

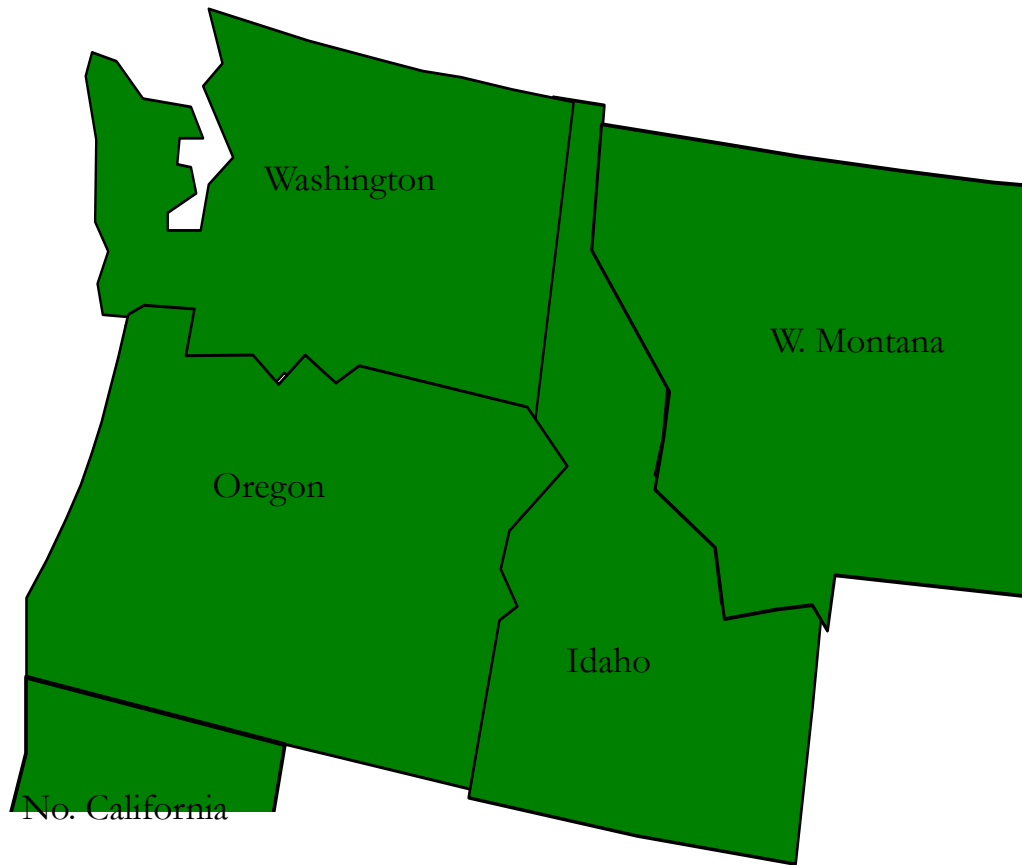
Pacific Northwest Woodchip Market

May 2008



Pacific Northwest Woodchip Market

The Northwest Being Discussed...



Pacific Northwest Woodchip Market

Who are the players in the Pulp & Paper sector?

How much of what do they consume?

What does the fiber balance look like?

Pacific Northwest Woodchip Market

NW Softwood Chip Demand: 2008 Estimate - MBDU/Year

Puget Sound

Kimberly Clark – Everett	250
Nippon – Port Angeles	60
Port Townsend – P.T.	400
Simpson – Tacoma	540
Evergreen – Cosmopolis	300
Export to B.C.	740 *
Import From B.C.	<u>(100)</u>
	2,190

Lower Columbia River

Blue Heron – Oregon City	70
Boise – St. Helens	300
GP – Camas	210
GP - Wauna	300
Longview Fiber	940
SP News – Newberg	180
Weyco/Norpac – Longview	<u>1,170</u>
	3,170

Inland

Boise – Wallula	510
Inland – Spokane	100
Ponderay – USK	180
Potlatch - Lewiston	720
Smurfit – Missoula	620
Export to B.C.	250 *
Import From B.C.	<u>(40)</u>
	2,340

Willamette Valley / No. Calif.

Evergreen - Samoa	480
GP – Toledo	500
Pope & Talbot	180
International Paper - Albany	360
International Paper - Springfield	500
Export to Japan	<u>620</u>
	2,640

* Estimate

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NW Hardwood & Sawdust Demand: 2008 Estimate – MBDU/Year

<u>Puget Sound</u>	<u>Hardwood (Chips & Sawdust)</u>	<u>Sawdust (Softwood)</u>
Kimberly Clark	70	--
Port Townsend	<u>--</u>	<u>40</u>
	70	40
<u>Lower Columbia River</u>		
Blue Heron	20	--
Boise	260	--
GP – Camas	180	50
GP – Wauna	110	150
Longview Fiber	90	30
Weyerhaeuser	<u>50</u>	<u>--</u>
	710	230
<u>Willamette Valley</u>		
GP – Toledo	100	--
Pope & Talbot	--	180
Export to Japan	<u>30</u>	<u>--</u>
	130	180
<u>Inland</u>		
Boise	60	80
Potlatch	<u>--</u>	<u>320</u>
	60	400

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NW Supply/Demand Estimate – 2008 (MMBDU)

<u>Demand</u>	<u>Softwood</u>	<u>Hardwood</u>	<u>Sawdust</u>
NW Pulp Mills (22)	8.9	1.0	0.9
Export (including wood to B.C.)	1.6	--	--
Other	<u>0.5</u>	<u>0.1</u>	<u>1.0</u>
	11.0	1.1	1.9
 <u>Supply</u>			
Lumber Residuals (14.1 bbf softwood chips at .39 bdu/msf, sawdust at .13)	5.5	0.4	1.8
Residuals – Plywood/Veneer (3.7 BSF softwood with .20 bdu/msf 3/8)	0.7	--	0.1
Imports – Canada	0.1	--	--
Plantation Wood	<u>--</u>	<u>0.2</u>	<u>--</u>
	6.3	0.6	1.9
<u>Net NW Pulpwood Chips Needed</u>	4.7	0.5	--

Pacific Northwest Woodchip Market

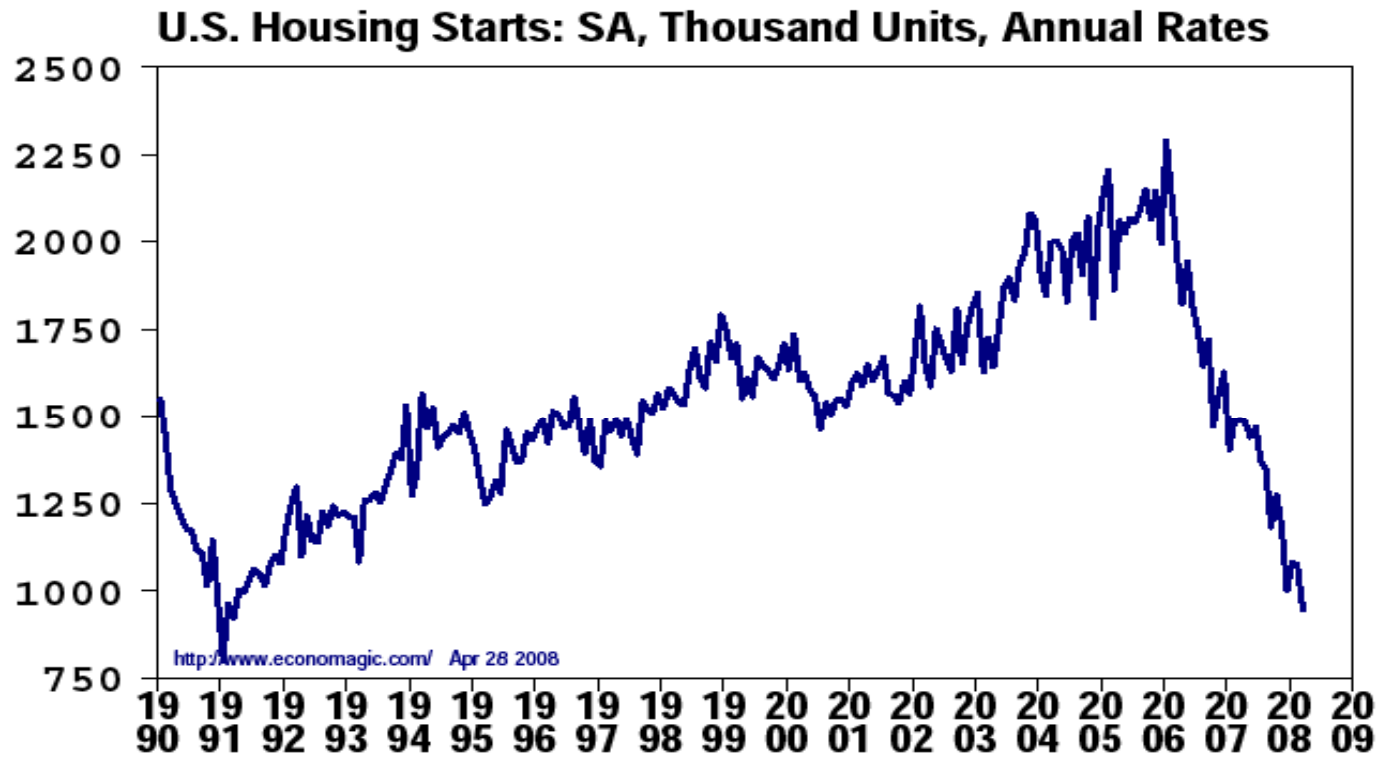
NW Fiber – Principal Woodchip Market Drivers

What are the key drivers of the woodchip market in this region?

- Housing Starts
- Lumber Production Rates/Product Pricing/Log Costs
- Pulpmill Operating Rates/Pulp & Paper Prices
- Transportation/Diesel Costs
- Pulpwood availability
- Resource constraints

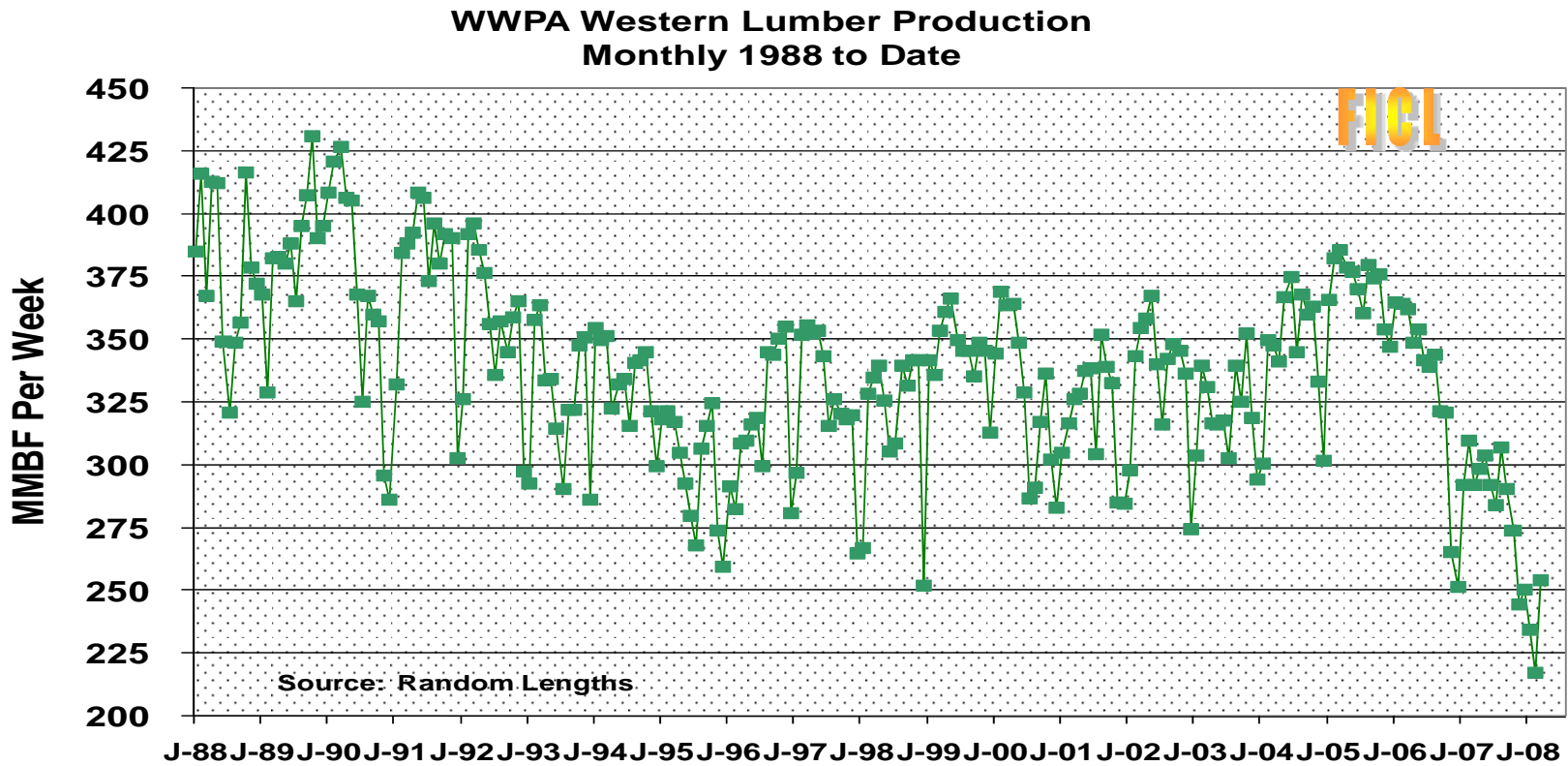
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U.S. Housing Starts: Annual Rates



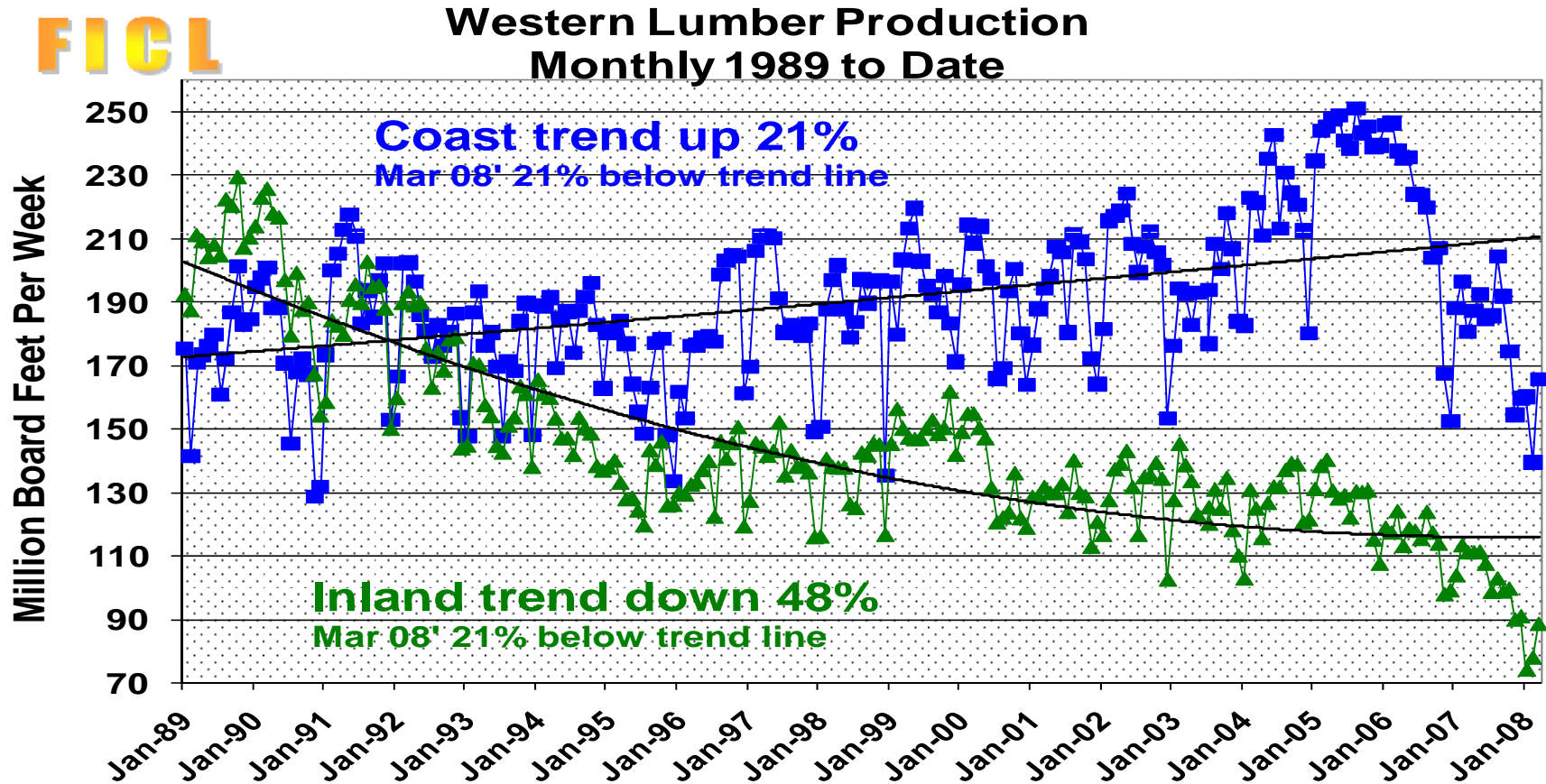
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Western Lumber Production 1988 to Date



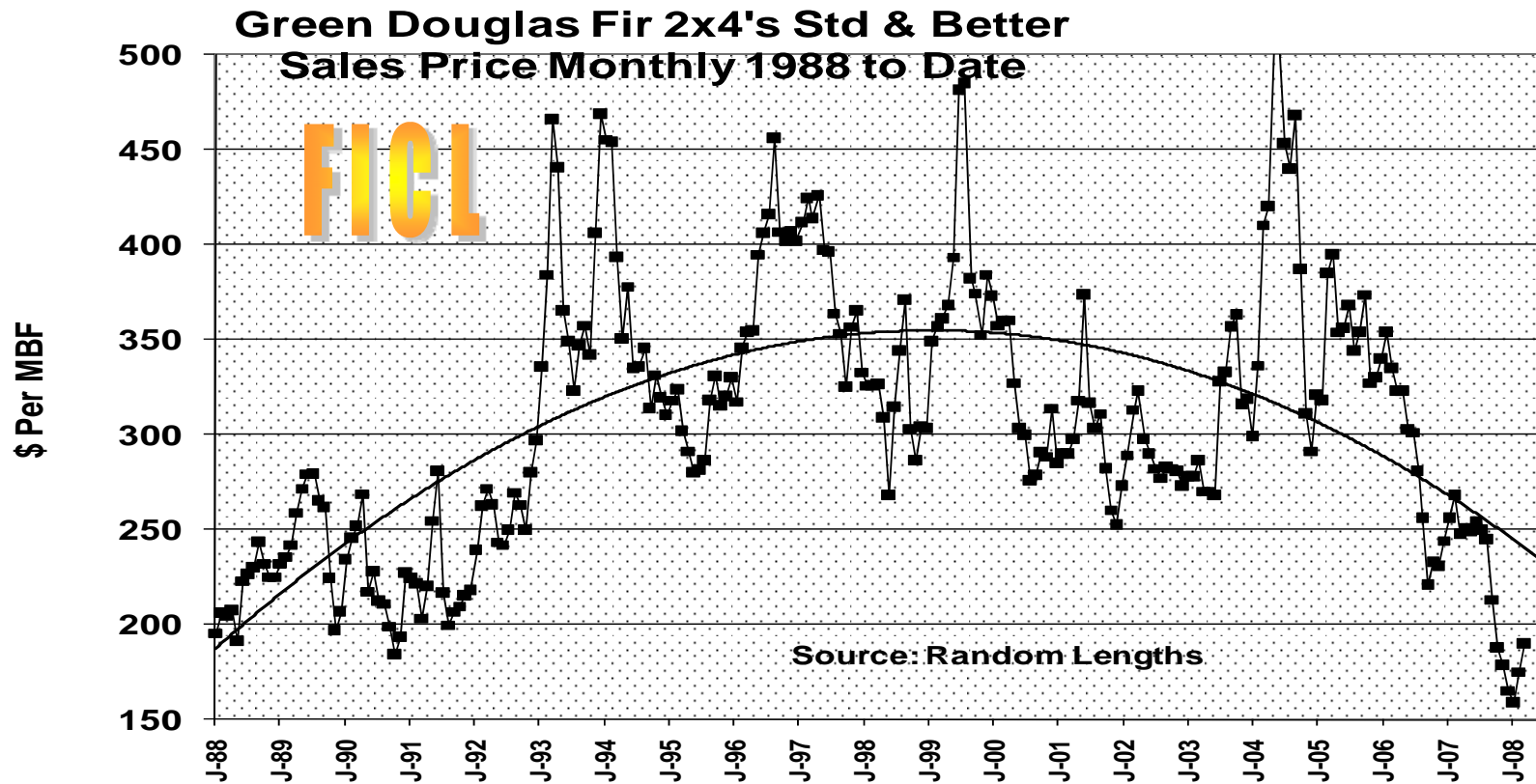
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Western Lumber Production By Region 1989 to Date



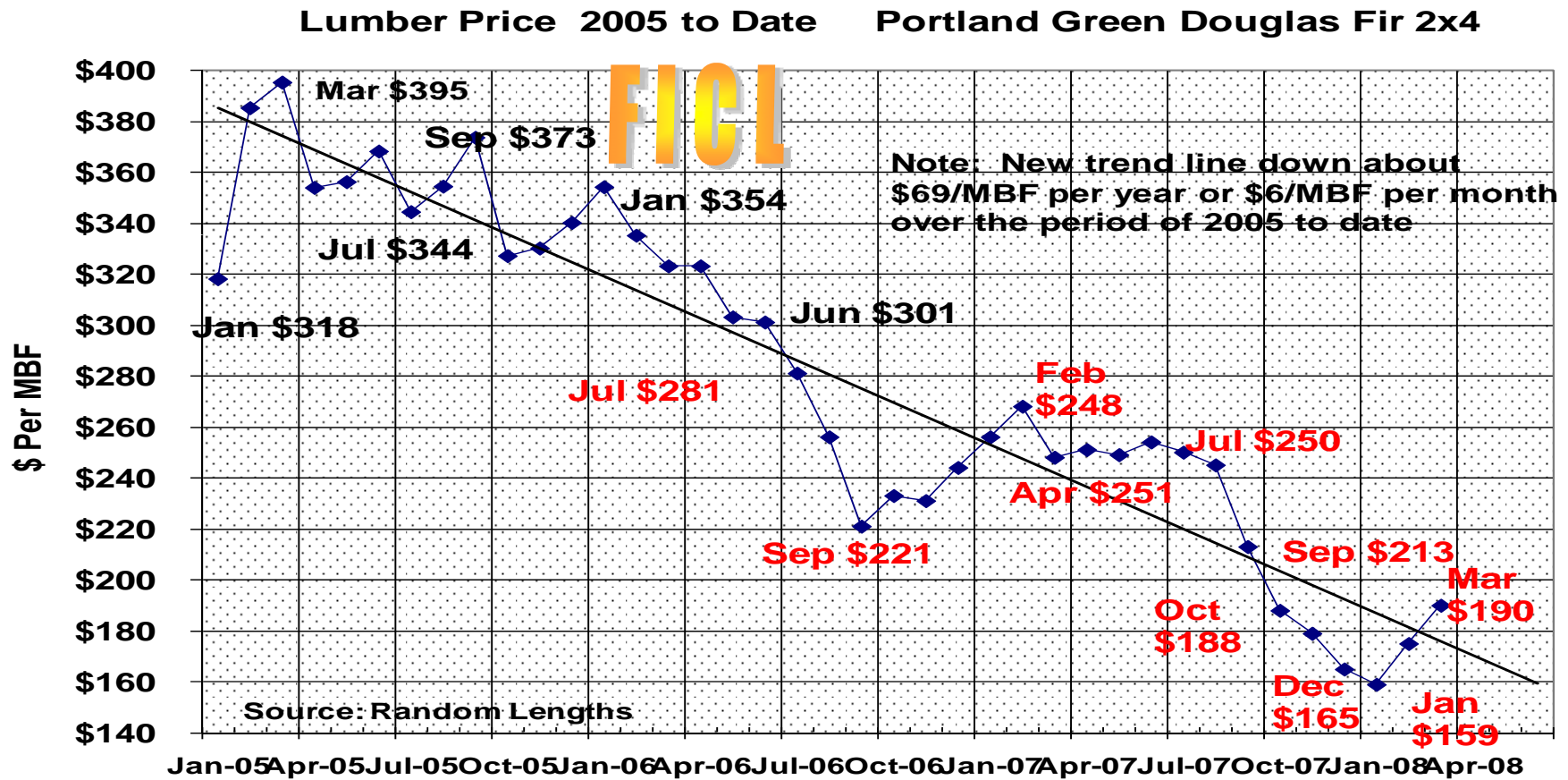
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Green DF 2X4 Standard & Better: Nominal Sales Price 1988 to Date



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Green DF 2X4 Lumber Price Portland: 2005 to Date



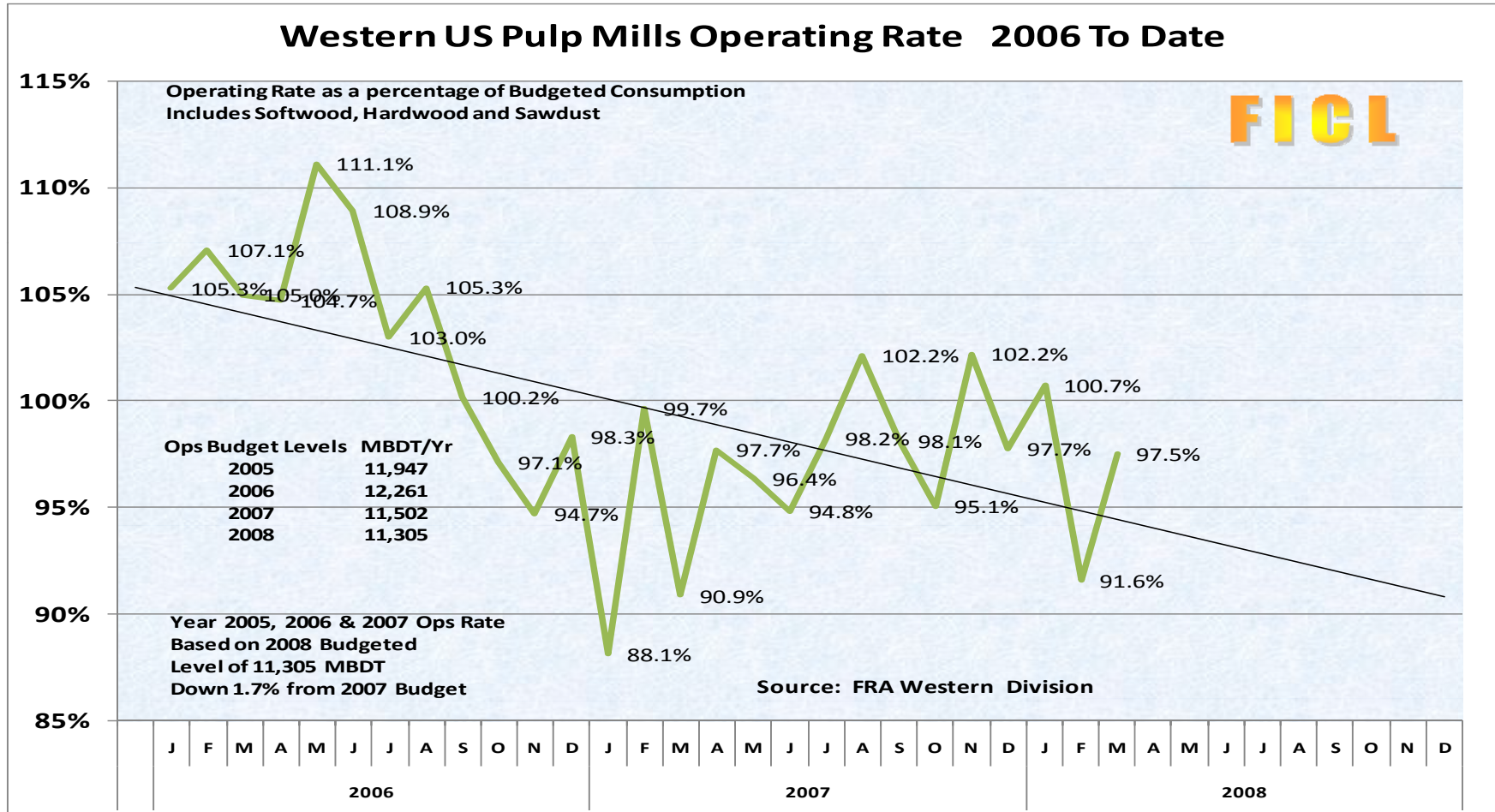
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Pulp and Paper Prices Year Over Year (Feb, 2008)

- **Pulp prices:**
 - NBSK up 15%
 - NBHK up 18%
- **Paper prices:**
 - Newsprint down 5%
 - All uncoated, coated white papers up 2 – 17%
 - Liner, medium, kraft, boxboard, etc. up 4 – 12%

Pacific Northwest Woodchip Market

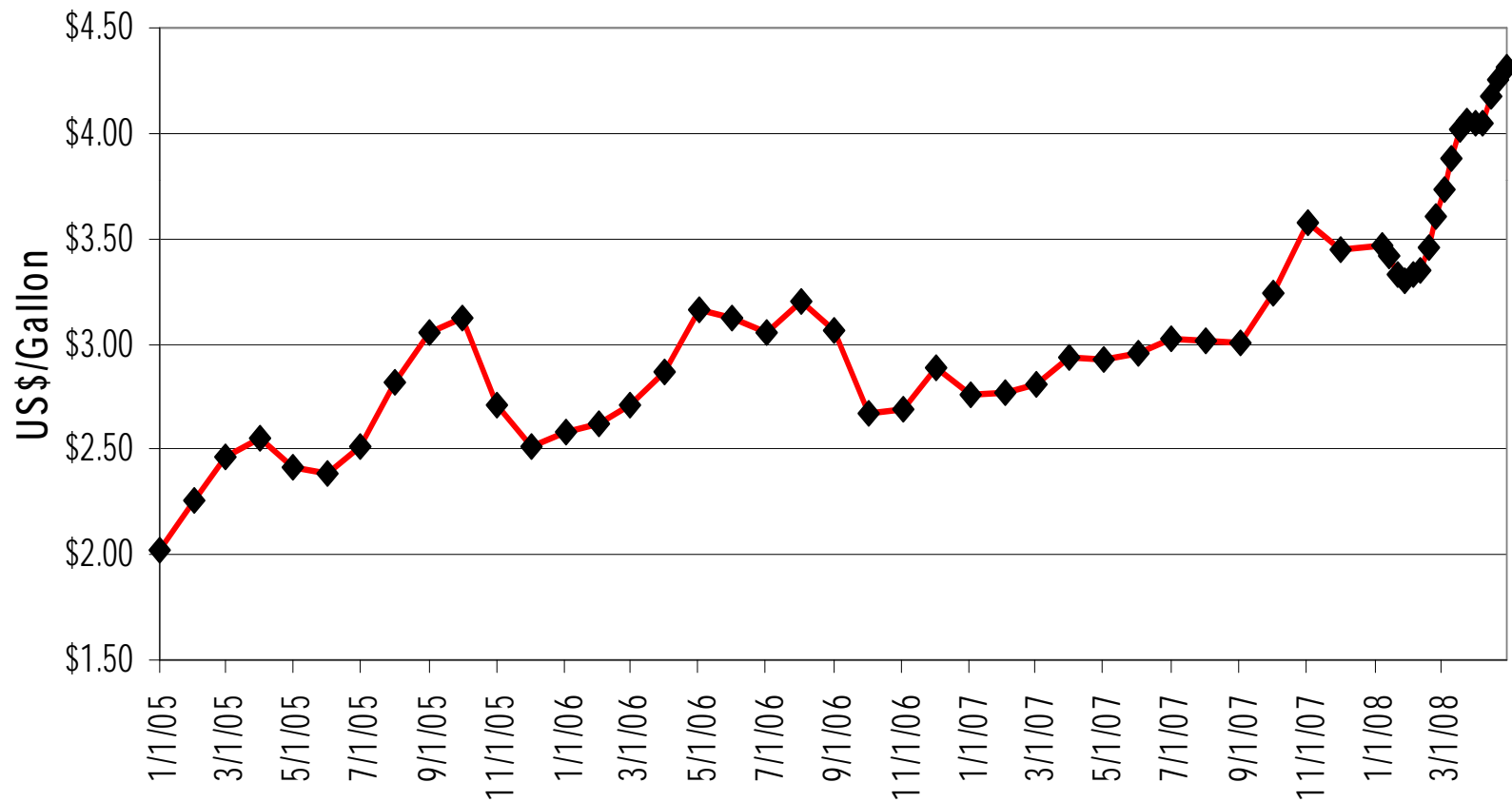
Western US Pulp Mill Operating Rates: 2006 to Date



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West Coast No. 2 Retail Diesel Price History

West Coast No. 2 Diesel - Retail



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A few comments about transportation costs, pulpwood availability, and resource constraints:

- Companies are having difficulty in managing costs in light of escalating fuel pricing.
- The Pacific Northwest is not a pulpwood economy ... the current scenario is not sustainable.
- Resource constraints will continue to be an issue for providing economic wood fiber (particularly hardwood) for the pulp and paper industry.

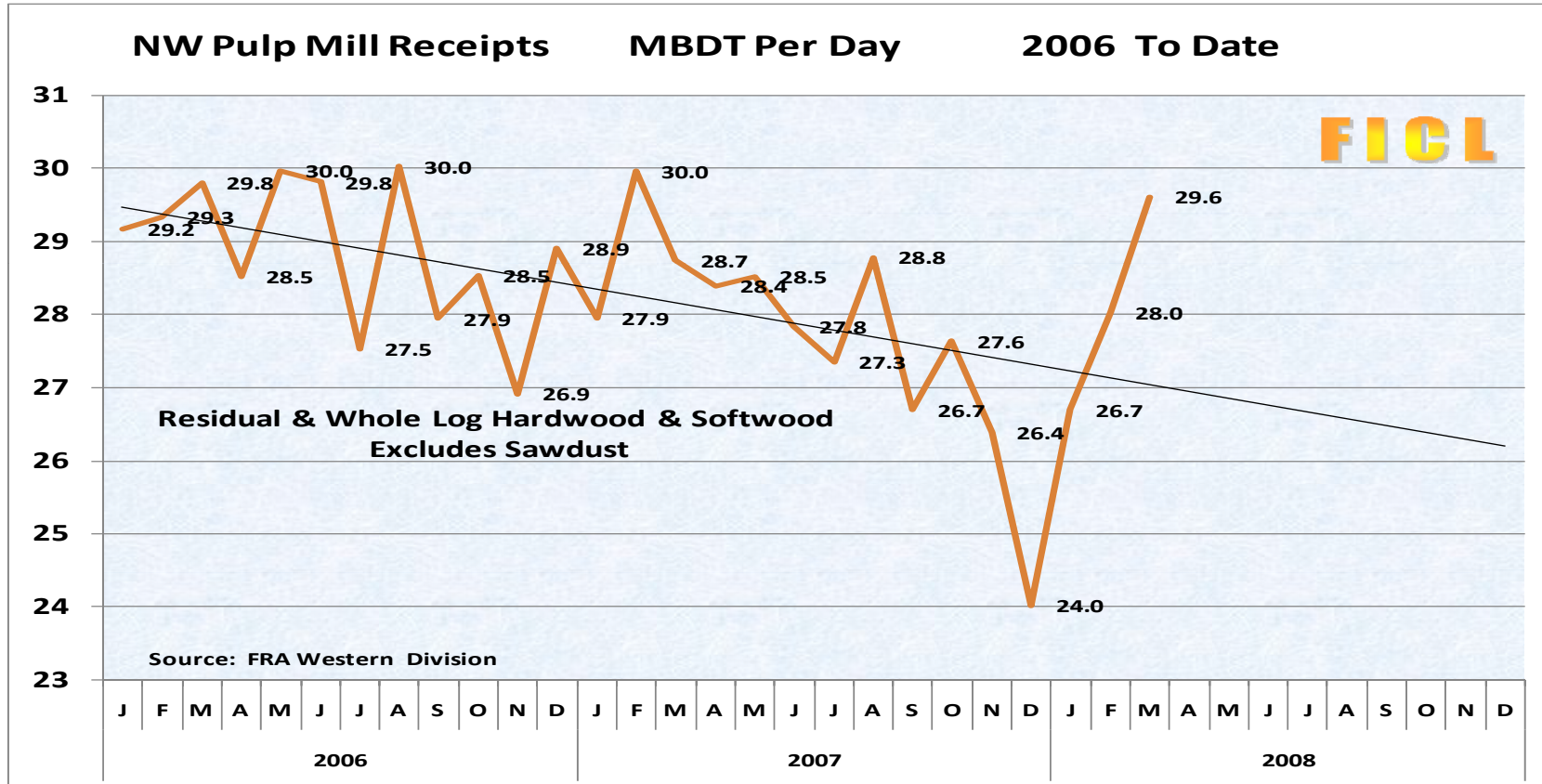
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In light of the fiber balance and the key drivers:

Where have we come from and what do things look like at this point in time?

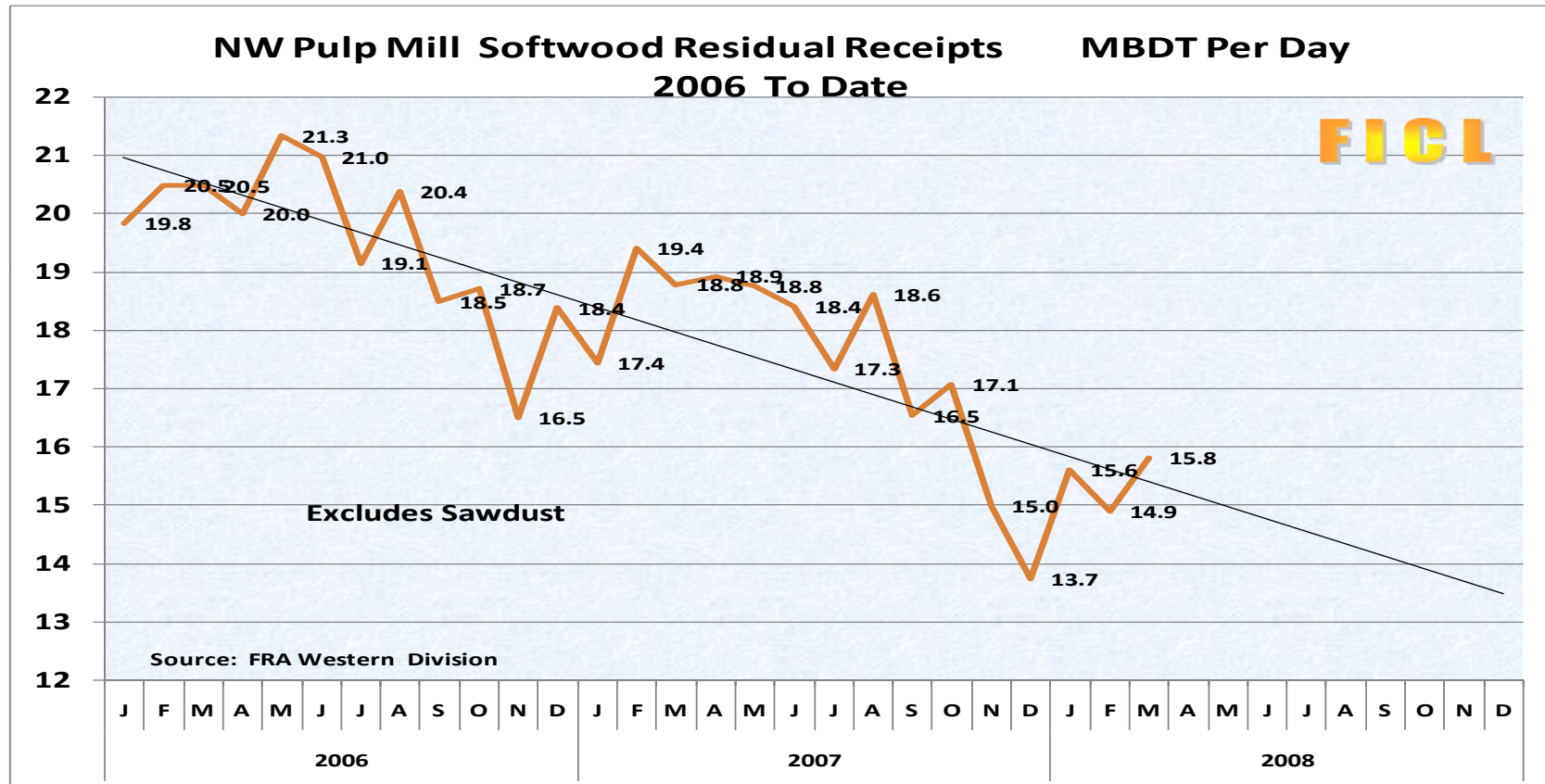
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Softwood & Hardwood Woodchip Receipts: MBDT per Day 2006 to Date



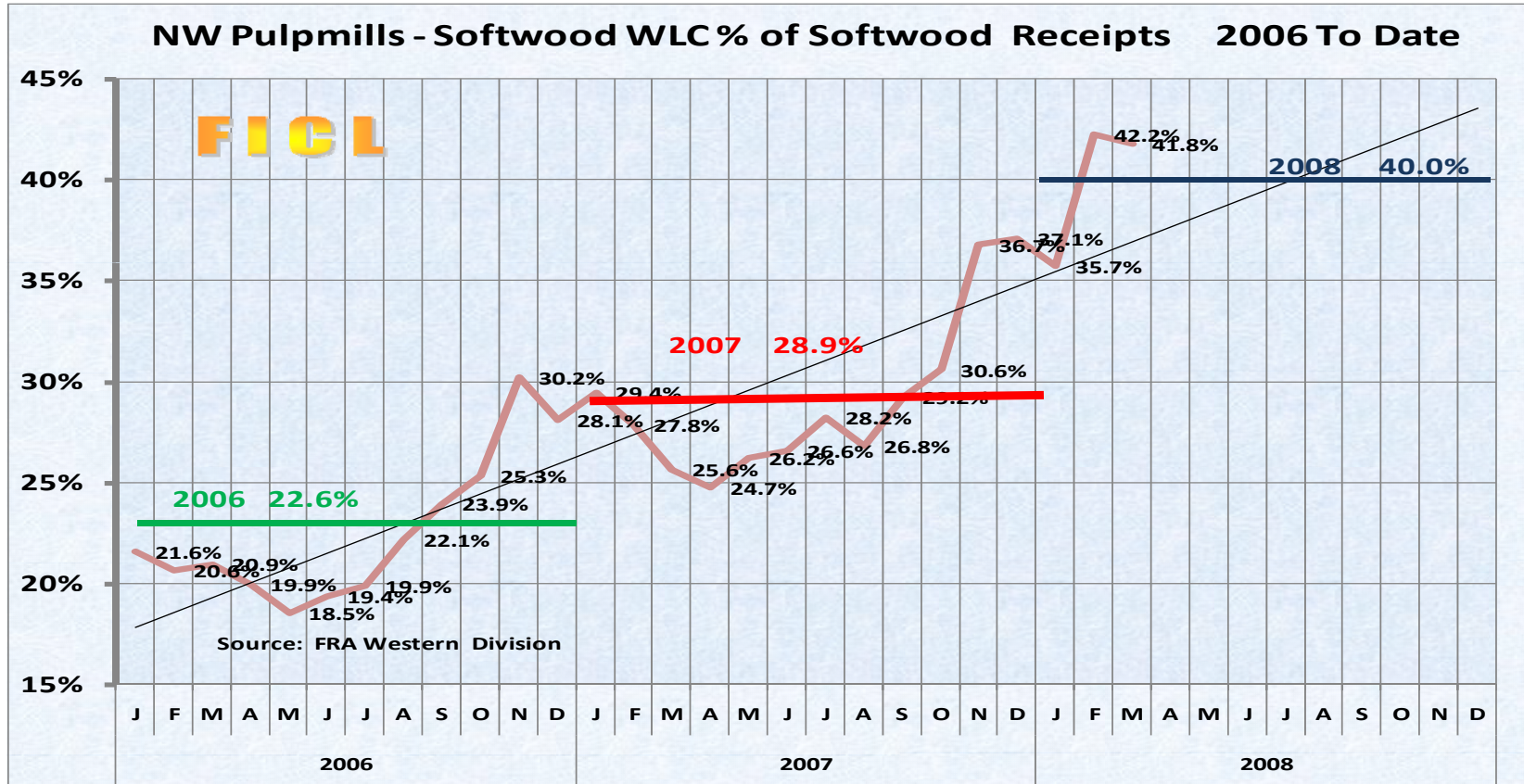
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Softwood Receipts: Residuals MBDT per Day 2006 to Date



Pacific Northwest Woodchip Market

Softwood Receipts: Whole Log Chip Percentage 2006 to Date

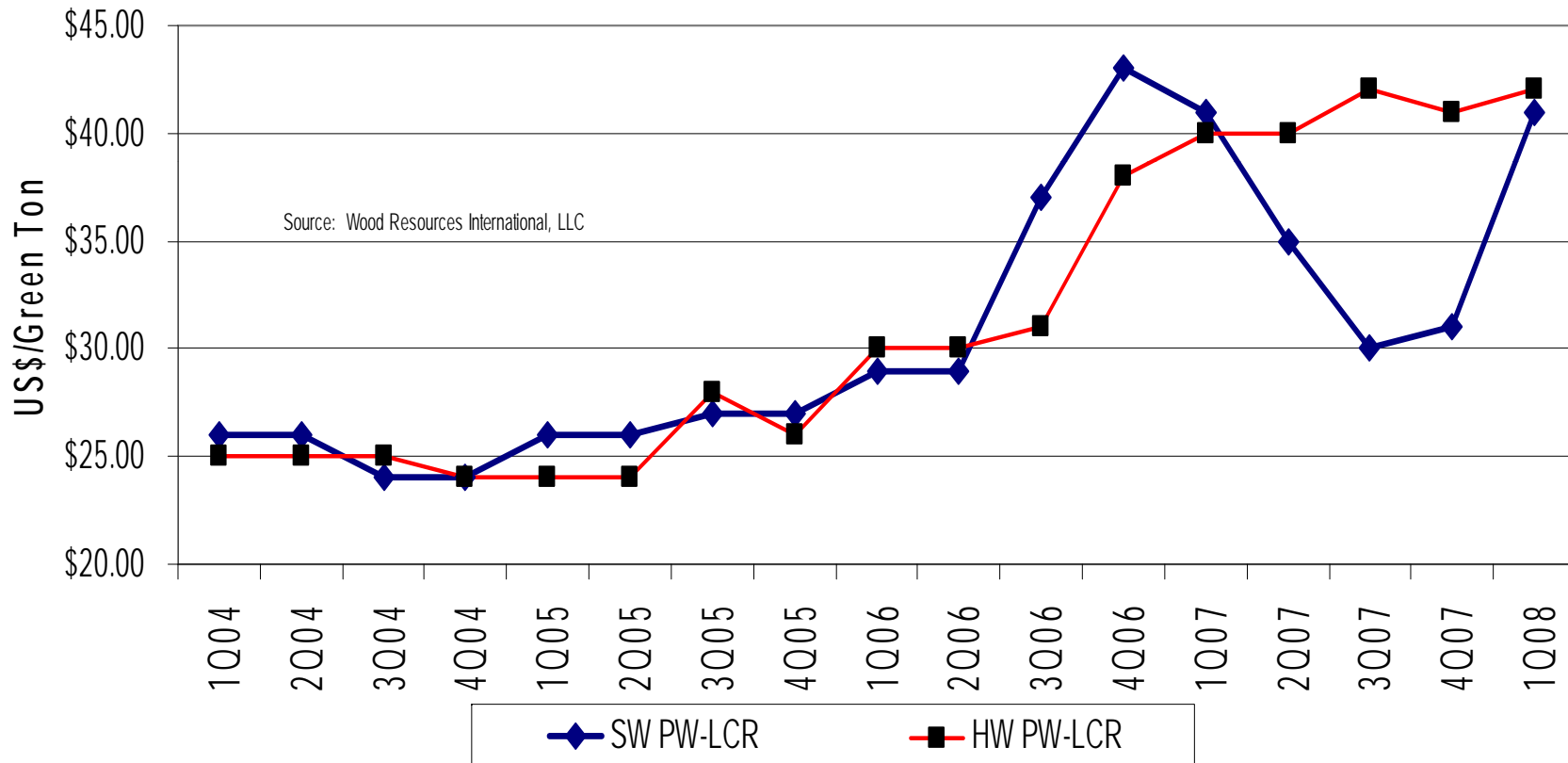


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PNW Pulpwood Price History

PNW Pulpwood Price History

Lower Columbia River

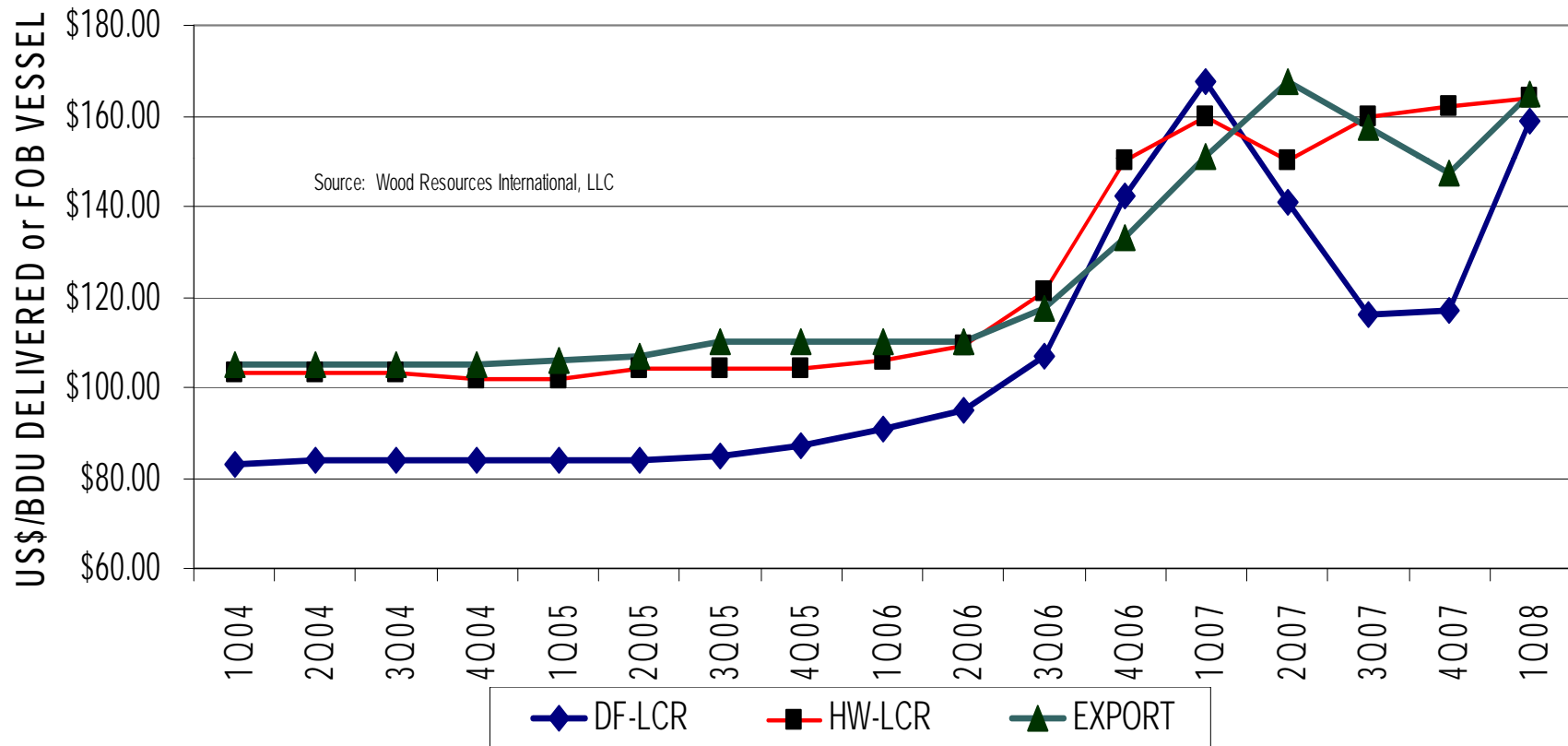


Pacific Northwest Woodchip Market

PNW Woodchip Price History

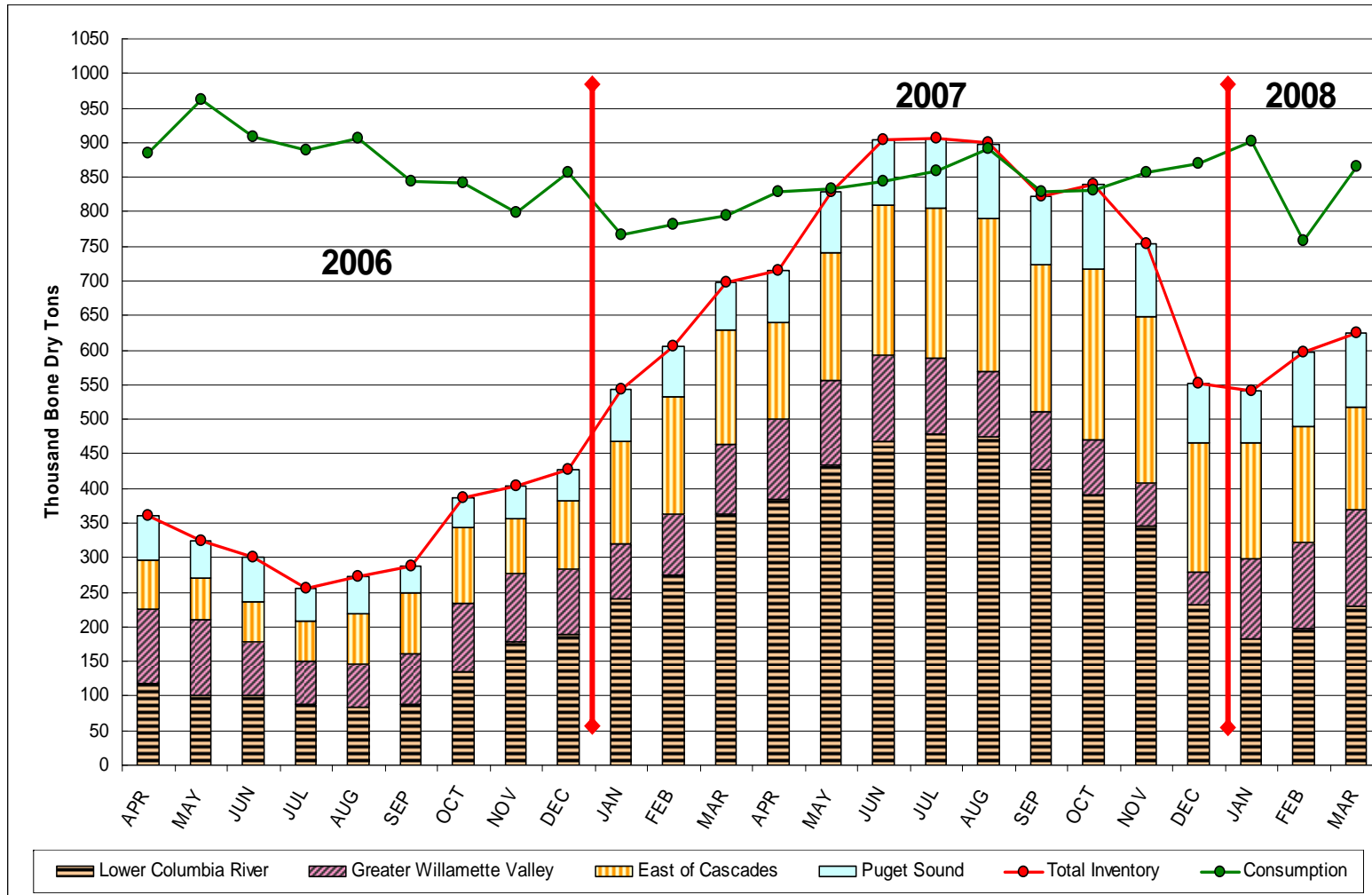
PNW Woodchip Price History

Lower Columbia River & Export



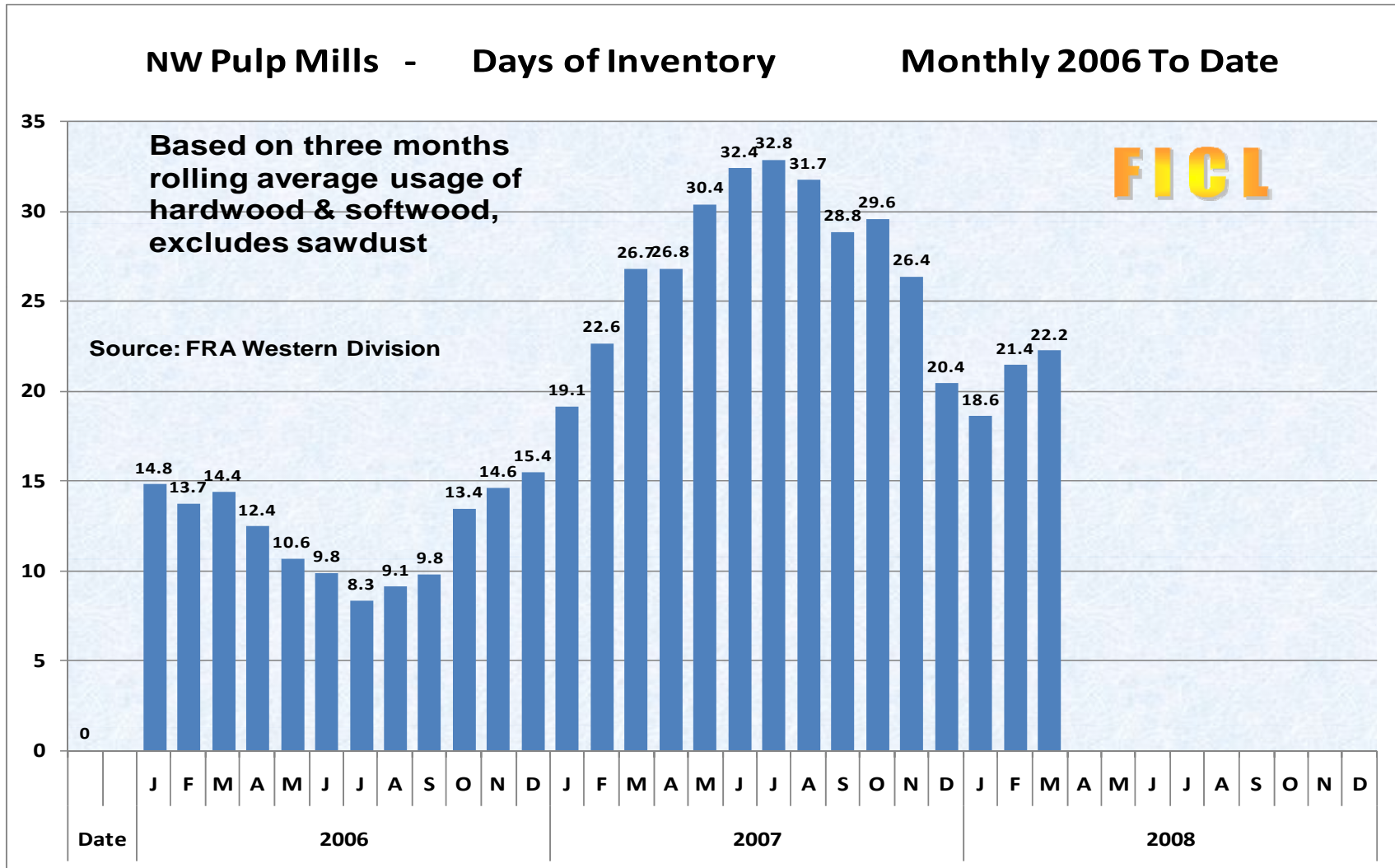
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Woodchip Inventory and Consumption



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NW Pulp Mills: Days of Inventory



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NW Fiber – Future Supply/Demand and Cost Drivers

- Housing starts: Doldrums continue with current annual rate of 940K ... no end in sight; oversupply of existing and new homes; Heaven in 2011
- Pulp & Paper: Forecasts show weakening in markets in late 2008 and 2009; operating rates will not vary widely from current except if major recession is at hand; who will survive the cost crunch?
- Residual chips: Lumber production rates (housing starts); technology enhancements create higher recovery rates, lower chip outputs; super-mills; log costs need to align with product pricing; forest management/timber harvest politics
- Pulpwood availability/cost: Cyclical through the operating season; demands will remain high through 2009; competition with low value sawlogs; thank God for slowdown
- Diesel cost – who knows? \$7.00/gallon?
- Export chip volume: Can the Japanese continue to consume chips at delivered prices in excess of \$240/BDU?; exchange rate impacts?
- Alder supply: Resource dwindles further over time; demand increases; planting programs
- Competing uses: Board plants; pellet mills; cellulosic ethanol; biofuels
- Wood products business adaptations: Mill closures/consolidation of non-integrated mills; professional sellers