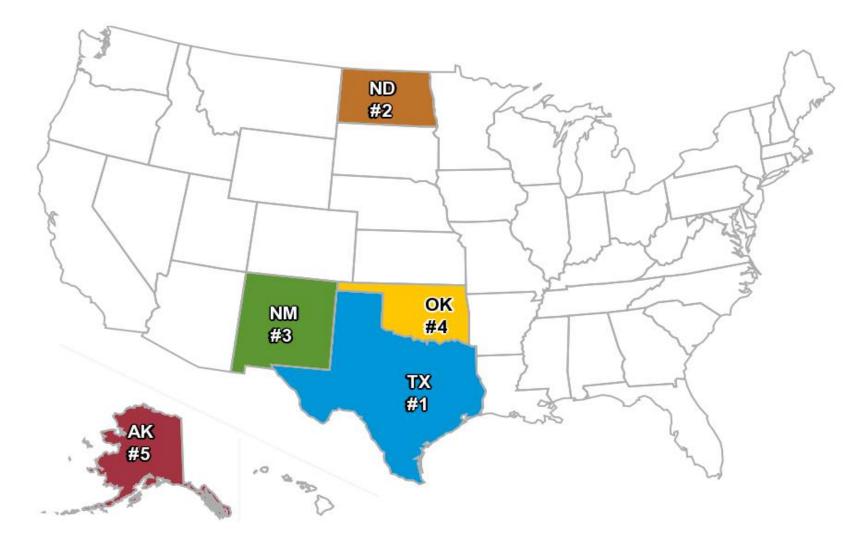
## Supply Stream – Raw materials for mat construction

- Large sawmills, vertically integrated in producing raw materials and assembling mats
- Mat builders that purchase lumber and timbers.
   These mat builders may or may not be sawmills.
- Sawmills that sell to lumber and timbers to mat builders – directly or indirectly
- Brokers that purchase and resell lumber and timbers to mat builders.



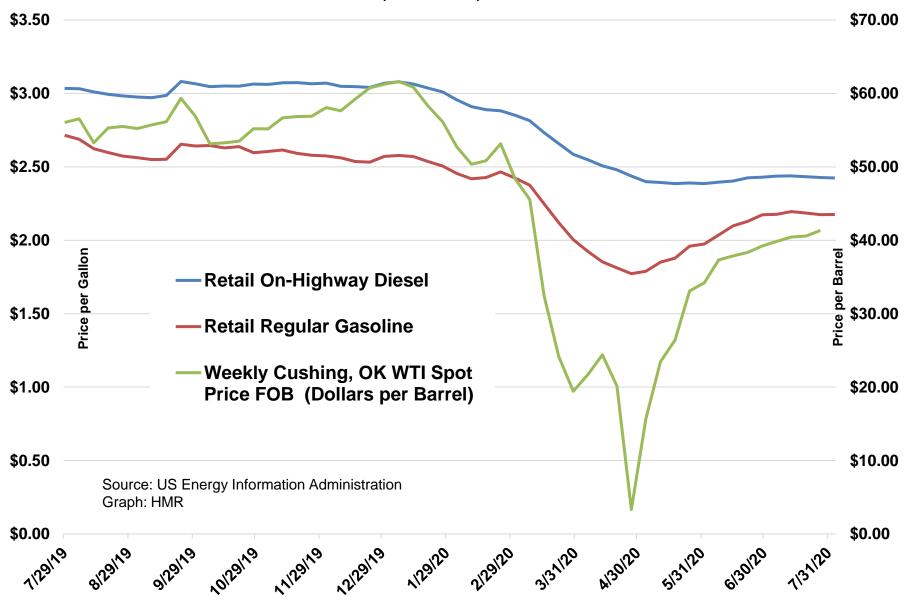
#### Top crude oil producing states, 2018

eia



Note: Federal Offshore Gulf of Mexico would rank #2 in production if it were a state. Source: U.S. Energy Information Administration, *Petroleum Supply Monthly*, Table 26, March 2019, preliminary data

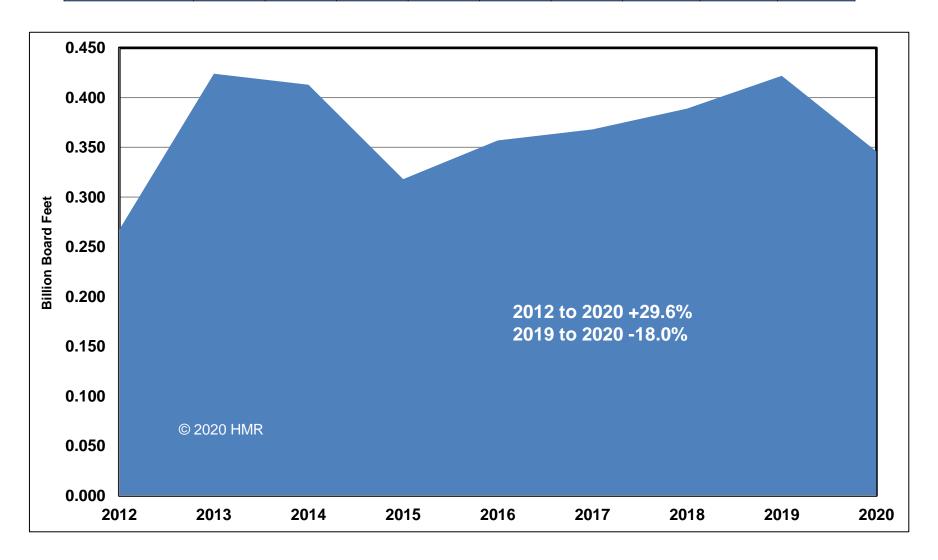
#### **US Gasoline, Diesel, and Oil Prices**



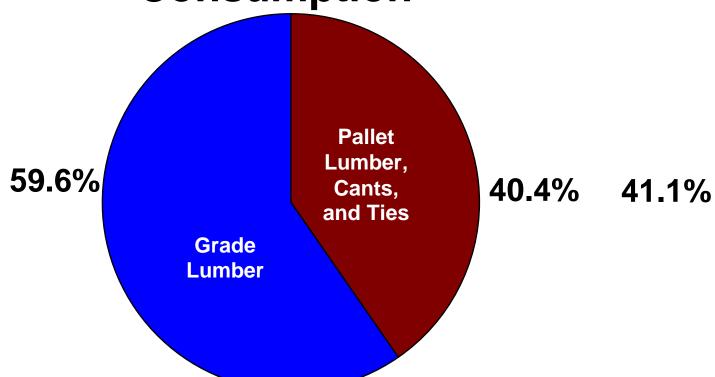
#### **Nationwide Permit 12**

Issued 3-19-2017 by the US Corp of Engineers NWP 12 authorizes discharges of dredged or fill material into waters of the United States for crossings of those waters associated with the construction, maintenance, or repair of utility lines, which are defined as any pipe or pipeline for the transportation of any gaseous, liquid, or slurry materials. The permit also applies to various types of communication lines.

Board Road/Mat	2012	2013	2014	2015	2016	2017	2018	2019	2020
Timbers	0.267	0.424	0.413	0.318	0.357	0.368	0.389	0.422	0.346

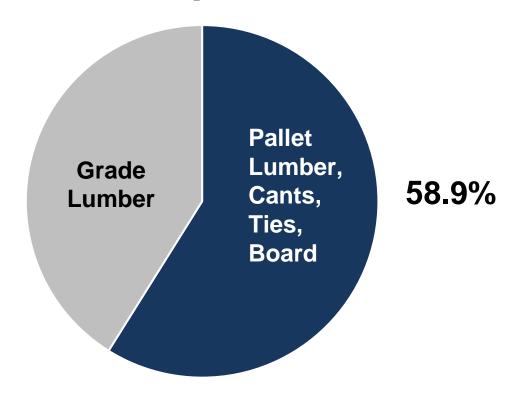


## 1999 Hardwood Consumption



Industrial Products: 5.21B bd. ft. Grade Lumber: 7.7B bd. ft.

## **2020 Hardwood Consumption**



**Industrial Products: 3.709BBF** 

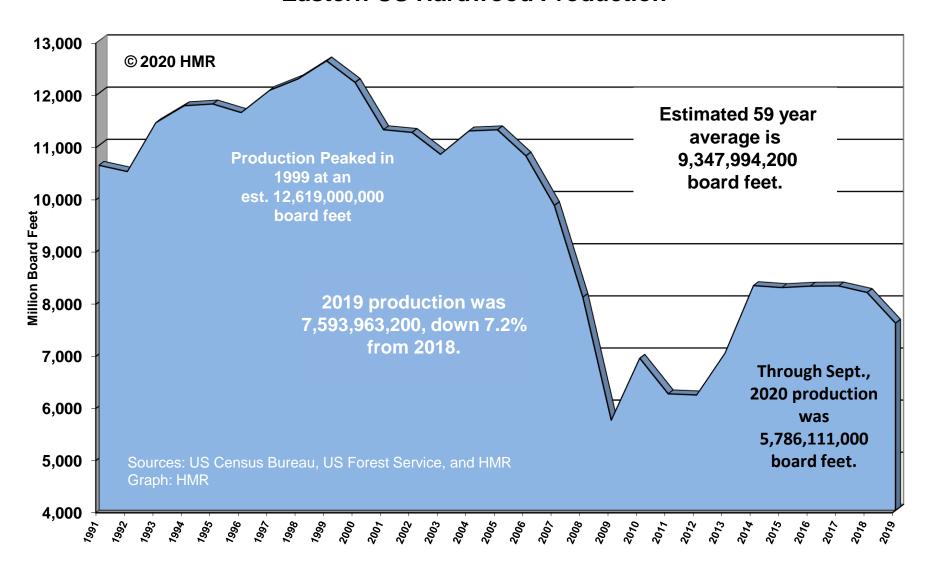
**Grade Lumber: 2.588BBF** 

Total: 6.297BBF

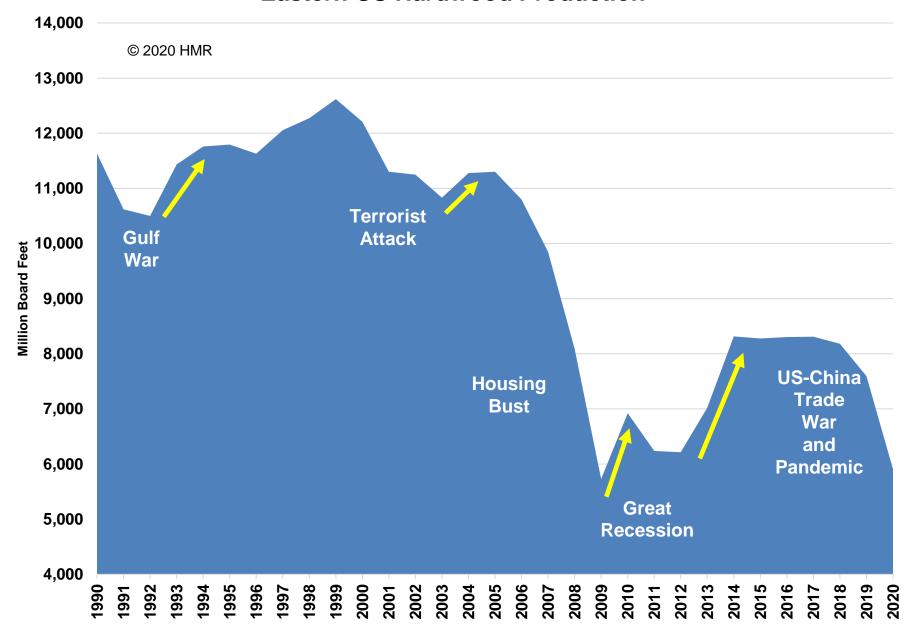
#### **Consumption of Hardwood Lumber by Major US Markets**

© 2020 HMR	2019	Mid-Year 2020	Estimated 2020	% Change Mid- Year 2020	% Change 2019
Pallets	3.527	2.575	2.77	7.6%	-21.5%
Furniture	0.472	0.3311	0.387	16.9%	-18.0%
Exports	1.363	1.168	1.25	7.0%	-8.3%
Millwork	0.495	0.3861	0.422	9.3%	-14.7%
Cabinets	0.443	0.2702	0.345	27.7%	-22.1%
Flooring	0.733	0.4325	0.615	42.2%	-16.1%
Railway Ties	0.860	0.788	0.775	-1.6%	-9.9%
Board Road/Mat Timbers	0.422	0.346	0.325	-6.1%	-23.0%
Total Estimated Consumption	8.315	6.297	6.889	9.4%	-17.1%

#### **Eastern US Hardwood Production**



#### **Eastern US Hardwood Production**





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