



Forest2Market[®]



Hardwoods Grow to Market

Western Hardwoods Market Trends

Washington Hardwoods Commission

Annual Meeting

June 12, 2014

Chehalis, WA



Forest2Market

Data – Experience – Expertise

- Neutral-third party (independent in ownership and structure)
- Capture of transaction level data is the only way to achieve a true measure of market price. Transaction data is the foundation of all our products and services

Client relationships

- Timberland owners and log marketers, forest products manufacturing companies, pulp and paper, bio-energy industries

Market Intelligence

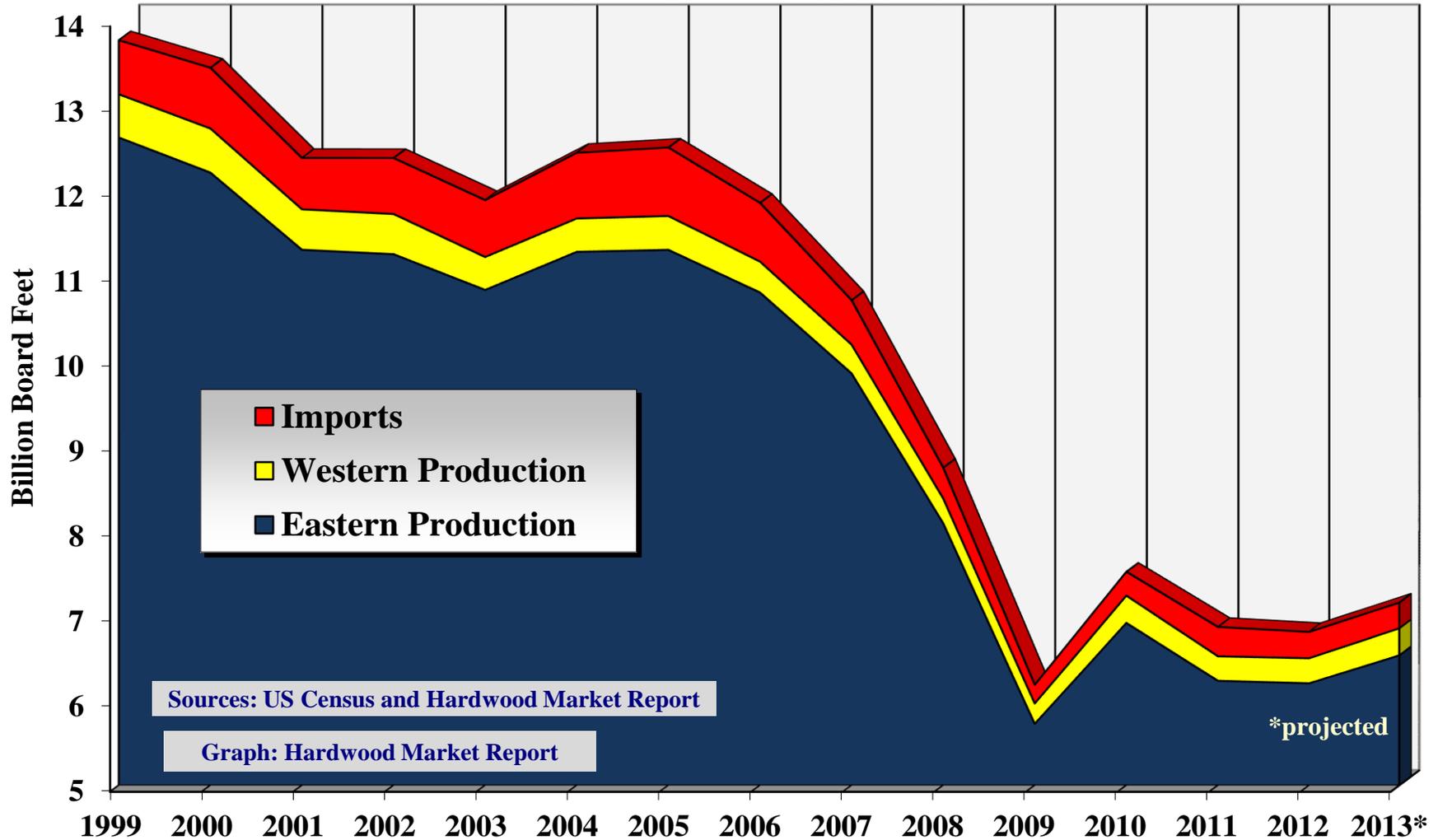
- Resource studies / Market research
- Timber price forecasts and economic analysis
- Proprietary transaction level sales and cost data
- Publications

Headquartered in Charlotte, NC; offices in Eugene, OR, Appleton, WI and Curitiba, Brazil

Today's agenda

- Western hardwoods market share
- Western hardwood timber supply
- Building construction trends
- Housing starts outlook

Hardwood Lumber Supply Available to the US Market from All Sources



Western hardwood timber supply



Irrigated Poplar plantation forests east of the Cascade Mountains

- Hybrid row crop plantations
- 12 year harvest rotation
- Irrigated desert lands
- 2/3 plywood and lumber, remainder for pulp chips and biomass
- 35,000 acres +/-



Hardwoods in conifer forests

- Mixed species stands in forests west of Cascade mountains; alder, big leaf maple and others
- Private and state owned forests
- OR+WA = 200 MMBF~ annually; +/-5% of total timber harvest
- Harvest restrictions on federal forests and private lands regulation
- Furniture, cabinets, millwork and pallets



Riparian Reserve Measures

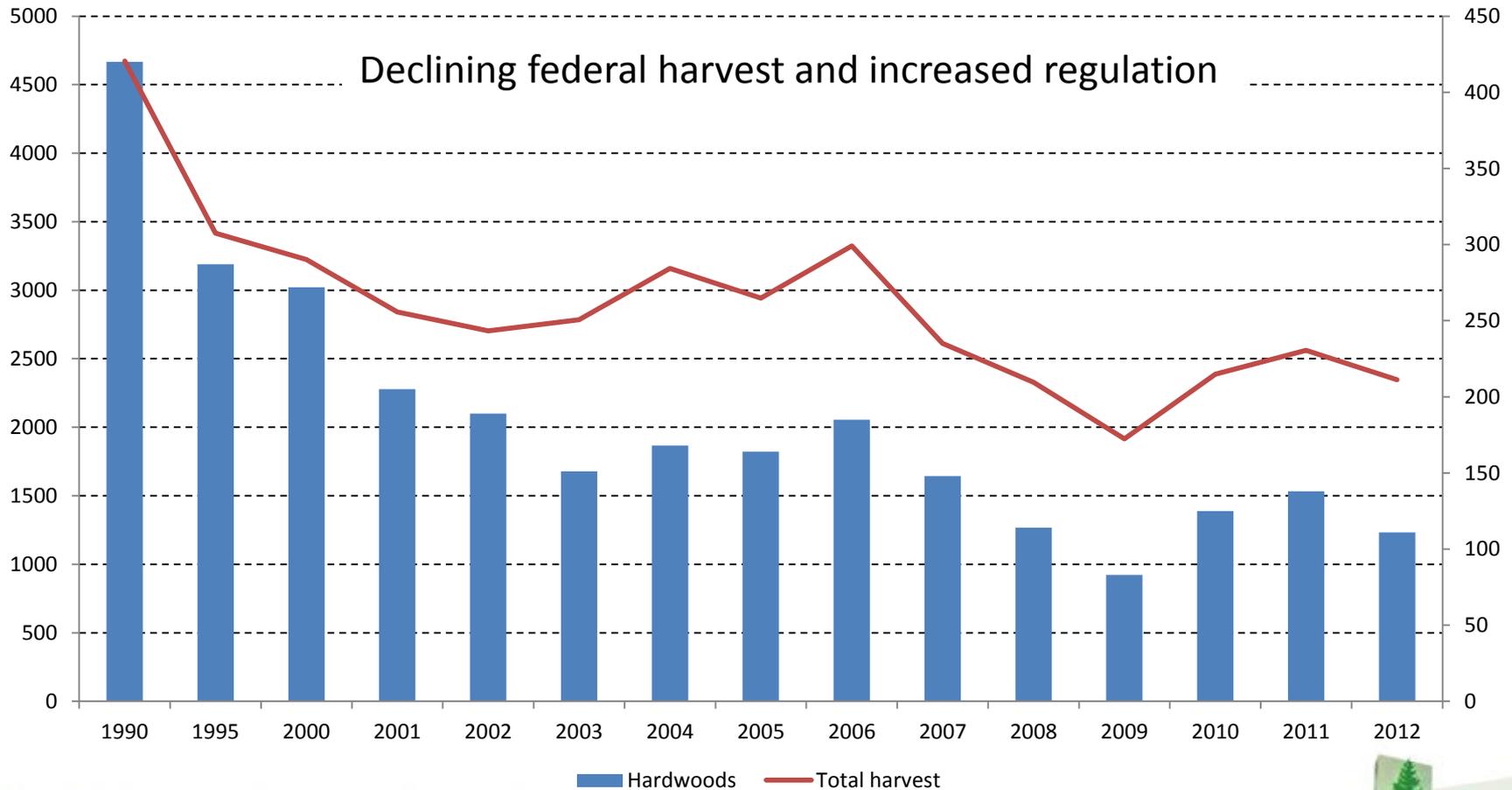


Managed Alder in Lincoln County, OR

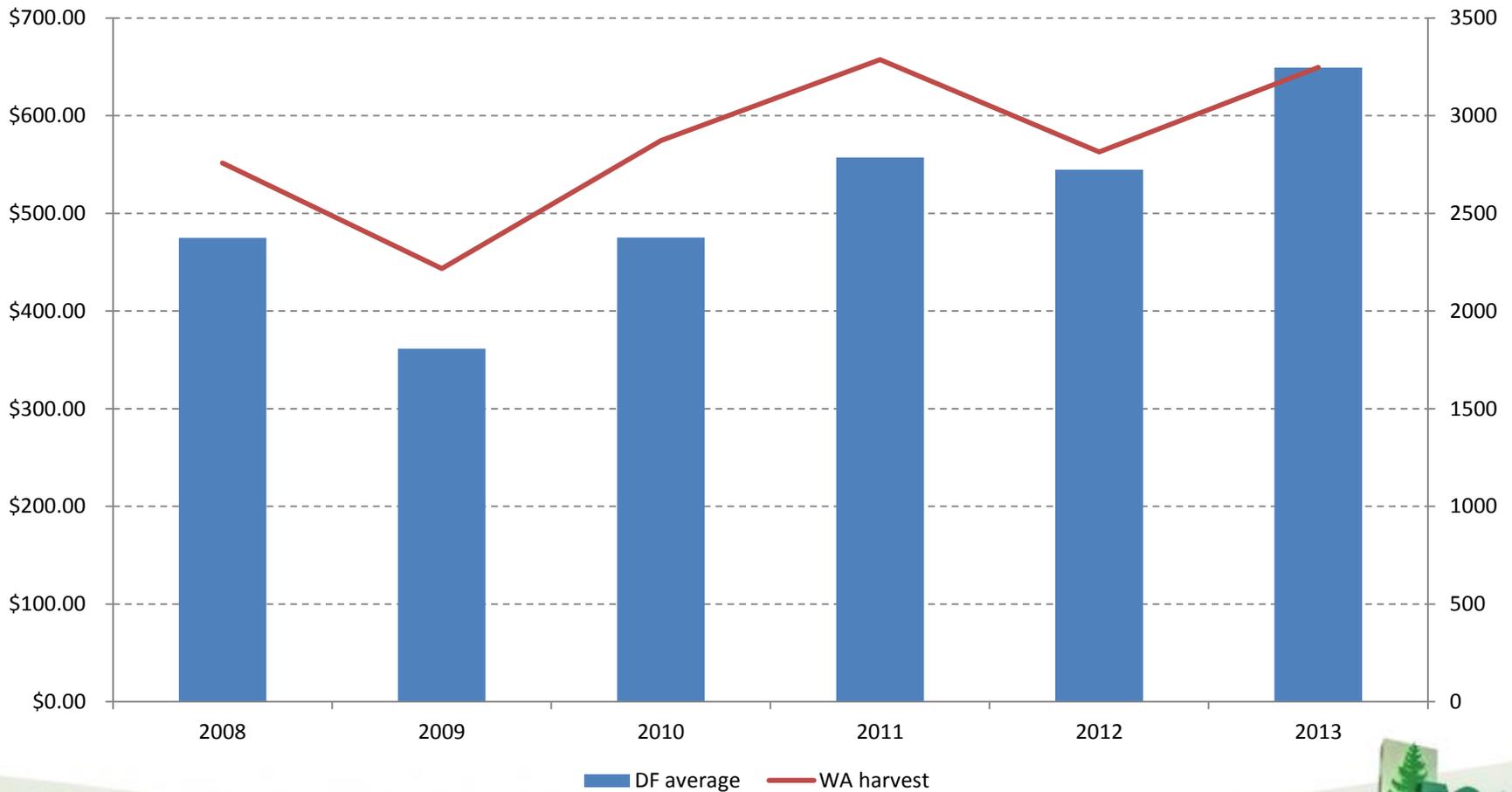


WA hardwood harvest trends

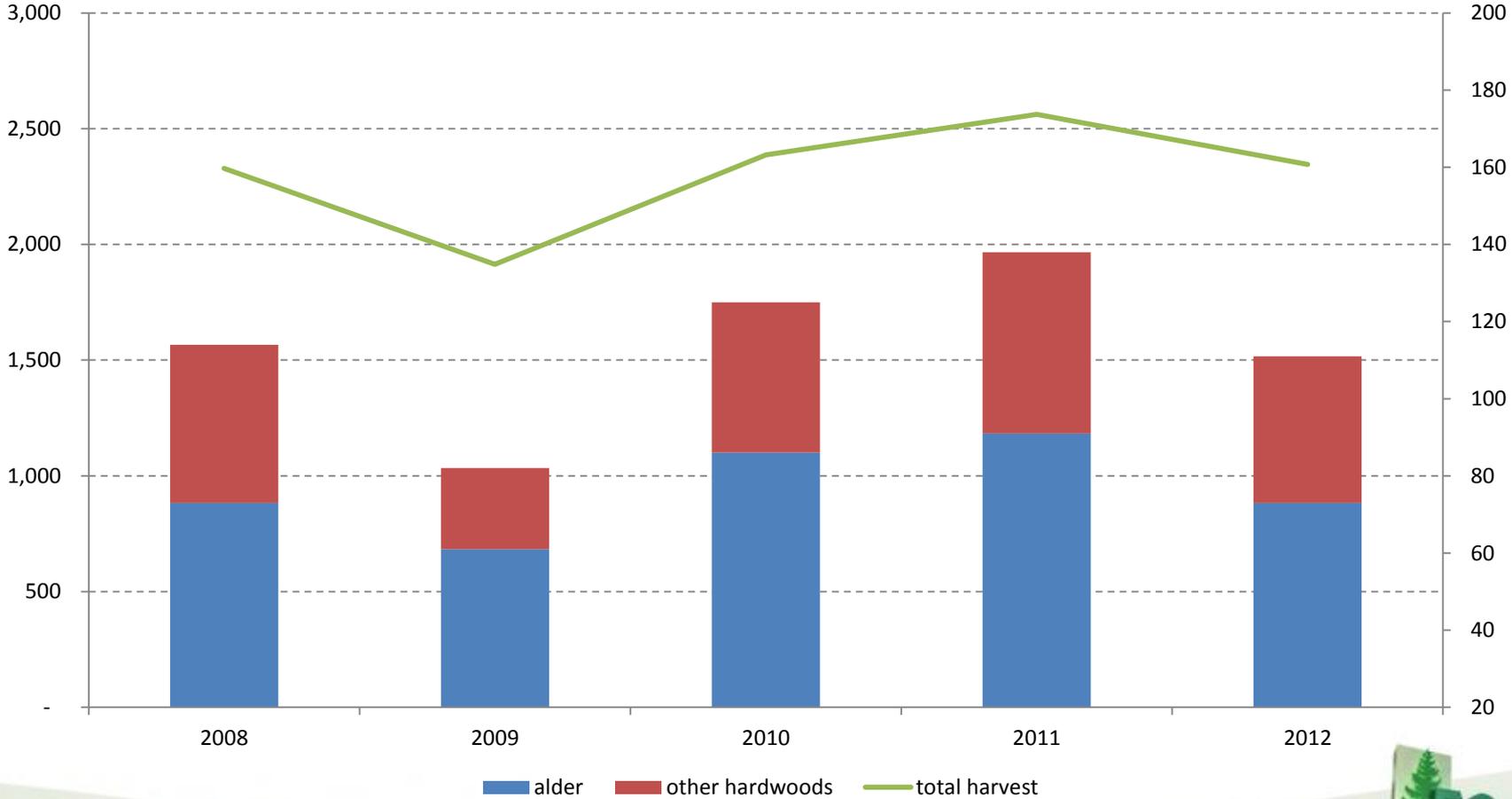
MMBF volume



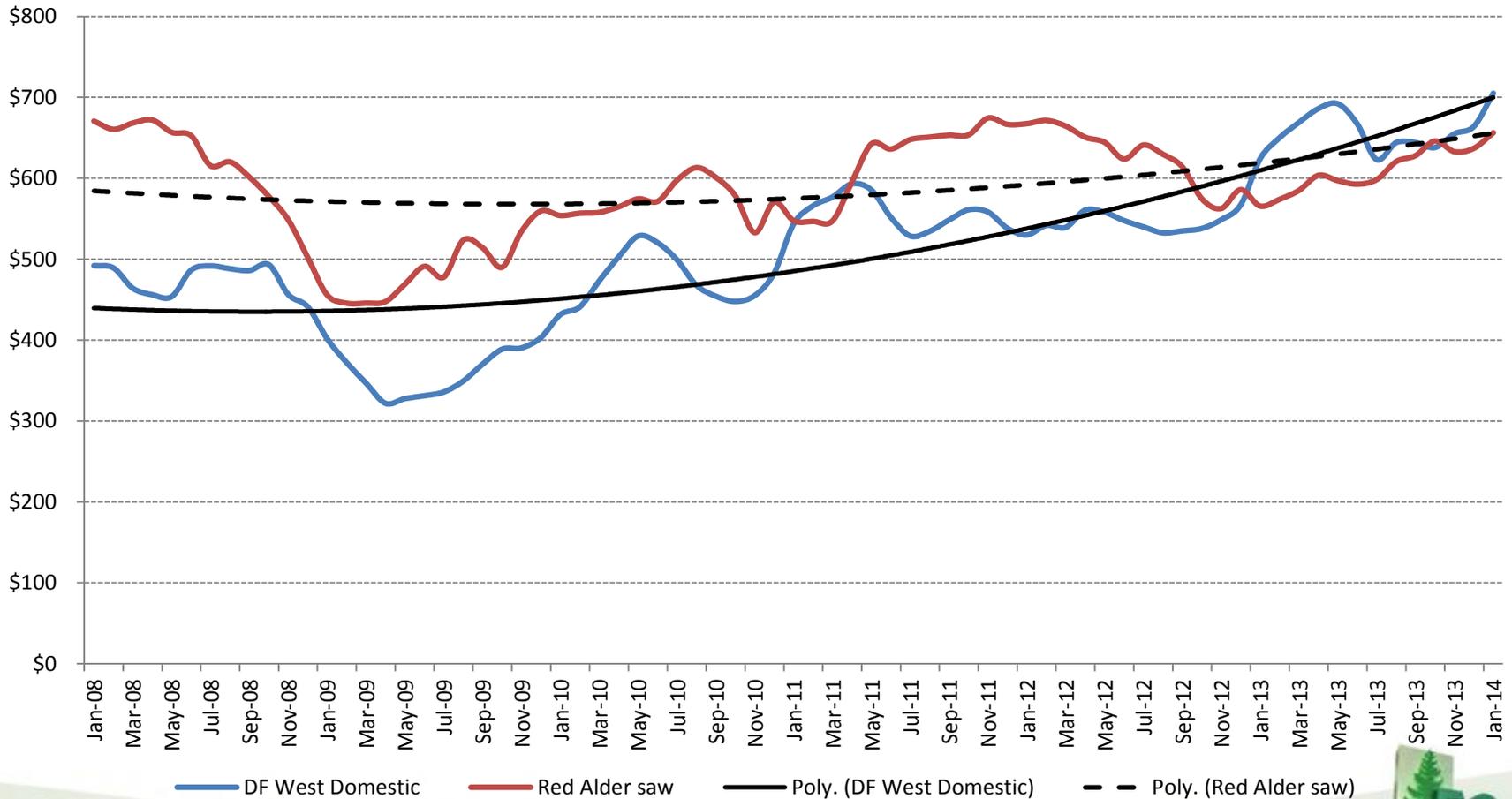
Conifer values drive harvest levels



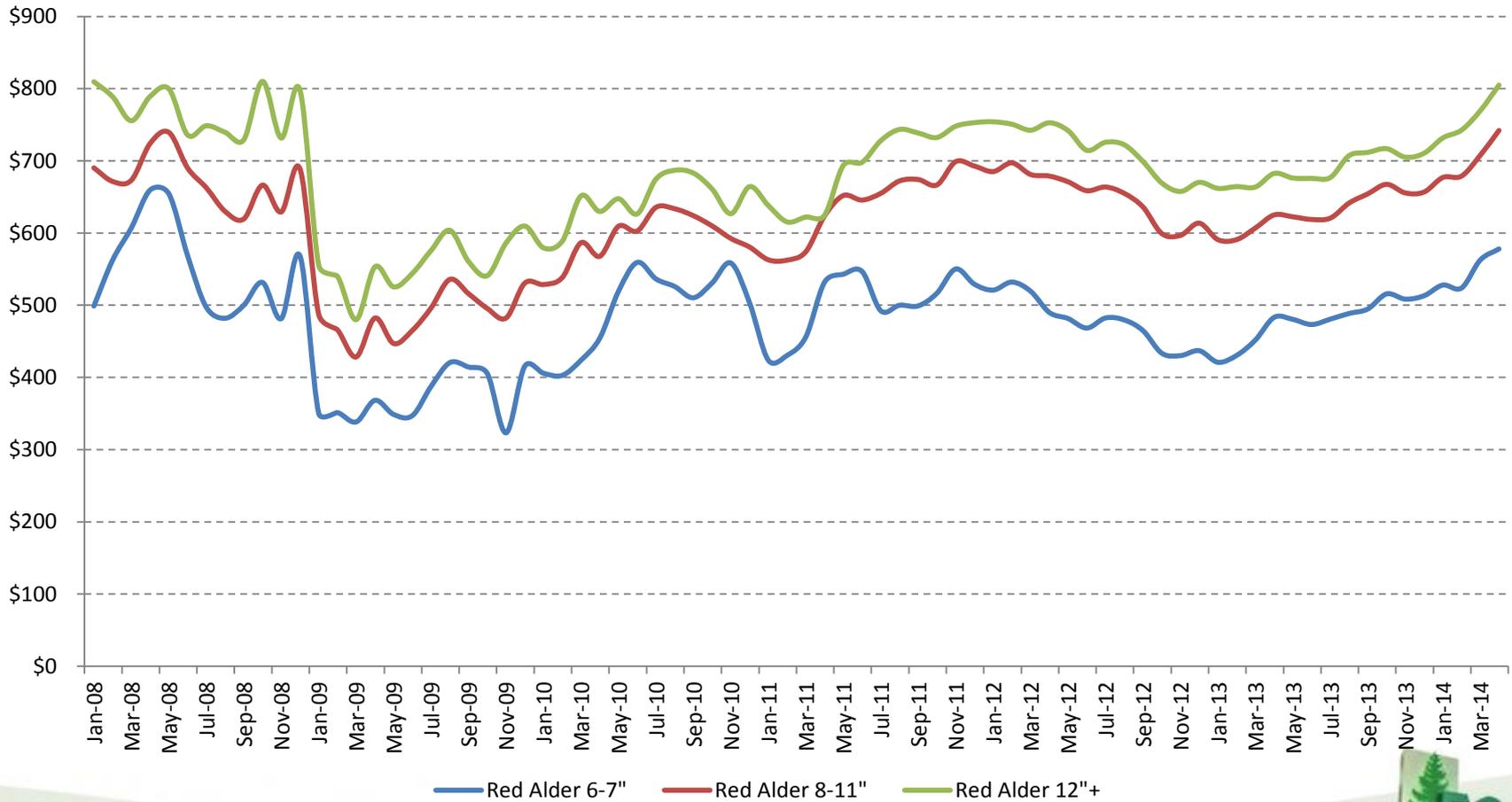
Washington Red Alder harvest



Value comparison: Alder and Douglas fir sawmill logs



Premium for larger diameter Alder logs





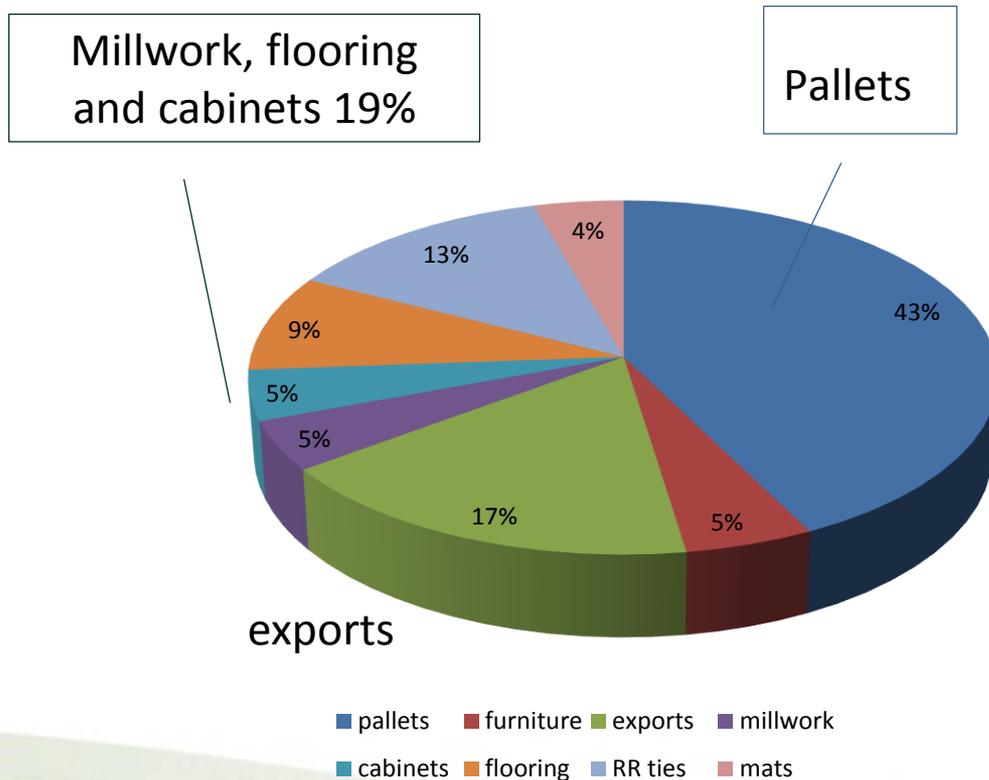
Hardwood applications: Beauty



Hardwood applications: Functionality

2013 distribution for hardwood lumber

US National Hardwood Consumption



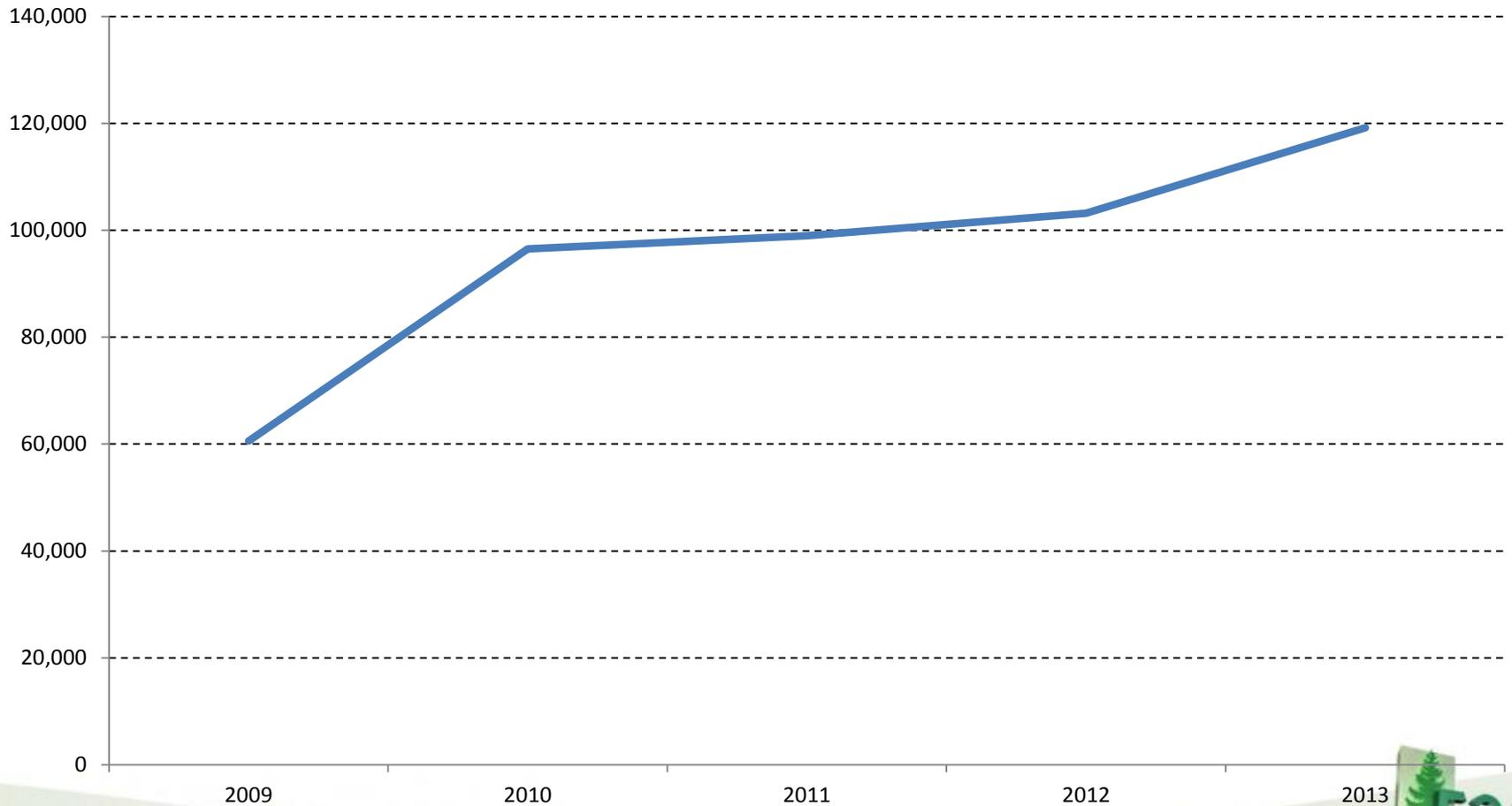
Western

hardwoods:

- 70% KD lumber for doors, millwork, cabinets and furniture
- 20-30% pallet stock

OR-WA Hardwood Lumber Exports

\$ thousands value



Estimates of Consumption of US Hardwoods

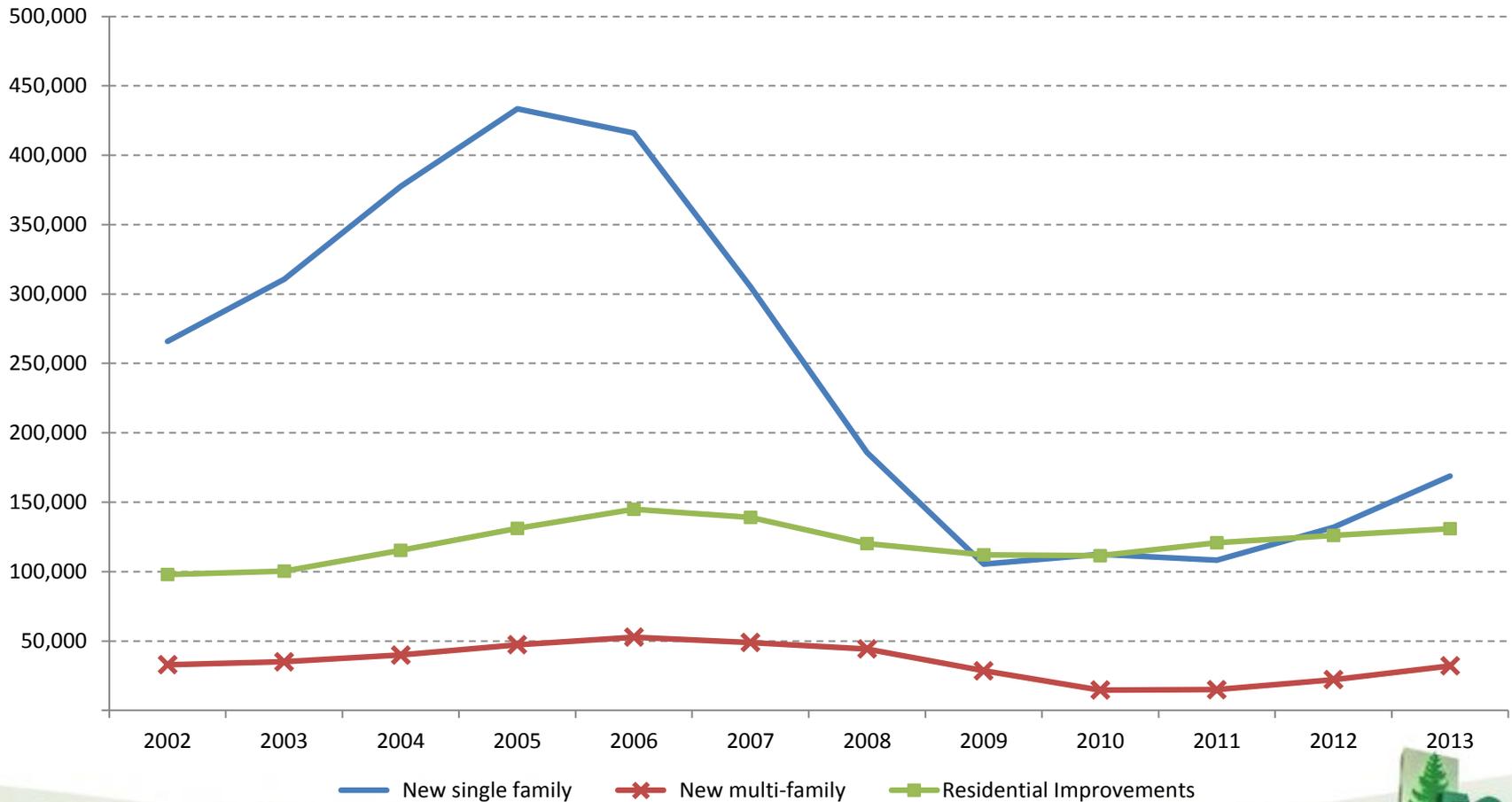
© 2014 *Hardwood Market Report*

	2005	2006	2007	2008	2009	2010	2011	2012	2013	% Change 2012	% Change 2005
Pallets	3.8	3.7	3.6	3.5	3.0	3.2	3.26	3.27	3.643	11.4%	-4.1%
Furniture	1.2	1.1	1.0	0.7	0.3	0.35	0.29	0.30	0.427	42.3%	-64.4%
Exports	1.3	1.3	1.2	0.9	0.8	1.07	1.2	1.32	1.462	10.8%	12.5%
Millwork	1.3	1.2	1.0	0.7	0.4	0.43	0.24	0.26	0.387	48.9%	-70.2%
Cabinets	1.6	1.5	1.3	1.2	0.7	0.4	0.34	0.36	0.392	8.9%	-75.5%
Flooring	1.5	1.4	1.3	0.8	0.5	0.59	0.51	0.55	0.753	36.9%	-49.8%
Railway Ties	0.85	0.96	0.92	0.94	0.89	0.89	0.98	1.04	1.114	7.1%	31.1%
Board Road/Mat Timbers	N/A	N/A	N/A	0.2	0.05	0.075	0.12	0.16	0.369	130.6%	N/A
Total Estimated Consumption	11.55	11.16	10.32	8.94	6.64	7.01	6.94	7.26	8.55	17.7%	-37.1%

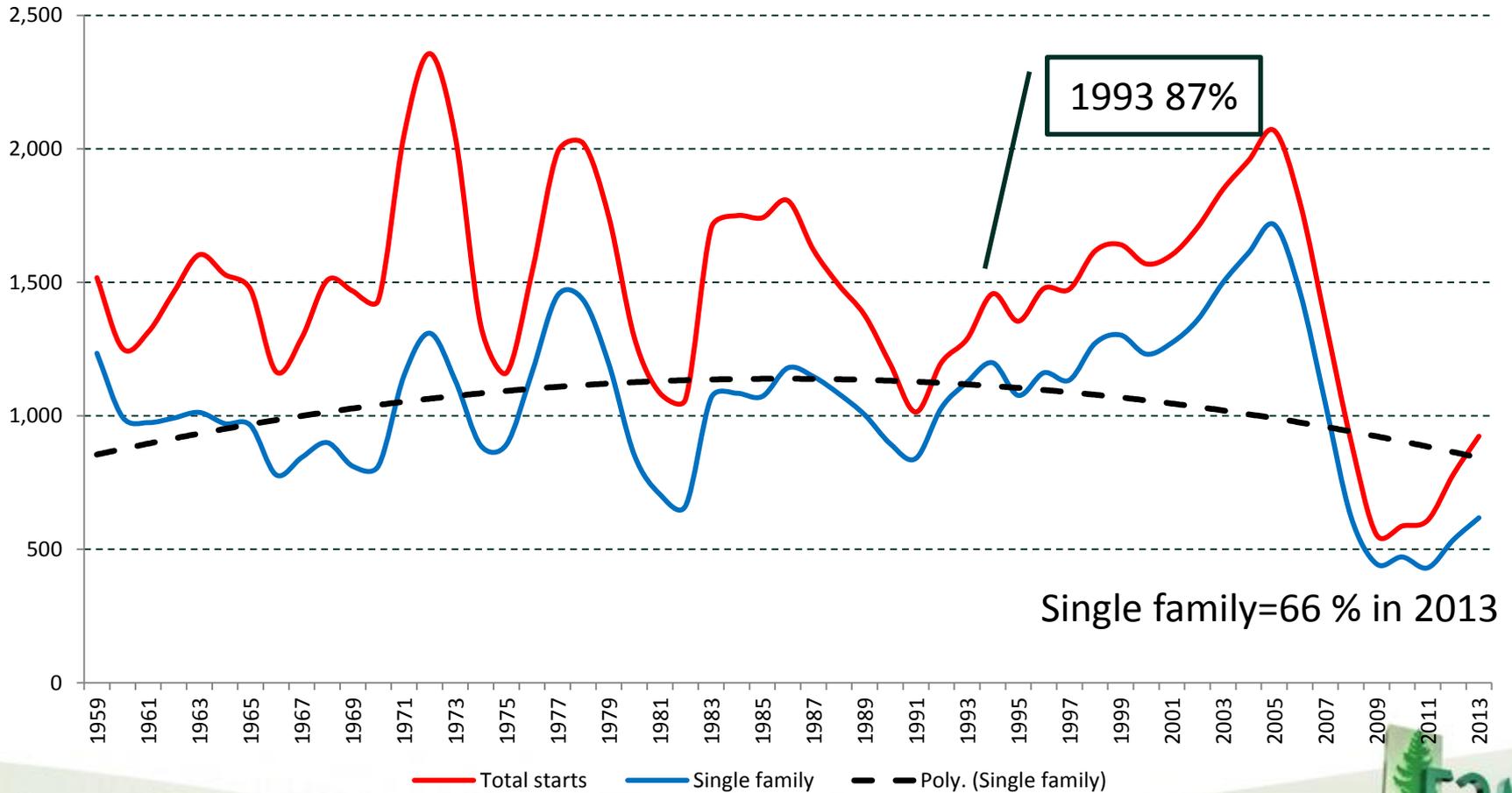
Building with wood



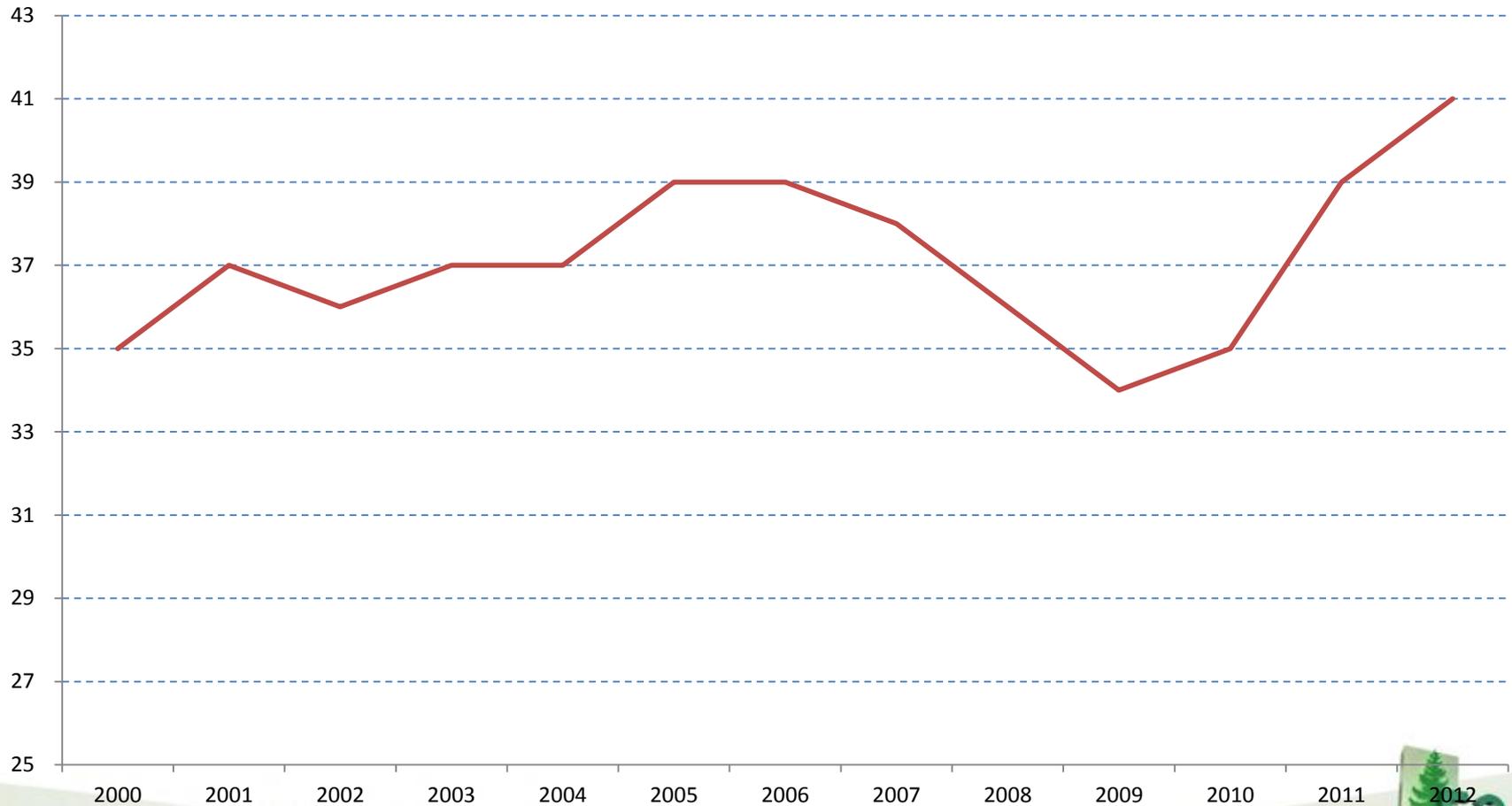
Residential construction value MM \$ in place



Changing demographics of housing



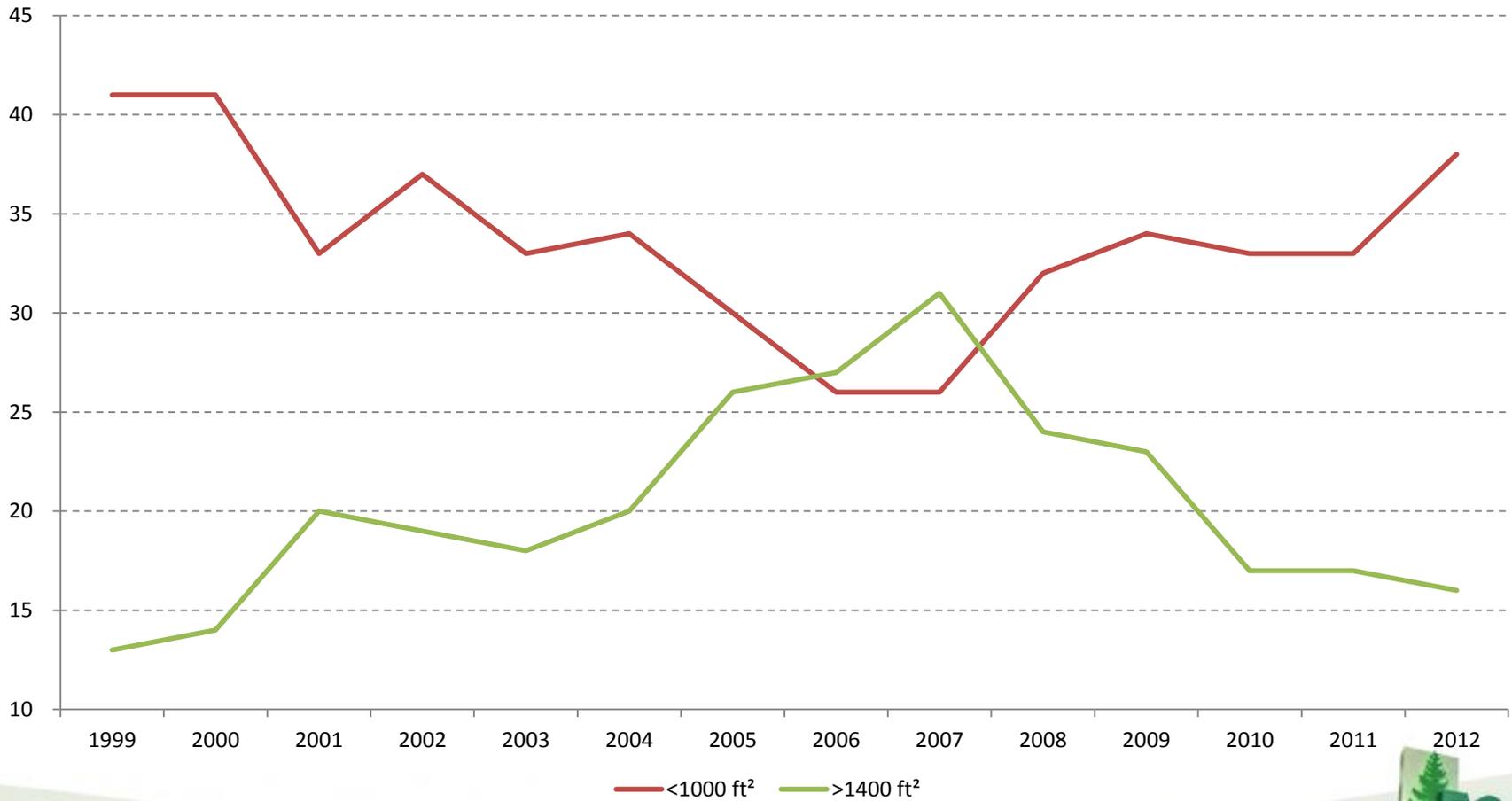
Percent of new homes 4 bedrooms +





Hardwood applications: Style

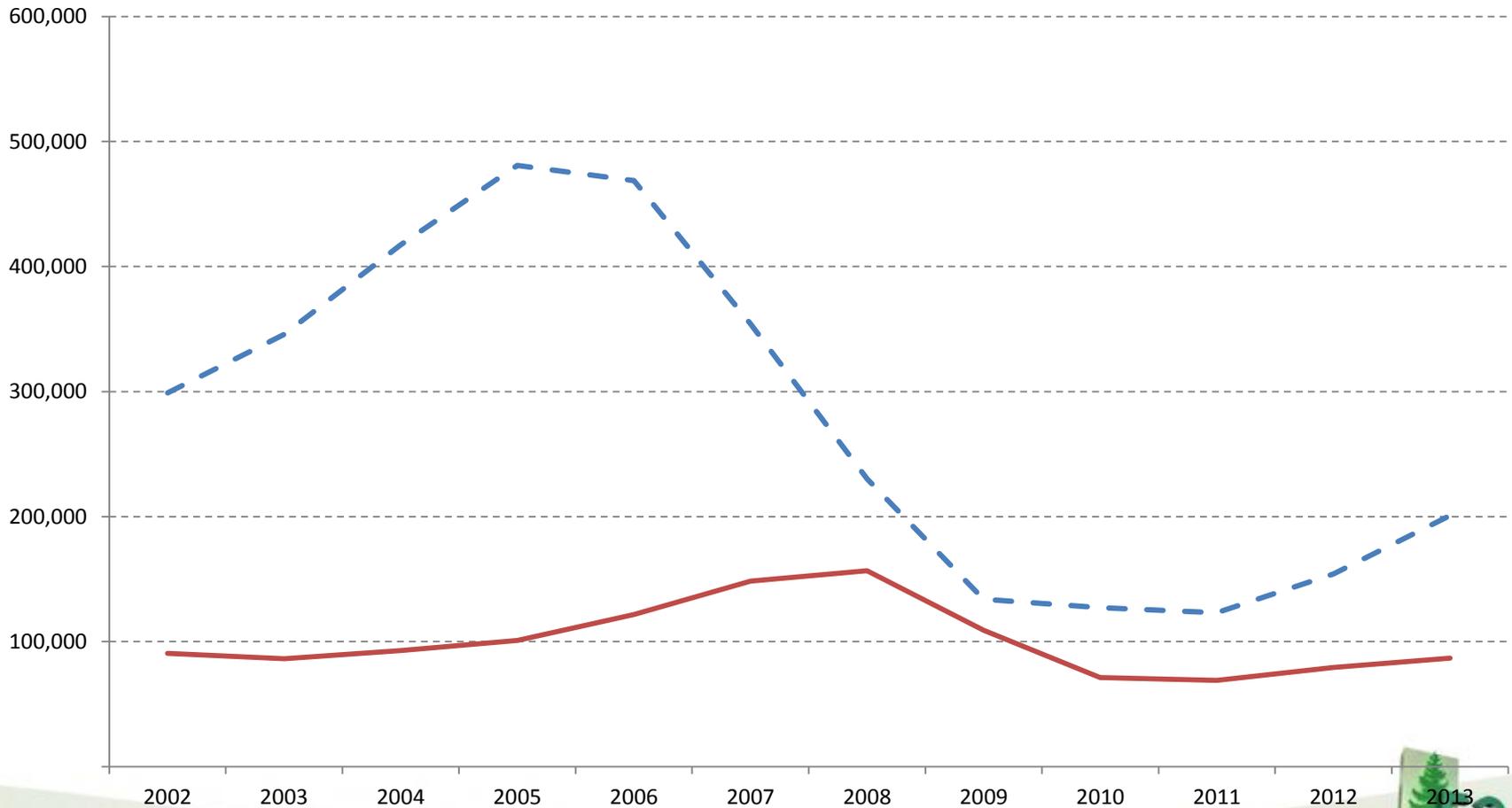
Trends in multi-family housing





Hardwood applications: Efficiency

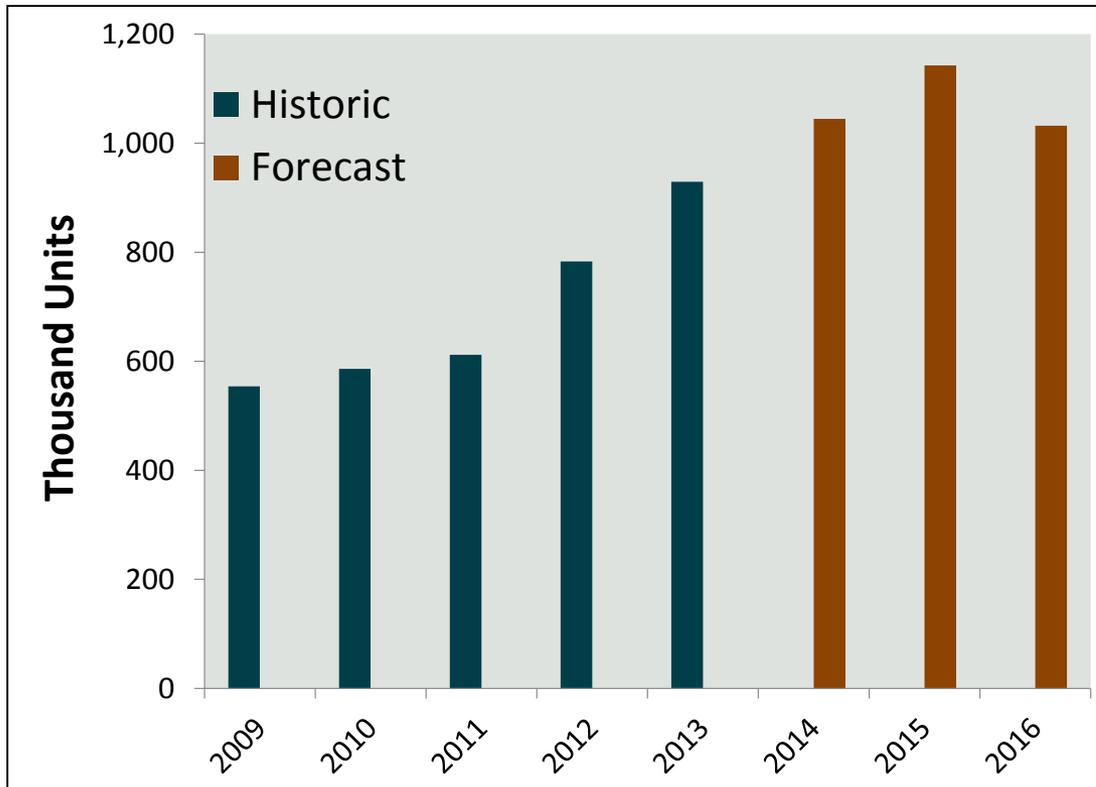
Commercial construction MM \$ in place





Hardwood applications: Utility

Housing: Annual Starts



- 2014 = 1,045
- 2015 = 1,143
- 2016 = 1,032

Conclusions

- Alder is a valuable fast growing timber resource
- Northwest region is timber supply constrained
- Risk: further riparian acreage set asides
- Hardwoods: variety of products, less vulnerable to housing
- Western hardwoods market share is strong and markets are healthy
- Promising climate for hardwood timber management

Thank you!



Forest2Market: The highest quality wood raw material analysis available

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