

Oregon Forest Sector Economic Report

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The purpose of this report is to give a very concise picture of Oregon’s Forest Economy to the Board of Forestry as they begin their planning process. The report focuses on general sector health and on returns to landowners and contributions to the state.

Sector Health – General Overview

Since the bottom of the recession in 2009, the forest sector in Oregon has been slowly recovering. However, the recovery has revealed a different sector than the one of the housing boom that preceded 2008. Certain parts of the state and sector have been impacted so severely that it is now possible that their recovery will be years away, if at all. This is the result of mill closures, loss of potential employees, a different demand gradient (e.g. market) for Oregon’s timber products, and various other issues. Slowly, we have seen timber harvests rise back to pre-recession lows. Employment has sidled back to a new “normal”.

At a first glance, Oregon lumber and plywood production have had a positive trend, as have their prices (Figures 1 and 2, respectively).



Figure 1. Oregon Lumber and Plywood Production, 2000-2013 (Source: APA, WWPA)

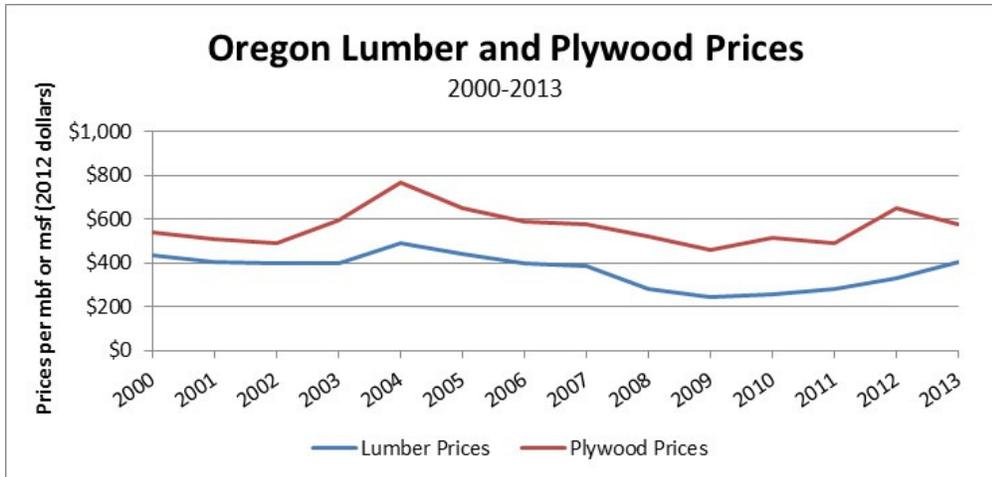


Figure 2. Oregon Lumber and Plywood Prices, 2000-2013 (Source: APA, WWPA, and ODF)

Lumber and plywood prices as well as production have been trending back upward since the “Great Recession”. However the pace of production recovery, as seen in Figure 1, is not as apparent for plywood production, a trend that was decreasing even before the recession. According to the APA, there are only 15 plywood facilities remaining in Oregon.¹ This is down from a pre-recession count of 28 facilities.

Tied to this story is the utilization of lumber produced in Oregon. According to the Western Wood Products Association (WWPA), the majority of the lumber produced stays on the West Coast – nearly 70 percent.² The great majority of the products produced in Oregon go toward the single-family housing market (multi-family starts are more dependent on concrete and steel). This market has not seen the reemergence that many had hoped for. Early on, other forecasters (e.g. IHS Global) had predicted total starts to approach 2 million units. As time has moved on from 2012, that number has been adjusted to 1.5 and now 1.2. As of the June 2015 Random Lengths Yardstick, U.S. single-family starts are adjusted to around 700,000 of those nearly 1.2 million starts, or just a little over half with multi-family dwellings making up the difference.³ Keeping in mind that the majority of Oregon’s products stay on the West Coast, and that its products mainly go in to single-family housing, it is important to note that only 14.7 percent of single-family starts are in the West – this is a limiting factor for Oregon lumber demand.

¹ Elling J. 2015. Structural Panel & Engineered Wood Yearbook, APA Economics Report E181.

² 2013 Statistical Yearbook of the Western Lumber Industry, Western Wood Products Association (no editor listed). p6.

³ Cochran, T. (Editor). 2015 June. Housing. *Random Lengths Yardstick*. p6.

The Oregon Office of Economic Analysis (OEA) has reported overall that the post-recession recovery has meant less employment for the forest sector. Figure 3 shows post-recession employment after two large recessions (1980 and 2012). Their analysis shows that unlike the Rust Belt and Corn Belt, the Timber Belt post-recession had an increase in population from 1980-2012 and is still increasing. Usually, after a shock – people leave for jobs in other more opportunistic areas – not so for the Timber Belt. Even with this inward migration, jobs associated with manufacturing (e.g. forest sector mills) and the natural resource base have continued to decline and become less a part of the economic recovery.

One step further is the realization that Wood Products in Oregon has declined dramatically as a contributor to state GDP to less than two percent (Figure 4).

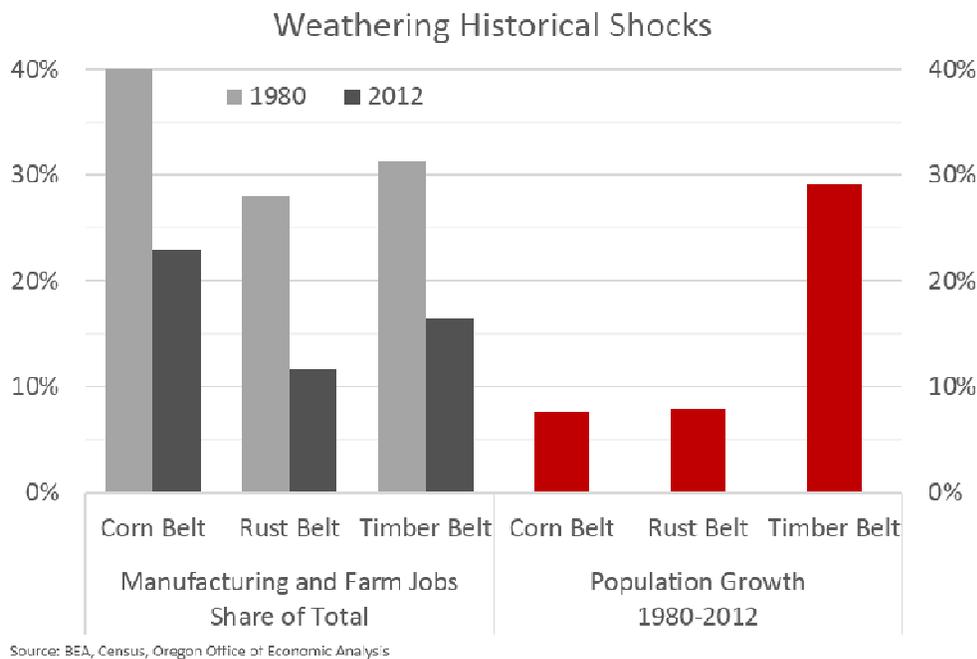


Figure 3. Weathering Historical Shocks (Source: OEA)

Wood Products as Percent of Oregon GDP (1963-2009)

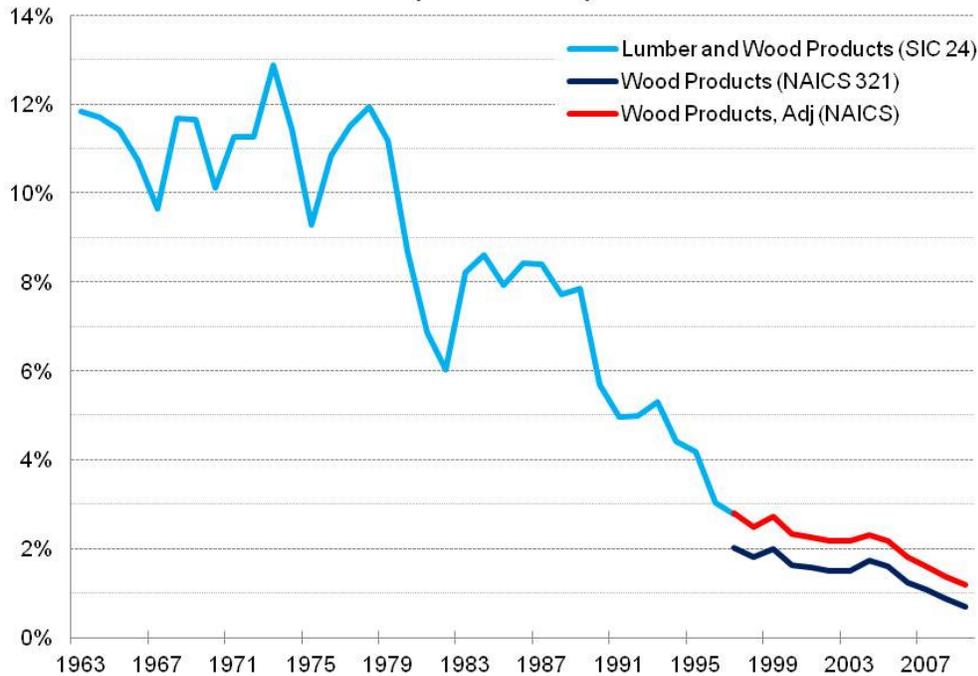


Figure 4. Wood Products as Percent of Oregon GDP, 1963-2009 (Source: OEA)

Employment in the forest sector has improved since the bottom in 2011. From the Oregon Employment Department (OED) estimates, Oregon has had a joined rise in covered employment and wages. In Figure 5, it is notable that covered wages are rising above employment as a trend. This is the opposite of the pattern at the beginning of the trend around 2003. One hypothesis is that new technology (e.g. technological improvements in mills) requires less employees at a higher wage due to specialization. This snapshot of forest sector employment is production specific. If you compare the 2013 employment number to the new report from Oregon Forest Resources Institute (OFRI), the difference is approximately 12,772 employees. These additional employees in OFRI’s report can be found in transportation, wholesalers and other categories that were not tracked through previous indicators by ODF shown in Figure 5.

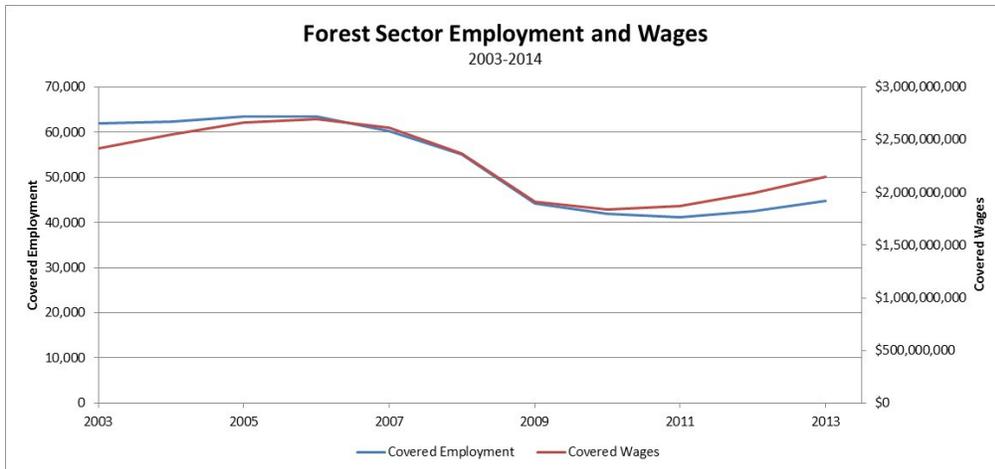
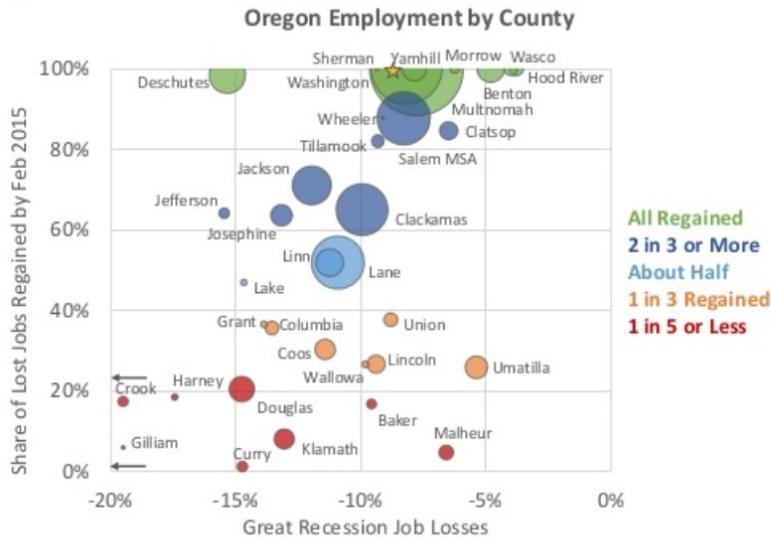


Figure 5. Forest Sector Employment and Wages, 2003-2014 (Source: ODF and OED)

OED reports that in 2013 there was an annual average of 1.67 million nonfarm employees for Oregon. This breaks down to roughly 3.5 percent of Oregon’s employment is in the forest sector. This indicates that statewide, forest sector employment as a percentage of total employment has been somewhat constant over the last decade. However, this is not true in rural areas where this percentage has declined dramatically. The general recovery of employment in rural eastern Oregon counties has been especially dire (Figure 6). In Figure 6, the counties in rural timber dependent areas, with a few exceptions (e.g. those bordering the Columbia River Gorge) have had a hard time with job recovery post-recession. Whereas, the metro areas in the Willamette Valley, as indicated by the blue and green circles, have had a near 100 percent job recovery rate.



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Figure 6. Oregon Employment by County, 2015 (Source: OEA)

Sector Health – Revenues to Landowners

The new norm for the Oregon timber harvest since the listing of the Spotted Owl and the Northwest Forest Plan seems to be approximately 4 billion board feet (bbf) per year (Figure 7). The recession saw a drop to below 3 bbf harvested in 2009, the lowest point in our database going back to 1942. During the last two calendar years, 2013 and 2014, the timber harvest has rebounded to the 4bbf mark. The increase in harvest has been pushed by a tepid increase in domestic demand and by a strong export market to Asia (i.e. China). Export pressure was a major factor in pushing log prices upward. An increase in log prices along with an expanded market led to an increase in returns to landowners via profit.

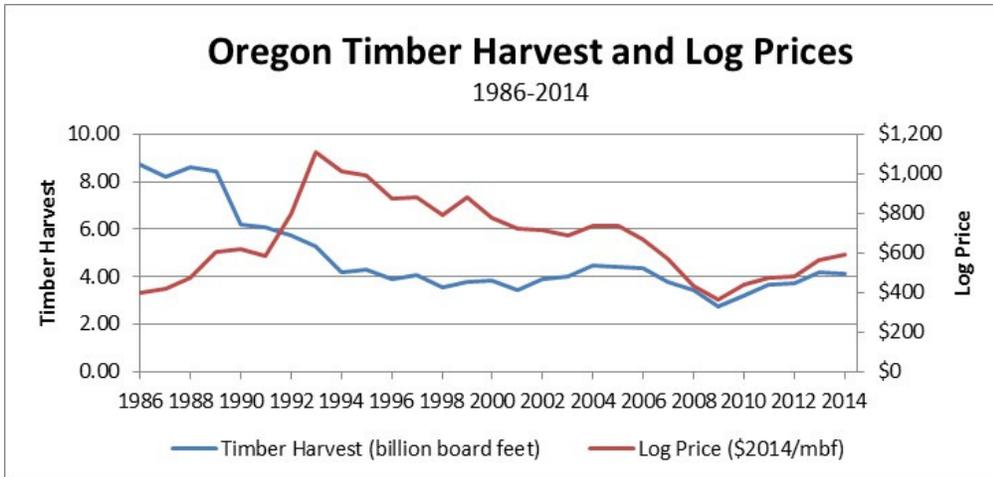


Figure 7. Oregon Timber Harvest and Log Prices 1986-2014 (Source: ODF)

Figure 8 shows timber returns to landowners from 1986 to 2014. This is based off of the POND values collected by the State Forests Division and an assumption of roughly \$175 per thousand in logging costs to get a stumpage value. Returns to landowners cumulatively are approaching two billion dollars, which is right on par with pre-recession prices during the housing boom.

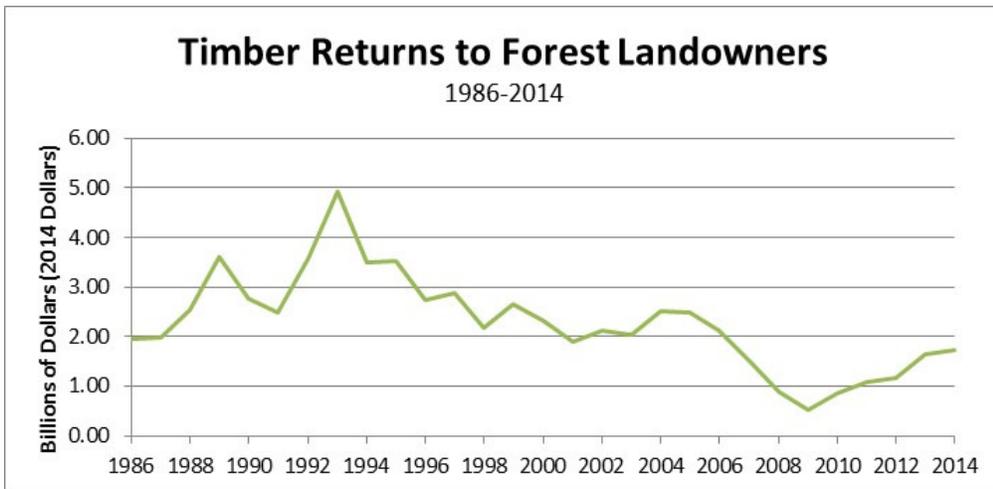


Figure 8: Timber Returns to Forest Landowners, 1986-2014 (Source: ODF)

Log prices on average have risen; however, this is weighted heavily toward the west side (weight is based on percent harvested by west and east side). In eastern Oregon, log prices have remained relatively low (based on the weighted average) (Figure 9). This is due to market access and the nature of the timber supply (e.g. species, diameter, etc.). There is work going on concerning Eastern Oregon that could assist in creating markets for small diameter wood. This includes the collaboration work in the Blue Mountains and the Landowner Viability work done by Resources Planning on the potential supply and markets for small diameter wood (this report will be completed in the fall of 2015). Theoretically, any potential alternative markets, dependent on a steady supply of fiber, would help stabilize and boost prices in the region while helping landowners with non-timber revenue streams as well.

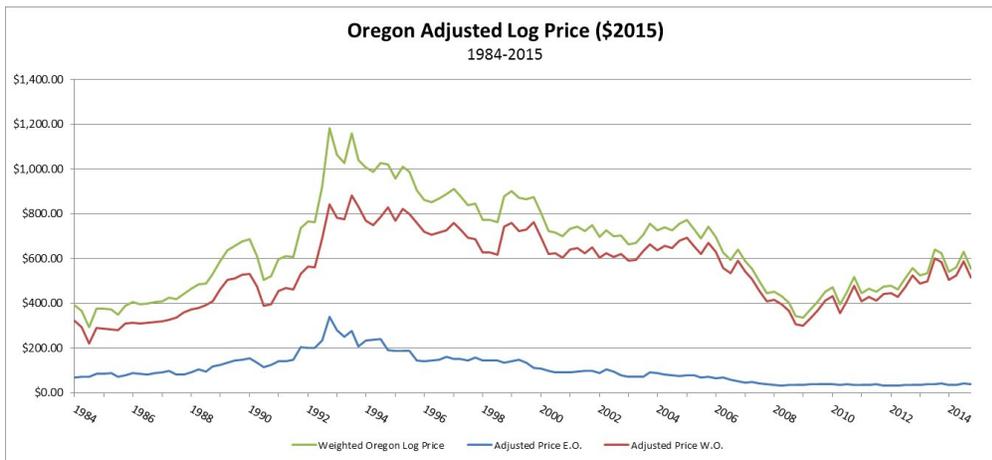


Figure 9. Oregon Adjust Log Prices, 1984-2015 (Source: ODF)

As noted above, there is an issue with market access as the number of mills has declined the in the last decade. Up until 2013, ODF had access to mill data (e.g. mill counts, production estimates, and employment estimates). However, the source for this data retired, and there is currently no reliable substitute. ODF Resources Planning is in the process of forming an inter-agency collaborative effort to do an annual, or at least biennial, mill survey that would help reestablish the trend in mill count and give more detail on what products are being produced.

Revenues to State and Local Governments

The forest sector provides income to both the state and local governments in Oregon. These revenues are important sources in support of public services such as education, public safety, environmental protection and forestry research. These revenues have had a pretty steep decline since 2006 due to a

precipitous drop in Federal payments (Figure 10). Also, revenues generated from the Common School Fund and Personal Income Tax have declined.

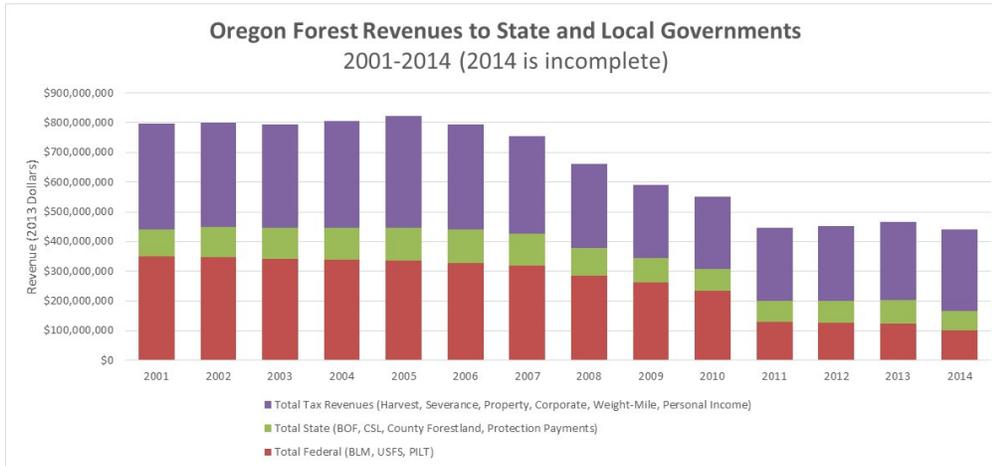


Figure 10. Oregon Forest Revenues to State and Local Governments, 2001-2014 (Source: ODF)

The trend in revenues has started to rebound slowly from 2011; however, there is continued uncertainty regarding Federal payments and those associated with the Common School Fund moving forward. The most substantial single revenue stream is that associated with the personal income tax for forest sector jobs. At its peak, this stream provided a revenue of \$243 million to the state of Oregon. This trend is picking back up from its bottom in 2010; however it is just now approaching \$182. Hopefully, with a strengthening work force as shown in Figure 5 above, this stream will continue to improve.

One part of the sector that there is no strong grasp on at this point is forest/eco-tourism. Working with OED, it is hoped that in the next year as the employment data collected in conjunction with OFRI is further dialed in there will be a better understanding of those employed in tourism and the revenue stream associated with this part of the sector.

Forecast

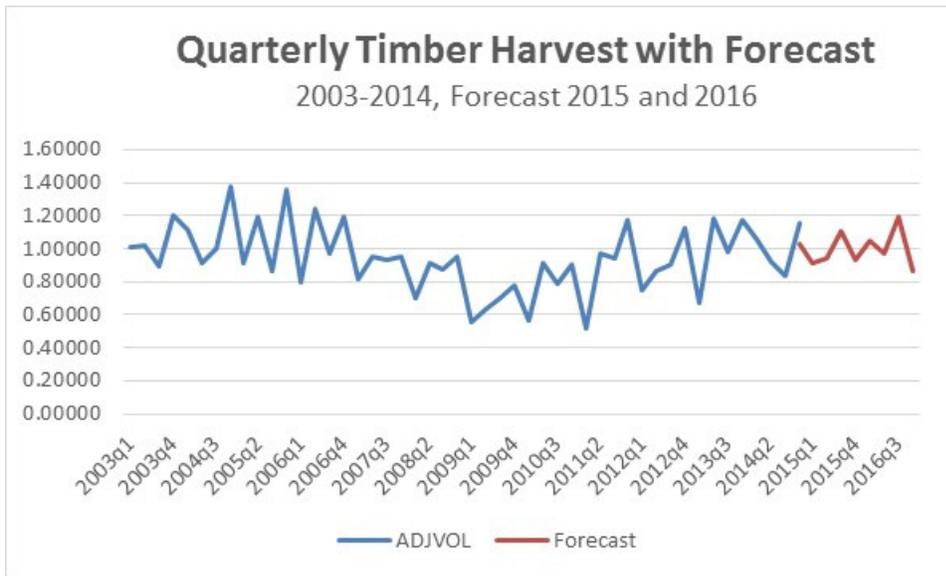


Figure 11. Quarterly Timber Harvest with Forecast, 2003-2014; 2015/2016 (Source: ODF)

Our forecast is relatively conservative (Figure 11). This is due to a decline in the export market for logs and factoring in expectations on housing starts and expected log prices. The harvest forecast calls for stability and an annual harvest around four billion board feet for the next biennium. However, these forecasts may need adjustment in the near future with new information from the Federal Reserve regarding interest rates and China's slipping GDP numbers this year. Another factor is the expiration of the Canadian Softwood Lumber Agreement. This will enforce an approximate five percent tax on lumber exported from Canada to the U.S. This may put more pressure on harvests in the PNW to pick up slack on lumber lost from Canada as they exploit other potential markets at a lower tax rate (e.g. China). Other economic impacts may come from reduced harvest rates due to forest health concerns. These include losses from fire and reduced exports because of issues with Sudden Oak Death (SOD). One issue right now concerns Douglas-fir being listed as a vector for SOD spread to other countries. This listing disregards the vector in which SOD is spread, through boughs/needles, and lists the species as a whole dismissing the position that raw logs pose no threat.⁴

⁴ Based on conversations with Alan Kanaskie and Wyatt Williams, ODF.