



The Indiana Hardwood Report

2017 in Review

Compiled by Jeff Settle

Forest Products Specialist

Jackson-Washington State Forest

& Chris Gonso

Hardwood Economic Development

Introduction

The Indiana forest-products industry is the sixth-largest manufacturing industry in the state,

employing more than 32,000 people. Forest-based manufacturing provides \$3.2 billion in value-added and more than \$7 billion in value of shipments to Indiana's economy each year. Indiana ranks first nationwide in the production of wood office furniture, wood kitchen cabinets, hardwood veneer, and several other wood products. The majority of the businesses involved are small and family-owned. Wood products companies average fewer than 50 employees and play an important role in rural communities.

The wood-using industry relies on one of Indiana's most valuable renewable natural resources. Proper management of Indiana's timber helps guarantee primary wood-using firms a supply of quality wood fiber. These sawmills and veneer plants, in turn, provide top-quality materials for secondary industries to produce paneling, fine furniture, cabinets and similar finished products.

This report contains market information on log, lumber and veneer manufacturing sectors. The report contains data regarding green lumber prices per species as well as prices for pallet cants and ties. Also included are comments and graphs depicting a variety of data related to the export of Indiana wood products. We hope you find this paper both informative and helpful.

The Department of Natural Resources (DNR) is committed to sound forest management practices on all state forests. The state forests are certified through the Forest Stewardship Council® (FSC-C012858) and the Sustainable Forestry Initiative® (SFI) program.

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Domestic Market Comments

Ash

A 19% increase in U.S. Ash log exports in 2017, including a 22% increase to China, created a shortage of both KD and green lumber. As a result, KD 4/4 ash prices over the last year, averaged across all regions, have risen 7% for the uppers, 21% for #1 Common, and 23% for #2 Common. Green 4/4 ash price increases have been even stronger for all but the #2 Common. Ash lumber exports rose 4% in 2017, with spring and fall volumes slightly stronger than summer shipments. Strong demand for all grades of Ash, including from the Middle East, will continue to challenge availability and keep prices rising in 2018. As a result, moulding plants will increasingly look for less expensive and more readily available options.

Cherry

Not even two years ago, Cherry was a "dog" in international and domestic markets. Now, it is considered among the strongest U.S. hardwood species for export, especially to Asia, with tight availability and "crazy" prices, according to buyers. 4/4 FAS/1F Cherry prices hit a five-year low in August 2016 and stayed there until December, when they rose \$10/MBF. Since then, however, the prevailing price for FAS/1F has risen \$390 (24%). Price gains in KD 4/4 #1 and #2 Common Cherry have been even stronger over the same time period, rising 30% and 32%, respectively. As a result of rising prices and limited availability, some wood product manufacturers have greatly reduced or even stopped using Cherry altogether. Cherry log exports rose 35% in 2017, the third-largest percentage increase next to Red Oak logs (69%) and Walnut logs (38%). Cherry log exports will remain strong in 2018, limiting lumber production, and driving lumber prices even higher until Chinese interest wanes, which isn't likely to happen anytime soon.

Hickory

Domestic interest in Hickory, which tends to run "on again-off again," ran somewhat on again in 2017. As with other species, rising Hickory log exports limited lumber production and pushed prices higher nearly across the board over the last six months. Hickory lumber exports rose 35% in 2017, on stronger purchasing from Mexico and China. It is Hickory's log and lumber export strength that will keep prices steady to stronger in spring. Still, some mills won't find prices strong enough to saw for grade or take production time away from the Oaks.

Hard Maple

Kiln-dried, common-grade Hard Maple prices have fared better than uppers over the last six months, while green common-grade price increases have been even stronger relative to KD increases. Some mills, in fact, have started moving all of their production green due to stronger pricing. Cabinet manufacturers report stronger demand for 4/4 Sap/Btr, though demand from millwork and component producers is reportedly weaker. Rising exports to China, and typically strong first-half exports to Canada, should keep prices steady to stronger in summer.

Soft Maple

While falling for KD 4/4 upper-grade, Soft Maple prices appear to have leveled out, at or near five-year lows, giving producers some hope of a price floor. With Soft Maple's dominance in paint-grade applications losing share to European Beech and alternative products like MDF, especially in Western markets, short-term price stability will depend upon strong spring exports to Asia, to which shipments increased 36% in 2017.

Red Oak

Strong domestic and record-setting Chinese demand increased KD 4/4 #2/Btr Red Oak prices by \$40-130 in all regions in 2017, with the exception 4/4 FAS/ IF in the North Central sub-region, which remained level. After some seasonal slowness over the holidays, Appalachian Red Oak prices started rising again in February 2018. In the Southern region, producers rejected low price offers from Chinese buyers early in the year, selling their production instead to domestic markets, and at higher prices. Contacts in all regions are confident strong orders will last at least through spring and possibly into summer. Contacts are also confident that Red Oak will not be over-produced for the third consecutive summer, and that prices will continue to climb, especially with rising log exports limiting availability. Profits will remain squeezed, however, with green prices rising at least as quickly as those for kiln dried.

White Oak

The prevailing price for Appalachian KD 4/4 FAS/ IF White Oak fell slowly in the first half of 2017, rebounded a bit in late summer/early fall, and fell again in November and December. KD 4/4 #1 and #2 Common prices rose steadily through fall, by comparison, and have picked up again after cooling in winter. Shipments to Asia rose 28% in 2017, and monthly volumes to top export market China remained at or near record volumes from April through November. White Oak will continue to move well to Asia, given the pace of China's economic growth in 2018 is projected to be roughly the same as it was in 2017 (6.5%). Shipments to Europe should also outpace the 1% volume growth in 2017, with the region's economy the strongest in a decade and the euro stronger against the U.S. dollar. Ongoing competition for logs from export and stave markets will keep KD and green prices steady to stronger, especially in the short term, due to green availability issues and low existing kiln-dried inventories.

Yellow Poplar (Tulip)

Poplar exports rose 17% in 2017 after rising 21% in 2016. It appears two consecutive years of export increases have finally started to positively affect prices. Since 2016, prevailing 4/4 #1 and #2 Common Poplar prices have risen \$85 and \$35, respectively. In 2018, production will increase in spring and summer, but remain largely in line with increased demand during the peak construction months, keeping typically thin margins tight. Strong exports to China and Vietnam in 2017 suggest #1 Common Poplar may see the largest price gains, while slower shipments of #2 Common to Mexico in 2017 suggest continued price weakness.

Black Walnut

Prevailing KD 4/4 FAS/1F Walnut prices rose nearly \$220/MBF, on average, across most regions in 2017. While prevailing #1 and #2 Common prices rose an average of \$420 and \$300, respectively. That price momentum has continued into 2018, with the price of upper grade Walnut rising \$110 over that past two months alone, due to tight supplies caused by rising log exports. Most think Walnut demand and prices will remain strong at least halfway through 2018, if not the entire year.

Green Hardwood Lumber Prices (Dec-2017)

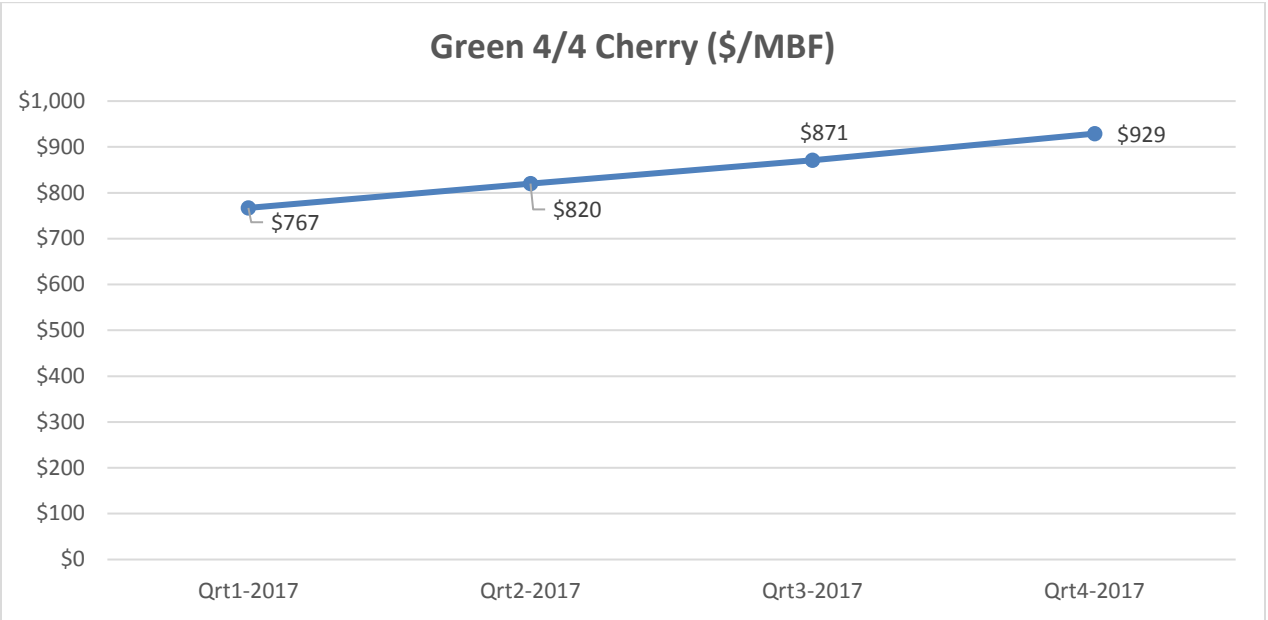
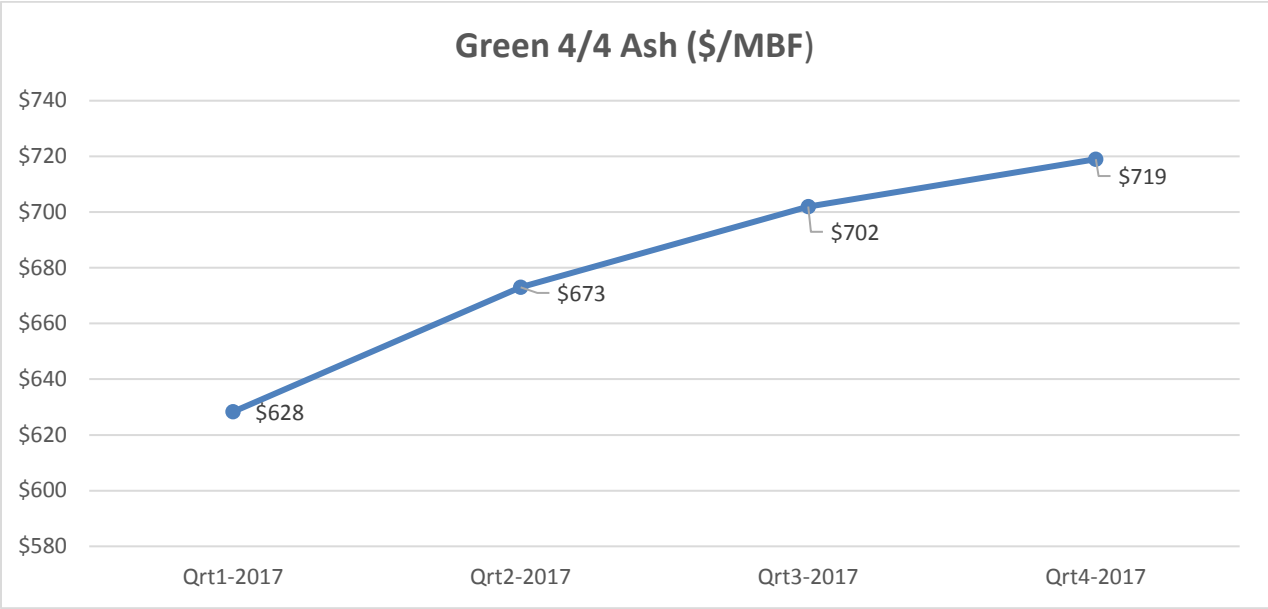
Dollars per one thousand board feet (MBF), 4/4 (1-inch-thick) Appalachian Market Area

	FAS	#1C	#2A	#3A
Ash	1090	725	420	
Cherry	1510	960	540	395
Hickory	900	580	425	
Hard Maple	1195	880	485	350
Soft Maple	1200	785	400	
Red Oak	1170	860	560	500
White Oak	1650	1015	555	505
Poplar	830	435	275	
Walnut	2900	1675	990	

Source: *Hardwood Review* P.O. Box 471307, Charlotte, N.C. 28247-1307

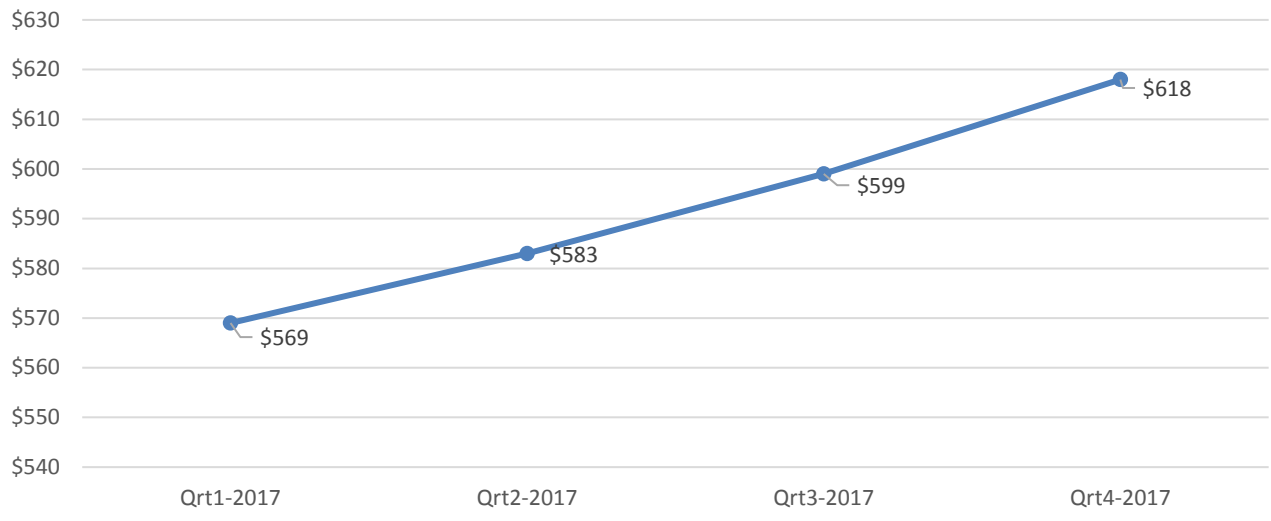
The following graphs compare green 4/4 lumber prices per species across all grades for each quarter of 2017. Also included are comparisons for pallet cants and ties.

Data were obtained from weekly reports from the *Hardwood Review Weekly*.

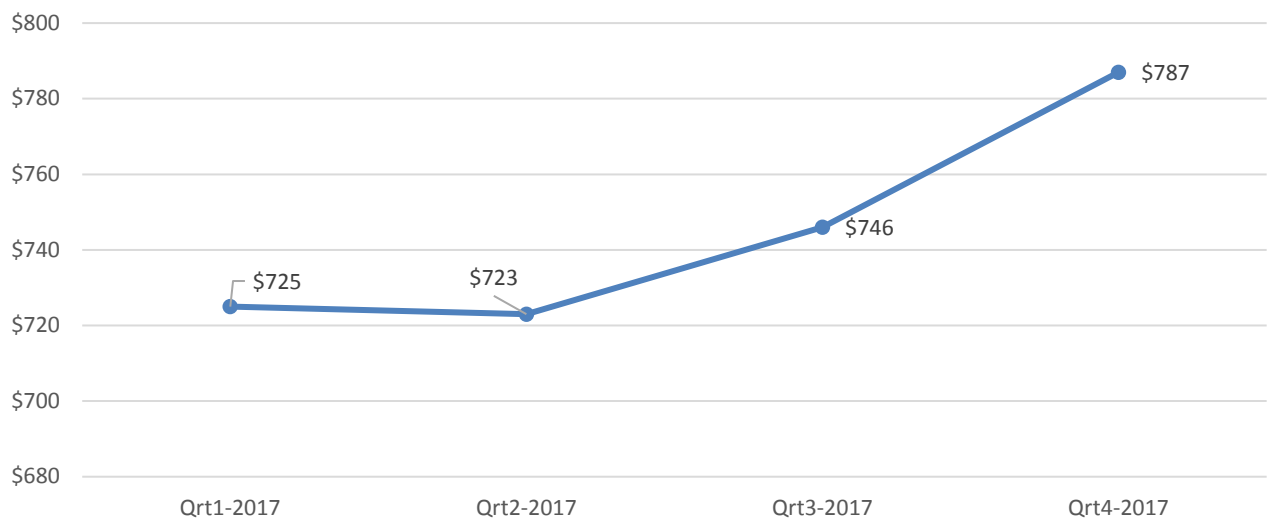


Lumber price graphs continued.

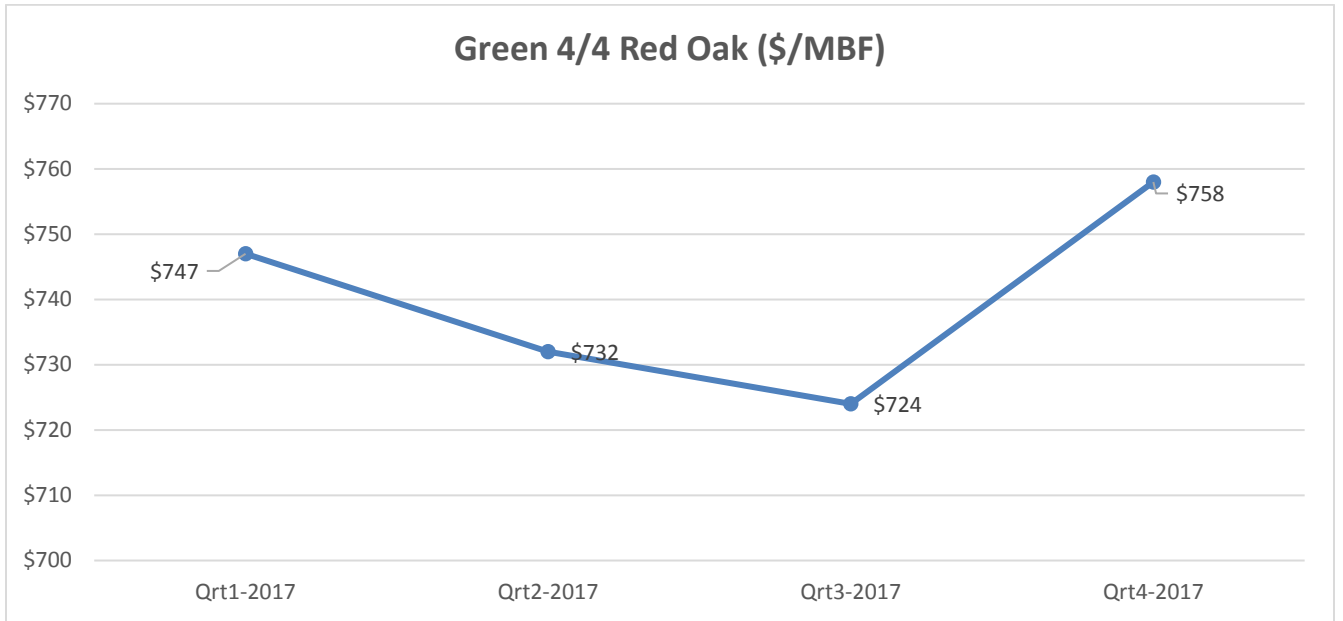
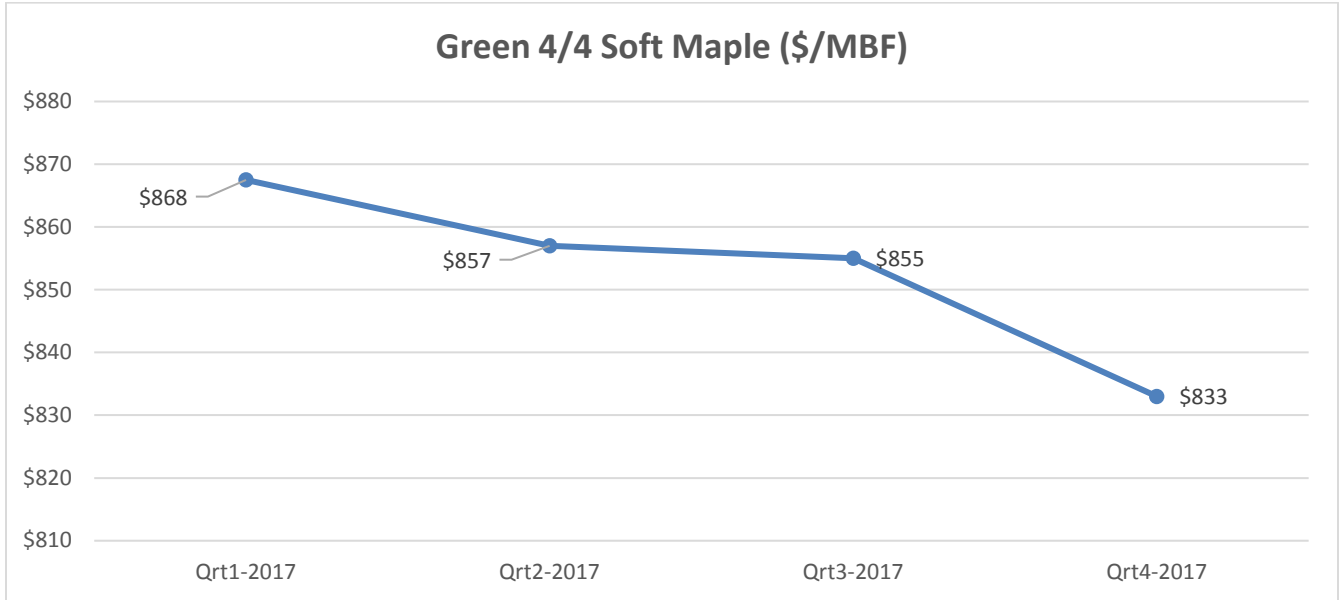
Green 4/4 Hickory (\$/MBF)



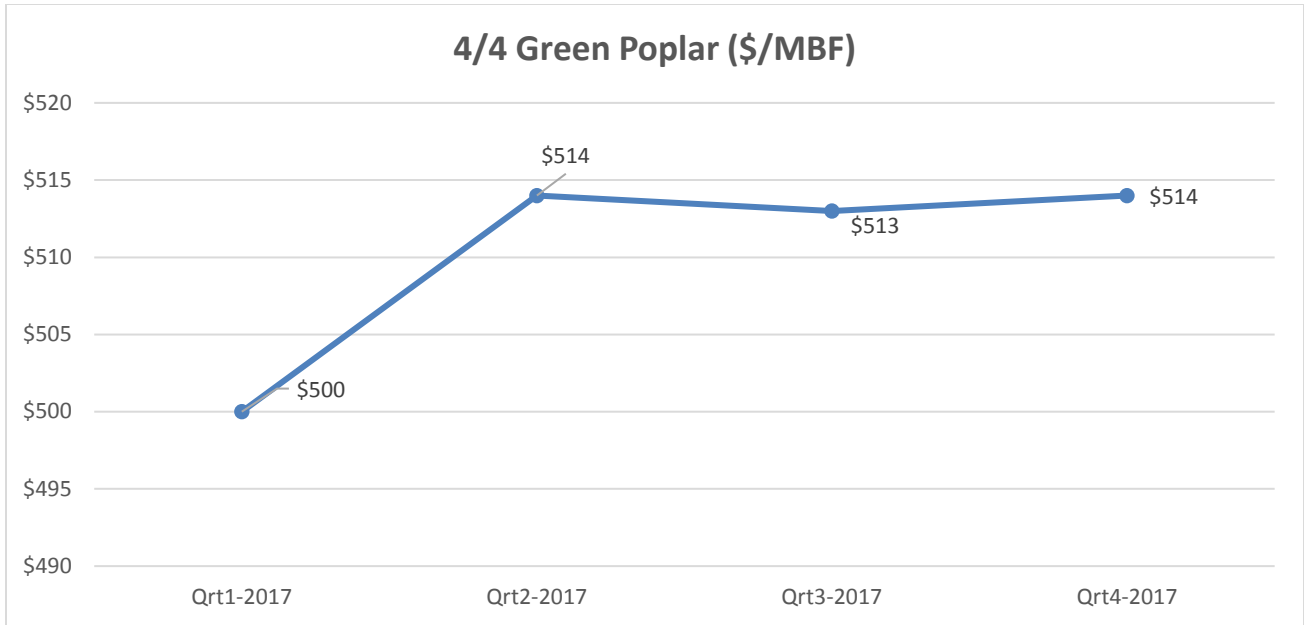
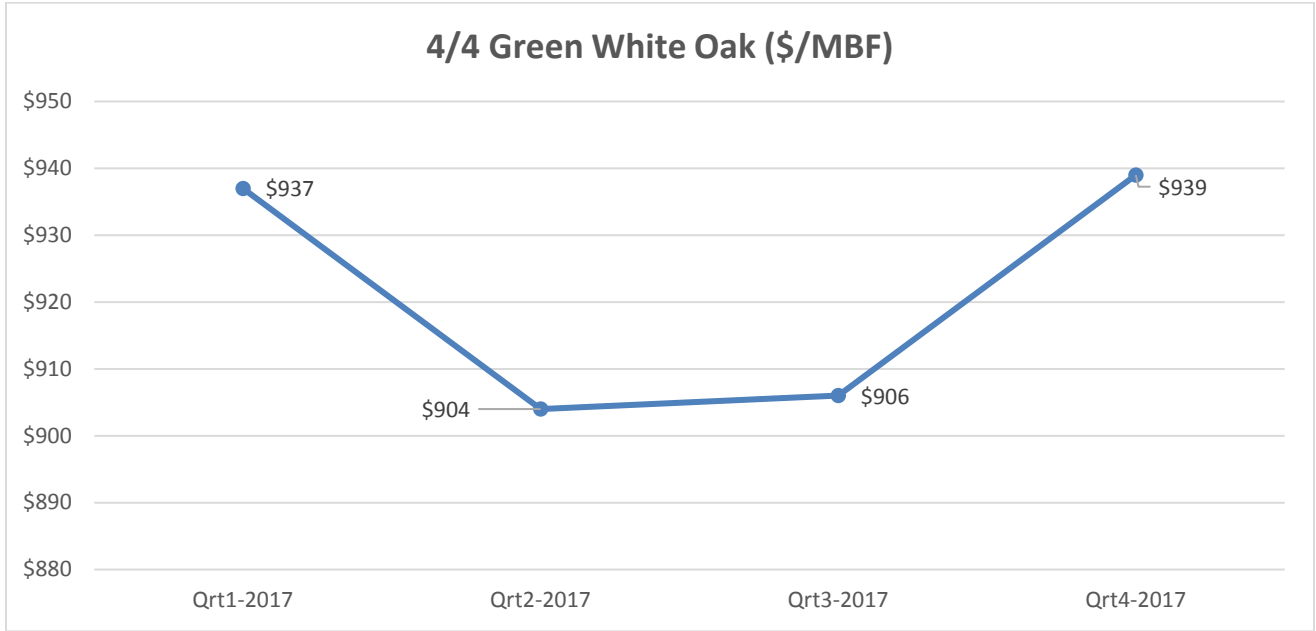
Green 4/4 Hard Maple (\$/MBF)



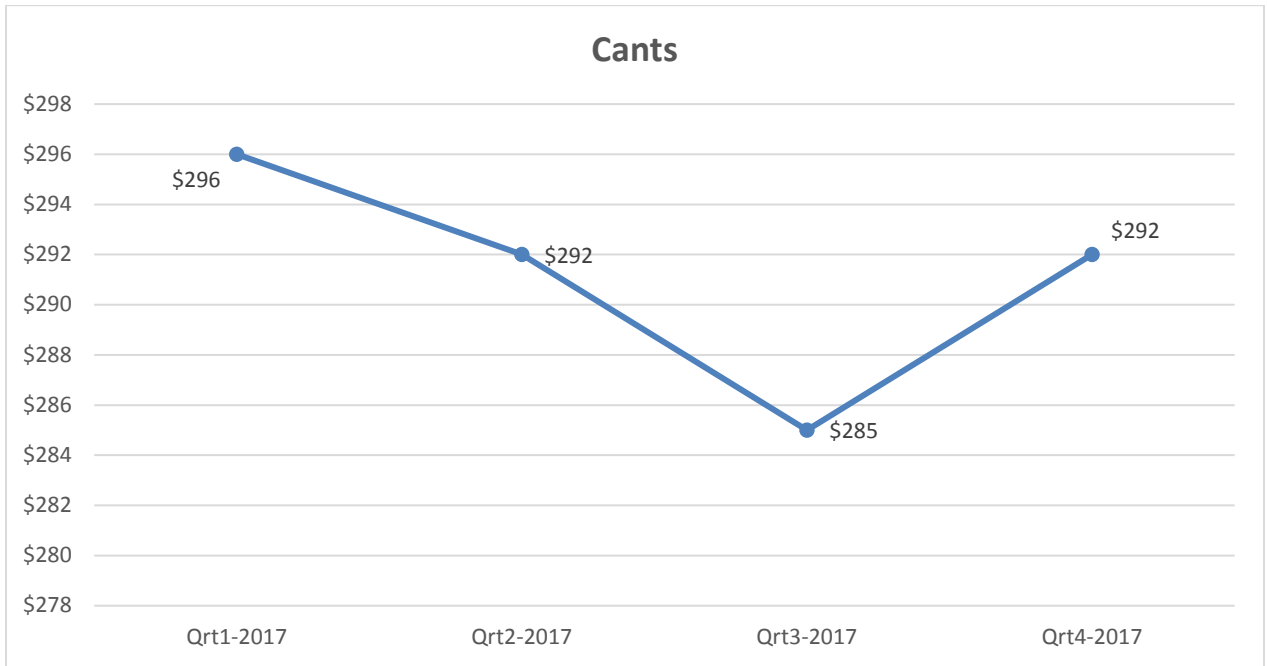
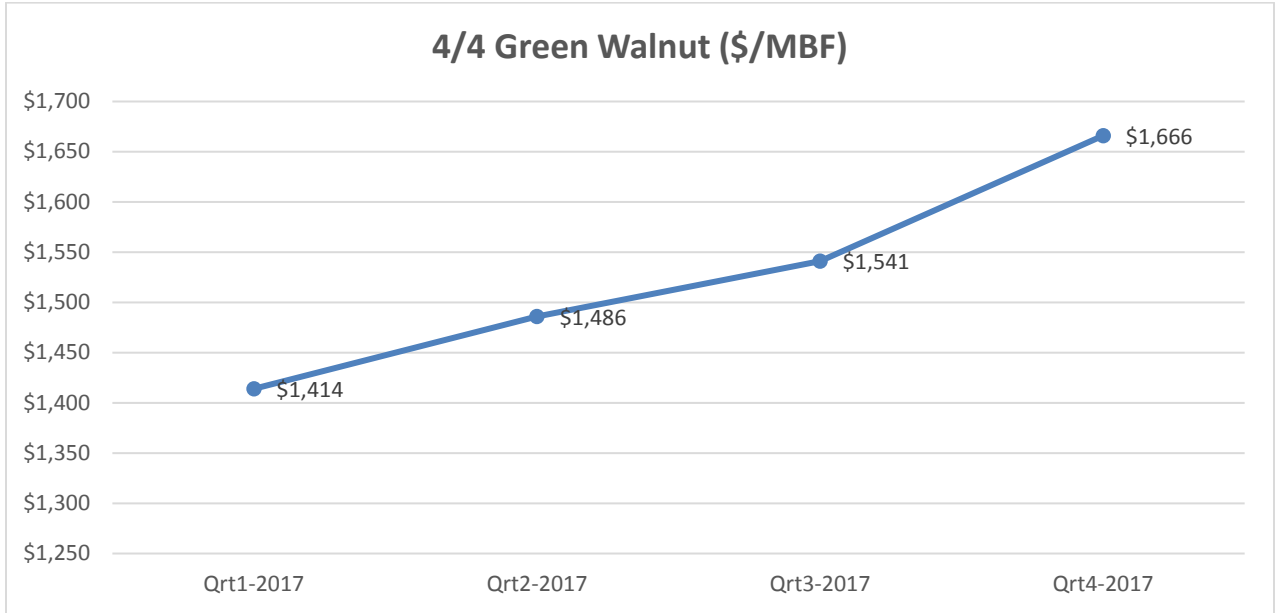
Lumber price graphs continued.

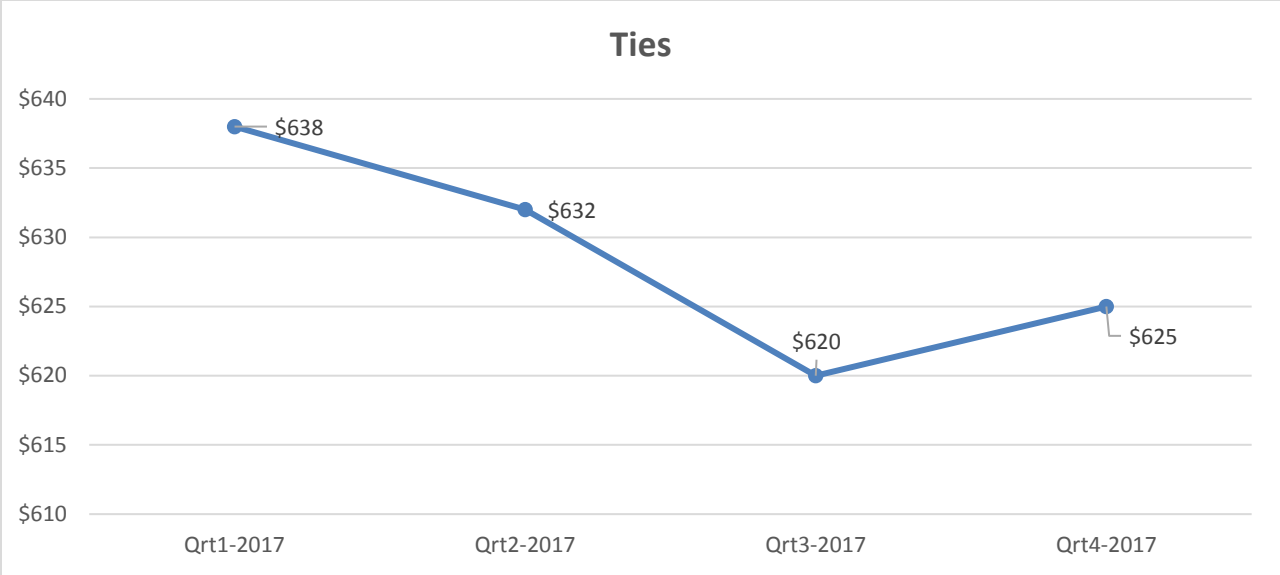


Lumber price graphs continued.



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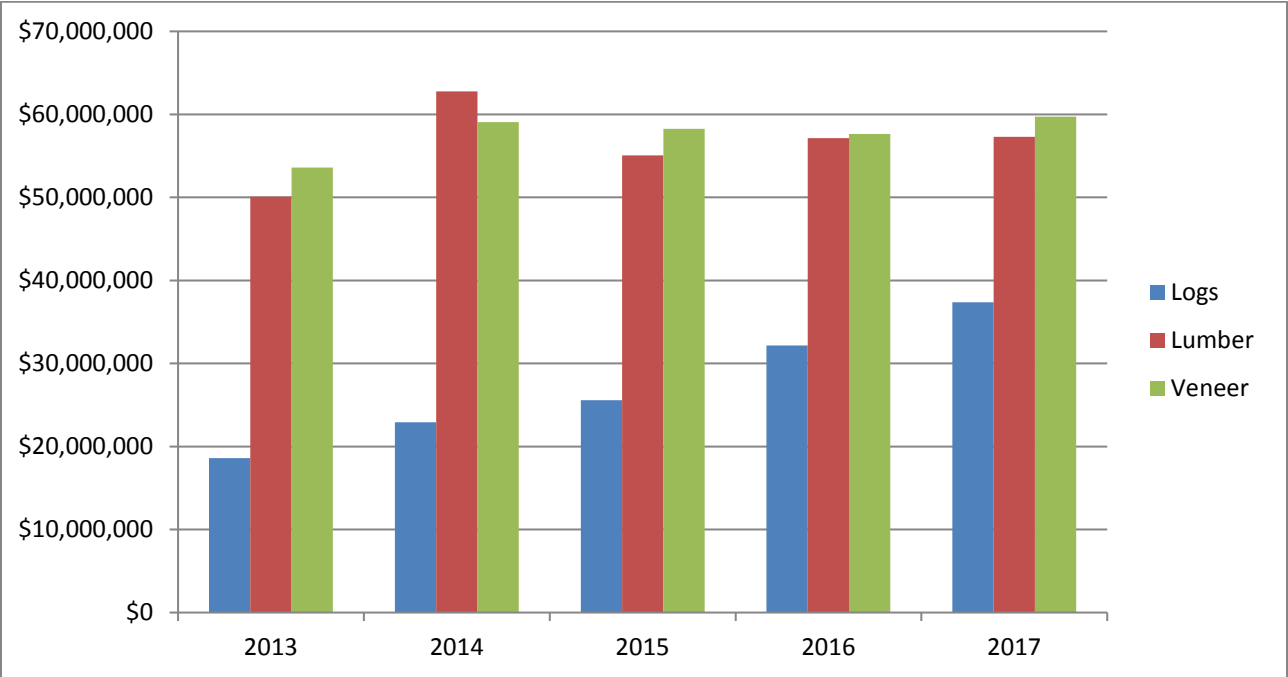




Exports

Indiana’s primary exports of hardwood products continue to be a viable part of overall hardwood sales. Log exports, primarily to Asia and China specifically, continue to show rapid growth with lumber and veneer exports relatively flat by comparison. In 2017, Indiana exported over \$37 million of logs, \$57 million of lumber and almost \$60 million of veneer.

Figure 1: Indiana Export of Logs, Lumber & Veneer.

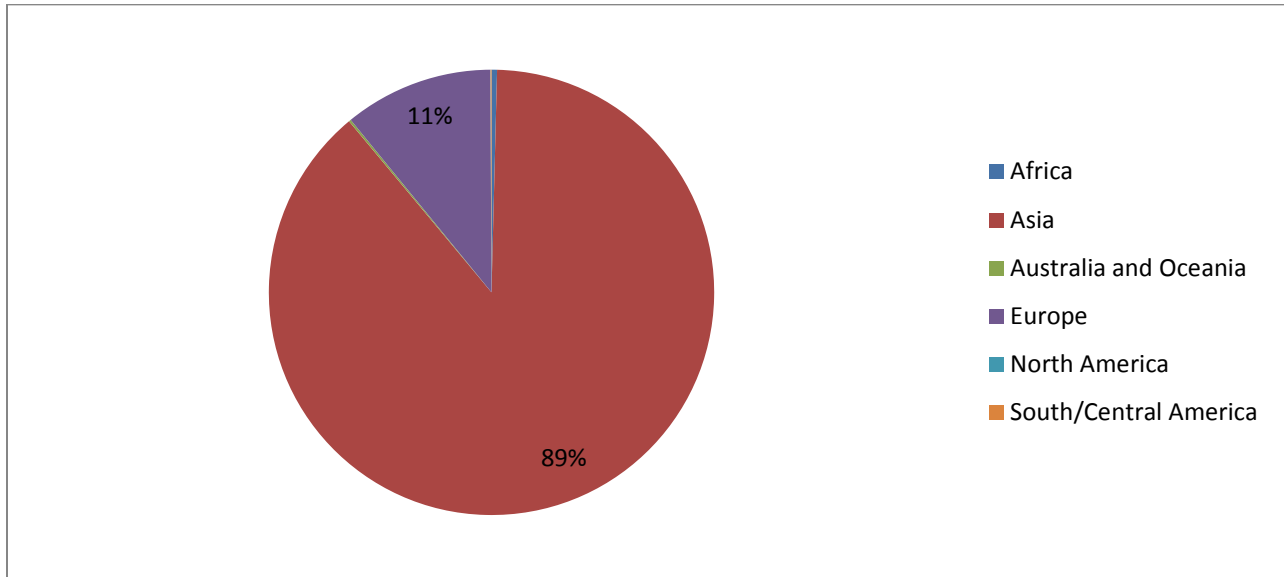


Data from the U.S. Census Bureau⁽¹⁾

Logs

Log exports continued to grow rapidly in 2017. They were up about 16% from last year and the five-year increase has been close to 100%. Indiana log exports totaled \$37,355,618 for 2017. The regional mix has remained fairly constant with Asia, dominated by China, taking the vast majority (close to 90%) and Europe (about 10%) being the only other region with a substantial total. This regional mix has been more or less constant over the last five years.

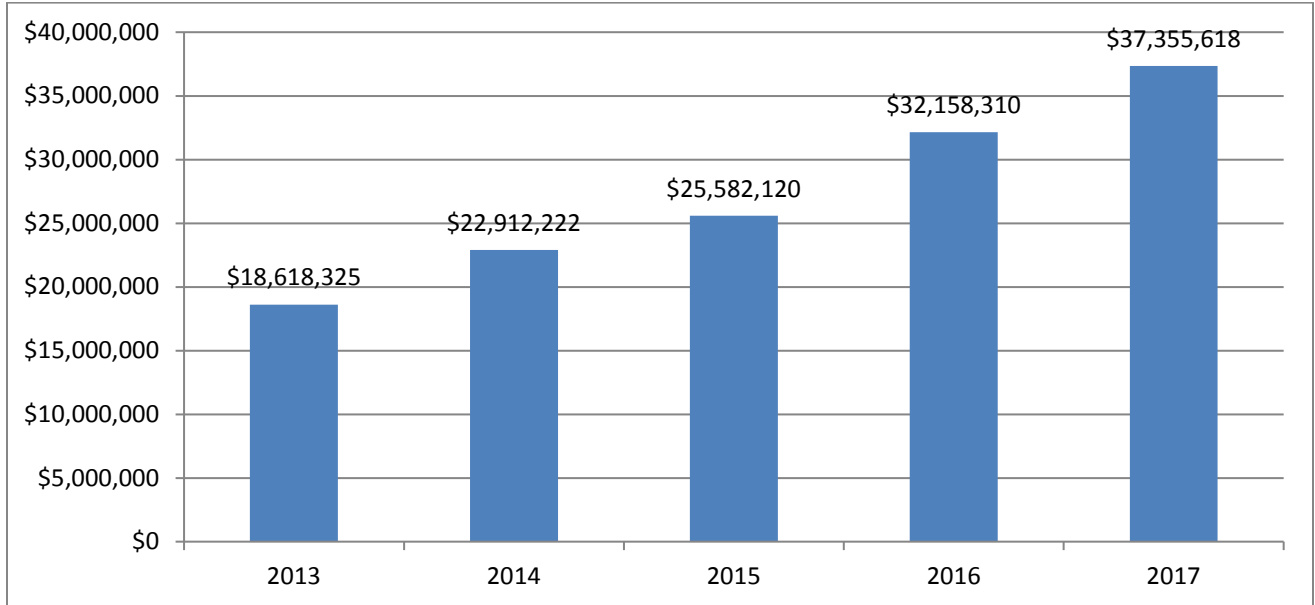
Figure 2: Indiana log exports to world by region, 2017.



Data from the U.S. Census Bureau

In 2017, China purchased 75% of Indiana's exported logs. For the period 2013-2016 China purchased 69%, 73%, 69% and 76%, respectively.

Figure 3: Indiana log exports.

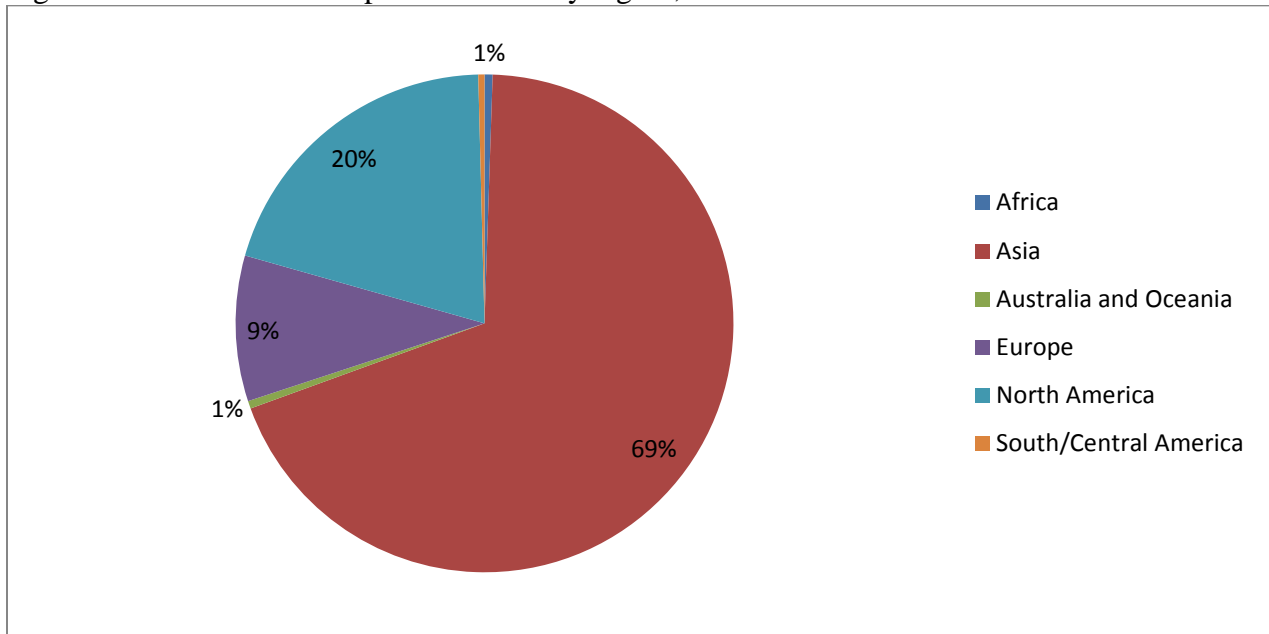


Data from the U.S. Census Bureau

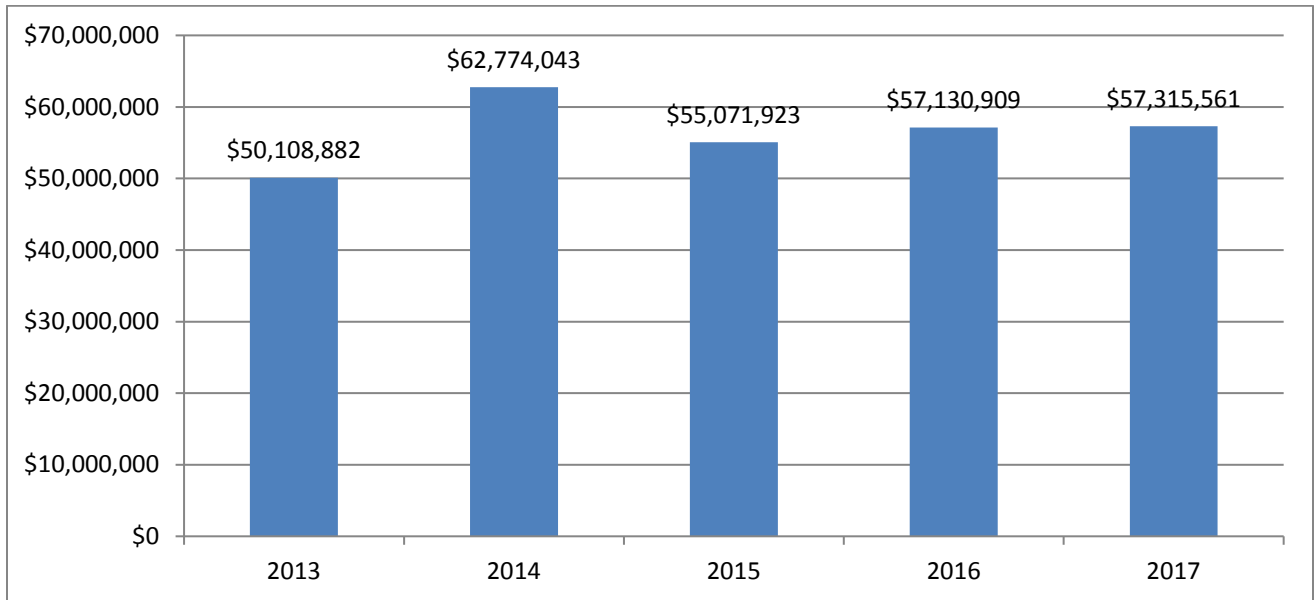
Lumber

Indiana lumber exports increased by slightly less than 1% and totaled \$57,513,561 for 2017. Indiana exports of lumber are also increasingly dominated by sales to Asia. Over five years, Indiana lumber exports to Asia have increased 62% while exports to Europe have increased about 12%. Indiana lumber exports to Canada, currently 20% of lumber exports, are down 43% since 2013.

Figure 4: Indiana lumber exports to world by region, 2017



Data from the U.S. Census Bureau
Figure 5: Indiana lumber exports.

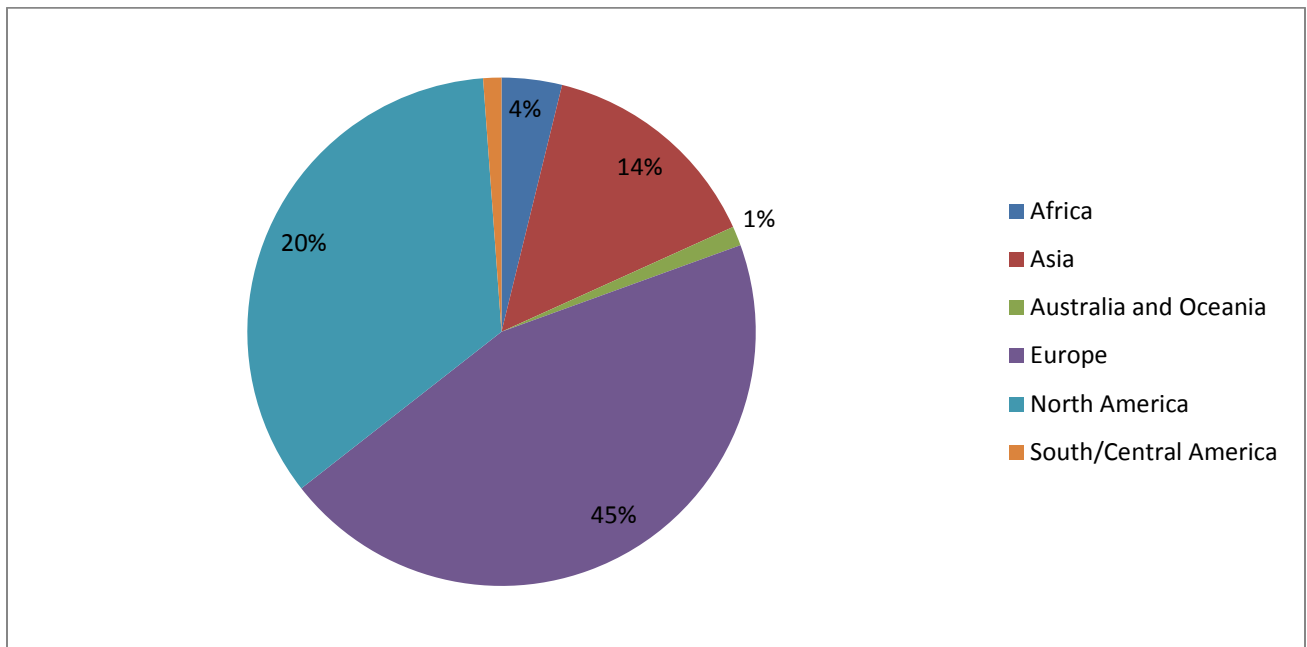


Data from the U.S. Census Bureau

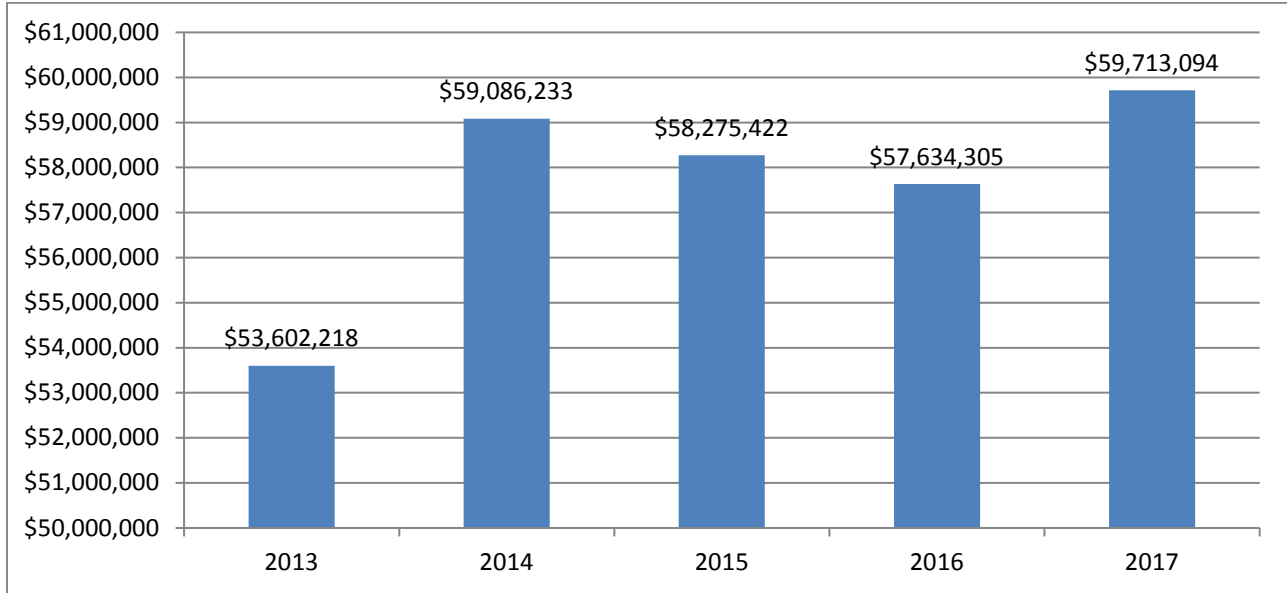
Veneer

Indiana exports of veneer were up 3.6% in 2017 to \$59,713,094. Veneer exports have a more balanced and relatively stable regional mix. Indiana veneer sales are ranked by country in Figure 6 below.

Figure6: Indiana veneer exports to world by region, 2017.



Data from the U.S. Census Bureau
 Figure 7: Indiana Veneer Exports.



Data from the U.S. Census Bureau

Figure 8 Indiana veneer exports by destination and value.

		2013	2014	2015	2016	2017
1	Canada	\$17,573,040	\$19,228,388	\$17,842,402	\$15,788,962	\$19,988,686
2	Spain	3,528,425	4,267,346	4,465,053	6,547,639	6,892,941
3	Germany	5,983,260	7,443,224	6,126,277	6,744,586	4,897,237
4	Portugal	1,249,687	2,309,032	2,265,506	2,568,448	3,380,513
5	China	2,879,549	2,712,509	3,627,961	3,023,389	2,839,379
6	Belgium	838,229	2,314,344	1,509,061	1,411,603	2,535,051
7	Italy	253,035	650,164	736,423	1,207,485	2,066,671
8	Lithuania		82,039	857,744	2,304,666	2,052,758
9	South Africa	2,310,079	1,994,444	2,453,495	3,068,000	1,905,452
10	Malaysia	1,537,324	2,155,090	2,139,317	2,547,792	1,774,613
	World total	\$53,602,218	\$59,086,233	\$58,275,422	\$57,634,305	\$59,713,094

Data from the U.S. Census Bureau

Notes:

- (1) Data from U.S. Census Bureau, Economic Indicators Division. State Exports by HS Commodities for logs (4403), lumber (4407) and veneer (4408).