

Timber Industry Outlook - Now and into the Future

Presented by
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May 4, 2009

The Good News

- February housing starts were up by 22 % from January to 583,000!

The Bad News

- January's housing starts were the lowest ever recorded
- most of February's increase was in multifamily.
- Single family housing starts were up just 1.1 % from the lowest month ever recorded!

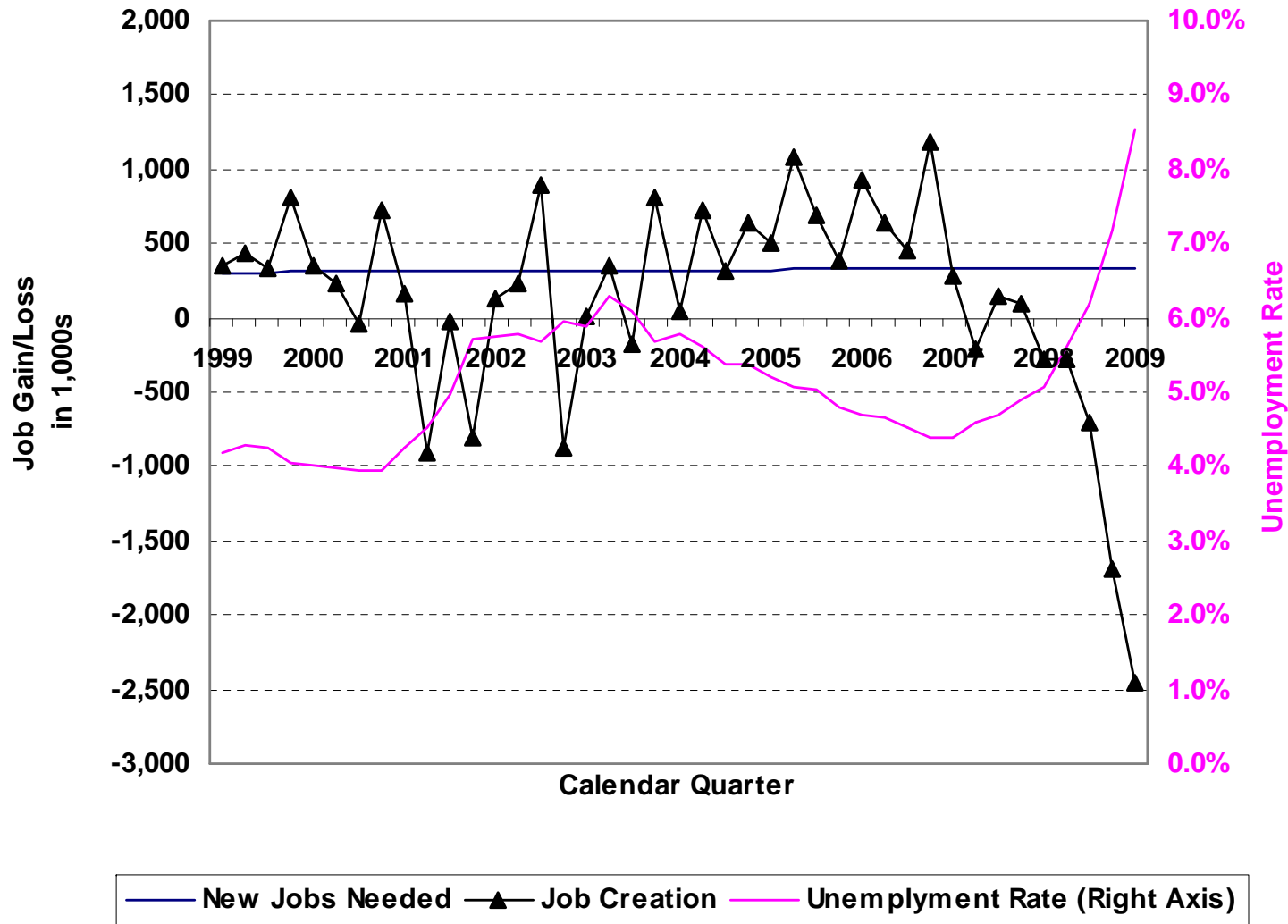
The Good News

- Builders confidence index was up in February to 9 % from 8 % in January

The Bad News

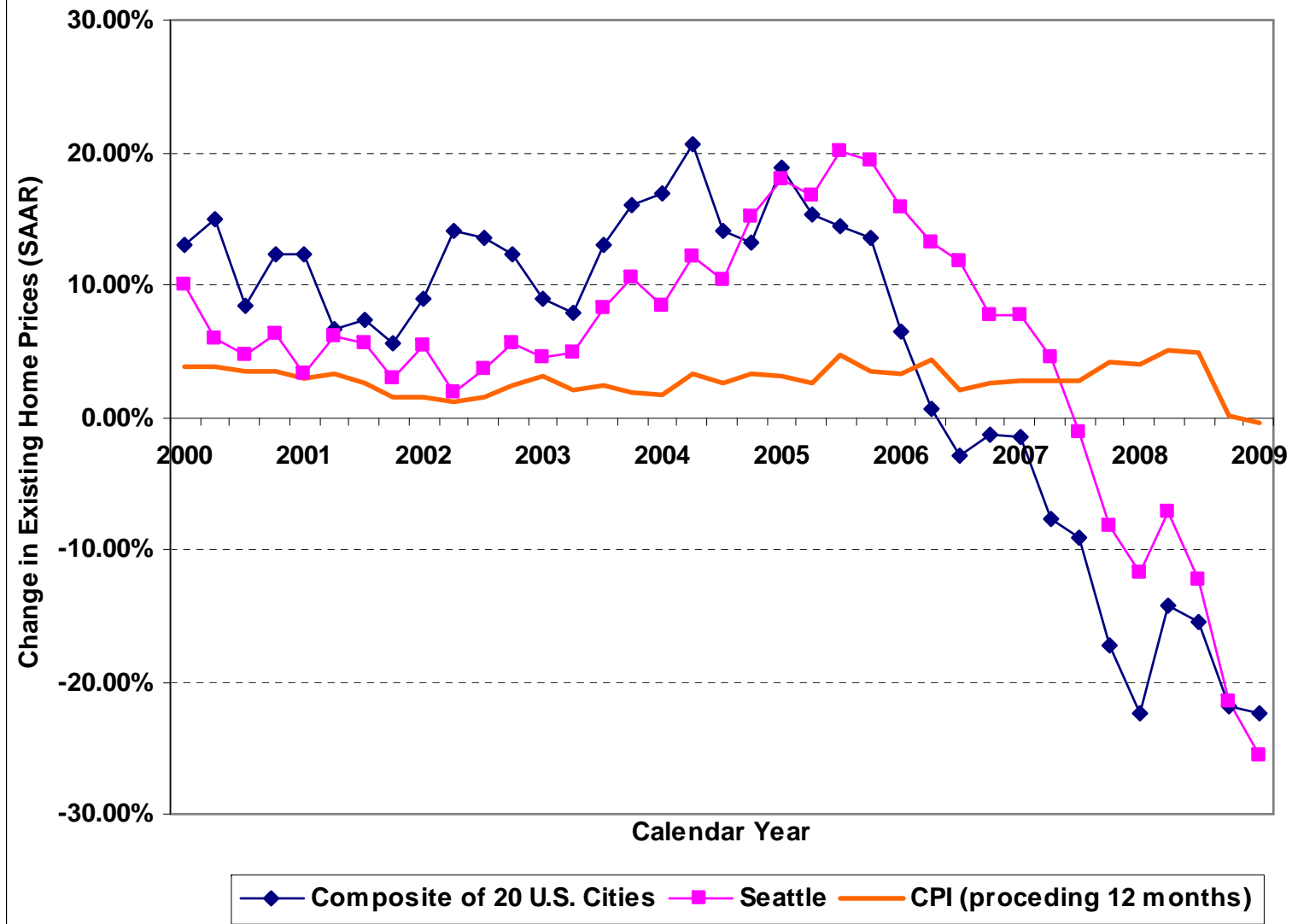
- The index remained steady in March the fifth consecutive month of single-digit readings.
- A record high 85 % of builders expect sales to get worse in the next six months

**Figure 1.1: U.S. Job Gain/Loss and Unemployment
Seasonally Adjusted**



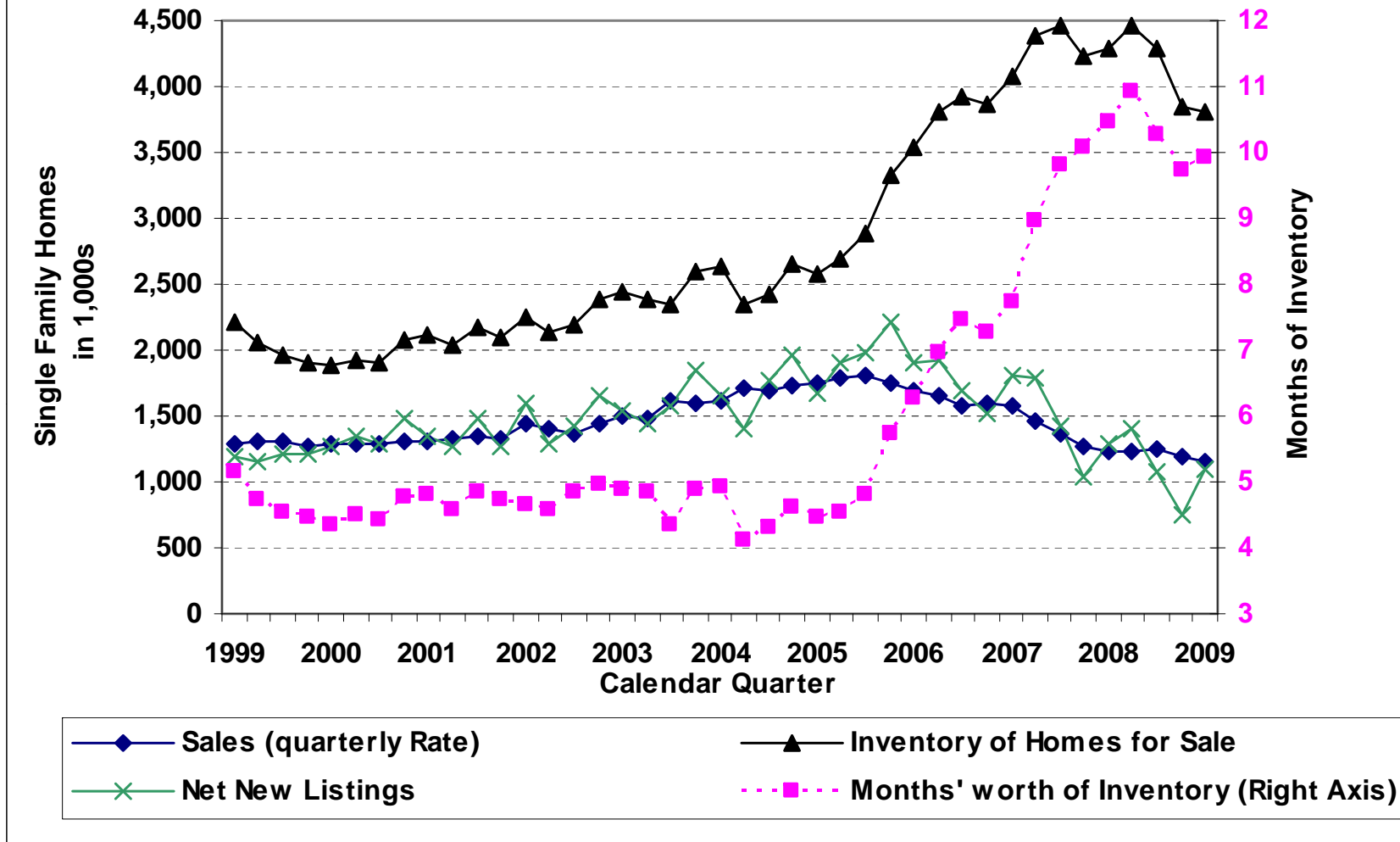
The U.S. economy has lost over 5.1 million jobs in the last year, most of that (4.1 million) in the last six months. Normally the economy needs to create some 1.3 million jobs per year or 325,000 jobs per quarter just to keep up with the growth in the labor force. The unemployment rate has increase from 4.5 % two years ago to 8.5 % today. The economy could loss another 3.5 million jobs and unemployment go to 10.8%.

Figure 2.1: S&P Shiller Existing Home Price Index



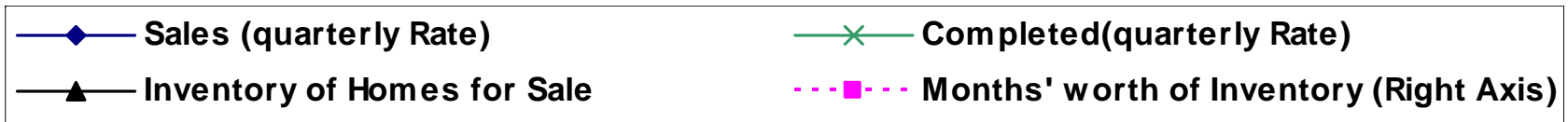
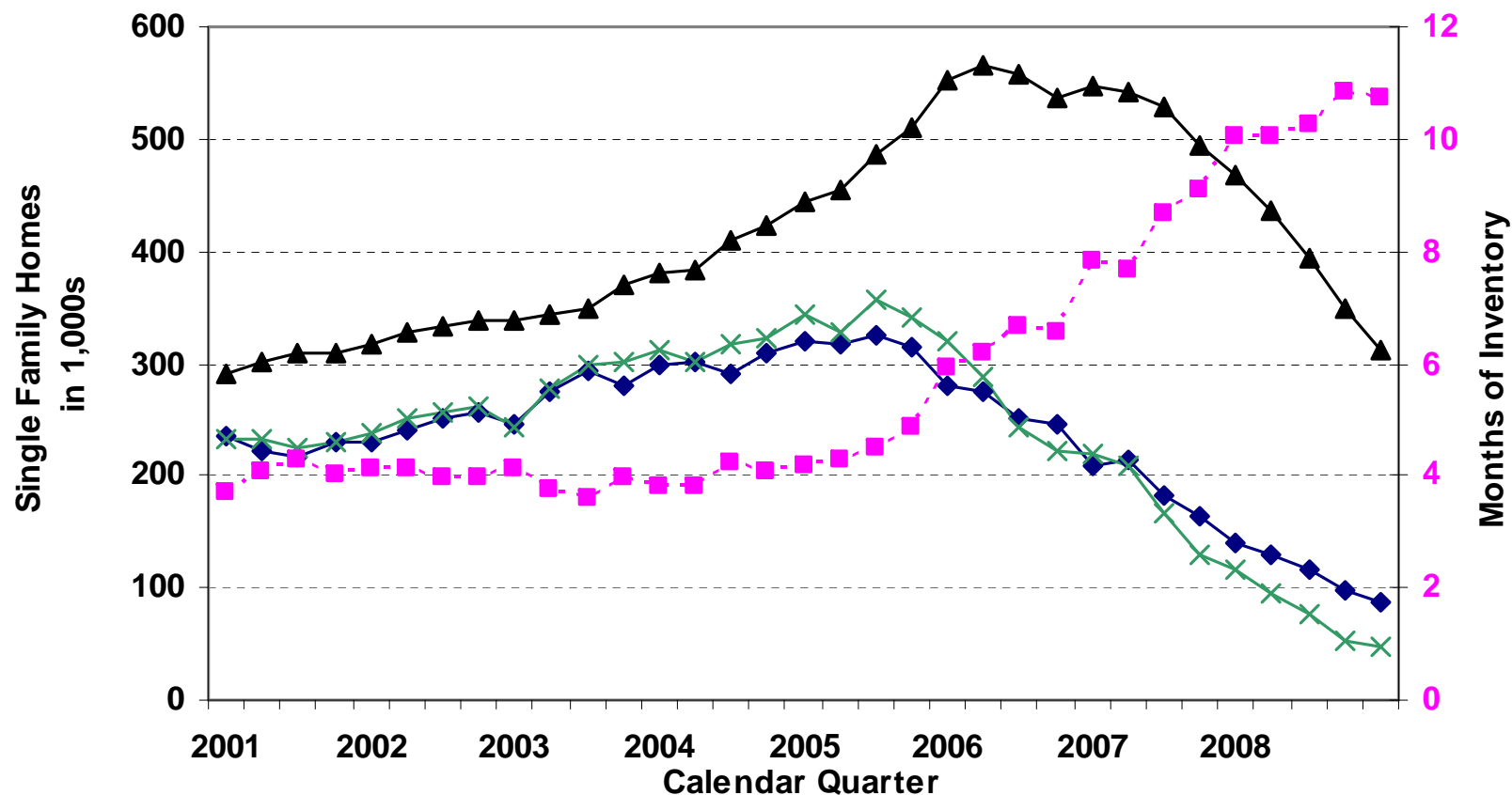
- Housing prices are still falling — Down in all 20 markets in the index for the last 6 months. In February decelerating in 16 of 20 cities. Seattle was down to 14%.
- Nationally nominal prices are were they in early 2004 — In Seattle they are back to early 2006 levels
- Note inflation for all of 2008 was zero!

Figure 2.2: Existing Single Family Homes
Seasonally Adjusted



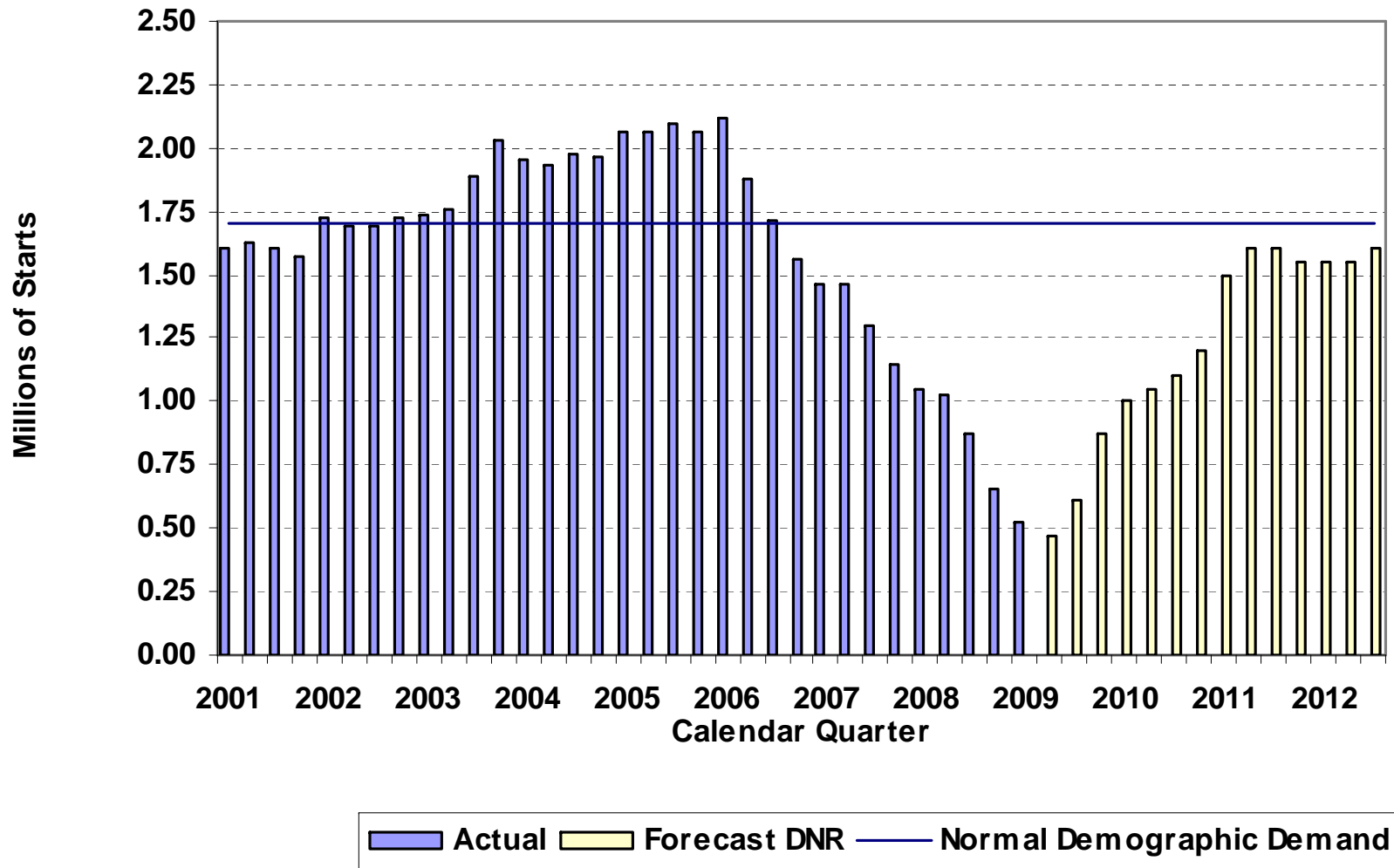
- Existing home sales are down 35 percent from the peak
- The inventory of existing homes for sale has fallen from 4.6 million last July to 3.8 million in March,
- Primarily as the number of net new listings has fallen.
- The month's worth of homes for sale had fallen from 11.0 months worth in November down to 9.9
- Still more than twice the **normal 4.5 months worth**.
- 40 percent of sales are made up of foreclosure and short sales

Figure 2.3: New Single Family Homes Built for Sale
Seasonally Adjusted



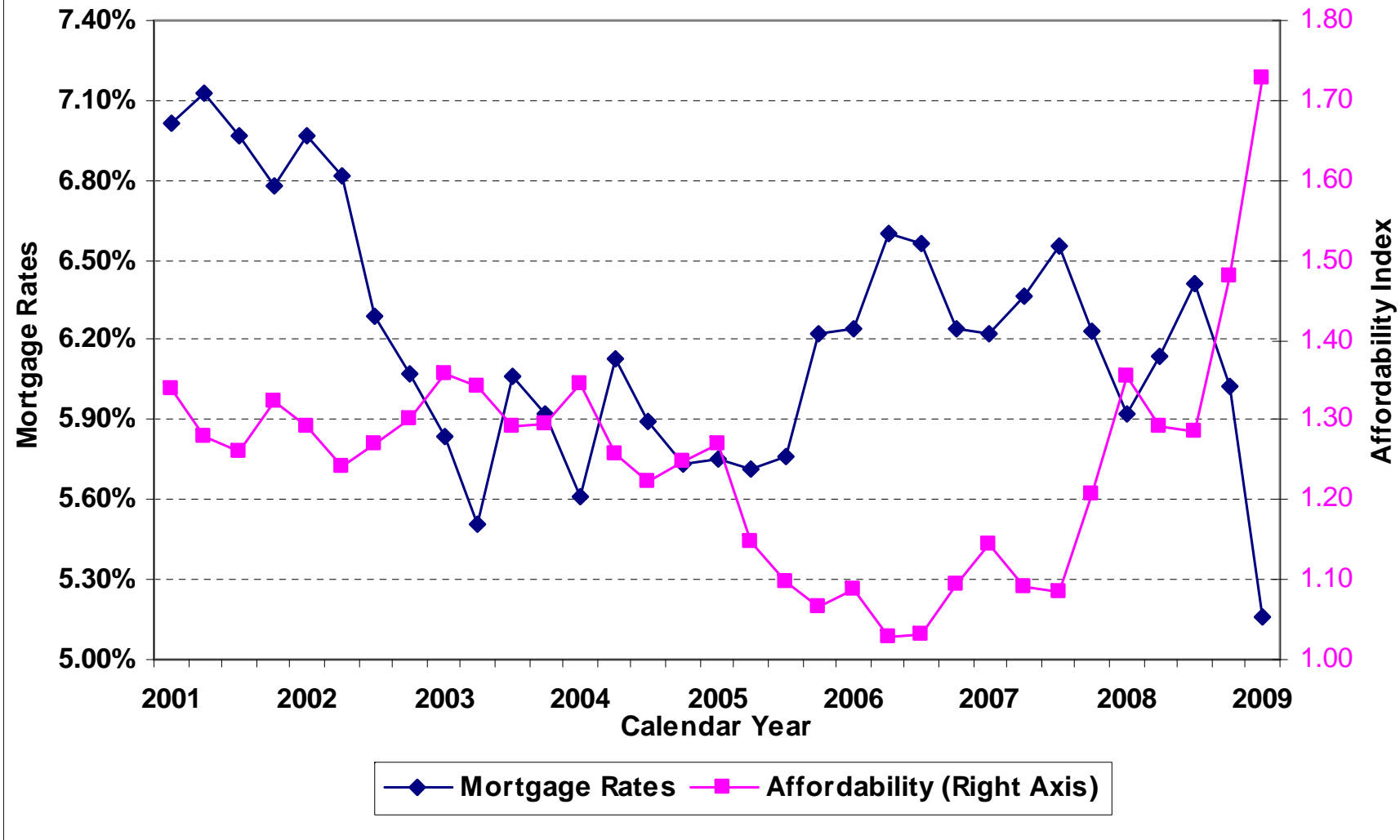
- sales of new single family homes fell to 82,000 units in the first quarter of 2009 just 1/4 of what they were at peak, while new single family homes completed for sale fell to just 51,000 units, 15 % of peak.
- The inventory of unsold homes is now about normal (about 325,000 units).
- But the months worth of inventory continues to climb.

Figure 2.4: U.S. Housing
Annualized, Seasonally Adjusted



- Actual housing starts in CY 2008 were 905,000, the lowest level since record-keeping started in 1959
- Even with the reduction in starts vacancy rates have not increased. WHY?**
- We forecast 600,000 for all of CY 2009, could be optimistic
- I've seen forecasts as low as 432,000 (WFPA) half what it was in 2008!

Figure 2.5: Housing Indicators



- The Affordability Index is the ratio of the median family income and the income required to qualify for the median-priced existing single-family home.
- In January 2009 with interest rates at 5.1% the affordability index was \$61,314/\$34,656 or 1.77 **an all time high**.
- Affordability will continue to improve and could reach 2.00. This would mean that a family with household income of just \$30,000 would qualify for the median-priced existing single-family home, the income of a full time worker earning \$14.50/hr. or two wage earners averaging \$7.25/hr.

Affordability in February by the numbers

- The **median home value — \$164,200**
- 20 % (\$32,880) down — **finance \$130,520**
- At 5.21 % — payment **\$8,664/yr.** (\$722/mo.)
- 25 % of income devoted to the payment — **qualifying income \$34,656**
- The median family income — \$61314
- This results in an **affordability index — 1.77**

Lumber (CME)

06/30/89 - 04/10/09

14 Month Moving Average
18 Month Moving Average

Lumber Prices Last twenty years

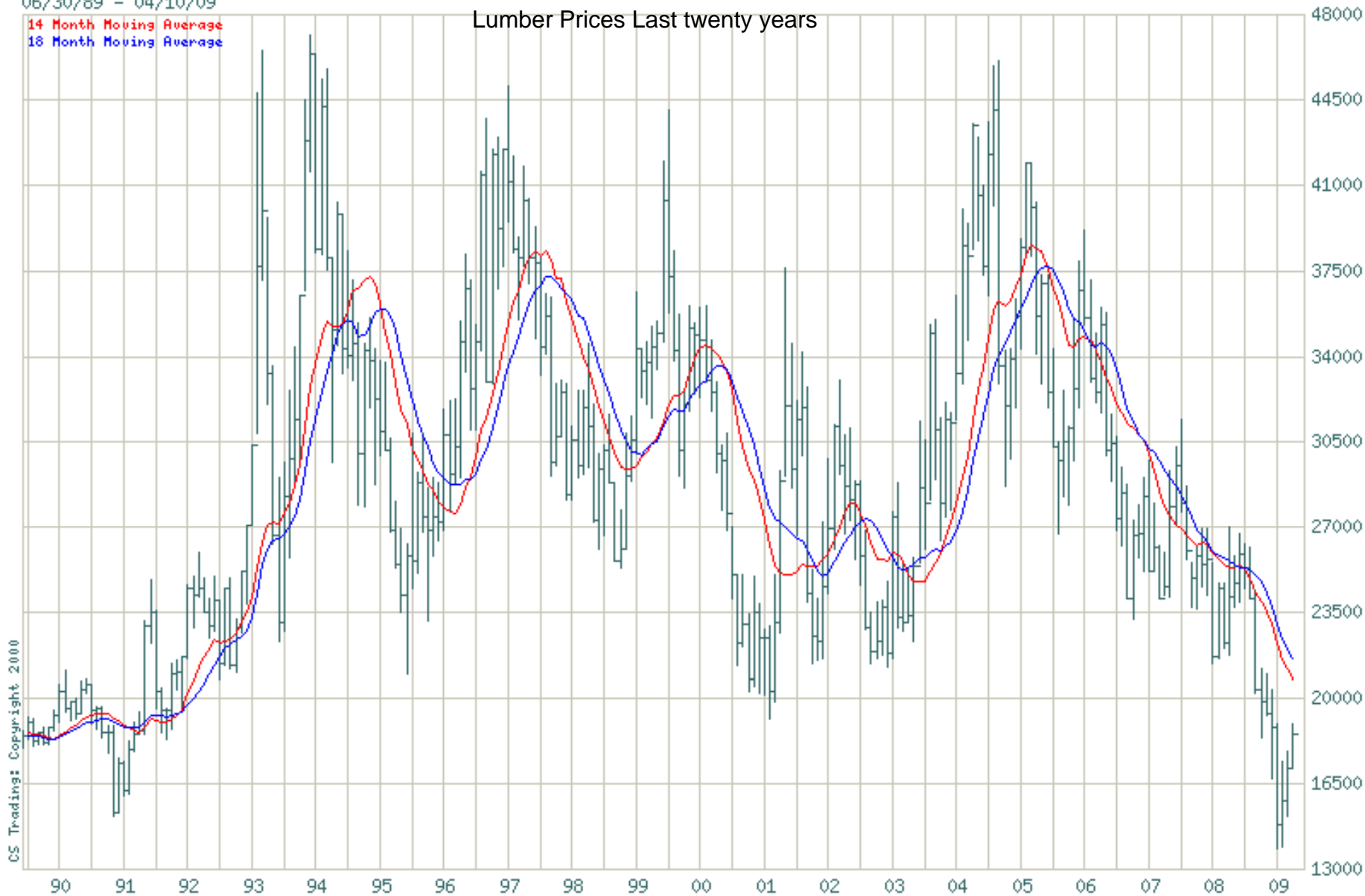
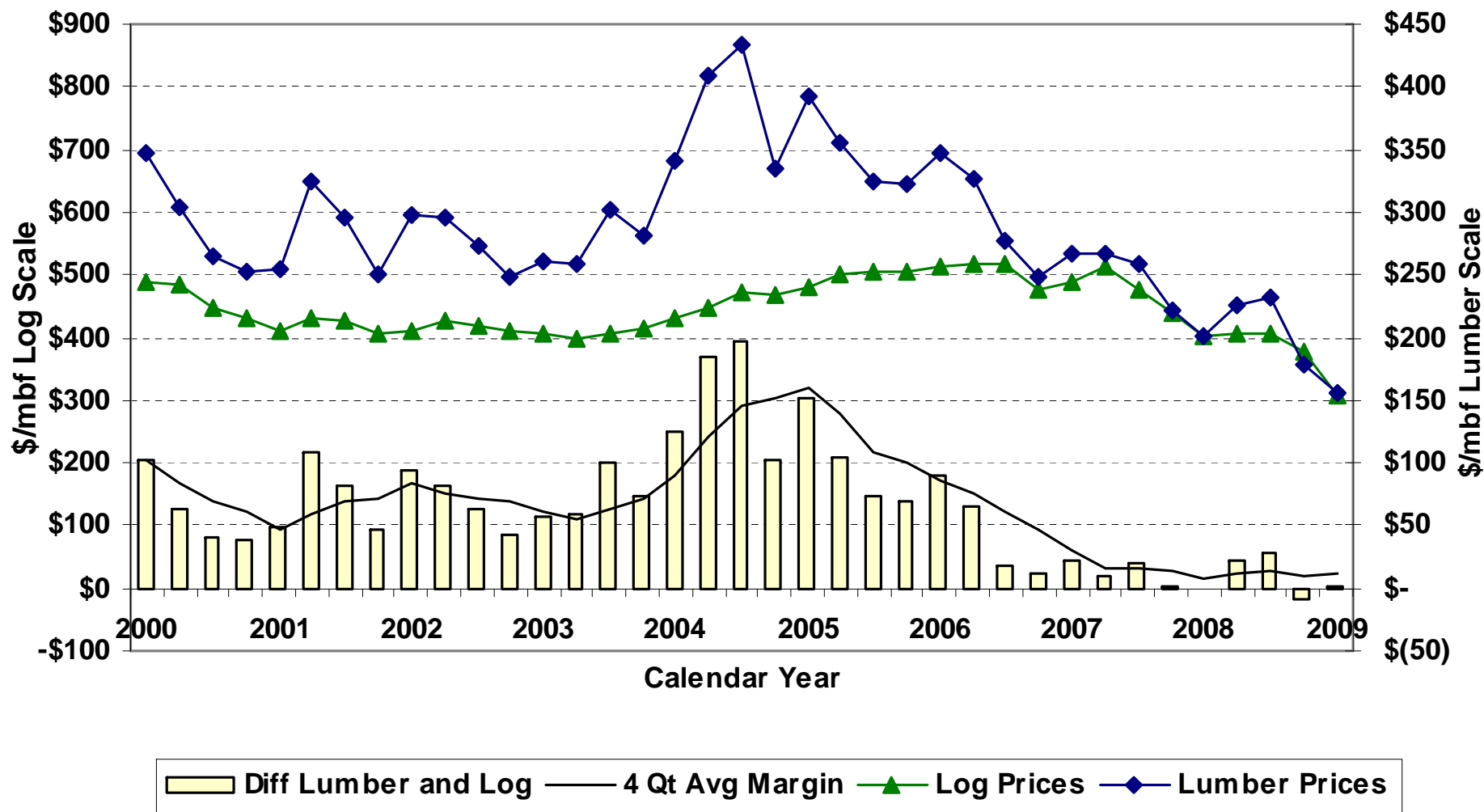
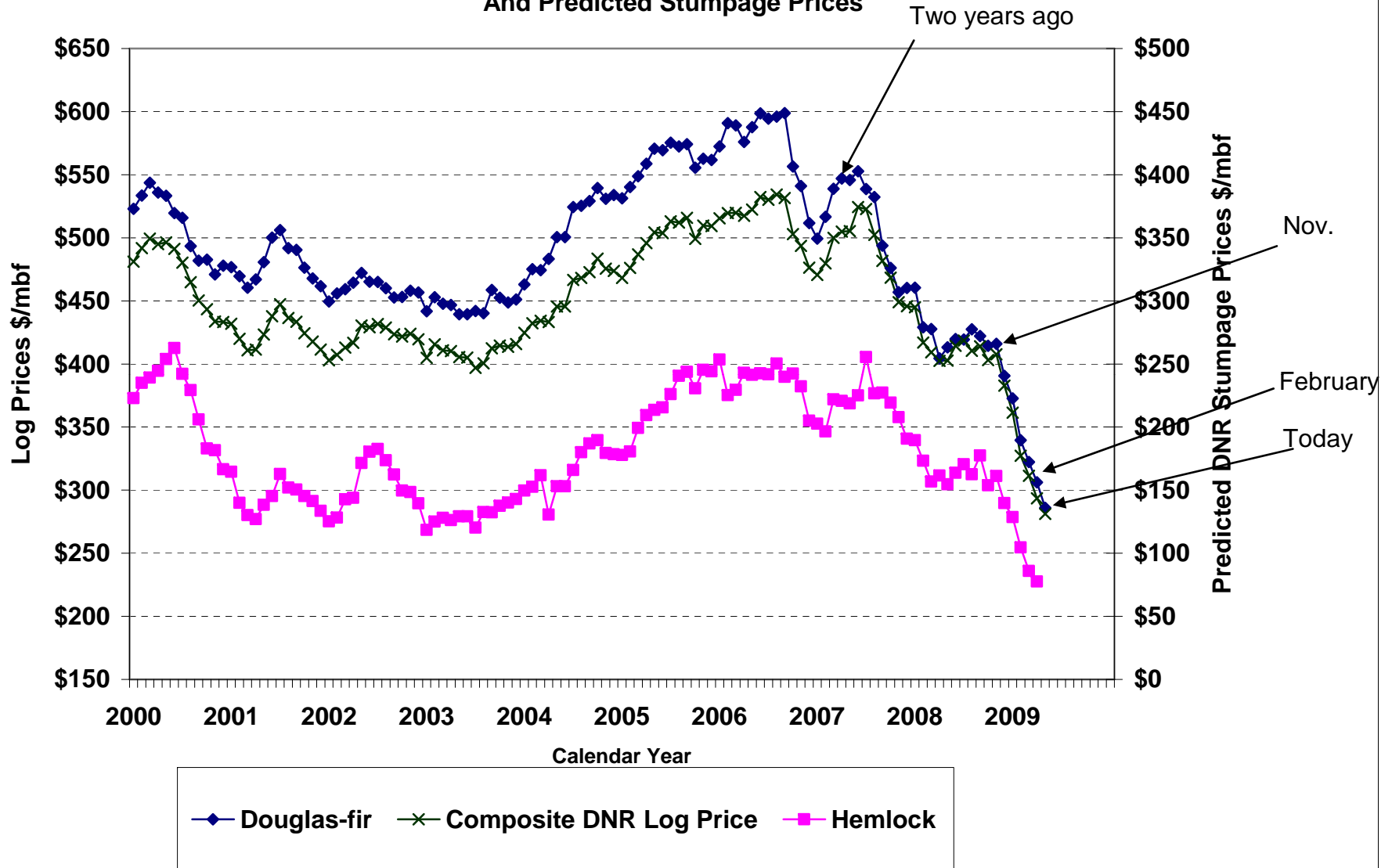


Figure 2.6: Lumber and Log Prices



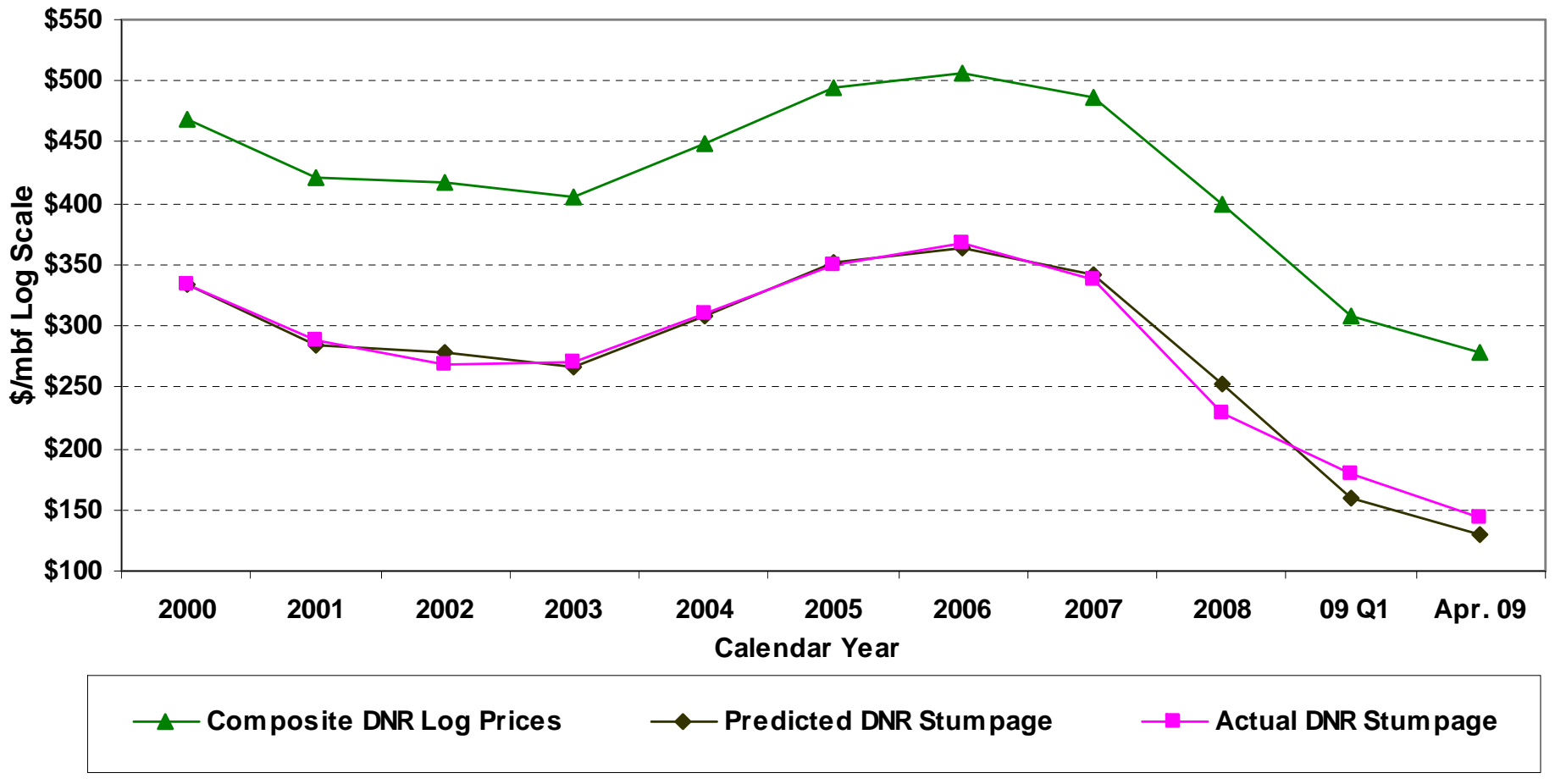
- West Coast mills are under tremendous pressure from falling lumber prices
- Operating rates have fallen as low as 60 % and capacity is leaving the industry
- Again no bottom has been confirmed
- The actual situation faced by some mills is even more severe than shown
- Expect lower log prices in the next quarter or two then things could begin to recover

Chart 3: DNR Composite Log Prices
And Predicted Stumpage Prices



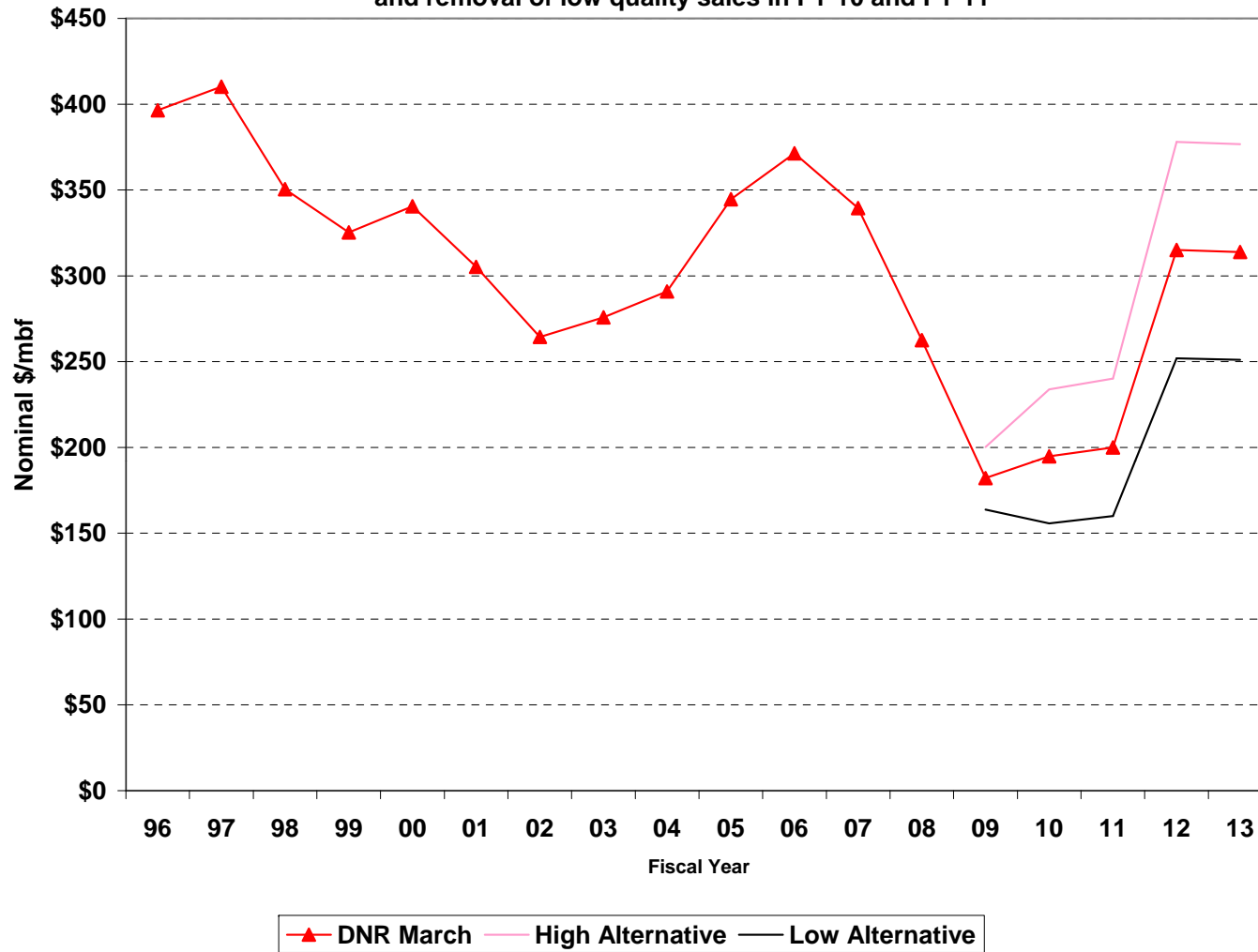
- Log prices continue to drop
- DNR predicted stumpage prices have fallen at a rate of 10 % per month for the last 6 month
- a total of almost 50%
- Harvest and haul cost average \$150/mbf

Figure 2.7: Log and DNR Stumpage Prices
Adjusted for Blowdown sales



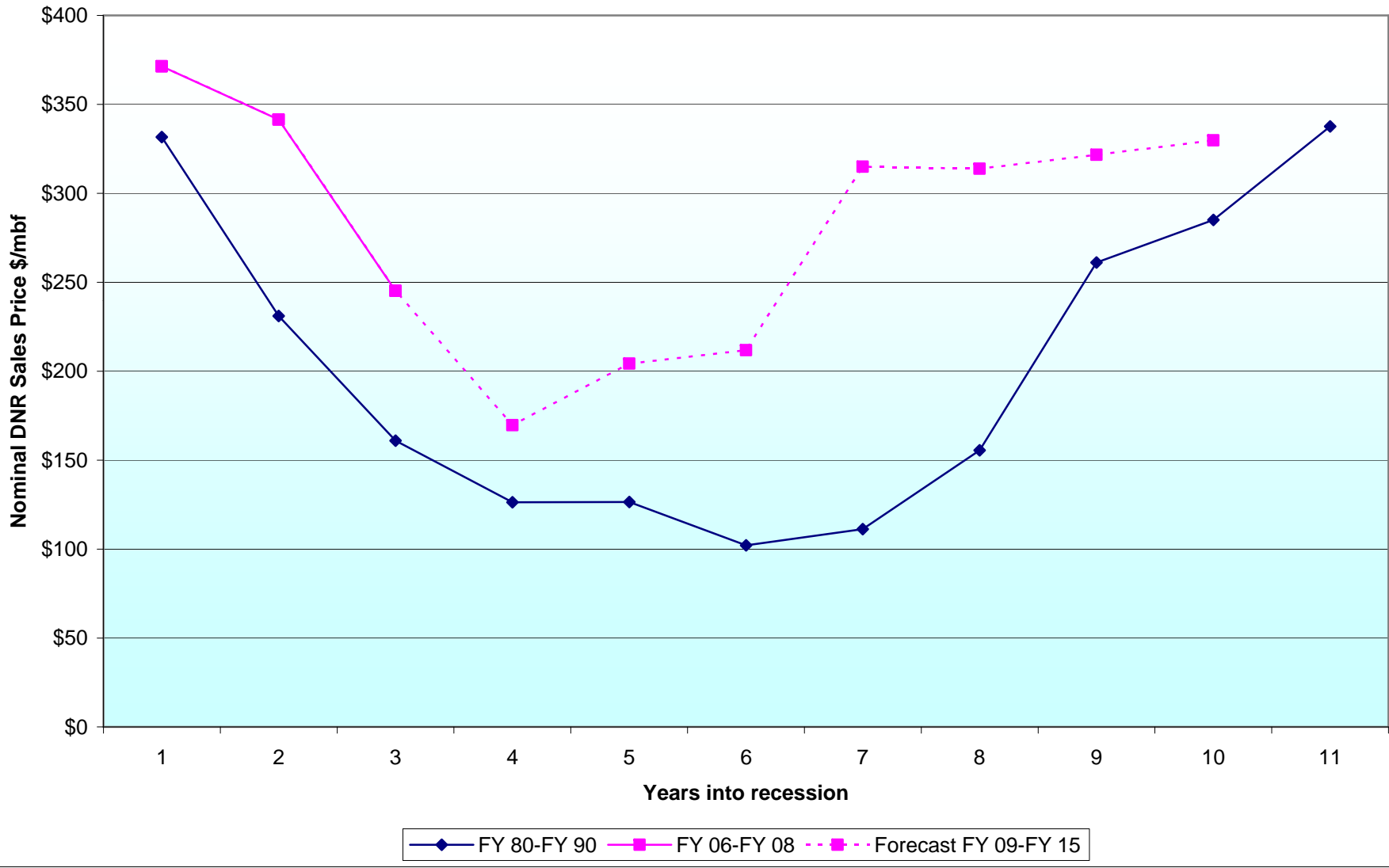
- In CY 2008, DNR stumpage prices were \$25/mbf less than predicted by the economics model.
- We attribute this to “**buyer’s fatigue**” when weary purchasers bid less than they would normally given log prices
- In the 1Q:09, DNR had some 60 % no bids and an average sales price of \$178/mbf
- At April log prices (\$279/mbf) we predict DNR stumpage at \$130/mbf actual was \$144 but if you add in no bids at the minimum price actual would have been \$125/mbf

**Chart 3: Forecast Sales Prices
Adjusted for Blowdown Sales
and removal of low quality sales in FY 10 and FY 11**

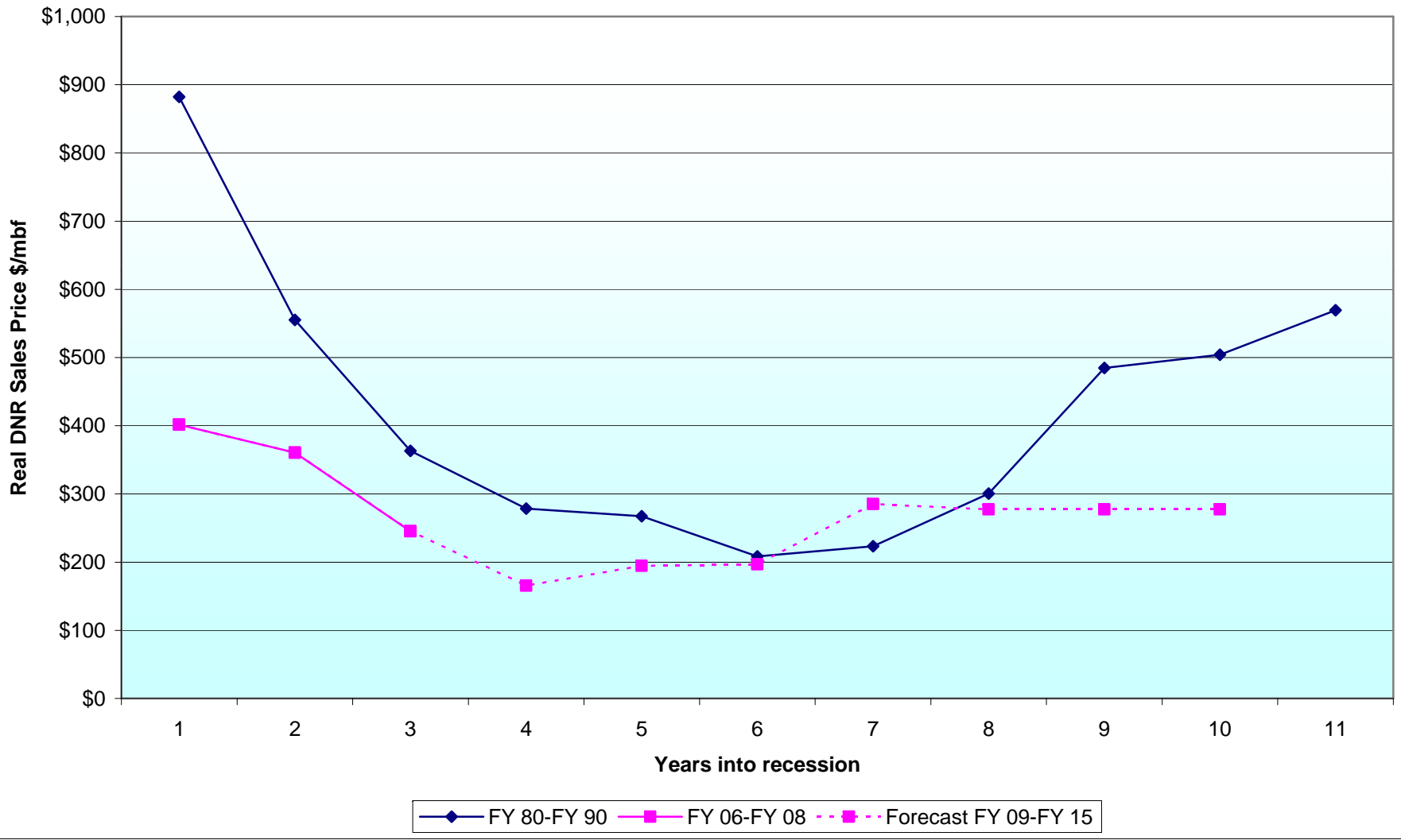


- Fiscal Years FY 09 is from July 1, 2008 - June 31, 2009
- DNR stumpage price predicted to remain below \$200/mbf through mid 2011
- Most of the risk to our current stumpage forecast is to the down side

Comparison of Today's Recession to 80's recession



Comparison of today's and 80's recession Adjusted for Inflation (2008 Dollars)



How DNR Markets Timber

- DNR sells timber by Contract
- Contract have a term (length of Contract) from 3 months to 3 years with an average term of 25 months
- This is down from about 30 month in the first part of this decade
- Price is set at the time of sale
- Revenue is collected at the time of harvest

Figure 3.3: Timber Volume - Sales and Removal

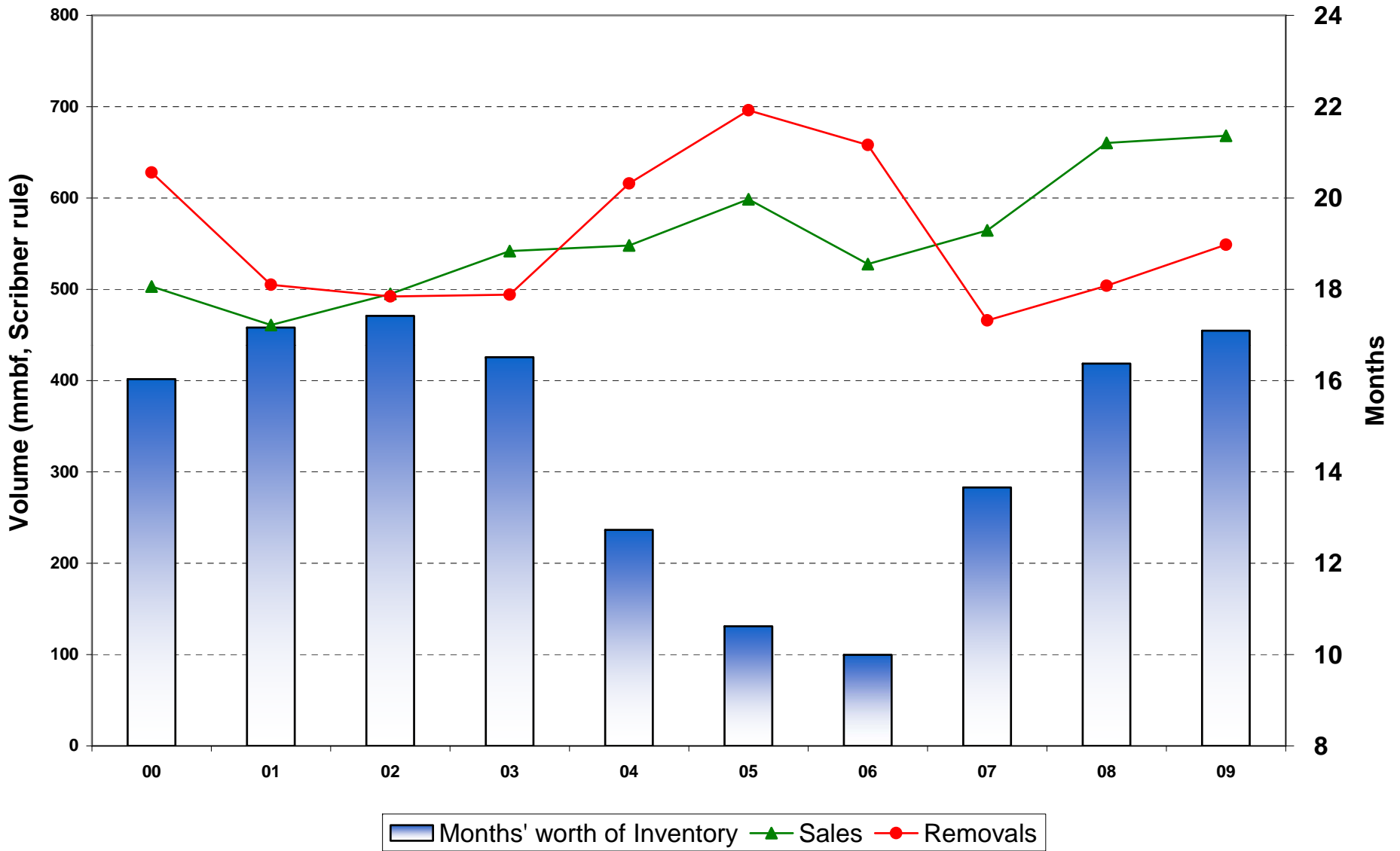
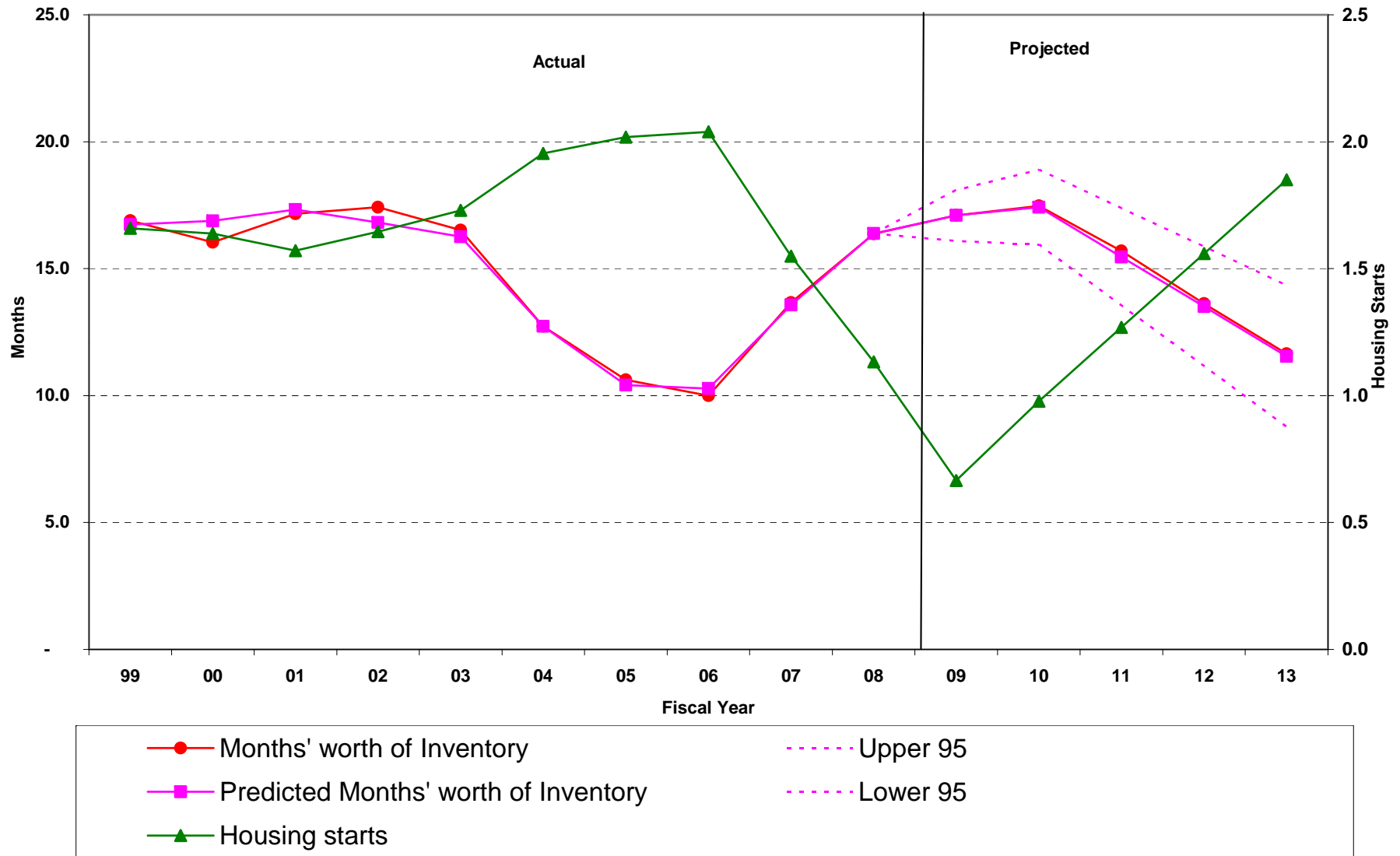
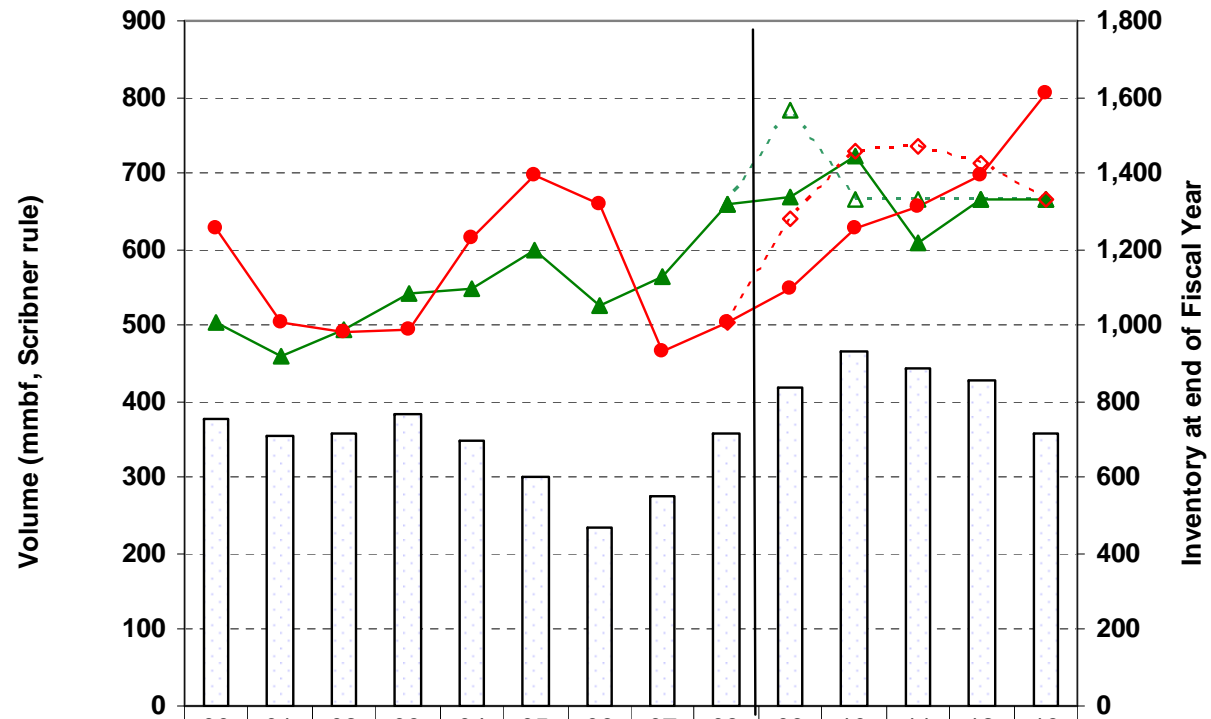


Figure 3.4: Months worth of Inventory - Removal Housing starts



• Model has an adjusted R² of 97 %

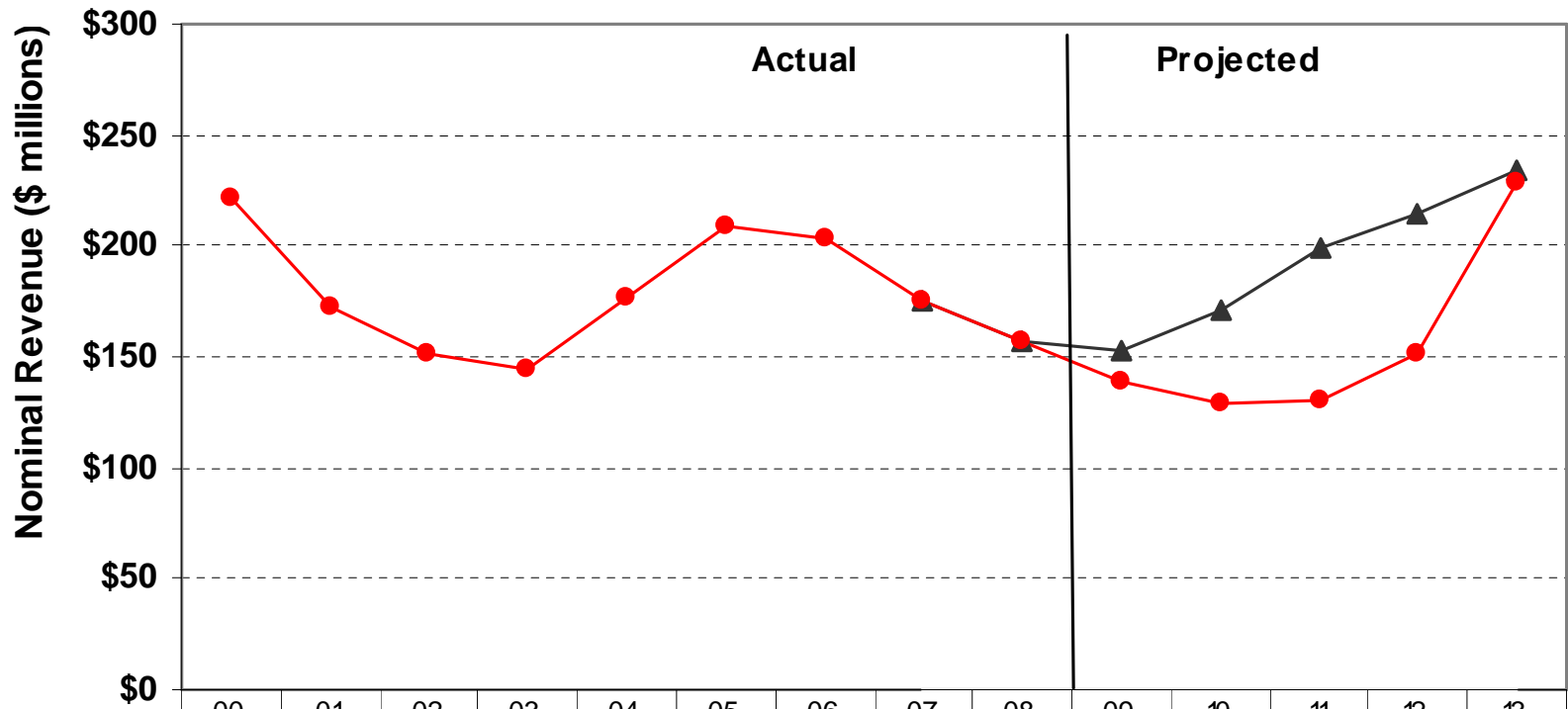
Figure 3.5: Timber Volume - Sales and Removal



Inventory at end of Period	757	713	716	764	696	599	468	552	718	838	933	885	854	715
Months worth of Inventory	16.0	17.2	17.4	16.5	12.7	10.6	10.0	13.7	16.4	17.1	17.5	15.7	13.6	11.7
Sales - Previous Forecast									660	784	667	667	667	667
Sales - Current Forecast	503	461	495	542	548	599	528	565	660	668	723	607	667	667
Removals Prev. Forecast									504	640	730	735	713	667
Removals - Current Forecast	628	505	492	494	616	696	658	466	504	549	627	655	698	806
Change										-92	-103	-80	-15	139
Percent Change										-14%	-14%	-11%	-2%	21%

These are fiscal years

Figure 3.9: Timber Removal Revenues - Comparison of Previous Forecast with Current Forecast, 2000-2013



▲ Previous Forecast								\$175	\$157	\$153	\$170	\$199	\$215	\$234
● Current Forecast	\$222	\$173	\$151	\$144	\$176	\$208	\$203	\$175	\$157	\$139	\$128	\$131	\$152	\$228
Change								-	(0.3)	(14.4)	(42.1)	(68.8)	(63.0)	(6.2)
%Change								0%	0%	-9%	-25%	-35%	-29%	-3%

Fiscal year ending June 30

Put it all together look for DNR timber revenues to remain flat for the rest of this year
And the next biennium then increase in FY 12 and FY 13

Change in Total Revenue from November to March Forecasts 09-11 Biennium

November Forecast.....\$ 470.4 Million

1. Reduced Sales Volume... \$ - 4.4 Million (0.9%)

2. Reduced Sales prices..... \$ -68.3 Million (14.5%)

3. Reduced Removals.....\$ -38.2 Million (8.1%)

Total Change.....\$ -110.9 Million (23.6%)

March Forecast.....\$ 359.5 Million

High Alternative.....\$ 394.2 Million (+9.7%)

Low Alternative.....\$ 319.6 Million (-11.1%)

Contact information

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- DNR Timber and Revenue Forecast
 - http://www.dnr.wa.gov/Publications/obe_econ_rprt_revfrcst_march09.pdf

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WORLD WILL PLUNGE
INTO DARKNESS.



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WHO WILL, IN TURN,
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THAT RIDDLE
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THAT
A LOT
LATELY.



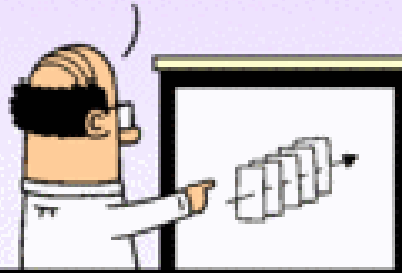
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I'D TAKE QUESTIONS,
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SURE YOU'RE REAL.



The End