

THE TIMES THEY ARE A-CHANGIN'



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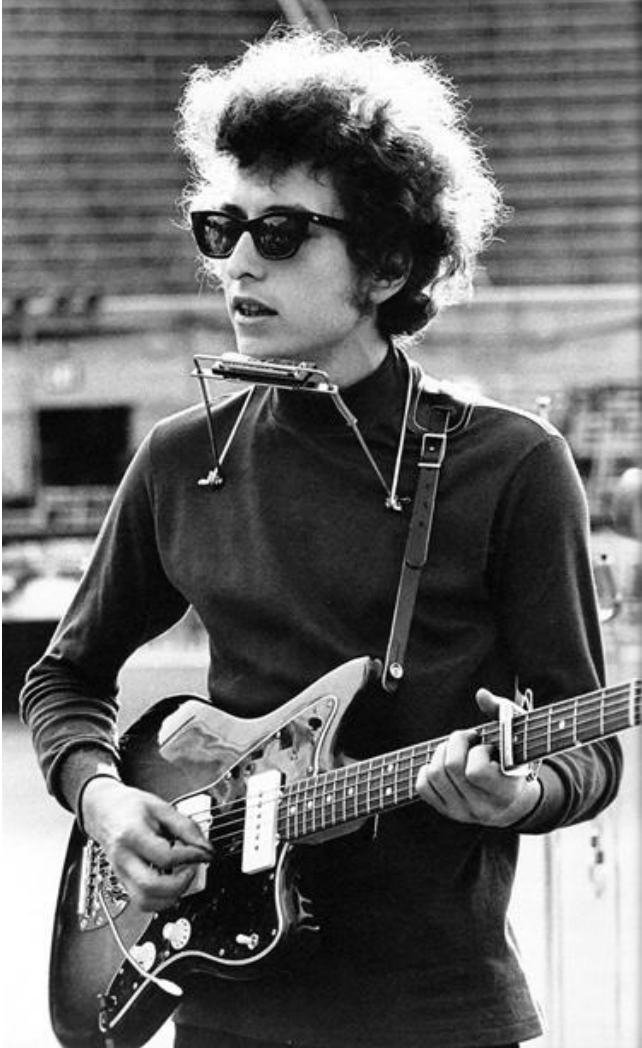
The Times They Are A-changin' Lyrics

By Bob Dylan

Second Verse

Come writers and critics
Who prophesize with your pen
And keep your eyes wide open
The chance won't come again
And don't speak too soon
For the wheel's still in spin
And there's no tellin' who
That it's namin'

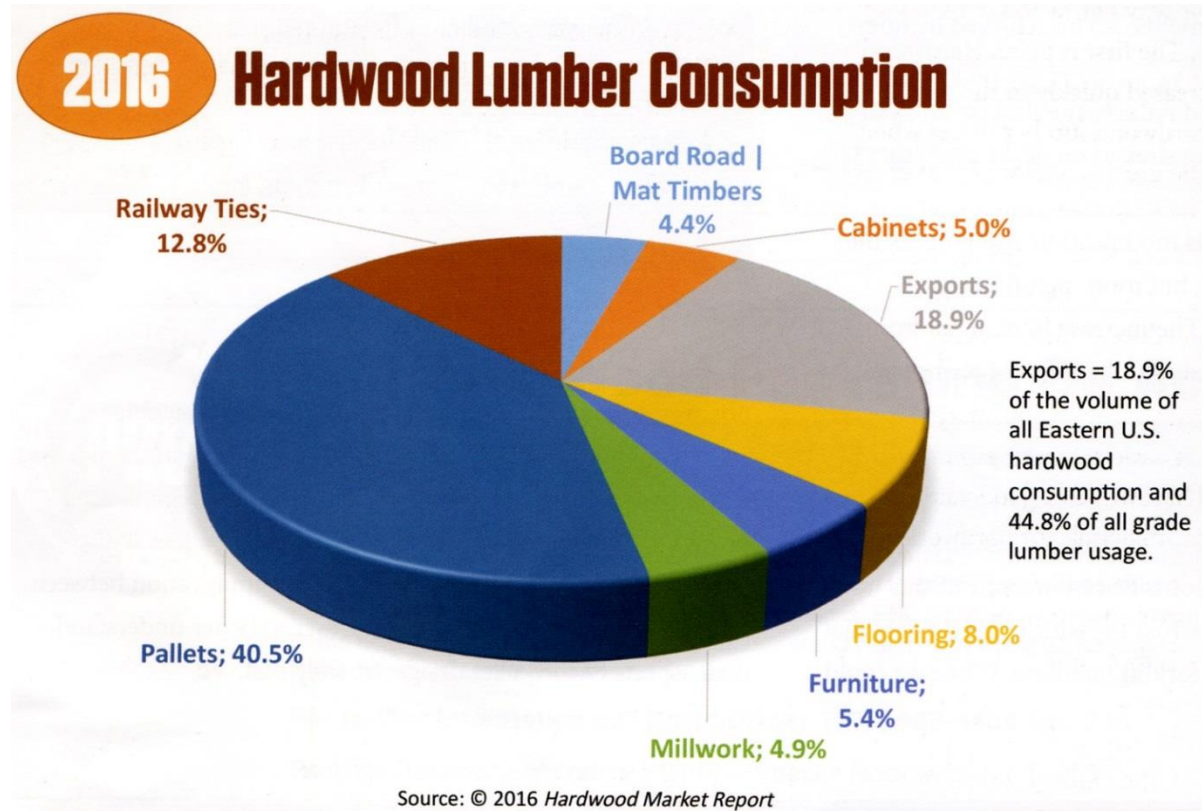
**For the loser now
Will be later to win
For the times they are a-changin'**





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- For years, the hardwood sector has dominated the pallet lumber market in the East.
- Recently, HMR reported that **pallets consume 40.5% of hardwood material** produced in the USA.

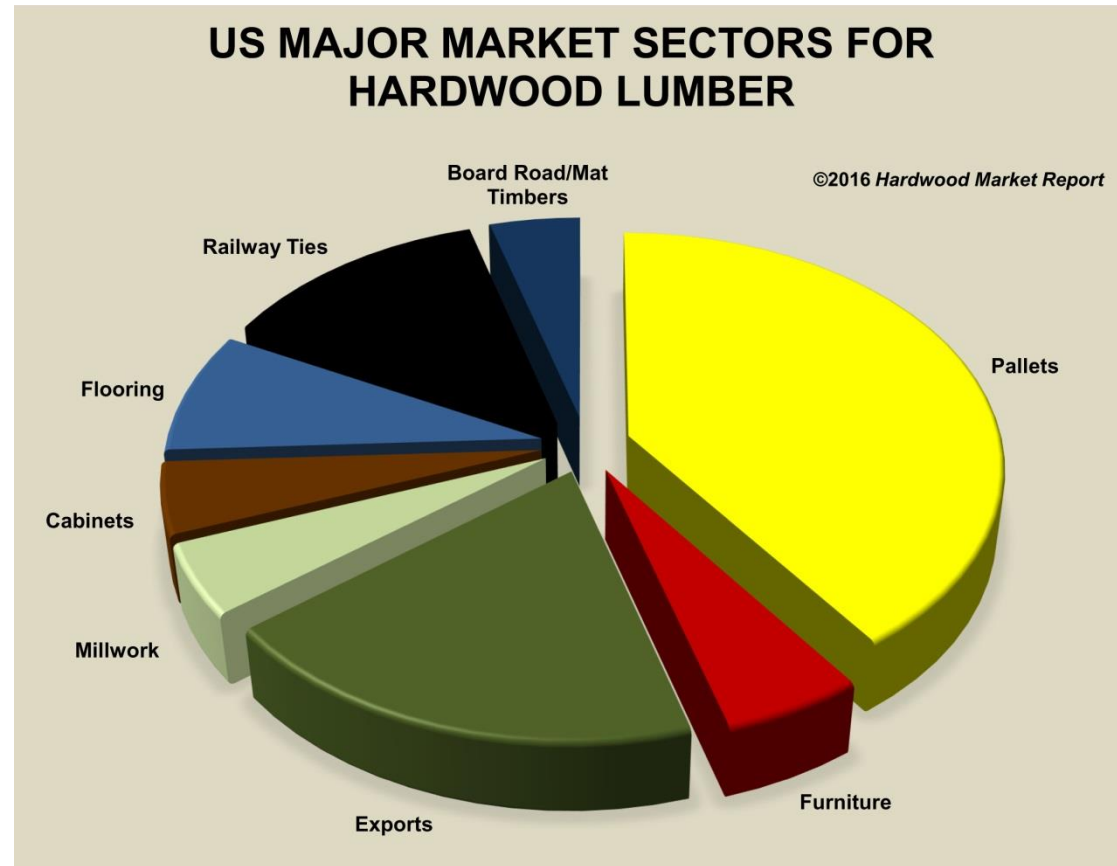




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- Hardwood is plentiful in the region, and producers need low-grade markets to help offset costs and fully utilize material
- Other low-grade markets are not large enough to soak up all the supply
- Sometimes compared to softwood low-grade hardwood markets are fairly stable without wild price swings

Why has hardwood so dominated the pallet sector in the East?

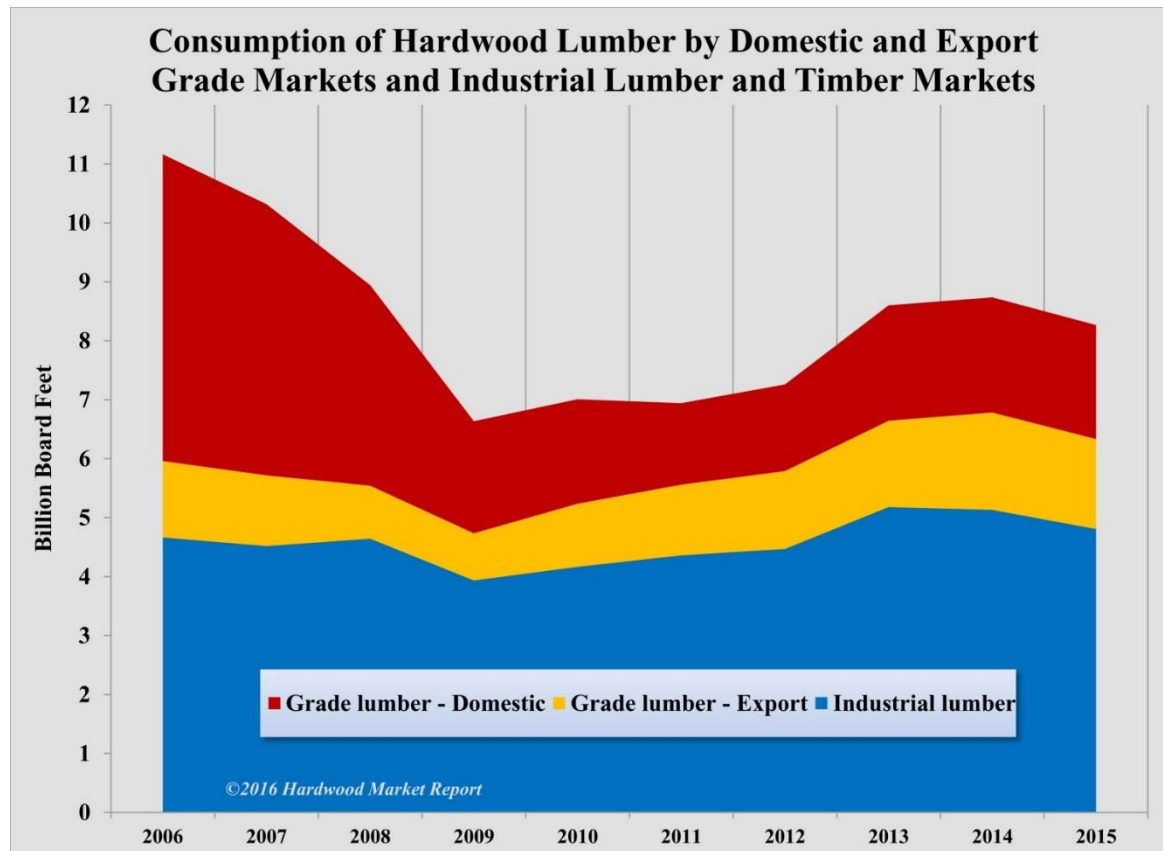




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- Hardwood lumber is strong and durable
- Longstanding relationships between hardwood producers and pallet markets
- Many pallet companies are setup to process hardwood cants
- **But the times they are a changing....**

Why has hardwood so dominated the pallet sector in the East?





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Are Hardwoods Better for Pallets ?

- PDS™ and Best Load™ software have demonstrated that **softwood can perform as well as hardwood**.
- Not all lumber species act the same, some hardwood species are denser and thereby stronger than some softwood species.
- The short answer for the above question is not necessarily. But many pallet buyers used to specify hardwood for pallets.
- Key factors in pallet performance: **wood moisture content**, species, lumber quality, construction process, nails and design.



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Hardwood = Strong = Good for Pallets
Softwood = Weak = Bad for Pallets

For years, pallet buyers had a **big mental block** against **softwood pallets**. But....



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The Big Switch – 2013/2014 to Today!

- Unprecedented demand for low-grade hardwood in 2013-2014
- Left industrial users scrambling to find material
- Pallet guys are low-man on the totem pole when it comes to buying power
- **Pallet providers convinced many customers to try softwood as a substitute**
- Some customers went kicking and screaming because they were concerned about the strength of softwood





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Try It – You might like it!

- Pallet customers found that in most cases softwood, especially SYP, was strong enough to work well.
- Many pallet customers are not concerned about the long-term durability of a pallet. They just want it to survive the first trip.
- Softwood supply is plentiful – SYP plantations

Let's
TRY IT!



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Try It – You might like it!

- **Kiln-dried softwood solved the mold dilemma** for many pallet suppliers and customers
- Softwood has a cleaner, lighter appearance that customers like
- Softwood can be KD and easier to use for **export certified pallets**
- Softwood can be competitive from a cost perspective
- **Pallet users customers have gotten over the mental block to softwood**





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“We used to be 70% hardwood in our new pallet production. After supply became an issue a few years ago, we have **transitioned to almost 70% softwoods, and customers like it.**”

– *Major pallet producer in the Southeast*

“For years we ran almost exclusively hardwoods, but **mold concerns**, changes in supply and customer acceptance has led to us switching mostly to pine.”

– *One of the largest new pallet companies in Texas*





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Why Hardwoods Can Prevail?

- Existing supply network and long-standing relationships
- Lower prices and more market stability compared to sometimes erratic softwood movements
- Greater availability in some regions
- Impact of SLA and tariffs on Canadian softwood imports
- Find solution to moisture content concern and mold
- Offer better sizing, drier material or quality for the money





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Pallet User Statistics

- **Wood pallets are still the clear favorite** for shipping and material handling. 96% market usage, up 5% compared to last year.
- Only 37% use plastic, 15% use composite and 5% use metal.
- Key purchase criteria: purchase price (61%), strength (56%), durability (54%), reusability (44%).
- **65% prefer recycled pallets** – mainly due to price

What are the most important factors in your decisions to use a certain type of pallet?



Source: Peerless Research Group (PRG)



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Pallet User Statistics

- 46% are using the same number of wood pallets as a year ago while 42% are using more, and 12% are using fewer wood pallets than last year. Thirty-five percent reported no supply issues, 31% said fewer pallets are available and that used pallets are in short supply.
- Twenty-seven percent complained that wood pallet quality is “not as good” or “worse,” and 18% reported they were paying higher prices for wood pallets.



(Source: Peerless Media Group 2016)



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Key Issues to Watch in the Pallet Industry

- **More automation** in pallet operations due to labor shortage, pallet companies will demand higher quality lumber as much as possible.
- Pallet demand continues to rise, many pallet companies have had good years over the past 1-2 years.
- **Alder market in West Coast is drying up**, this could lead to some in the West looking to hardwood from the Midwest to meet demand.
- **Growth in non 48x40 markets**
- More JIT orders, continued pressure to lean supply chain
- **Customer concerns about sanitation and mold and wood stain**





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Other Industrial Markets – Crossties/Railroads

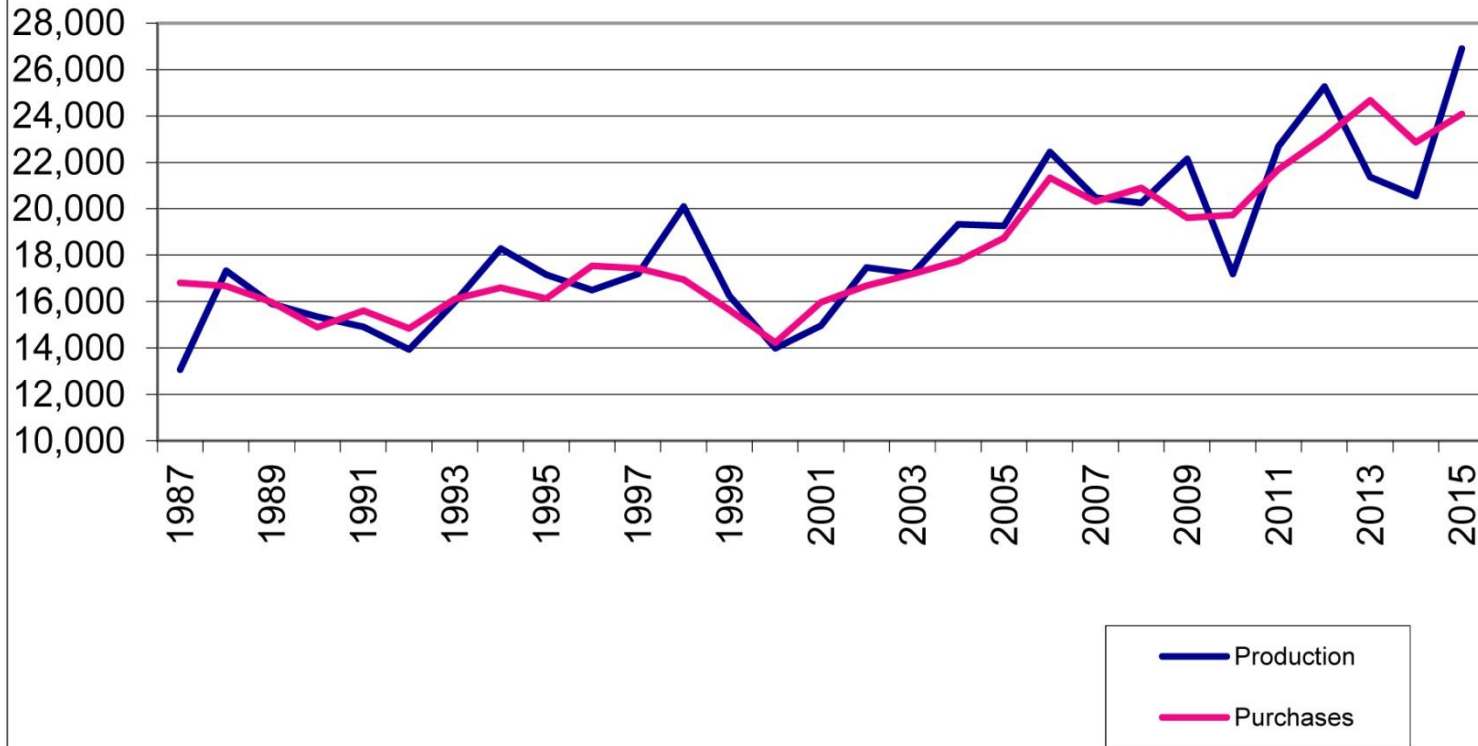
- Major industries affecting rail are down, especially coal and oil. Key sectors to watch: chemical, intermodal shipments, grain, forest products, ethanol, anything that is big and bulky can impact rail capacity.
- Tie demand is flat or down a bit. Tie buyers are starting to cut back on what they are paying.
- Railroads are not implementing quotas yet. But that could come in the future.
- Production is still going on a slight upward pace and producers are building inventories.





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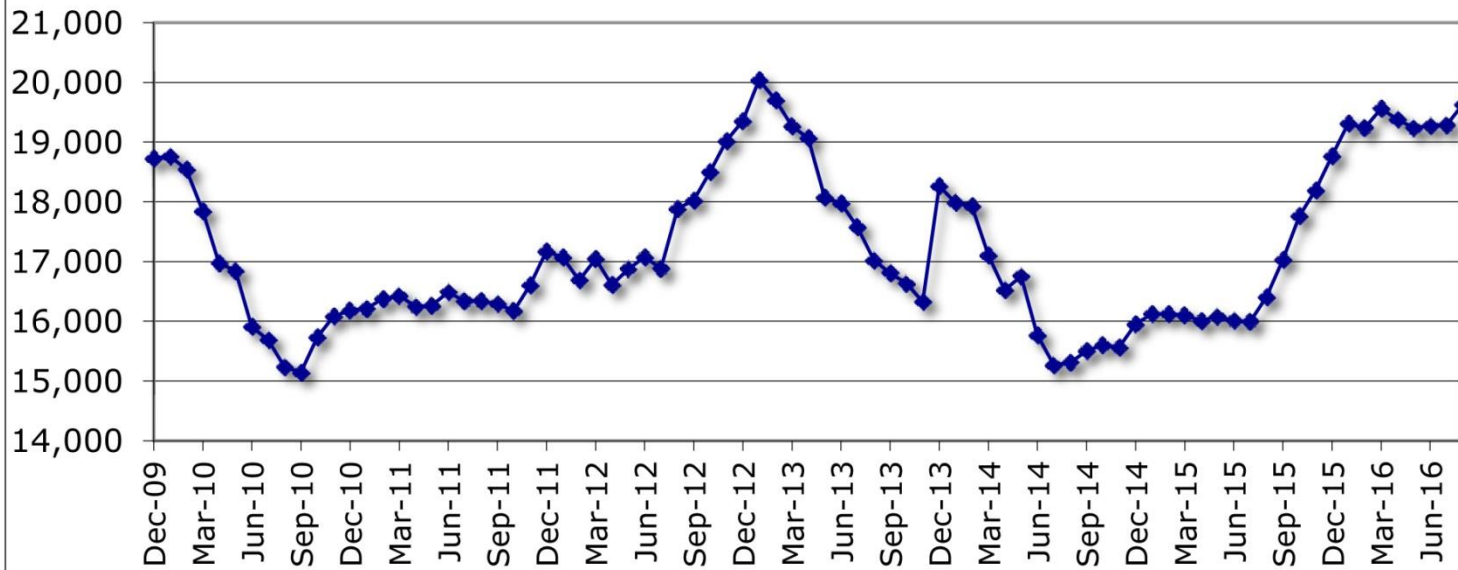
Calendar Year: Wood Crossties (thousands)





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Tie Inventories (000)

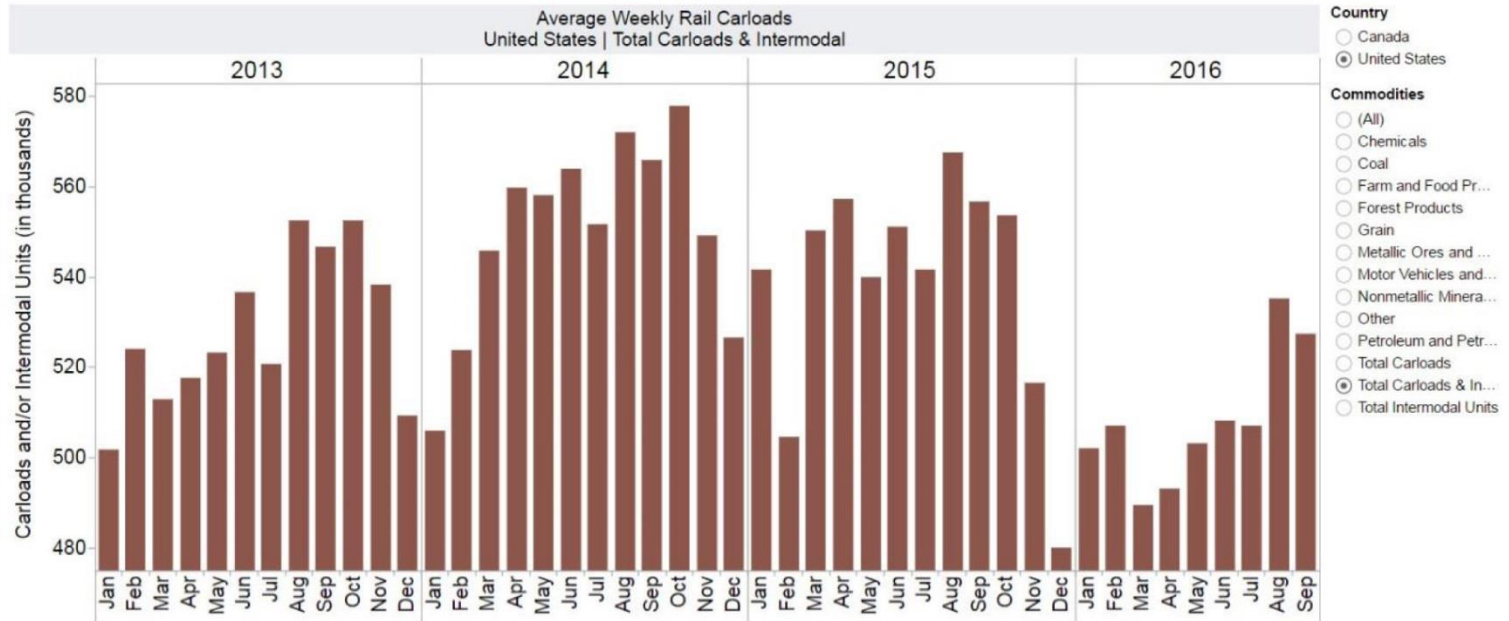




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MONTHLY RAIL TRAFFIC DATA

SHARE



*Canada - Figures for Canada include the U.S. operations of Canadian railroads.
**United States - Figures for the U.S. excludes the U.S. operations for Canadian railroads.

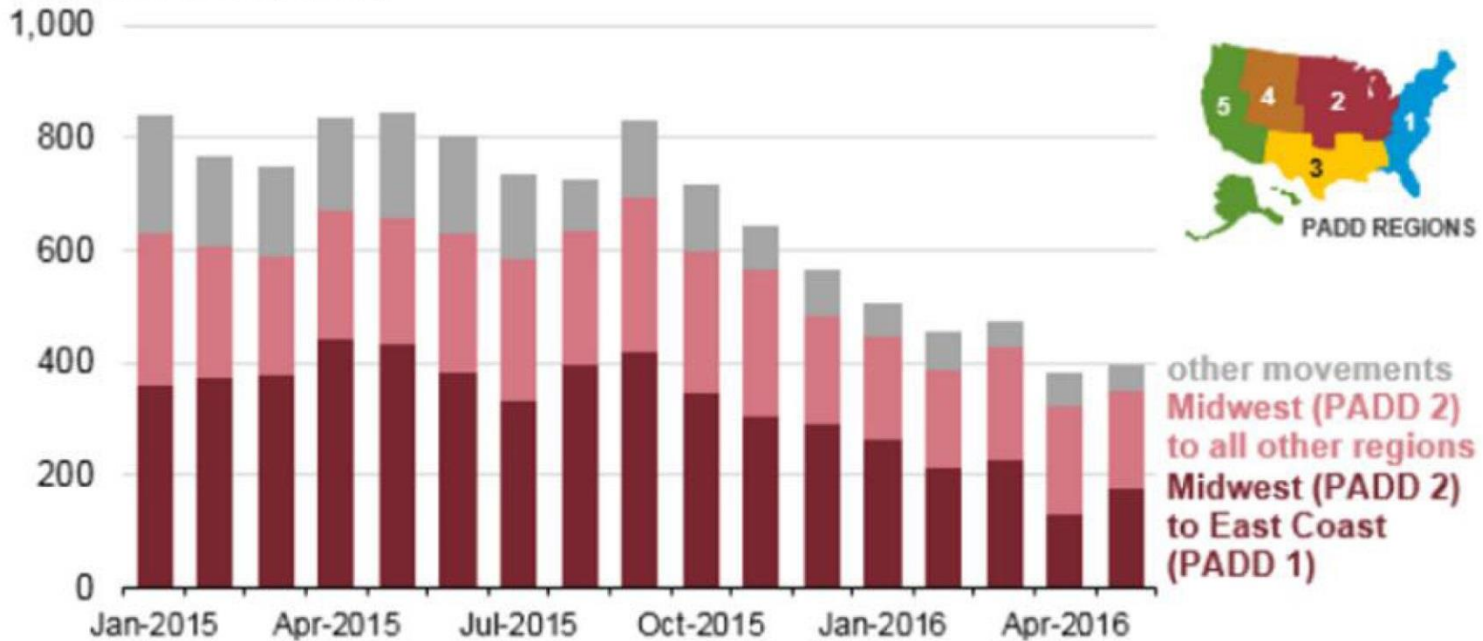




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Crude oil movements by rail (Jan 2015 - May 2016)
thousand barrels per day





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Big Takeaways

- Low-grade hardwood % usage from pallet industry is not likely to return to the heyday before the Big Transition. It all depends on price and product.
- Softwood is here to stay, and the **hardwood sector is going to have to get their pencil sharp and be more competitive.**
- Used pallet cores were almost impossible to find and now are everywhere in some markets – defies explanation. Used availability affects new pallet demand.





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Big Takeaways

- Demand for pallets is still growing, but **primary area of growth is in specialty sizes not the 48x40 market.**
- Other industrial markets are down, will see over supply for foreseeable future. A lot of this is tied to what the railroads and oil and gas sector does.
- One curious area – use of wood fiber to produce all sorts of products. From specialty fibers competing against plastics to building materials competing against steel and concrete, **hardwood may find nanotechnology and other less traditional applications as an important market in decades.**





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Questions?



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