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PNW Wood Markets: *A Closer Look at our Domestic and Export Timber Economies*

Timber Measurements Society

Central Meeting

April 7, 2016

Coeur d' Alene, Idaho

Today's Topics

- US housing and the forest industry
- The future for building with wood
- “Softwood Lumber Agreement”
- US regional production trends
- The Log Export business
- Canadian lumber production
- Conclusion and some predictions

About Forest2Market

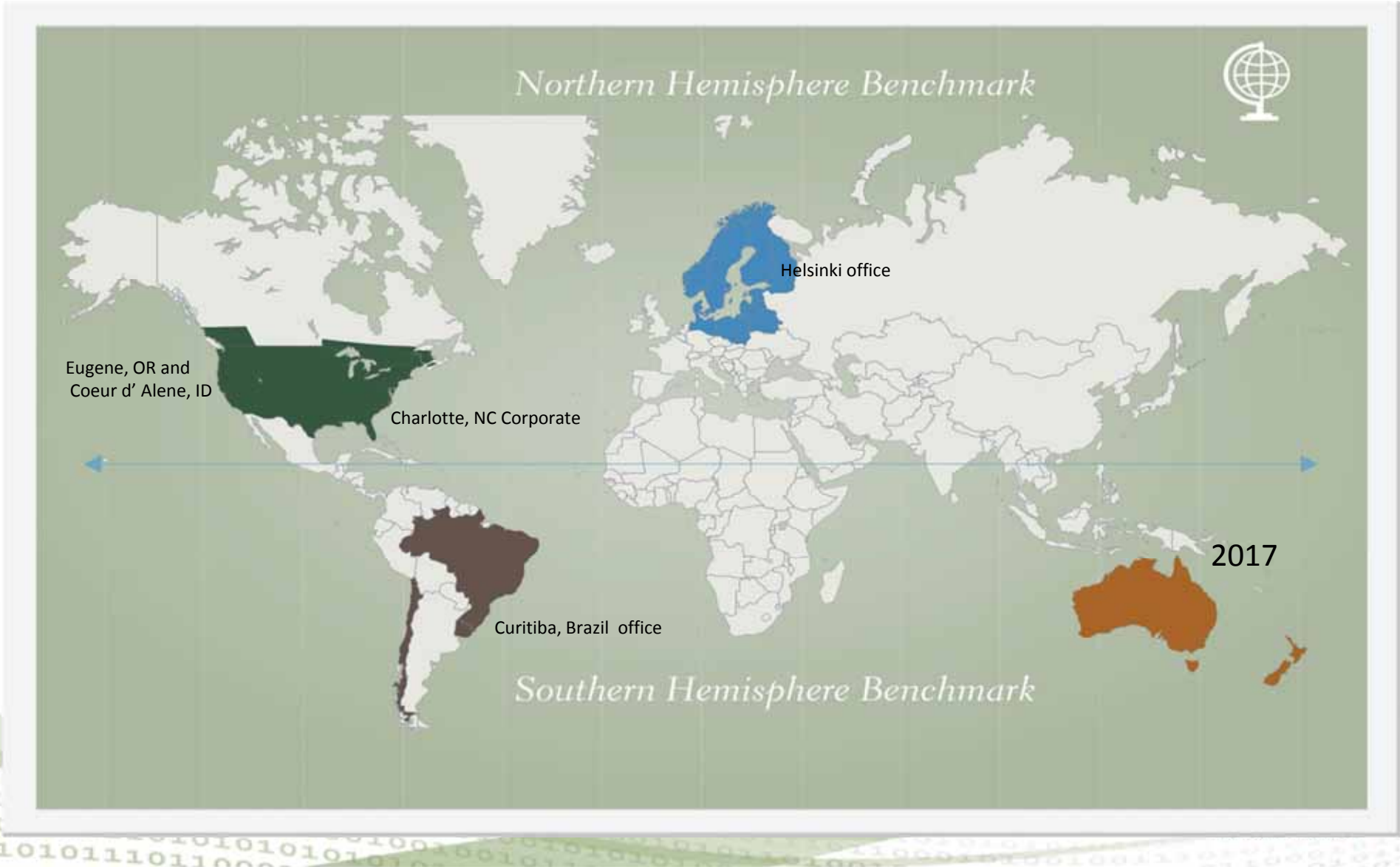
Forest2Market serves industries that consume wood raw materials.

- Wood products, pulp and paper products and lumber manufacturers
- Bioenergy, biofuels and biochemical producers



These industries rely on Forest2Market's market price reports, performance benchmarks, resource studies and supply chain expertise to make high value decisions and measure the results.

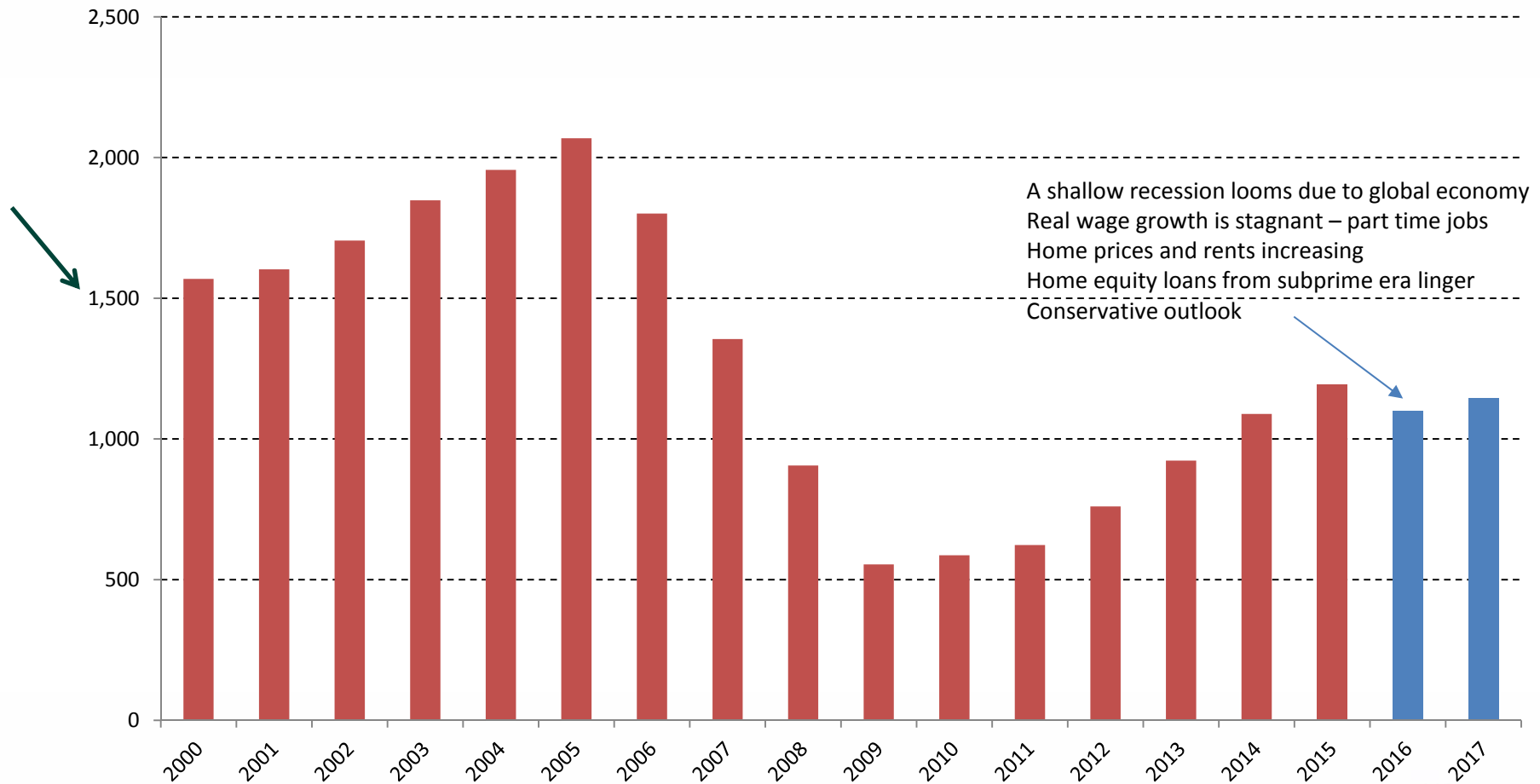
Forest2Market - Worldwide



Building with wood in the US



US housing drives NA production



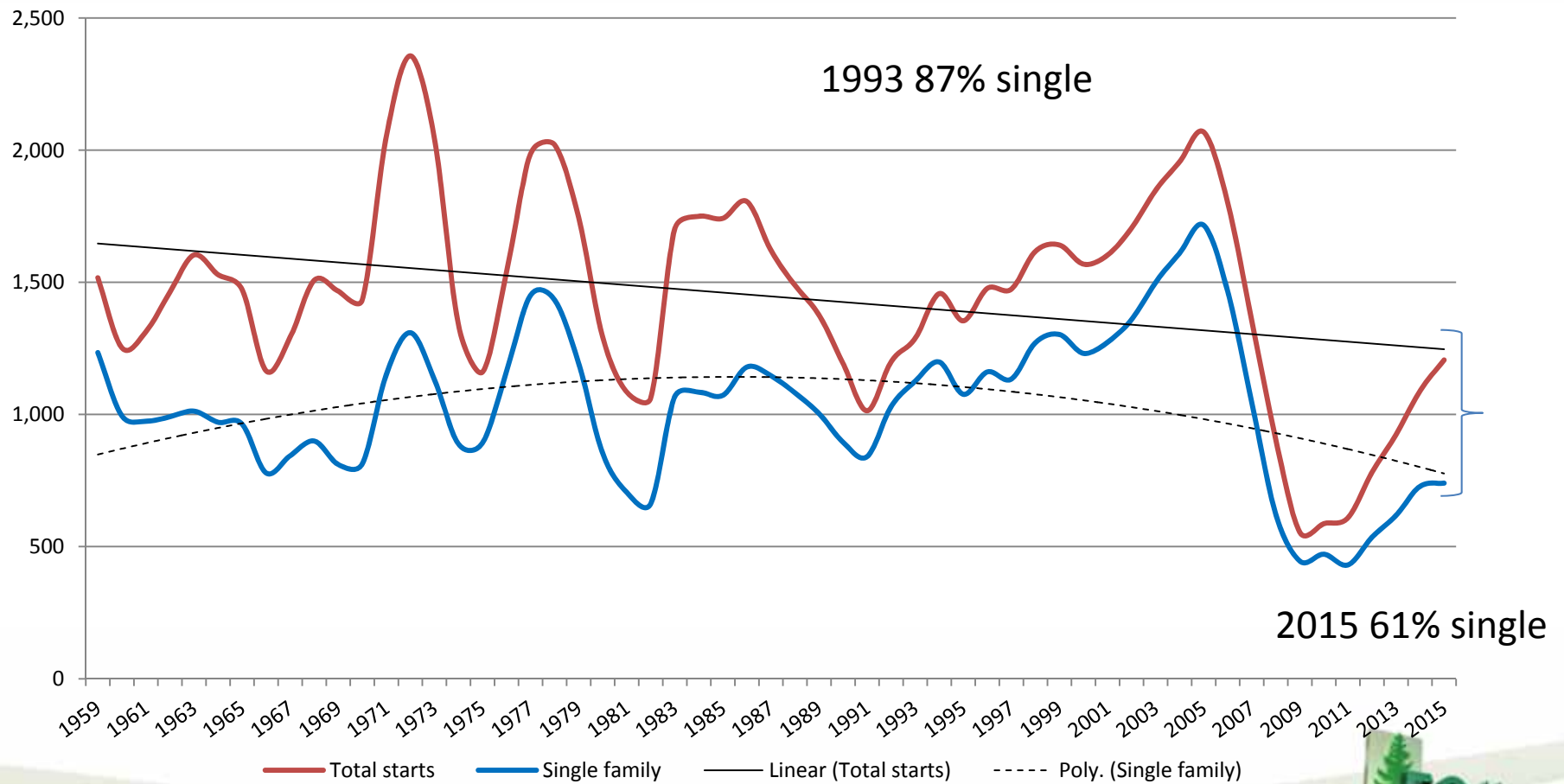
Source: US Census & Forest2Market

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Changing demographics of housing



Source: US Census

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New horizons building with wood

Framework, a twelve story retail, office and housing project using cross-laminated timber (CLT) and other engineered wood products to be constructed in Portland, Oregon

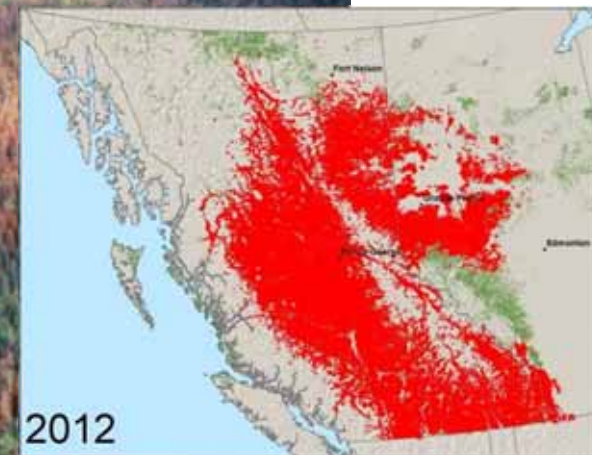


Courtesy of Edelman Public Relations
Framework, a 12-story Portland project, shared a \$3 million USDA tall wooden building design prize. It will be built using cross-laminated timbers.

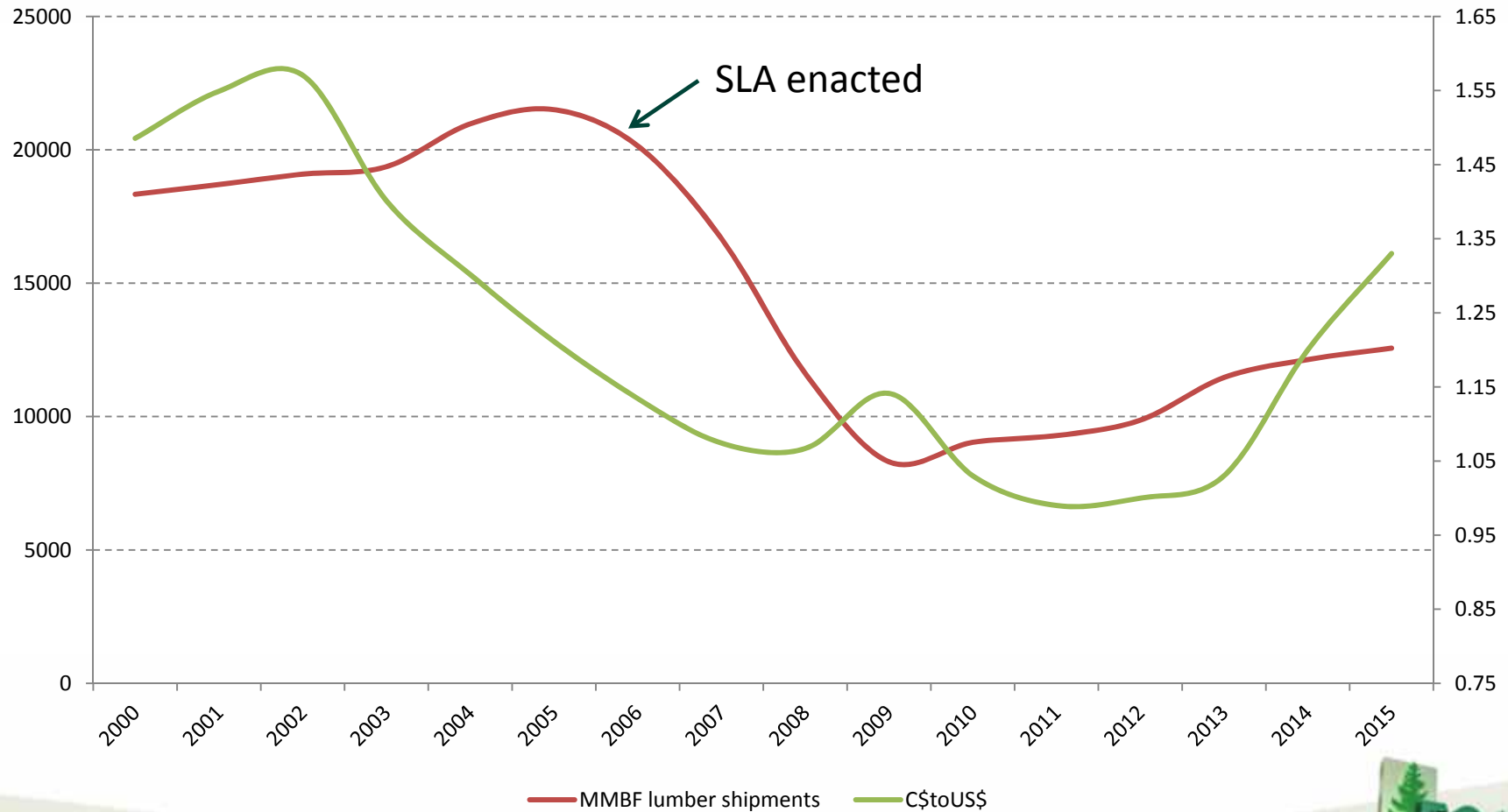
**Wooden high-rise
in Portland shares
\$3 million USDA
design prize**



BC Forest Industry



B.C. softwood lumber imports to US



Source: WWPA & Bank of Canada

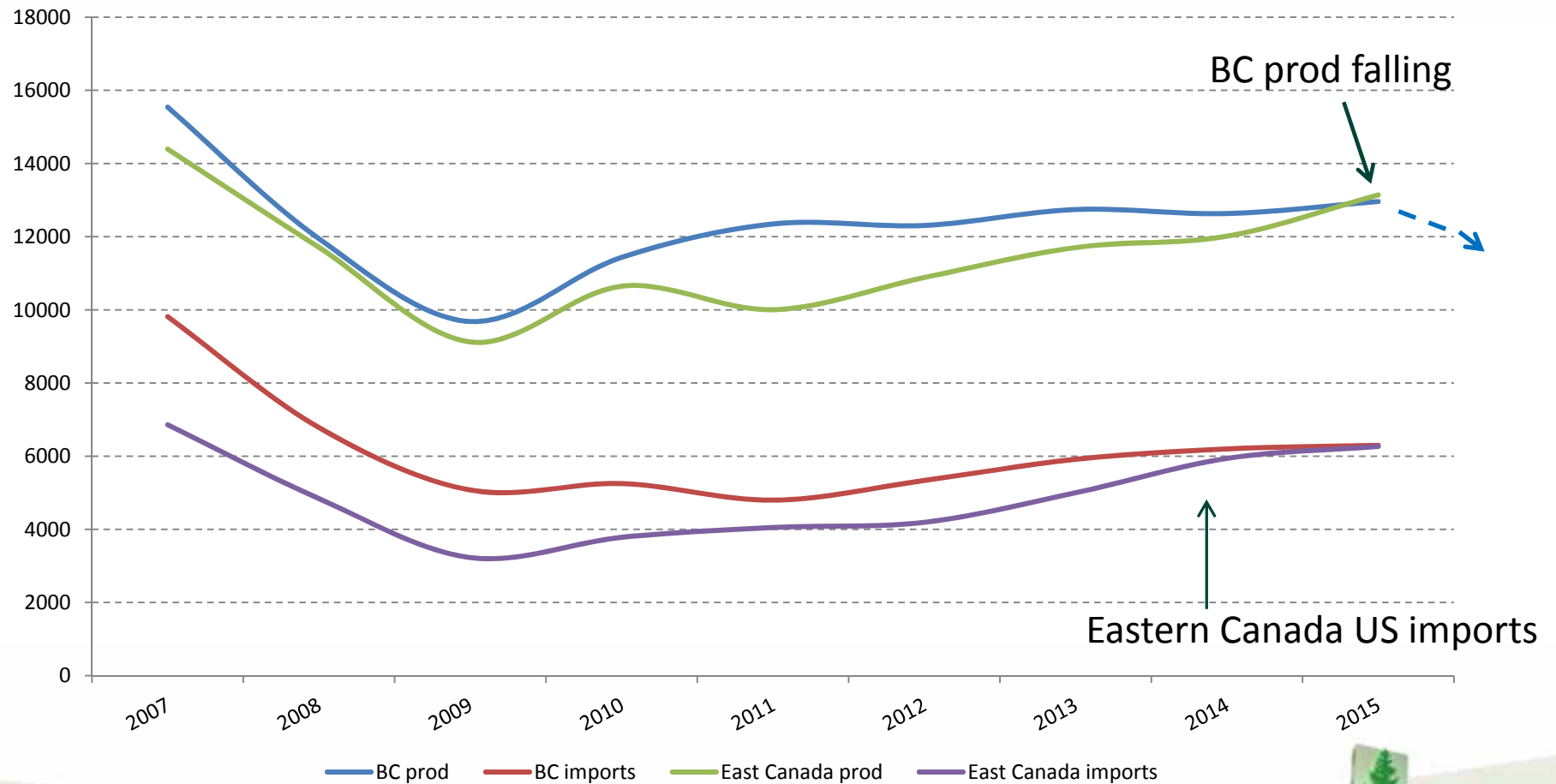
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Canadian lumber production has peaked

Billion board feet



Source: WWPA

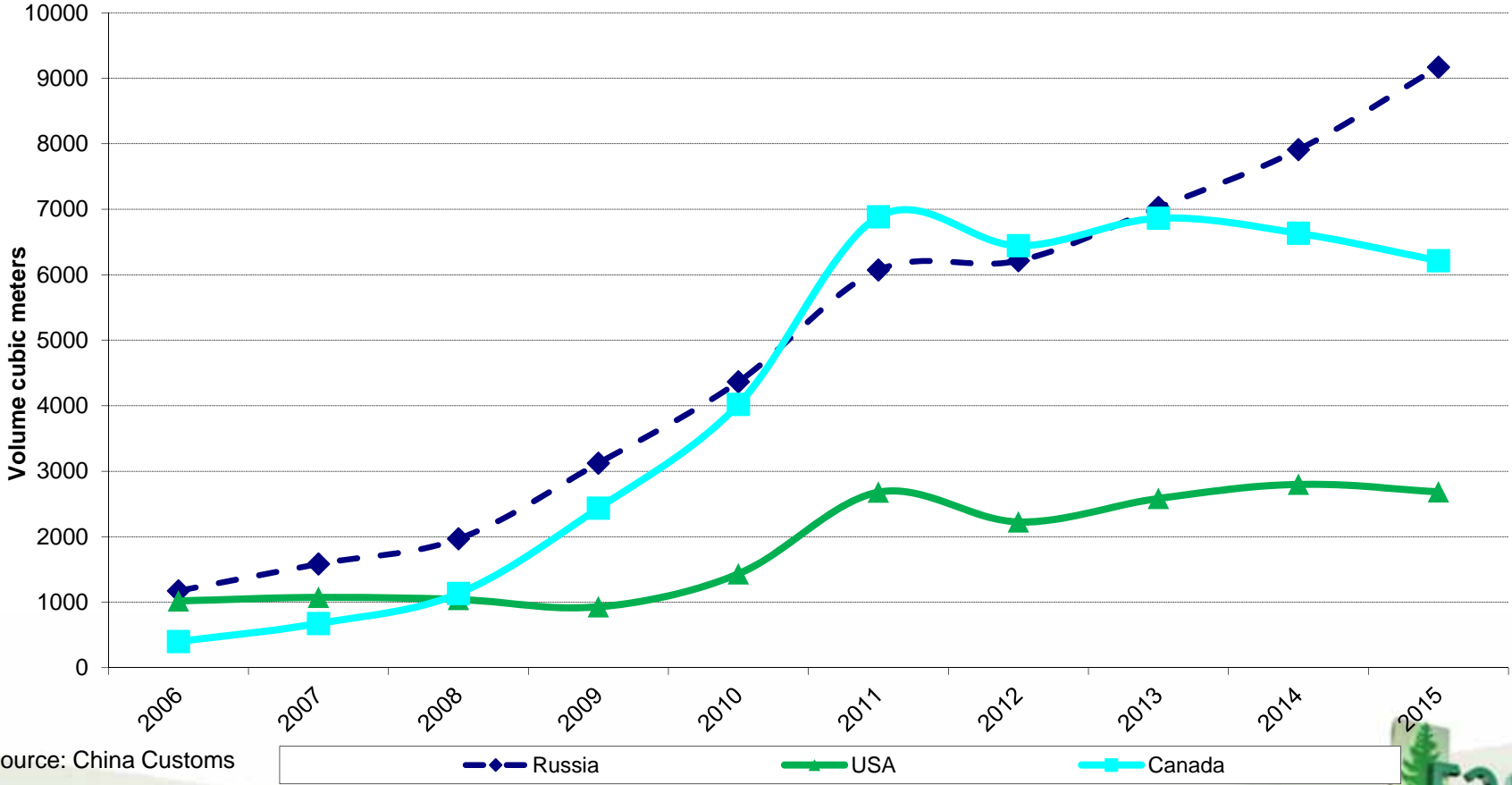
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Slow Chinese demand = increased US domestic supply

China lumber imports by selected country



Source: China Customs



Softwood lumber agreement

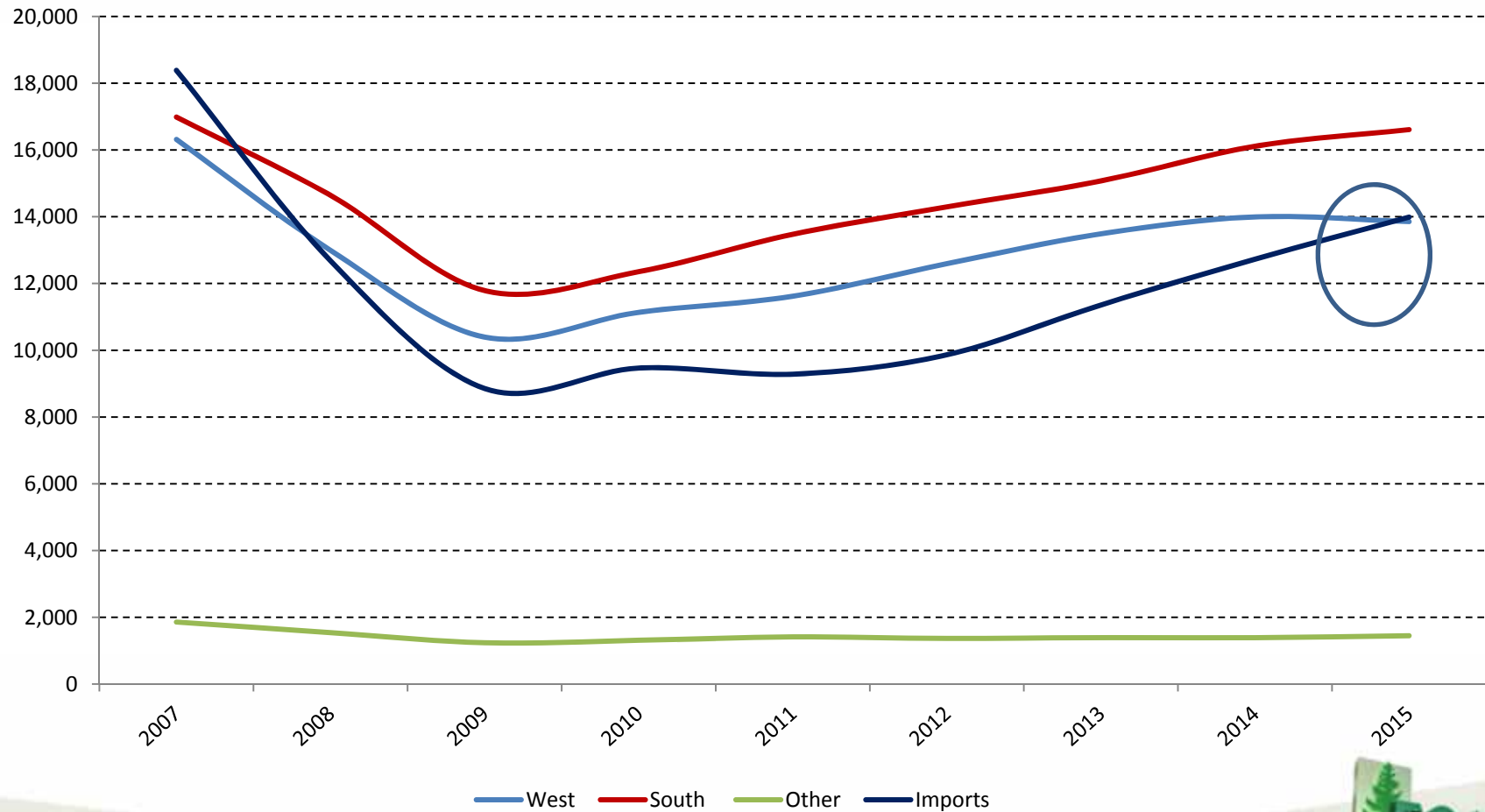
- Adopted in 2006; resulting from a disagreement over whether Canadian stumpage pricing process constituted an unfair subsidy that disadvantaged the US lumber industry
- SLA expired in October 2015
- What has changed? Mountain pine beetle infestation in BC, Canadian producers supply China's demand for wood products, Canadian industry now owns a large stake in US lumber production
- Strong US \$ makes Canadian lumber imports attractive
- As demand from China falls, US producers have been concerned about a "wall of wood" from across the border
- Canadian producers see new trade restrictions as an unnecessary intrusion on free trade, an effort to prop up values of US private forests and fear further duties could be retro-active
- Negotiations began with PM Trudeau's White House visit last month

US industry outlook



Source of US Softwood Lumber

Billion board feet



Source: WWPA

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Key Economic Indicators

Table 4. Performance Overview of Selected Industries in February 2016 (Source: ISM)

| Categories | Manufacturing | | | Services | | | |
|--------------------------|---------------|---------------|----------------|----------|-------------|--------------|----------------|
| | Index | Wood Products | Paper Products | Index | Real Estate | Construction | Ag. & Forestry |
| New Orders | ◀▶ | △ | ▽ | ▲ | ◀▶ | △ | △ |
| Production | ▲ | △ | ▽ | | | | |
| Employment | ▼ | ◀▶ | △ | ▼ | ◀▶ | ◀▶ | ◀▶ |
| Slow Supplier Deliveries | ▲ | ◀▶ | ◀▶ | ▲ | △ | ◀▶ | ▽ |
| Inventories | ▼ | △ | △ | ▲ | △ | △ | ◀▶ |
| Customers' Inventories | ▼ | ◀▶ | ◀▶ | | | | |
| Prices | ▼ | ◀▶ | ▽ | ▼ | ◀▶ | ▽ | ▽ |
| Backlog of Orders | ▼ | ◀▶ | ▽ | ◀▶ | △ | △ | ◀▶ |
| Exports | ▼ | ◀▶ | ▽ | ▲ | ◀▶ | △ | △ |
| Imports | ▼ | ◀▶ | ▽ | ▲ | ◀▶ | ◀▶ | △ |

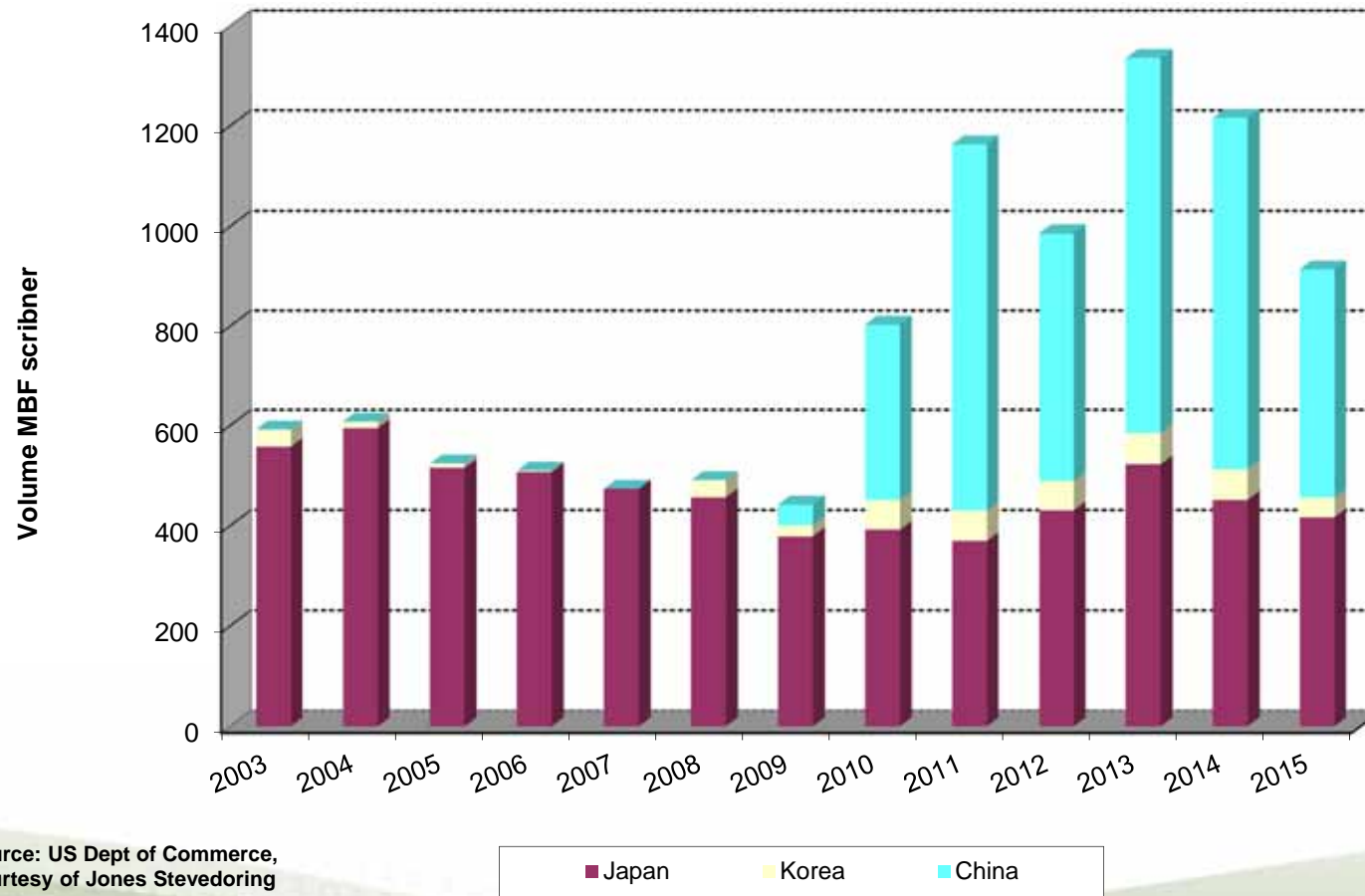
- ▲ Growing at a faster rate
- ▲ Growing at a slower rate
- ◀▶ No change
- ▼ Contracting/Slowing at a slower rate
- ▼ Contracting/Slowing at a faster rate
- △ Increase
- ◀▶ No change
- ▽ Decrease

US Pacific Northwest



US log exports to Asia drop 25% in 2015

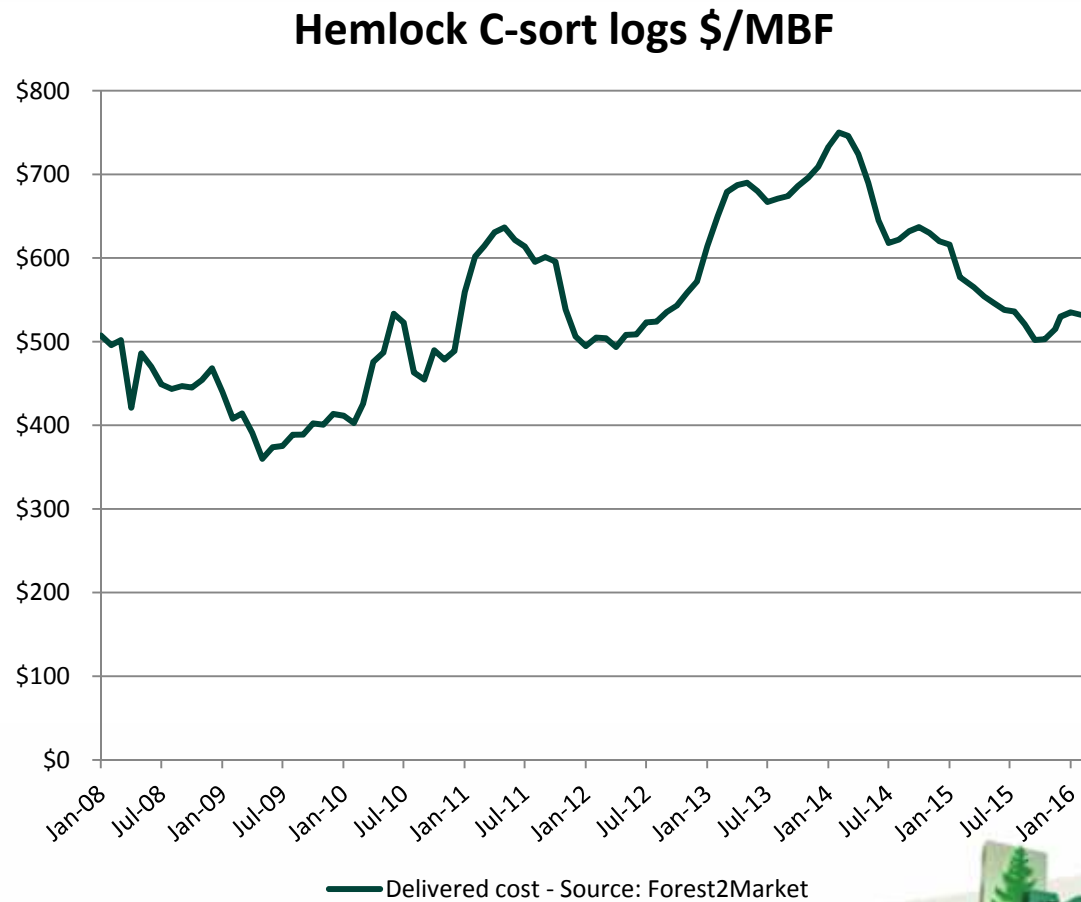
Northwest Log Exports to Asia - Breakbulk Volume



Source: US Dept of Commerce, courtesy of Jones Stevedoring

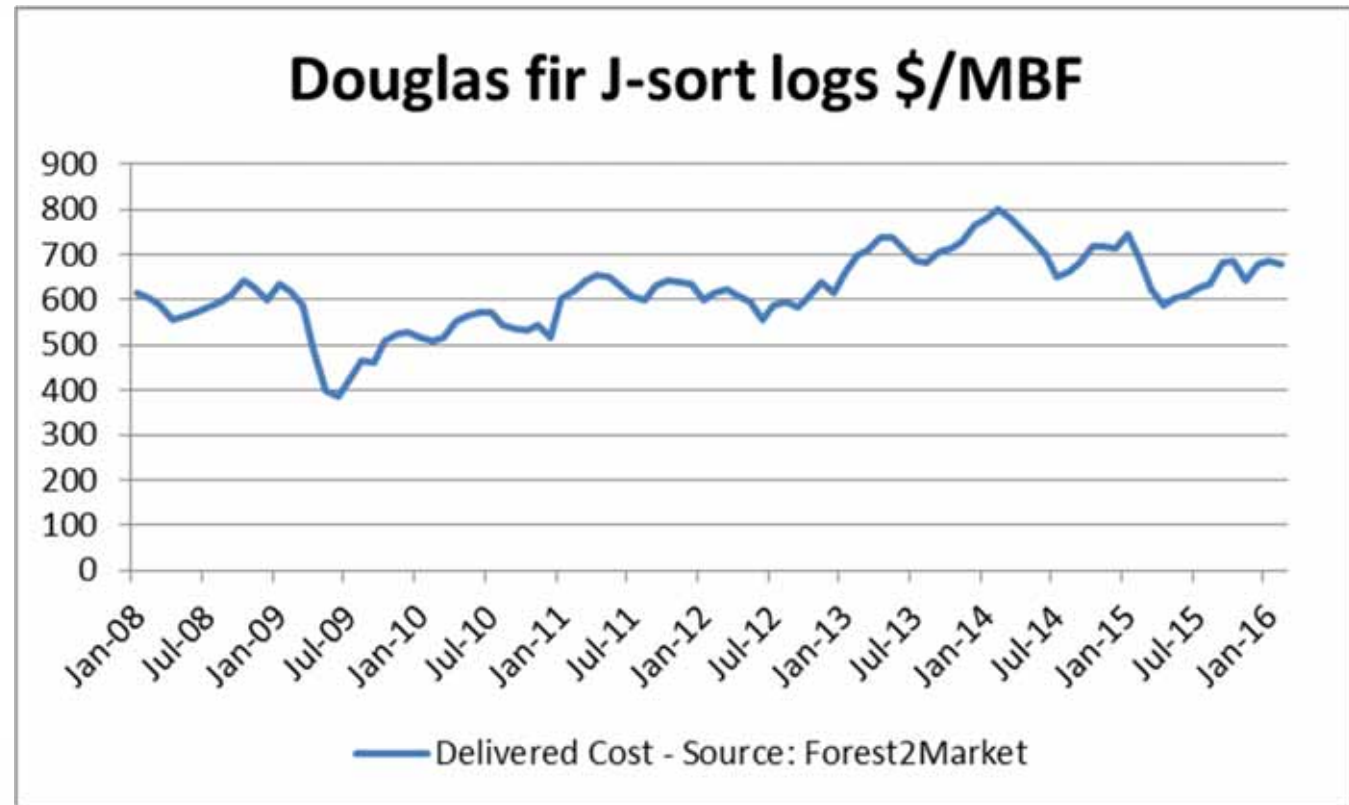
Hemlock logs to China

- Chinas economy continues to decelerate while seeking stability
- GDP is slowing, credit risk is stabilizing
- US Logs outpriced due to USD, devalued Yuan, softened building effort due to structural oversupply
- Property is still viewed as a favorable investment



Douglas Fir Exports to Japan

- DF retains its market share due to its value as a coveted building material
- Strong Yen spurs spending before upcoming tax increase
- Japanese housing starts just under 1MM
- Tenuous times amidst market turbulence

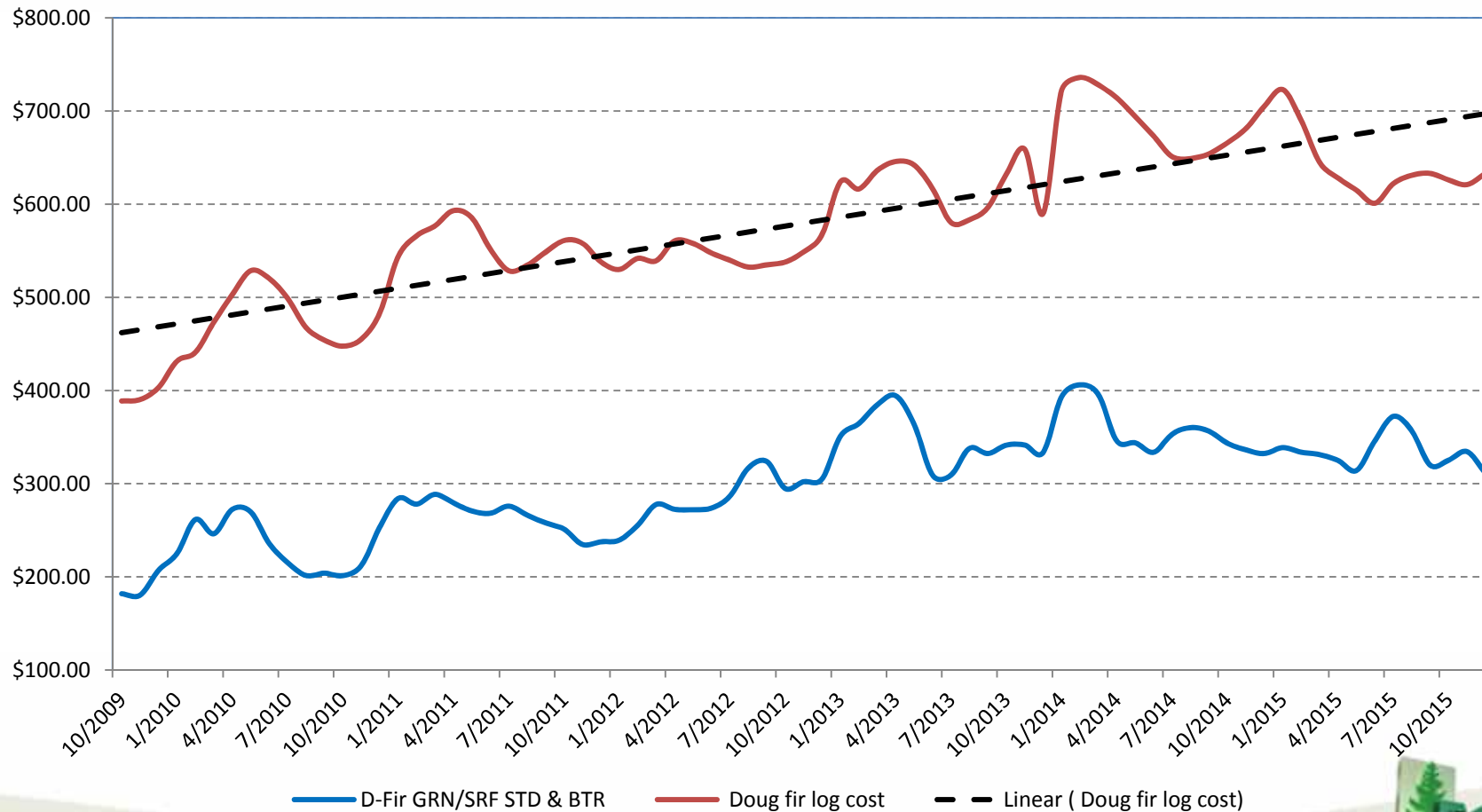


Domestic Production



Pacific Northwest industry margin

The northwest is timber supply constrained and volatile

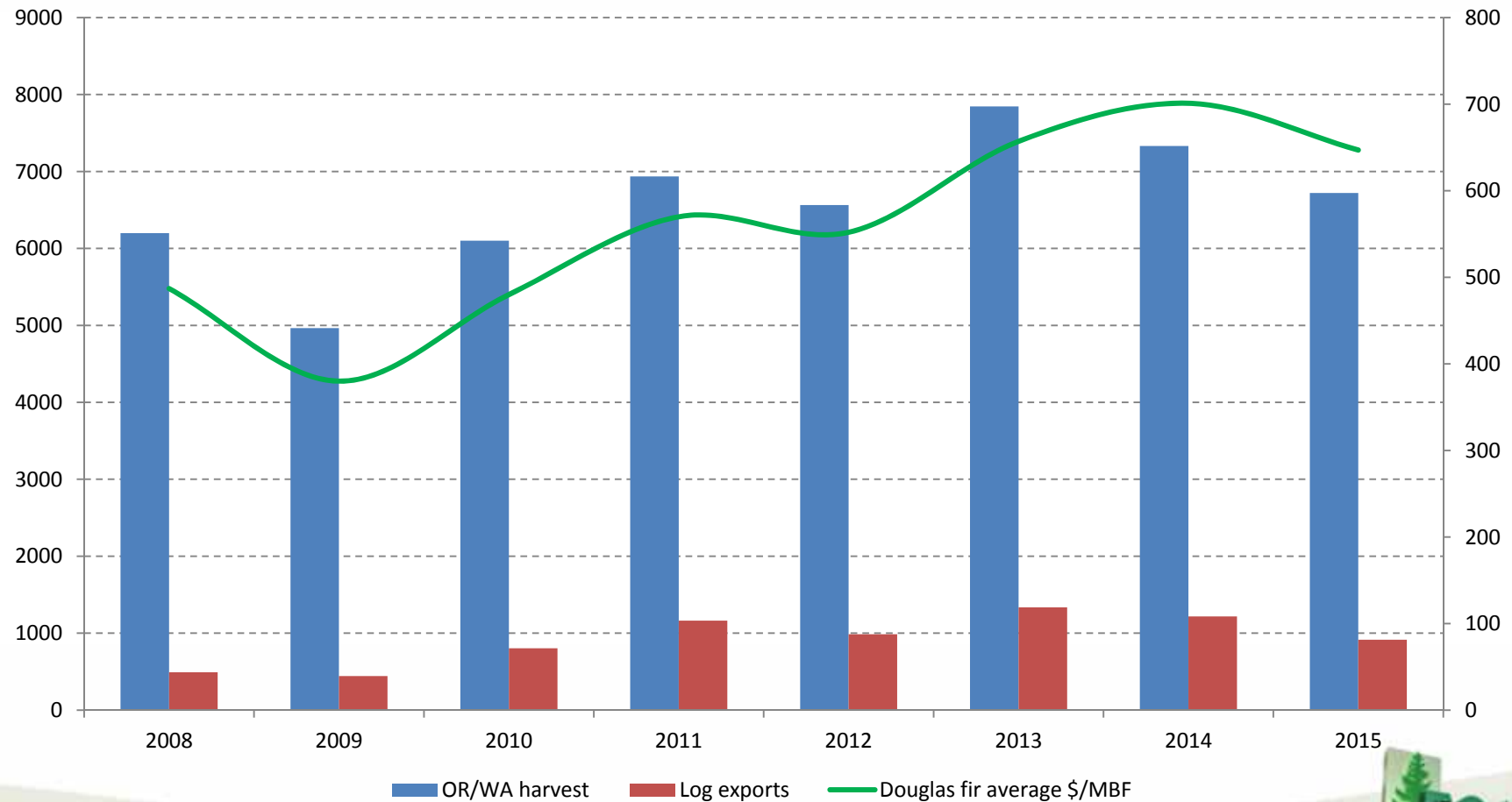


Source: Forest2Market and WWPA



Oregon – Washington harvest and log value

Billion board feet and \$ / MBF



Sources: Jones Stevedoring, Forest2Market, State Stats

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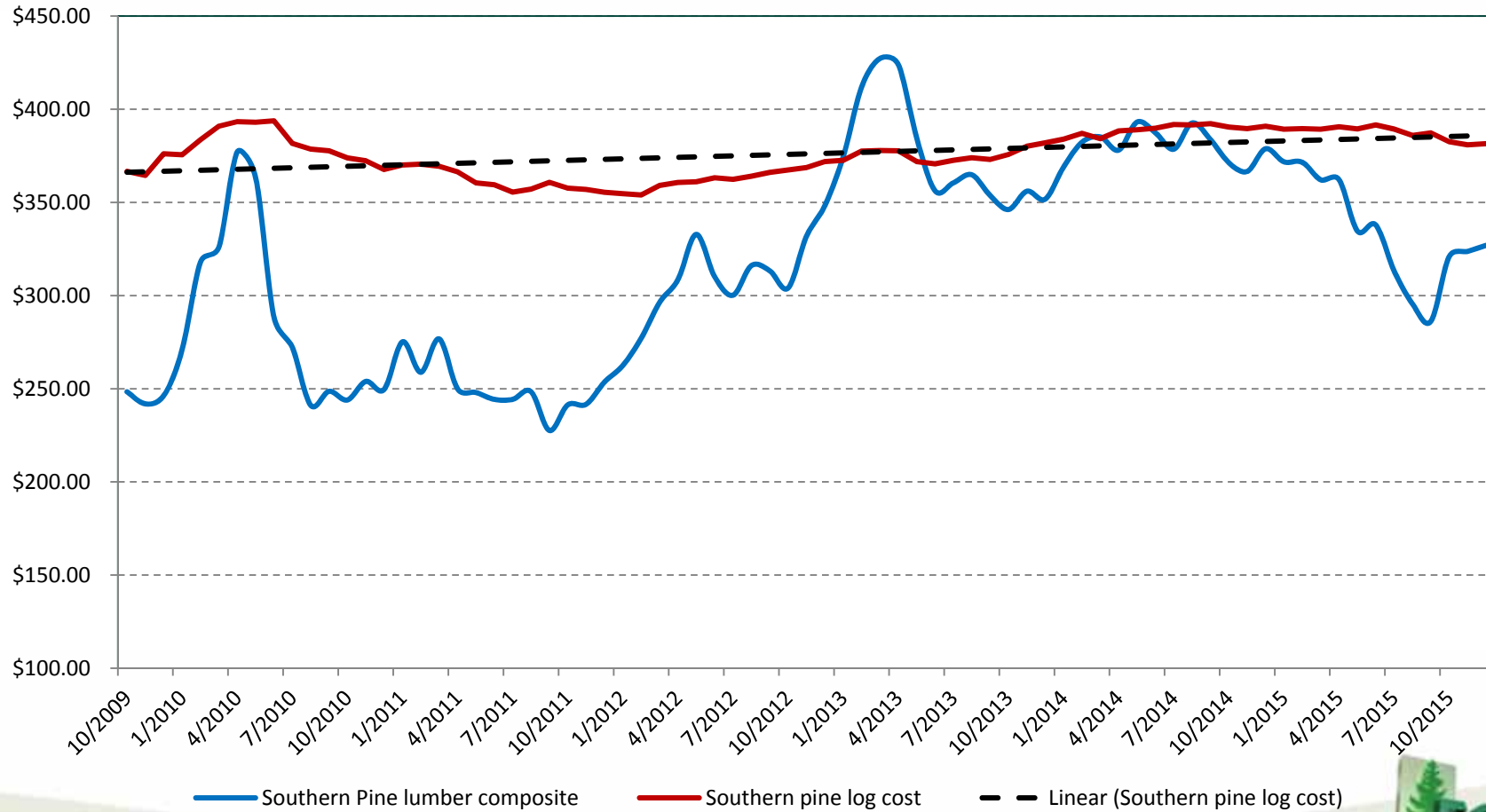


US Southern Pine



Southern Pine industry margin

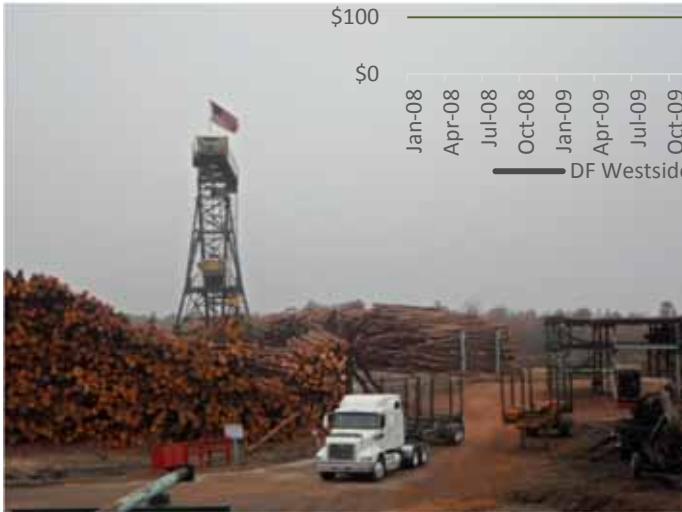
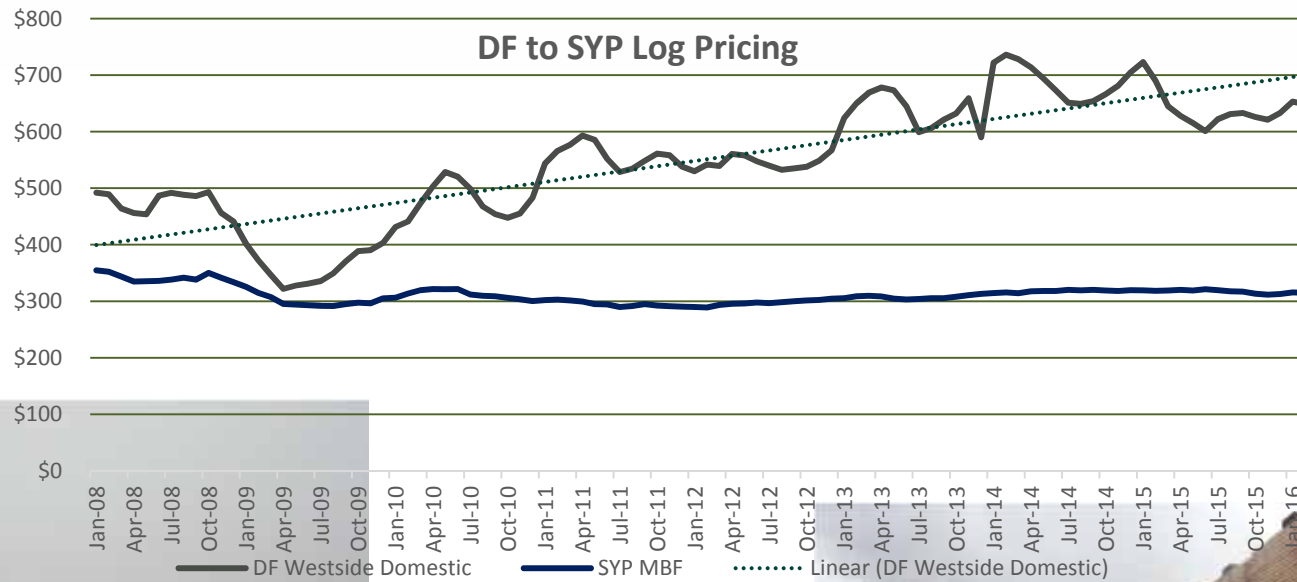
Log supply is abundant, growing and accessible



Southern Forestry and Agriculture



Canadian investment in Southern pine sawmills



Source: Forest2Market

Canadian forest industry moves south

- The Southern US pine region has abundant, low cost timber from productive, well managed private forests
- Canfor, West Fraser and Interfor; leading Canadian forest products companies hedge their bets, moving out of Beetle kill, into more lucrative business environment
- 35 SYP sawmills in Texas, Arkansas, Louisiana, Mississippi, Alabama, Georgia, South Carolina, North Carolina and Florida are now owned by these three companies
- 4.5 billion board feet of production capacity. Mostly framing lumber. Studs remain a NW and Northern product due to strength characteristics.
- Roughly half of 2015's housing starts were in the South.

Concluding thoughts

- Slow but steady recovery for the US housing market
- Low interest rates, cheap fuel and sluggish economy – watch pallets
- Potential for multi-level building with wood
- Watch for mill closures and consolidation to continue as PNW log supply is constrained
- British Columbia production and imports are declining
- Major growth for Southern US pine industry underway
- Strong US \$ influence on wood imports & exports
- Less demand for NA wood products for China = less competition for domestic wood supply
- Squaring off with competitive Southern hemisphere industry: productive plantations, modern pulp and panel mills; China demand and strong US \$?
- PNW harvest levels will be flat in near-term. Housing and exports

Forest2Market: The highest quality wood raw material analysis available

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Thank You!

