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US Economic Activity

- GDP has been in positive territory for seven consecutive quarters, and the advance estimate shows the US economy grew at a 1.0% rate in the fourth quarter 2015.
US Economic Activity

- GDP has been in positive territory for seven consecutive quarters, and the advance estimate shows the US economy grew at a 0.7% rate in the fourth quarter 2015.

- The January Purchasing Manager’s Index® shows the manufacturing sector of the US economy contracted four consecutive months.
US Economic Activity

- GDP has been in positive territory for seven consecutive quarters, and the advance estimate shows the US economy grew at a 0.7% rate in the fourth quarter 2015.

- The January Purchasing Manager’s Index® shows the manufacturing sector of the US economy contracted four consecutive months.

- The US unemployment rate was 9.61% in 2010. The rate fell to 4.9% in February 2016. However, there are a record 94 million workers not in the labor force. The participation rate is stuck at a near 38-year low of 62.7%.
US Economic Activity

- GDP has been in positive territory for seven consecutive quarters, and the advance estimate shows the US economy grew at a 0.7% rate in the fourth quarter 2015.

- The Purchasing Manager’s Index® shows the manufacturing sector of the US economy contracted four consecutive months.

- The US unemployment rate was 9.61% in 2010. The rate fell to 4.9% in January 2016. However, there are a record 94 million workers not in the labor force. The participation rate is stuck at a near 38-year low of 62.7%.

- In 4Q 2015, personal consumption expenditures were $12,429B, up each quarter in 2015.
Total housing starts for 2015 (unadjusted) were up 10.8% over 2014.
New Single-Family Home Construction

Units Started
Units Completed
Building Permits

Source: US Census Bureau
Graph: HMR
In January 2014, completions were 5.5% above starts.

In January 2016, completions were 5.2% below starts.

Source: US Census Bureau

Graph: HMR Executive®
Average Percentage of New Home Sales
Priced at $300,000 or More

Source: US Census Bureau
Graph: Hardwood Market Report
Private Expenditures on US Residential Construction
Seasonally Adjusted Annual Rates

Million US Dollars

Source: US Census Bureau
Graph: HMR

Single-family
Multi-family
Repair and Remodeling
## Estimates of Consumption of US Hardwoods

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</thead>
<tbody>
<tr>
<td><strong>Pallets</strong></td>
<td>3.6</td>
<td>3.5</td>
<td>3.0</td>
<td>3.2</td>
<td>3.26</td>
<td>3.27</td>
<td>3.643</td>
<td>3.685</td>
<td>3.589</td>
<td>-2.6%</td>
<td>-0.3%</td>
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<td><strong>Furniture</strong></td>
<td>1.0</td>
<td>0.7</td>
<td>0.3</td>
<td>0.35</td>
<td>0.29</td>
<td>0.30</td>
<td>0.427</td>
<td>0.439</td>
<td>0.471</td>
<td>7.3%</td>
<td>-52.9%</td>
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<tr>
<td><strong>Exports</strong></td>
<td>1.2</td>
<td>0.9</td>
<td>0.8</td>
<td>1.07</td>
<td>1.2</td>
<td>1.32</td>
<td>1.462</td>
<td>1.653</td>
<td>1.527</td>
<td>-7.6%</td>
<td>27.3%</td>
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<tr>
<td><strong>Millwork</strong></td>
<td>1.0</td>
<td>0.7</td>
<td>0.4</td>
<td>0.43</td>
<td>0.24</td>
<td>0.26</td>
<td>0.387</td>
<td>0.394</td>
<td>0.406</td>
<td>3.1%</td>
<td>-59.4%</td>
</tr>
<tr>
<td><strong>Cabinets</strong></td>
<td>1.3</td>
<td>1.2</td>
<td>0.7</td>
<td>0.4</td>
<td>0.34</td>
<td>0.36</td>
<td>0.392</td>
<td>0.407</td>
<td>0.392</td>
<td>-3.7%</td>
<td>-69.9%</td>
</tr>
<tr>
<td><strong>Flooring</strong></td>
<td>1.3</td>
<td>0.8</td>
<td>0.5</td>
<td>0.59</td>
<td>0.51</td>
<td>0.55</td>
<td>0.753</td>
<td>0.712</td>
<td>0.664</td>
<td>-6.7%</td>
<td>-48.9%</td>
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<tr>
<td><strong>Railway Ties</strong></td>
<td>0.92</td>
<td>0.94</td>
<td>0.89</td>
<td>0.89</td>
<td>0.98</td>
<td>1.04</td>
<td>1.114</td>
<td>1.032</td>
<td>1.08</td>
<td>4.7%</td>
<td>17.8%</td>
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<tr>
<td><strong>Board Road/Mat Timbers</strong></td>
<td>N/A</td>
<td>0.286</td>
<td>0.175</td>
<td>0.198</td>
<td>0.243</td>
<td>0.267</td>
<td>0.424</td>
<td>0.413</td>
<td>0.318</td>
<td>-23.0%</td>
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<tr>
<td><strong>Total Estimated Consumption</strong></td>
<td>10.32</td>
<td>9.03</td>
<td>6.77</td>
<td>7.13</td>
<td>7.06</td>
<td>7.37</td>
<td>8.60</td>
<td>8.735</td>
<td>8.447</td>
<td>-3.3%</td>
<td>-18.1%</td>
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Consumption of Hardwood Lumber by Grade Markets

Source: Private, Government, and HMR
Graph: Hardwood Market Report
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<td>0.39</td>
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<td>0.40</td>
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2007 to 2015 -59.9%
2014 to 2015 + 1.8%
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© 2016 Hardwood Market Report
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<td>0.51</td>
<td>0.55</td>
<td>0.75</td>
<td>0.71</td>
<td>0.66</td>
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- 2007 to 2015: -48.9%
- 2014 to 2015: -6.7%
Shipments were down 7.2% in 2015 from 2014 and 4.3% in January 2016 from January 2015.
From 2006 to 2015, shipments:
- China - 93.2%
- Malaysia + 60.7%
- Indonesia - 38.1%
- Canada - 75.6%
- Mexico - 74.5%
- Vietnam - +2,799%

Total imports declined 84.9% from 2006 to 2015 but were up 37.7% from 2014 to 31.4 million square feet.

Source: USDA Foreign Agricultural Service
Graph: Hardwood Market Report
US Market Consumption of Hardwood Flooring

- Imports increased 37.7% in 2015 from 2014 and 86.0% from 2013.

Sources: USDA FAS and Hardwood Market Report
Graph: Hardwood Market Report
Hardwood Lumber Consumption by Major US Markets

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Railway Ties

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Source: Railway Tie Association

Graph: Hardwood Market Report

2007 to 2015 +17.8%
2014 to 2015 + 4.7%
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<tr>
<th>Board Road/Mat</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<tr>
<td>Timbers</td>
<td>N/A</td>
<td>0.29</td>
<td>0.18</td>
<td>0.20</td>
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<td>0.42</td>
<td>0.41</td>
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**Graph: Hardwood Market Report**

2007 to 2015 +27.3%
2014 to 2015 - 7.6%

Source: USDA FAS
Percentage of Total US Hardwood Lumber Exports (Volume)

Source: USDA FAS
Graph: Hardwood Market Report
US Exports of Hardwood Lumber to China

1999 - 2006
US Furniture Manufacturing Shift to China and US Housing Boom

2006 - 2009
US Housing Bust and Worldwide Economic Turmoil

2009 - 2015
China's Growing Middle and Upper Classes Consuming US Hardwoods

Source: USDA FAS
Graph: HMR Executive®
Export Markets

- Currency Valuation
- Global Demand
- Availability of other Species
- Shift from Lumber to Logs
Estimated Annual Rates of Sawmill Production for Eastern US Hardwoods


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Production Peaked in 1999 at an est. 12,619,000,000 board feet

1975 est. 7,157,500,000 board feet

1960 est. 7,672,500,000 board feet

2015 production was 8,275,975,600.

Estimated 56 year average was 9,406,024,000 board feet.

Sources: US Census Bureau, US Forest Service, and Hardwood Market Report

Graph: Hardwood Market Report

© 2016 Hardwood Market Report
Consumption of Hardwood Lumber by Major US Market Sectors and Total Supply of Hardwood Lumber

Graph: HMR Executive®

Sources: Data Collected from a Variety of Industry, Government, and Academic Sources
Thank You

Hardwood Market Report

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