NATURAL RESOURCES

Economic and Revenue Forecast

Fiscal Year 2011
Third Quarter

March 2011

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

Acknowledgements

The Washington State Department of Natural Resources' (DNR) *Economic and Revenue Forecast* is a collaborative effort. It is the product of information provided by private individuals and organizations, as well as DNR staff. Without their contributions, the quality of the Forecast would be greatly diminished.

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Thanks also to Luis Prado for designing the front cover and to Bob Redling for editing the final version.

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Acronyms and abbreviations

bbf	Billion Board Feet
bl	Barrel of crude oil
CDN$	Canadian dollar
CPI	Consumer Price Index
Cwt	Hundred pounds
CY	Calendar Year
DNR	Washington State Department of Natural Resources
FDA	Forest Development Account
Fed	U.S. Federal Reserve Board
FOMC	Federal Open Market Committee
FY	Fiscal Year
GDP	Gross Domestic Product
IMF	International Monetary Fund
ISM	Institute for Supply Management
mbf	Thousand board feet
mmbf	Million board feet
NAFTA	North American Free Trade Agreement
OPEC	Organization of Petroleum Exporting Nations
PPI	Producer Price Index
QE2	Second round of Quantitative Easing
RCW	Revised Code of Washington
REIT	Real Estate Investment Trust
RISI	Resource Information Systems, Inc.
RMB	Renminbi, China's currency − the basic unit is the yuan
RMCA	Resource Management Cost Account
SAAR	Seasonally Adjusted Annual Rate
TIMO	Timberland Investment Management Organization
US$	U.S. dollar
WWPA	Western Wood Products Association
WTO	World Trade Organization
Y	Japanese yen

Preface

This *Economic and Revenue Forecast* projects revenues from Washington State trust lands managed by the Washington State Department of Natural Resources (DNR). These revenues are distributed to management funds and beneficiaries as directed by statute. The Forecast information is organized by source, fund, and fiscal year.

DNR revises its Forecast quarterly to provide updated information for trust beneficiaries and department budgeting purposes. (See the Forecast Calendar at the end of this section for release dates.) We strive to produce the most accurate and objective forecast possible, based on current policy direction and available information. Actual revenues depend on DNR's future policy decisions and changes in market conditions beyond our control.

This Forecast covers fiscal years 2011 through 2015. Fiscal years for Washington State government begin on July 1 and end on June 30. For example, the current fiscal year, FY 2011, runs from July 1, 2010 through June 30, 2011.

The baseline date (the point that designates the transition from "actuals" to forecast) for this Forecast is January 30, 2011. The forecast beyond that date is based on the most up-to-date market and economic information available at the time of publication, including DNR's timber sales results through February 2010.

Unless otherwise indicated, values are expressed in nominal terms without adjustment for inflation. Therefore, interpreting trends in the Forecast requires attention to inflationary changes in the value of money over time separate from changes attributable to other economic influences.

Each DNR Forecast builds on the previous one, emphasizing ongoing changes. Before preparing each Forecast, international and national macroeconomic conditions and the demand and supply for forest products are re-evaluated. The impact on projected revenues from DNR-managed trust lands is then evaluated, given the current economic conditions and outlook.

DNR Forecasts provide information used in the *Washington Economic and Revenue Forecast* issued by the Washington State Economic and Revenue Forecast Council. The release dates for DNR's Forecasts are determined by the state's Forecast schedule as prescribed by RCW 82.33.020. The table below shows the anticipated schedule for DNR's future *Economic and Revenue Forecast*s.

Economic Forecast Calendar

Forecast Title	Baseline Date	Draft Revenue Data Release Date	Final Data and Publication Date (approximately)
June 2011	End Q3, FY 2011	June 3, 2011	June 30, 2011
September 2011	End Q4, FY 2011	Sept. 2, 2011	Sept. 30, 2011
November 2011	End Q1,FY 2012	Nov. 4, 2011	Nov. 30, 2011
February 2012	End Q2, FY 2012	Feb. 4, 2012	Feb. 28, 2011

Introduction and Forecast Highlights

Lumber, Log and DNR Stumpage Prices. Since the November Forecast, seasonally adjusted West Coast lumber prices have increased by 27. During that same time, log prices increased by 20 percent. We expect lumber and log prices to remain strong over the next six months because of strong export demand. Actual DNR timber sales during November through February averaged an eye-popping $365/mbf, almost $113/mbf or 45 percent more than forecast in November. In March sales prices averaged $420/mbf.

DNR Timber Stumpage Prices. The forecast average timber sales price for FY 2011 was increased by $80/mbf or 30 percent from $265/mbf to $345/mbf. This was due primarily to higher than expected sales prices in November through March but also to higher forecasted timber sales prices for the remainder of the FY 2011.

We continue to be pessimistic about the recovery of the U.S. housing market and its impact on stumpage prices over the next two to three years. Recent strength of DNR timber sales is attributed to high export demand for lumber and logs. While Federal law prohibits direct export of unprocessed logs from state trust lands, log exports of private logs has an indirect impact on DNR stumpage prices by reducing the residual supply to mills from private lands. We expect export demand to continue to dominate Washington's timber markets for the next two or three years. Therefore, we have increased the FY 2012 through FY 2014 stumpage price to $300/mbf.

Timber Sales Volume. We made only minor changes (less than 1 or 2 percent) to our planned sales and removal volume forecasts.

Bottom Line for Timber Revenues. As a result of the increase in forecast timber removal prices, forecast timber revenues are up from the November Forecast by $16.7 million, or 10 percent, for FY 2011 and up $75.0 million, or 23 percent, next biennium.

Lease and Other Non-Timber Revenues. There was no change in the upland lease revenues. DNR did hold two hugely successful geoduck auctions where prices averaged over $10/lb and netted $3.1 million more in revenue that was forecast in November.

Risks to the Forecast. While the stumpage prices in this forecast have been significantly increased, we now believe that the upside potential on stumpage prices is about equal to the

downside potential. As for our planned timber sales volume, almost all the risk is on the downside due to environmental and operational concerns. At this point in time, we judge the downside risks to the overall forecast to be greater than the upside risks.

Part 1. Macroeconomic Conditions

This section briefly reviews current and predicted conditions of the U.S. and world economies because these macroeconomic conditions affect the stumpage bid prices for Washington State Department of Natural Resources' (DNR) timber sales.

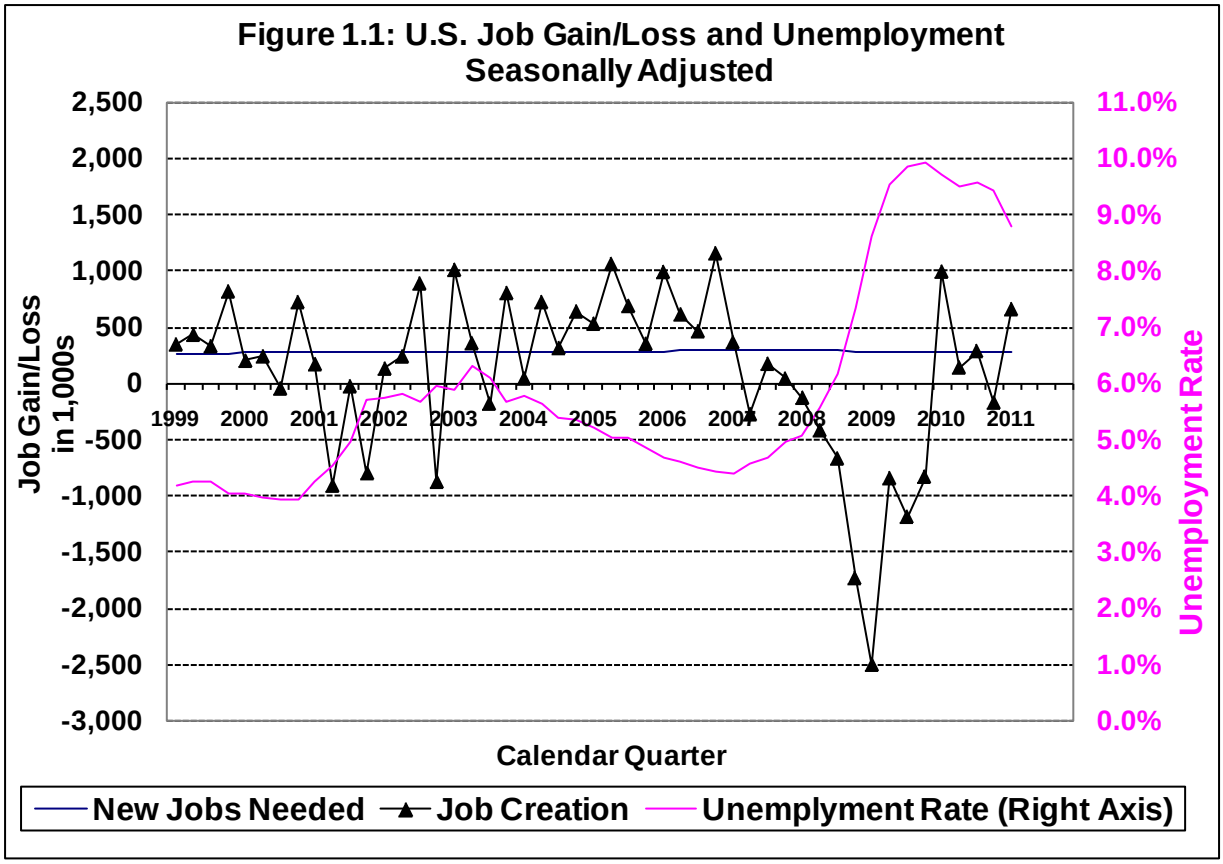
International supply and demand also affect domestic timber stumpage prices and lumber prices. On the supply side, Canada has a strong influence on the U.S. wood products sectors as it is a major source of lumber which can enter U.S. markets quite readily. On the demand side, China is an increasingly important market for world commodities including wood products.

U.S. economy

Employment. In the fourth quarter of 2009, the national unemployment rate stood at 10.1 percent. Since then the unemployment rate has fallen to 8.8 percent and almost half of the reduction occurred during the just completed first quarter of 2011. A reduction in the unemployment rate by 1.3 percent in just over 17 months is welcome news but an examination of the data indicates that the recovery in employment has been less than the reduction in unemployment would indicate. Unemployment has fallen by almost 2.1 million, but the level of employment has increased by only 1.5 million meaning that the total labor force, rather than growing by 1.5 million as it normally would, actually fell by almost 616,000.

The unemployment rate would still be at 10 percent but for a lack of growth in the labor force. Growth in the labor force has been slowing for some time because of the aging population. After expanding by 1.3 percent a year in the 1990s, it grew by just 1 percent from 2000 to 2010, and the Congressional Budget Office (CBO) predicts that over the next decade it will grow by only 0.7 percent.

The number of unemployed now stands at just over 13.5 million, 6.2 million more than October of 2007 before the Great Recession began, while the level of employment stands at 139.9 million, down by almost the same amount, leaving the size of the labor force almost unchanged. **See Figure 1.1**.



The unemployment rate and growth in GDP are inversely related. Because of normal annual growth in the workforce (about 0.7 percent per year) and the increase in productivity (about 2 percent), real GDP needs to grow by about 2.5 to 3.0 percent just to keep unemployment from increasing. For all of 2010, real GDP grew at annual rate of just 2.8 percent, almost exactly what would be needed to keep unemployment unchanged had the size of the work force not fallen. The World Bank is projecting U.S. real GDP to grow at just under 3.0 percent which would mean that unemployment is likely to remain high. We expect GDP growth to be more like 3.5 percent which still means unemployment will fall by only about a half a percent per year assuming that the work force grows at normal rates.

The construction sector, which usually leads the economy out of recession, this time will lag the general economic recovery. The official unemployment rate in the construction sector is at 22 percent down from 26.5 percent last year, yet the level of employment is up by less than 1 percent. The fall in unemployment in construction is due almost entirely to people leaving the sector. Another factor that will contribute to slower than usual employment recovery is the loss of jobs in the public sector as state and local governments continue to struggle to balance budgets.

The massive shakeout in the labor market that occurred during this recession will lead to a generally higher rate of unemployment for much of the forecast period. (See page 10 of the

September 2010 forecast for more detail.). This will reduce the rebound in consumer confidence and consumer spending, which will in turn be a drag on economic recovery. Resource Information Services Inc.'s (RISI's) forecast projects the unemployment rate will remain above 8.0 percent until 2013.

Since the start of 2008 the labor force has not grown at all. Exactly why is unclear but it's probably due to more than one factor.

First, population growth has slowed, primarily due to reduced immigration, because of diminished job opportunities relative to other countries and better immigration enforcement. In each of the past four years the Census Bureau has had to revise down the estimated immigration population (both legal and illegal), leading to smaller estimates of the overall population growth.

Second, not only is the population growing more slowly, the share of it in the labor force (that is, either working or looking for work), known as the participation rate, is falling. The participation rate has been falling for most of this decade since it peaked at 67 percent in 2000, so the current reduction probably isn't due to just a response to the recession. From 2000 to 2008 when the recession began, the participation rate fell from 67 percent down to 66 percent. During the recession the participation rate fell faster and it lost another half a percent to 65.5 percent in just a year and a half.

One factor contributing to lower participation rates during a recession is higher education rates, many younger people, finding their job prospects bleak, stay or return to schools to improve their job prospects. A second but perhaps smaller factor is early retirement. Some older workers who have lost their jobs choose to retire rather than reenter the labor force. This was probably partially offset by workers postponing retirement for economic reasons.

Another factor may be the nature of this recession: as a long lived recession it expanded the ranks of the "chronically unemployed" that, having very limited job prospects, have retired or registered as disabled rather than returning to work. Most discouraging has been the drop for men aged 25-54, who have long had the highest participation rates. Some of these men are expected to re-enter the labor market when the economy and job opportunities revive, but many may be chronically unemployed. The participation rate of men has been declining for years while the rate for women has increased.

The decline in the participation rate usually reverses during the subsequent recovery. But so far that hasn't happened. Since the recession ended in mid-2009, the participation rate has kept on sliding and now stands at just over 64 percent. The participation rate has fallen most among the young, many of whom have stayed in school, and least among those over age 55. After the recession ended it has continued to fall and now stands at 64.7 percent.

The Congressional Budget Office anticipates that the aggregate rate of participation in the labor force will continue to fall from 64.7 percent in 2010 to 63.0 percent in 2021. This means that the growth in the labor force is expected to be less than the growth in population. During the next

decade the U.S. labor force is expected to grow at about the same rate it did last decade, or by about 148,000 workers per year[1].

The major factor driving the falling participation rate over the next decade is the impending retirement of the baby-boom generation.

Inflation. The CPI increased at an annual rate of 6.0 percent over the first two months of 2011. Because almost half of this increase was due to food and energy, the core CPI increased at an annual rate of 3.3 percent above the Fed inflation target of 2.0 percent. Still, at a Q&A session on April Fools' Day, Federal Reserve Chairman Ben Bernanke said the rise in global commodity prices is likely to be temporary and shouldn't translate into a broader inflation problem.

As shown in orange on **Figure 2.1** (on page 20), the U.S. inflation rate that had been running at 1 percent on a year-over-year basis for the second and third quarters of 2010, and now is up to 1.5 percent. This rate of core inflation is still well below the Fed's target but is increasing.

Counteracting the disinflationary forces on the U.S. economy has been growing demand in China and other developing countries, which is exerting upward pressure on energy, food and other commodity prices. Oil prices have traded around $100-$110 so far in 2011 as the civil war in Libya rages on, but absent any further shocks in supply, benchmark oil prices are expected to average around $90 to $100 over the forecast period, still well below the pre-recession levels in 2008, when oil prices climbed to $146 a barrel.

Like the Fed, we don't expect core inflation to accelerate as long as the unemployment rate is above 8 percent and the capacity utilization rate remains below 80 percent. But we do expect commodity prices to continue to rise, even with high unemployment, because of strong demand in the developing world. This is resulting in a mild form of stagflation in the United States which will reduce growth below what it otherwise would have been.

We have increased our inflation forecast but still expect U.S. core inflation will remain low (under 2.5 percent) through most of the forecast period.

Interest Rates. Little has changed on the interest rate front, U.S. interest rates are at or near record lows at all points on the yield curve. The Fed funds rate has remained in the 0-0.25 percent range since December 2008. Ten-year treasury bonds are at 3.46 percent, up from 3.27 percent in November. And conventional 30-year fixed rate mortgages are at 4.82 percent, down from 5.08 percent last year.

We expect increased calls for the Fed to tighten because of the recent increase in both headline and core inflation but we expect them to hold to their current course, holding the Fed funds rate at near zero and continuing with the current schedule of QE2, continuing to provide ample liquidity for the economy and keeping interest rates low for the next three or four years.

[1] See CBO's Labor Force Projections Through 2021, March 2011
available on the web at: http://www.cbo.gov/ftpdocs/120xx/doc12052/03-22-LaborForceProjections.pdf

Consumption. As we reported earlier, the consumer had a good holiday season and that has carried over into the new year. On a monthly basis, retail sales increased 1.0 percent from January to February, and sales were up 8.9 percent from the same period last year. Sales are now above the pre-recession high and so, technically, are no longer in the recovery mode.

Still consumers are leery. After reaching a post recession high in February, consumer sentiment fell in March to the lowest level since November 2009, probably due to higher gas prices, the turmoil in the North Africa and most recently Japan. Consumers are fickle and March has been a tough month, but barring more major shocks we expect these jitters to pass. Crude oil prices are already off their highs and the effects of Japan's earthquake will likely have only minor, if any, direct impact on the U.S. consumer. The ongoing nuclear problems in Japan, while very real, also will not directly impact U.S. consumption.

During the recessionary period, people with jobs have also become more conservative with their spending, paying down their debt and increasing their savings. As of the end of 2010, consumer credit is down 17.8 percent from the peak. Both revolving and non-revolving credit were up slightly in December. This was the first increase in revolving credit following 27 consecutive months of declines since August 2008. Real estate debt is down as well but so is real estate equity.

We continue to believe that the slow growth in employment will limit consumption growth. However, the bigger threat to consumer spending and the economy in general is the sharp rise in commodity prices.

The key question then is how much of an effect on U.S. consumption the recent increase in oil prices will have. The primary channel through which the rise in oil prices will be felt by the American consumer will be gasoline prices.

Americans consume approximately 140 billion gallons of gasoline per year. As a rough estimate, a $10/barrel increase in oil results in a $0.25/gallon increase at the pump, translating to approximately $35 billion per year less in consumer disposable income if oil prices remain at these levels over the course of the year. The reduction in GDP would then come out to approximately 0.25 percentage points, at this point not enough to derail the economy. The white knights at the Fed have already expressed a willingness to pull the trigger on QE3 if oil prices go high enough to threaten the economic recovery but we don't expect that will be necessary.

Consumption is now moving along a parallel but lower pre-recession path. Still, on balance, consumers have made a stronger recovery than we once anticipated. Absent any major world shocks, we expect consumption to continue to increase over the next couple of years as the economy and employment improve.

Trade and the U.S. Dollar. Figure 1.2 shows the trade-weighted U.S. dollar index for the last decade. In real terms it is off 26 percent from its high in 2001 and off 5 percent since the Fed announced QE2 at the end of August.

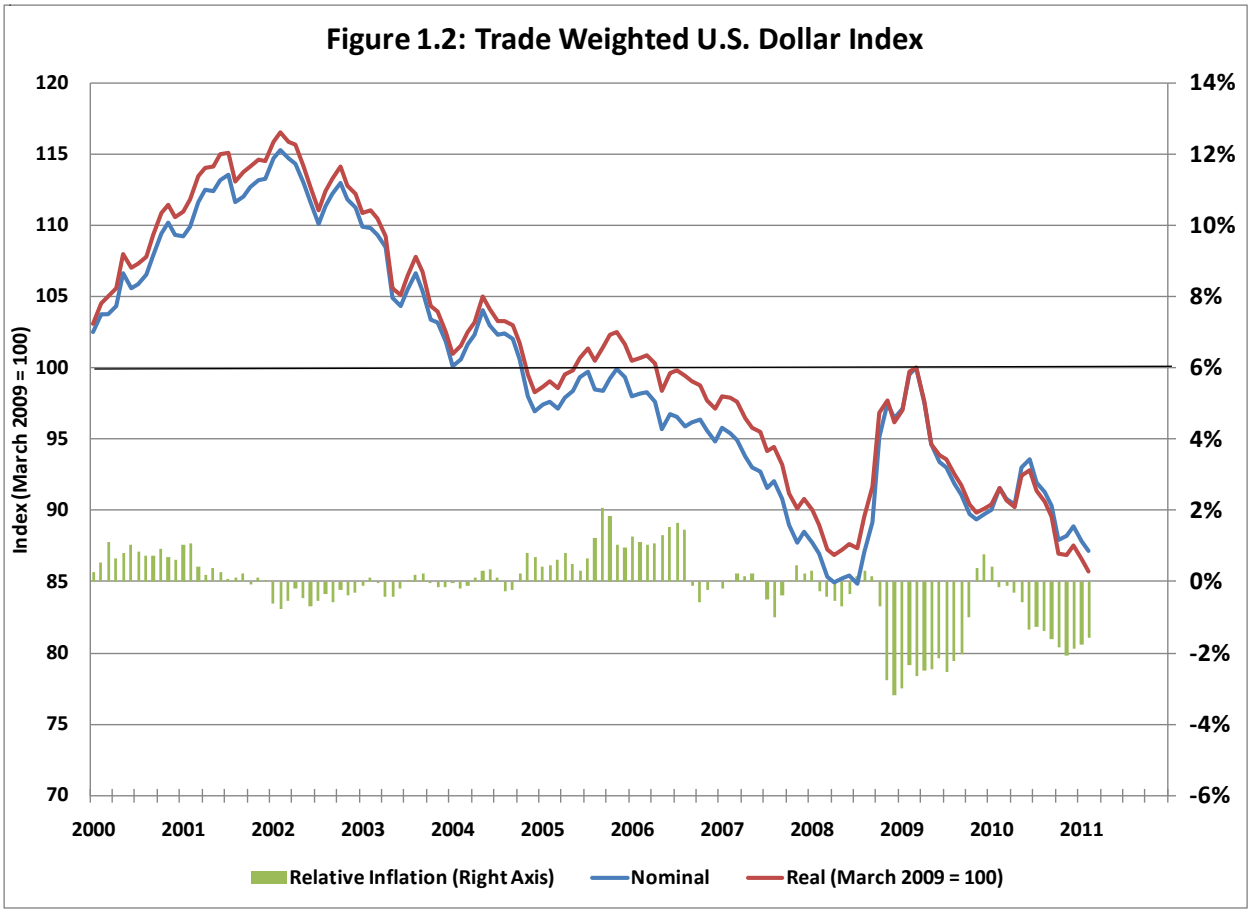
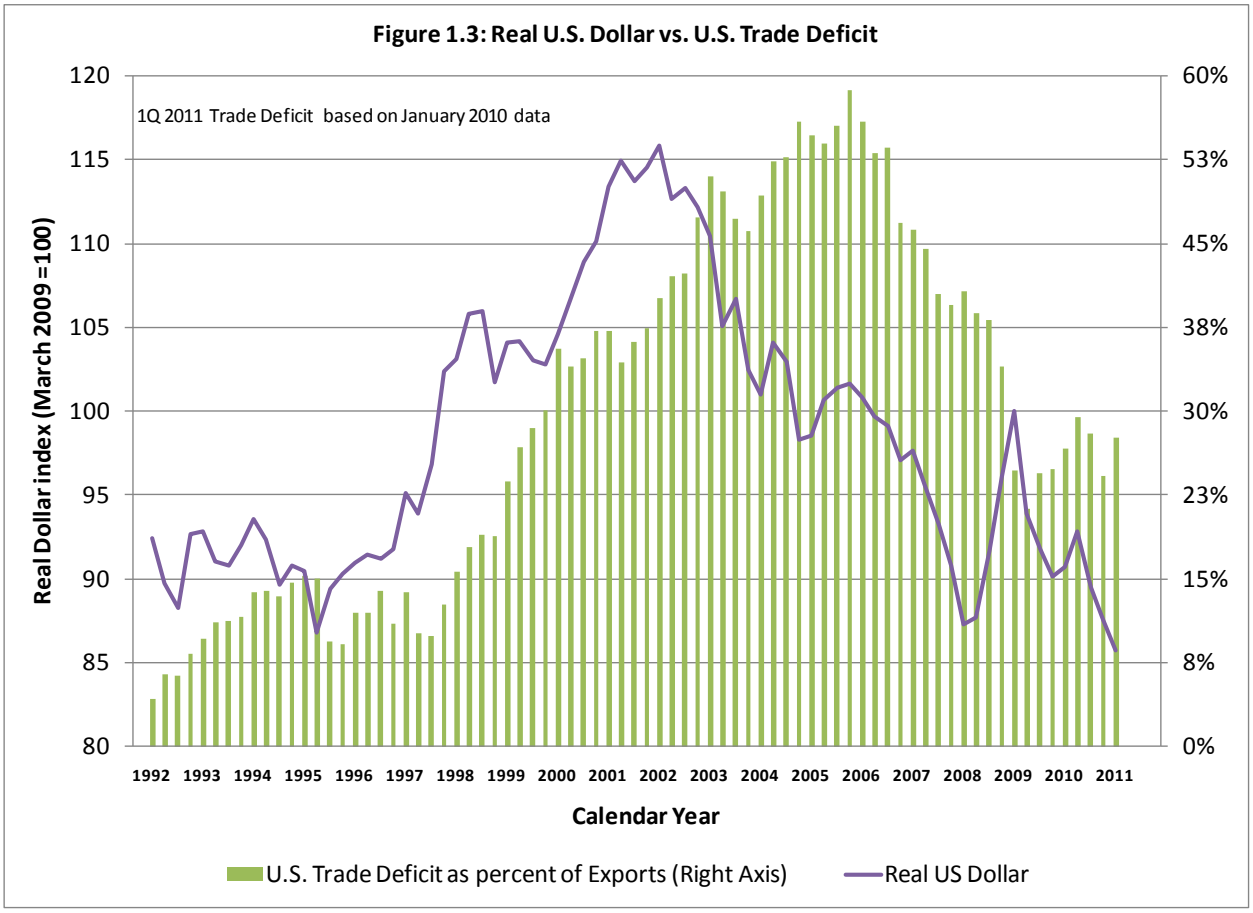


Figure 1.2 also shows that U.S. inflation is currently running about 1.5 percent below the average inflation rate of our trading partners, which tends to increase the nominal value of the U.S. dollar. Higher inflation in our trading partners' economies means that real exchange rates have been falling faster that nominal exchange rates since mid-2008 and while nominal dollar is still higher than it was in early 2008, in real terms the dollar is again in record low levels.

The U.S. dollar still has safe-haven currency status and you would expect the multiple world crises—the debt crisis in Europe, unrest in North Africa, and the triple disaster in Japan—to result in a strengthening of the U.S. dollar. But so far, there hasn't been any real strengthening of the U.S. dollar. Part of the explanation is the anticipation of the need for yen for private and public investment in the devastated areas. And the euro is strong because of the higher interest rates being paid in Europe.

On balance, we expect the dollar to fall over the forecast period as the economies of our trading partners in the developing world grow faster than the U.S. economy, but we don't expect a precipitous decline in part because the U.S. dollar is already very low in real terms.

Figure 1.3 shows the relationship between the real U.S. dollar and the U.S. trade deficit as a percentage of U.S. exports. The trade deficit generally follows the dollar but with a considerable lag. For the last two years, the dollar has generally moved down while the trade deficit has stabilized.



In the fourth quarter of 2010, U.S. exports climbed to record high levels (before adjusting for inflation), increasing by 15 percent over the same period last year. This helped narrow the trade deficit to $116 billion, or 28 percent of exports—the second lowest level since early 1999.

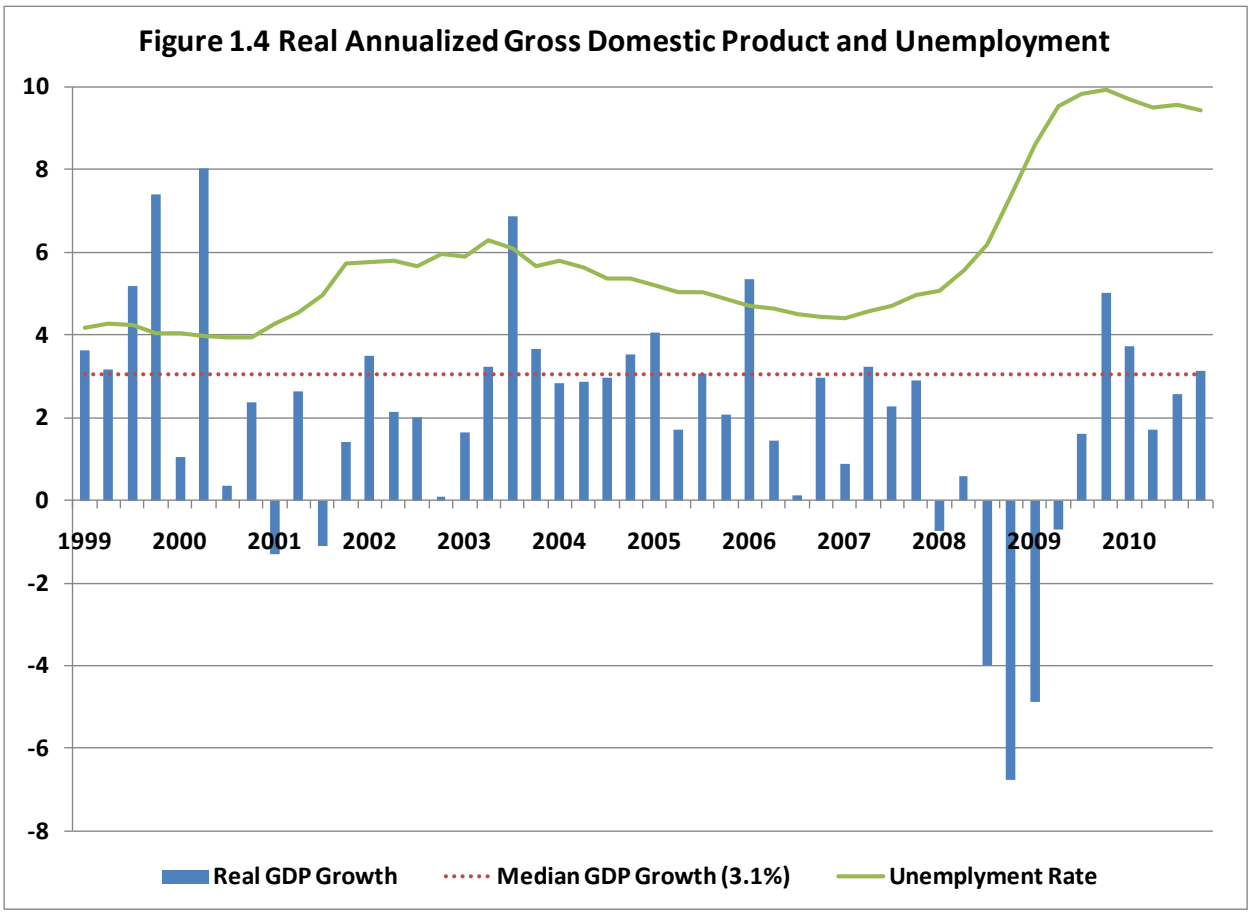
A falling dollar also has strong effects on commodities. Since most commodities are priced in dollars, a decline in the dollar will cause prices for commodities to rise, as we have been seeing in crude oil, metals, and basic food products. Rising commodity prices will have a negative impact on U.S. trade deficit, the economy, and could result in stagflation[2].

There are two major contributors to the U.S. trade deficit. One is our net trade with China which makes up 41 percent of our trade deficit. The second is net imports of crude oil which account for 55 percent of our trade deficit. So a $10/bl. increase in crude oil prices would increase our trade deficit by 5.5 percent given no change in the quantity imported.

U.S. Gross Domestic Product (GDP). The U.S. economy grew at a 2.8 percent annualized growth rate in the fourth quarter of 2010, and 2.8 percent for the full-year. See **Figure 1.4**. This

[2] Stagflation is a period of slow economic growth and high unemployment (stagnation) while prices rise (inflation).

has now officially moved the economy from a recovery to an expansion, with GDP above the previous high reached in the second quarter of 2008, although just barely. The big contributor to growth in the fourth quarter was the consumer, who returned after almost three years. Consumption jumped 4.1 percent in the last three months of the year, the best pace since the first quarter of 2006. Retail spending has continued to rise through February, though its growth rate slowed slightly. Consumer confidence numbers increased dramatically, reaching two-year highs in February fell back in March indicates that consumer confidence fell due to the political uprisings and disasters around the world.



The current growth rate of the economy is disappointing; still it has been positive and enough to start bringing unemployment down and getting real GDP back to pre recession levels. Even this anemic recovery has required some heavy lifting by the Fed in terms of QE1 and QE2. QE1 is what got the economy growing again. When it ended, the economy began to stall and the Fed quickly responded with QE2. Now, higher oil and commodity prices are threatening the recovery and QE2 will be ending in June. When QE2 ends in June we expect the economy will falter again and a QE3 will be necessary. We expect growth to continue to improve albeit at a slower pace than we would like, but clearly the recovery could easily be derailed by world events.

World economy

As mentioned above, the turmoil around the world (the European debt crisis, political turmoil and oil production disruptions in North Africa, and most recently the earthquake, tsunami and nuclear disaster in Japan) have increased the risk to the world economy.

First, like many before us we wish to express our sympathy for all the people around the world that have been directly impacted by these events. As devastating as they may be to those directly involved, we do not believe these issues by themselves or as a group will throw the world economy back into recession. That's not to say that the level of risk to recovery has subsided.

Europe: For Europe, what started out as a solid recovery on the back of extensive government fiscal stimulus was disrupted by the eruption of the sovereign debt crisis in the spring. This has not fully played out as interest rates in the "PIIGS" (Portugal, Ireland, Italy, Greece, and Spain) have returned to record high levels. The austerity measures being imposed across Europe, as well as the fallout from the continuing sovereign debt crisis, will reduce growth going forward and keep GDP growth in the 1.5-2.0 percent range for the next few years.

As a result, growth in Europe has slowed to just 1.2 percent in the fourth quarter and totaled just 1.7 percent for 2010. Total output of the largest European economies has not yet returned to its pre-recession highs, unemployment remains high, and inflation is starting to show up in the major economies, reaching 2.5 percent. Further complicating the picture in Europe is that inflation has increased above the targets of the central bank (2 percent) and, unlike the United States, their mandate is to control inflation without regard to the impact on output and employment.

North Africa: The political unrest in North Africa continues to drag on, putting continued pressure on oil prices. Prior to the revolution in Tunisia, oil prices were at about $90/barrel. The disruption of crude oil supplies from Libya and speculation for other disruptions led to price rising to $108/bl., an increase of 20 percent. A weak U.S. dollar and strong world growth is also adding to the pressure on oil prices.

Japan: The most recent crises to hit are the earthquake, tsunami and nuclear disaster in Japan. This disaster is still ongoing and the full extent of losses is yet to be measured. Disruption to electricity supplies, down some 20 percent, has already resulted in rolling blackouts. Since power demand usually increases in the summer, rationing of power will likely be needed, and will likely limit economic growth. Asian and U.S. factories are already facing problems getting parts from Japan.

For Japan's economy, the short-term impact has been negative, but new infrastructure spending will offset some of the earthquake's drag on growth over the intermediate to longer term. The Bank of Japan is already taking action to bolster the Japanese economy and preparing to rebuild, the cost of which is now estimated at 300 billion U.S. dollars. Economies generally have sprung back quickly boosted by private and public rebuilding efforts. That rebuilding effort should get underway in the second half of this year.

We expect the net result will be slightly slower growth in Japan in the current and next quarter and slightly higher growth in the second half of the year. These projections would change if the nuclear crisis worsens.

China: China continues to be the brightest light of the global economic recovery; in fact, China (and the world) is once again suffering from the growing pains that were temporarily subdued by the Great Recession. Amongst these is China's battle with higher commodity prices and inflation. January consumer inflation was 4.9 percent, slightly lower than expected, but still higher than Beijing would like. Current inflation is being driven by higher food prices. Non-food inflation rose 2.6 percent year-over-year in January, the highest rate since 2005 but still reasonable. As long as China restricts the strength of its currency, there is little that China can do about its inflation rate without dramatically slowing its domestic economy.

China is looking for ways to slow the economy and yet provide benefits to its people. It recently announced plans to build 10 million affordable homes this year and 36 million units by 2015. This will provide housing to low income workers. At the same time, Beijing is cooling the demand for private housing by raising interest rates and reducing available credit.

We expect China to continue to grow at rates that expand its needs for resources for both domestic and exports, continuing to be an engine for world growth.

Part 2. Log and Lumber Industry Factors

This chapter focuses on specific factors that affect timber stumpage prices and overall timber sales revenues received by the Washington State Department of Natural Resources (DNR). Timber stumpage prices reflect demand for lumber and other wood products, timber supply, and regional and local lumber mill capacity. The demand for lumber and wood products is directly related to the demand for U.S. housing and other end-use markets.

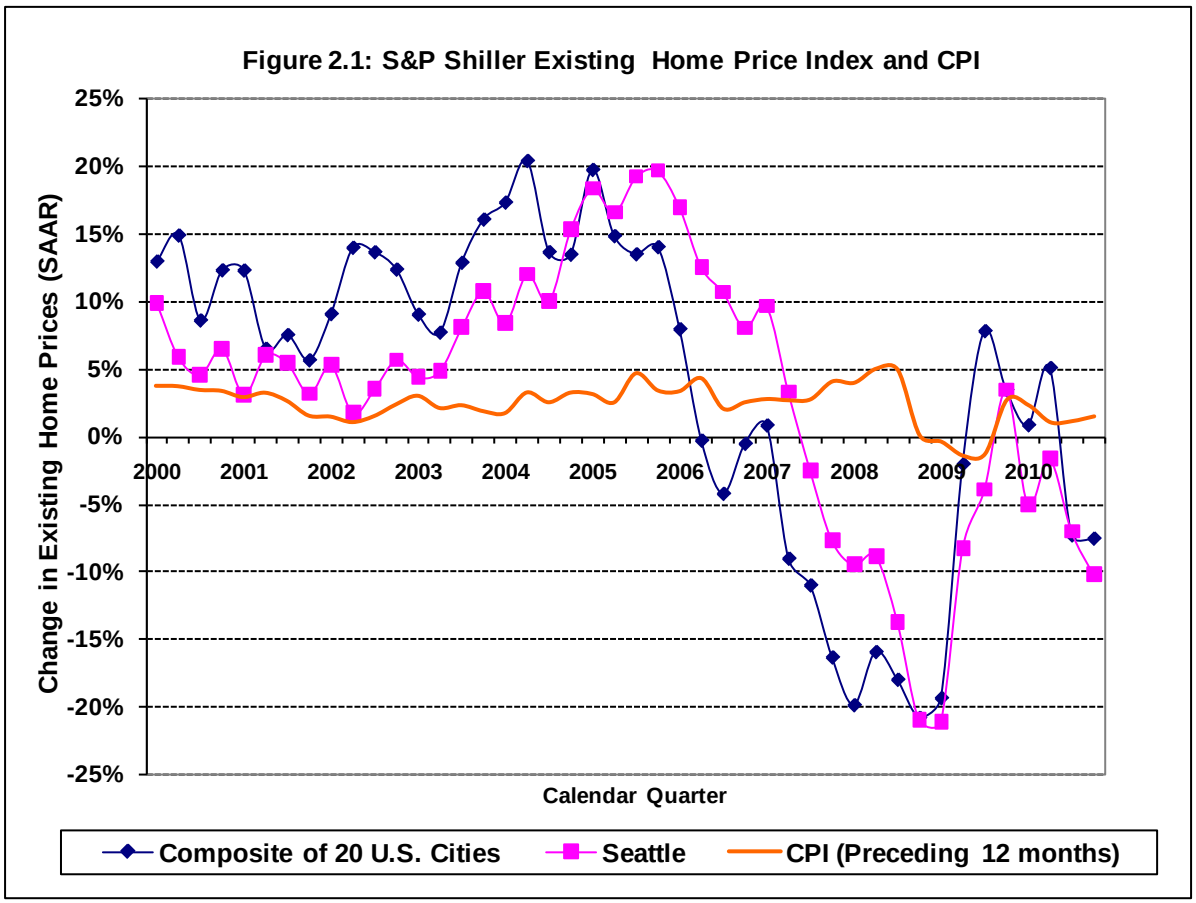
U.S. housing market

Housing Prices. As of December, the second dip in national housing prices has lasted for six months, and almost wiped out all of the increase in prices that had accumulated over the previous 12 months. The silver lining on this cloud over the housing market is that the rate at which prices are falling appears to have subsided from an annual rate of 11.25 percent in October and November down to an annual rate of just 2.6 percent in January[3].

The current reduction in housing prices (second dip), which had been very widespread, is shrinking. In January eight cities in the twenty-city index showed positive price growth whereas only three cities (Denver; Washington, D.C.; and Dallas) showed positive price gains for the fourth quarter. The three cities in California which had been a bright spot during the short lived upturn were down by an average of 4.8 percent (all prices SAAR) in the fourth quarter. Nine of the cities (including Seattle) have erased all their gains over the last year and set new lows in January.

The Seattle index has fallen for the last eight months at an annual rate of 9.2 percent and is off 5.8 percent for the last 12 months. Seattle housing prices are now down 28 percent from their peak. See **Figure 2.1** below.

[3] The Case-Shiller Index is seriously lagged in time and is based on a three month rolling average.

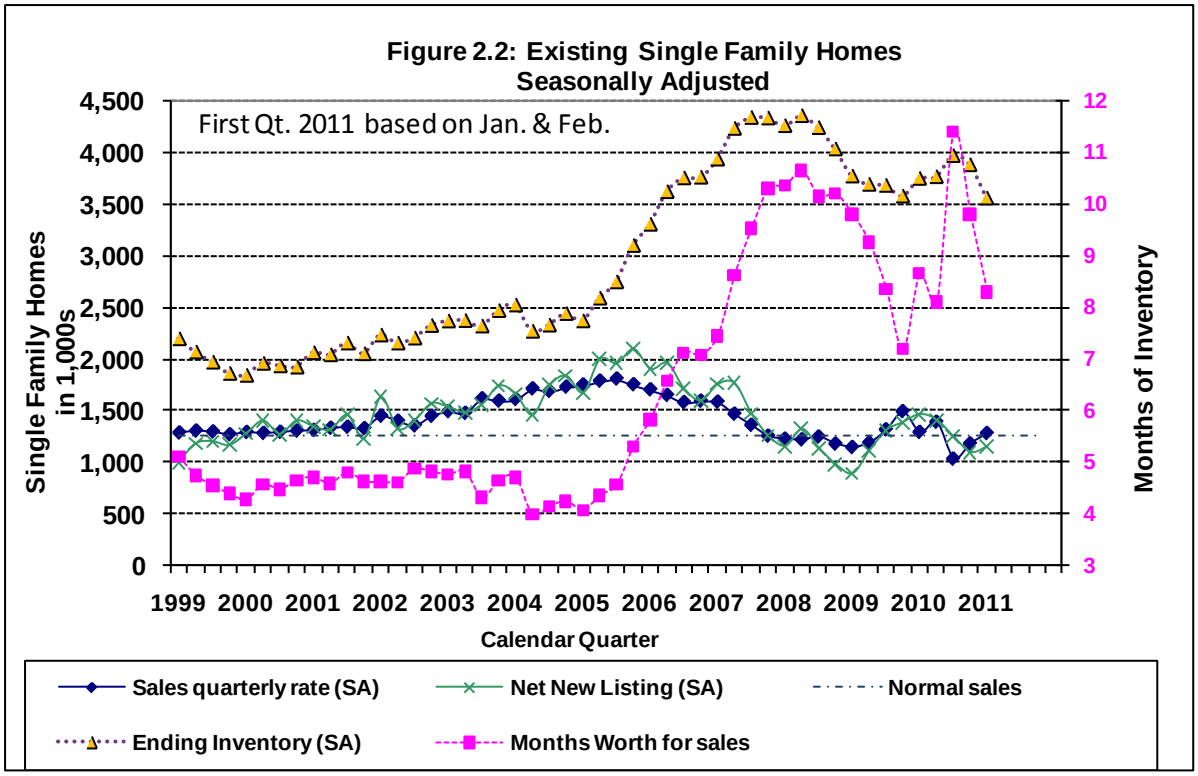


Most housing experts now think that housing prices have not yet reached the bottom and will lose an additional 10 percent or so next year. It is true that the housing market is still in trouble, with an oversupply of existing homes in most markets, and while the rate at which prices are falling has slowed temporarily there probably is more downward pressure on home prices.

Existing Home Sales. Existing home sales defied expectations and rose in January in spite of bad weather and an uptick in mortgage rates, then they dropped by 9 percent in February. More importantly, the seasonally adjusted inventory is falling again, and is at the lowest level it's been since January 2010. There are still eight months worth of inventory at current sales levels—down from over 11 months-worth six months ago, but still well above the six months considered normal.

As shown on **Figure 2.2**, sales of existing homes fell by 25 percent in the third quarter. They have since gained most of that back and stood at a quarterly rate of 1.29 million for the first two months of the first quarter of 2011. Sales are once again at normal levels[4]. Still, about 38 percent of those sales were distressed sales, and investment buying accounted for 20 percent of sales.

[4] The median turnover for existing homes is just over 6 percent of all owner occupied homes per year, and with about 75 million owner occupied homes that would suggest close to 5 million sales per year or 1.25 million per quarter.



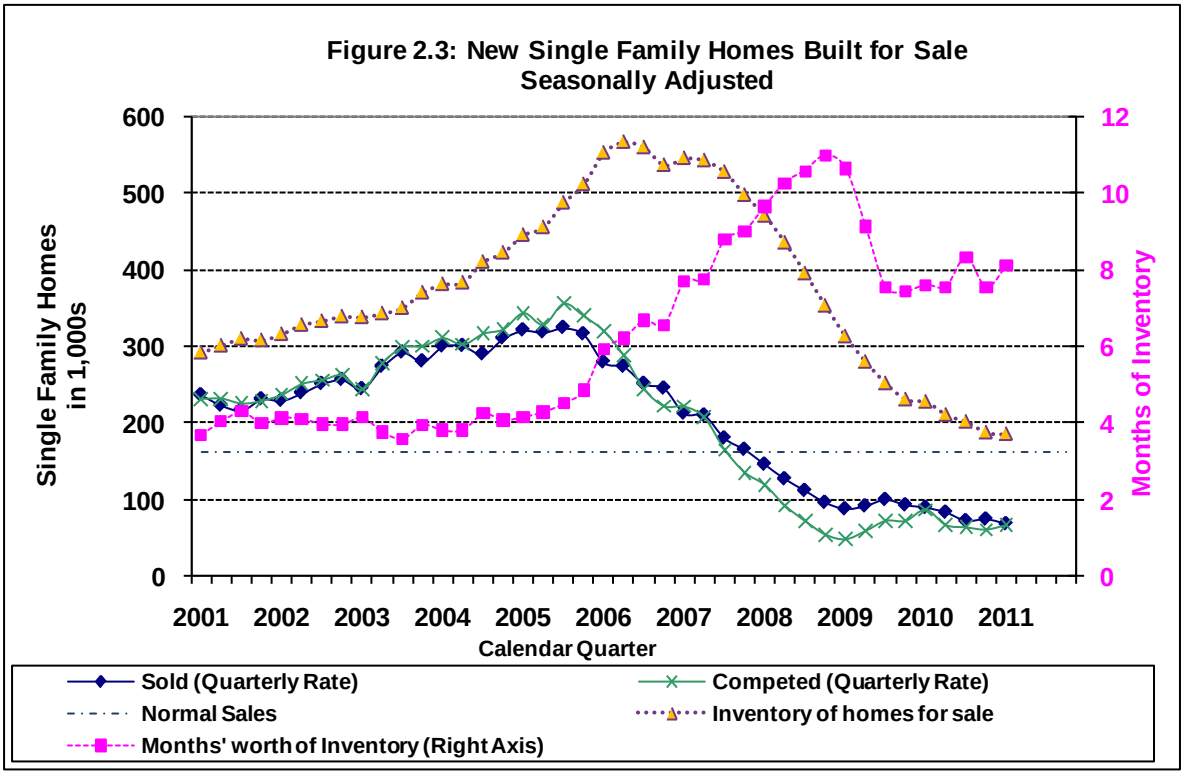
The excess supply of existing homes is the most important factor weighing on the housing market at this time. The homeowner vacancy rate was reported at 2.7 percent at the end of 2011, up from 2.5 percent mid-year. The normal rate for recent years appears to be about 1.7 percent. This means there are approximately 750,000 excess vacant homes. The rental vacancy rate is about 9.4 percent down from 10.6 percent, normal is more like 8 percent (though it hasn't been down to 8 percent since 2003). This means there were about 600,000 excess multifamily units for rent.

Combining single and multifamily, there are still about 1.35 million excess housing units, down from 1.5 million last quarter. This number has been steadily declining over the last few quarters, but there is still a long way to go. At current rates it will take over two years to completely absorb all the excess units.

Because of record low levels of housing starts the additions to the housing starts this year will be minimal. Rents are starting to increase which will make homeownership look more attractive. And the rate of absorption is accelerating, so the excess could be gone sooner than we currently expect. Housing is all about local conditions, so the national average doesn't mean too much. Local markets will come into balance and return to normal at different times.

Sales of distressed properties peaked in 2011 at 2.3 million transactions and are expected to fall to more normal levels at 850,000 in 2016, according to a report from John Burns Real Estate Consulting. Because lenders are transferring more of the shadow inventory of foreclosed and defaulted mortgages into real property ready for the market, analysts at John Burns estimate these properties will account for more than 40 percent of all resale activity through 2012.

New Home Sales. New home sales have been bouncing along the bottom for the last 9 months through January, averaging 293,000, just 45 percent of the normal annual rate of 650,000 per year (165,000 quarterly rate). Sales of new U.S. homes fell off much more dramatically than sales of existing homes, from the peak in 3Q 2005 to the low point in 1Q 2009, sales of existing homes fell by 36 percent. In the same period, sales of new homes fell by a whopping 72 percent (compare the rates of sales for existing homes and new homes in **Figures 2.2 and 2.3**). And unlike sales of existing homes, which turned up throughout 2009, sales of new homes stayed relatively flat through 2009 and fell again in 2010. New home sales reached a new low in January 2011 of just 250,000 SAAR, a quarterly rate of only 62,500.

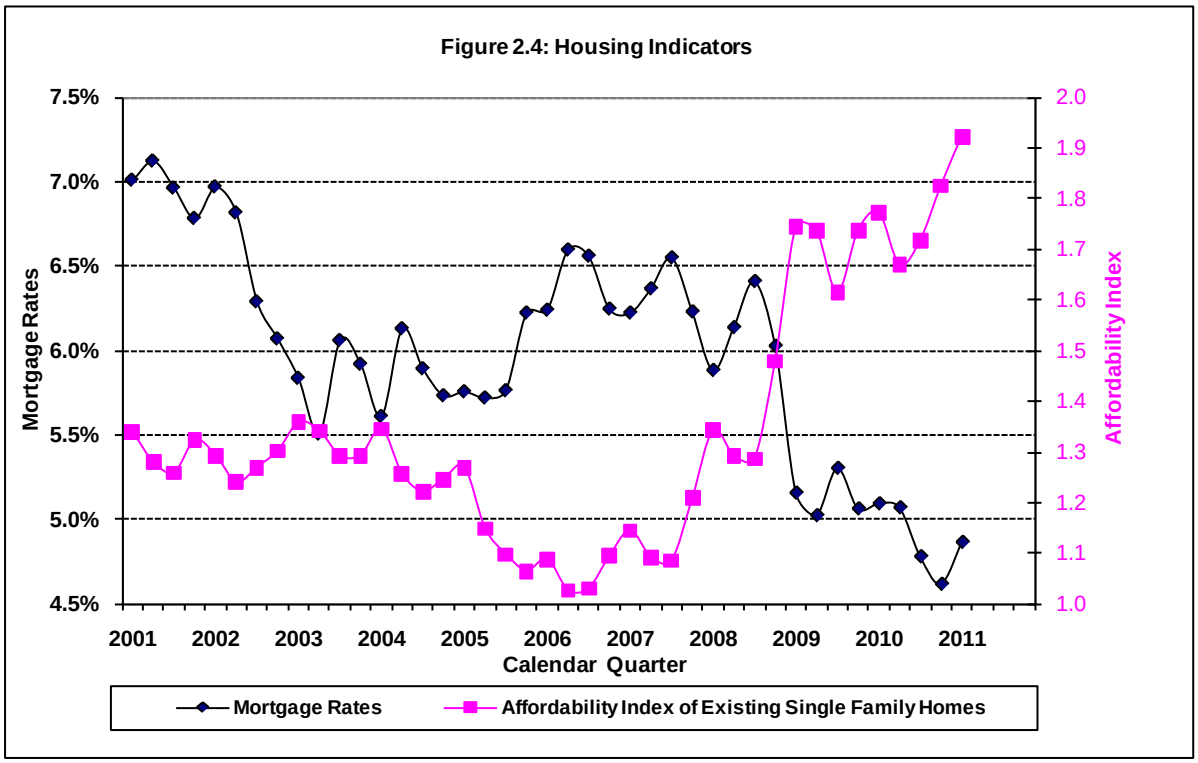


The dramatic drop in new house construction has also served to bring down the inventory of newly built homes to the lowest level in 10 years. At a high in July 2006, there were 572,000 new single family homes available to purchase in the United States. At the end of January 2011, there were only 186,000 available (see **Figure 2.3**). However, because sales are so low, the months' worth of inventory is more than eight months—twice the pre-bubble level of just above four months worth of inventory.

We don't expect new home sales to increase significantly until the excess of existing homes is absorbed. As mentioned above this will happen at different times in different markets so sales of new homes should recover slowly over the next two years.

Affordability. U.S. mortgage loan rates remain at very low levels (see **Figure 2.4**). In November, the 30-year fixed mortgage rate was down to 4.54 percent; since the, the rates have increased to 4.91 percent, which is still very low. The family income required to qualify for a

mortgage on the $157,000 median-priced existing single family home in the United States at February's rate of 4.91 percent is only $33,016 per year. This compares with an average qualifying income of $45,984 in 2008 and $52,992 in 2007. Median family income was $61,566 in February, compared to an average of $63,366 in 2008 and $61,173 in 2007. At least for those families whose wage earners still have jobs, housing prices and mortgage rates have fallen more rapidly than family income resulting in very affordable housing, but this is having little impact on housing demand.



The **Affordability Index** is the ratio of median family income and the income required to qualify for the median-priced existing single-family home. In February 2011, the affordability index was $61,566/$33,016 or 1.923.

Affordability measures are rising, but it isn't getting any easier for Americans to purchase a home as a more restrictive lending environment tightens credit. The Obama Administration has initiated efforts to phase out mortgage giants Freddie Mac and Fannie Mae. And while it is true that these quasi-government institutions engaged in excesses that contributed to the financial crisis—to phase out these institutions rather than reregulating them would be a huge mistake and ignore all the benefits they have provided to the housing markets over the years. The elimination of these institutions would greatly increase the cost and further restrict the availability of capital to fund housing and would have a significant adverse impact on affordability, and the level of home ownership in this country.

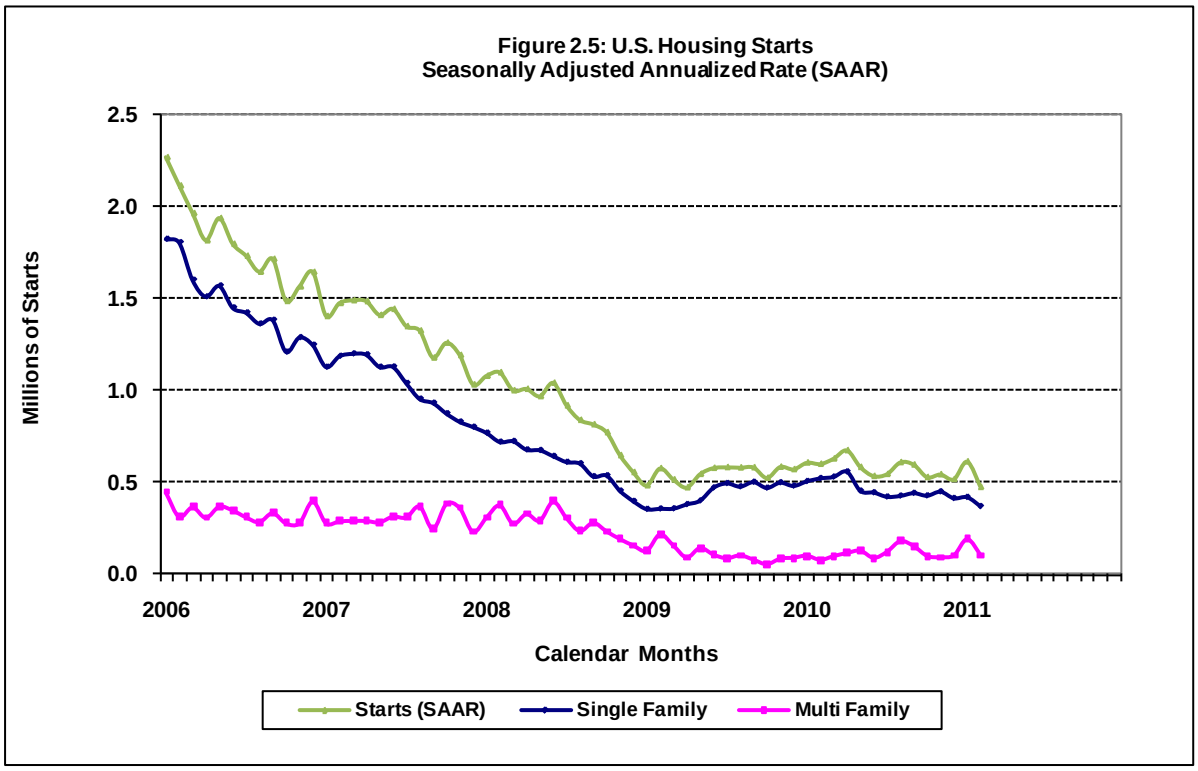
Housing Starts. Total housing starts were at 479,000 (SAAR) in February, down 22.5 percent from January, and barely up from the all time record low in April 2009 of 477,000 (the lowest level since the Census Bureau began tracking housing starts in 1959). Single-family starts

decreased 11.8 percent to 375,000 in February—the lowest level since early 2009. The more volatile multifamily starts were down a whopping 46 percent.

It's not surprising that February starts were low. Most of the nation was dealing with unusual winter weather, and during a down turn, seasonal factors tend to be magnified. Still total starts were down 21 percent from the same period last year and single family starts are down 29 percent from last year. Starts have drifted sideways for two years now and single family starts appear to be in a second dip. See **Figure 2.5** for detail**.** One of the early signs of a recovery in housing will be an increase in multifamily starts, so the continued low numbers for multifamily starts is especially disappointing.

Building permits didn't do much better in February down 8 percent from January and down 21 percent from the same period last year. This is the lowest level for building permits since the Census Bureau started tracking permits.

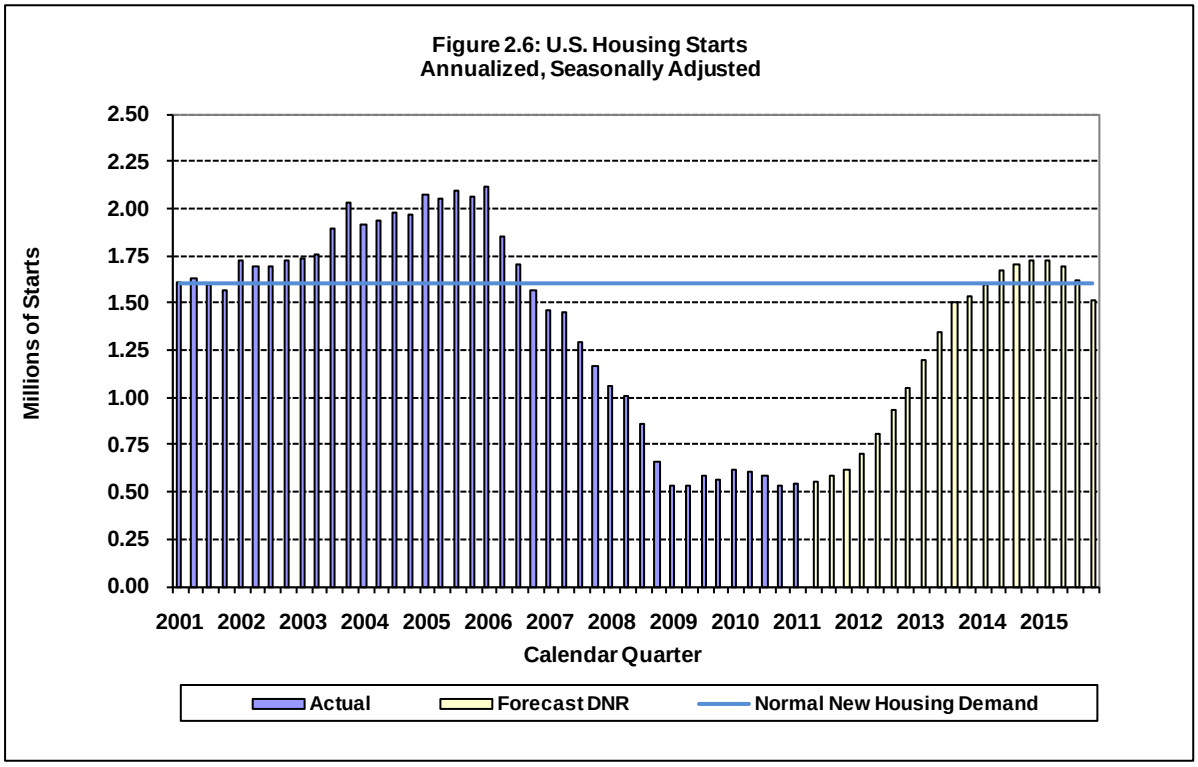
Actually at this point, low housing starts are good news for housing in that new housing starts simply add to the oversupply.



Behind the slowdown in demand for housing is the slowdown in household formation, which not only is a result of the recession but then feeds back to prolong the recession. Household formation typically stalls during a recession as people move in with family or friends, or share rentals. Young adults are less likely to leave their parents' home to form new households if they are unemployed. Recent surveys suggest that young U.S. adults are also delaying marriage and childbearing for economic reasons. The United States actually lost 1.2 million households from

2005 to 2009. The U.S. formed fewer than 400,000 new households in 2009 and 2010. In a typical year, about 1.3 million new households are formed.

Figure 2.6 shows the annual rate of new housing starts in the United States since 2001 by quarter. It clearly shows that the United States overproduced new housing units during the housing bubble (i.e., housing starts exceeded the normal 1.6 million annual rate of new housing demand). The rate then fell off dramatically from 2006 to 2009 and remains in a rather flat trough.



We are forecasting that starts will be flat for another year or so. Even this could be optimistic as the household formation rate in the United States remains low. The sharp drop in household formation largely explains why, despite the plunge in housing starts in recent years, the housing glut remains stubbornly high. We estimate the current level of excess inventory at about 1.35 million units but others have put the excess at 2 million to 3 million. It will take an additional year or two to reabsorb this oversupply. Given we are already five years into the housing collapse and have three to five years until full recovery, this period will have lasting impact on the demand for housing of at least a generation, perhaps longer.

In addition, we expect that both immigration and natural demographic growth will slow and U.S. population growth will slow to 1 percent after the Great Recession from 1.5 percent before. Given the dramatic changes in financial terms and perceptions of housing as an investment, we believe the single-family share will decline over the forecast period. We expect the share of single family starts to fall from 75 percent prior to the Great Recession to just 60 percent post recession.

Once again we have reduced our forecast of housing starts going forward. Our current forecast shows housing starts increasing from 550,000 in 2011, Q2 to 700,000 in 2012, Q1.

Lumber, log, and stumpage prices

"We believe a lumber super-cycle is now a possibility even without a 'normalized' U.S. housing market."

Richard Kelertas,
Forestry Analyst
Dundee Securities Corp
March 17, 2011

Lumber Production. U.S. West Coast mills produced 11.3 billion board feet (bbf) of lumber in CY 2010, 9.2 percent above 2009, while production in the South was up by just 4 percent.

World Export Trade. In 2010, the log export volume from Oregon and Washington increased to almost 804 mmbf, nearly 82 percent higher than 2009, and the highest volume since 2000. The bulk of that increase went to China which imported over 351 million board feet, but volumes to Japan and South Korea increased as well. Japan was still the largest importer of logs from the United States, totaling over 392 million board feet—a 4 percent increase over 2009. Log exports to South Korea also increased to the highest level in the past decade[5]. The volume of log exports in 2010 from British Columbia was over 591 million board feet—a 151 percent increase.

The bulk of oversees lumber exports in 2010 came out of Canada and were some 3.9 billion board feet up 42 percent from 2009. U.S. softwood lumber exports to offshore destinations soared to the highest volume in a decade last year. Offshore exports hit 755 million board feet, up 42 percent from the 2009. Here again, China showed the greatest increase up 180 percent although from a very low base.

China: Whether China's soaring import demand for wood products will continue to increase will depend primarily on continued growth of China's economy and building boom as most of the softwood lumber they import is used in construction. If China's economy grows then its import demand will grow too as it has no forest reserves of its own with mature timber to draw on. China's growth has been spectacular, and its potential is huge., We expect it to continue to grow, but that is by no means certain.

If China's demand for wood products does continue to grow as we expect, from where and in what form those imports will take is another question. There are four primary exporters that are likely sources of forest products to China: Russia, New Zealand, Canada and United States. Over the last year, as China has increased its timber imports it has reduced its imports from Russia

[5] From Jones Stevedoring www.jonesstevedoring.com

because of higher export taxes and unreliability of supply. New Zealand, which has seen its exports to China grow, is reaching capacity limitations.

This leaves Canada and the United States as likely benefactors of growing demand in China. Only logs from private lands can be exported from Canada and their supply is limited. Canada also faces a 15 percent tax on the lumber it sends to the United States which its mills can avoid by exporting lumber offshore. So it seems likely that increased exports from Canada will take the form of lumber while the growth in exports from the United States is expected to continue to be in log form.

In the short run, both lumber and log exports to China are likely to increase, but given the low cost of labor in China it seems likely that China will build its own mills and, over time, the mix of exports will move more towards logs rather than lumber.

Japan: The recent earthquake and subsequent tsunami offers another potential shift in demand for North American wood products. If all the homes destroyed by the disaster in Japan where rebuilt this year, the number of housing starts would increase by 15 percent. Wood will be a major input into the rebuilding effort and to a lesser extent into any resettlement in other areas.

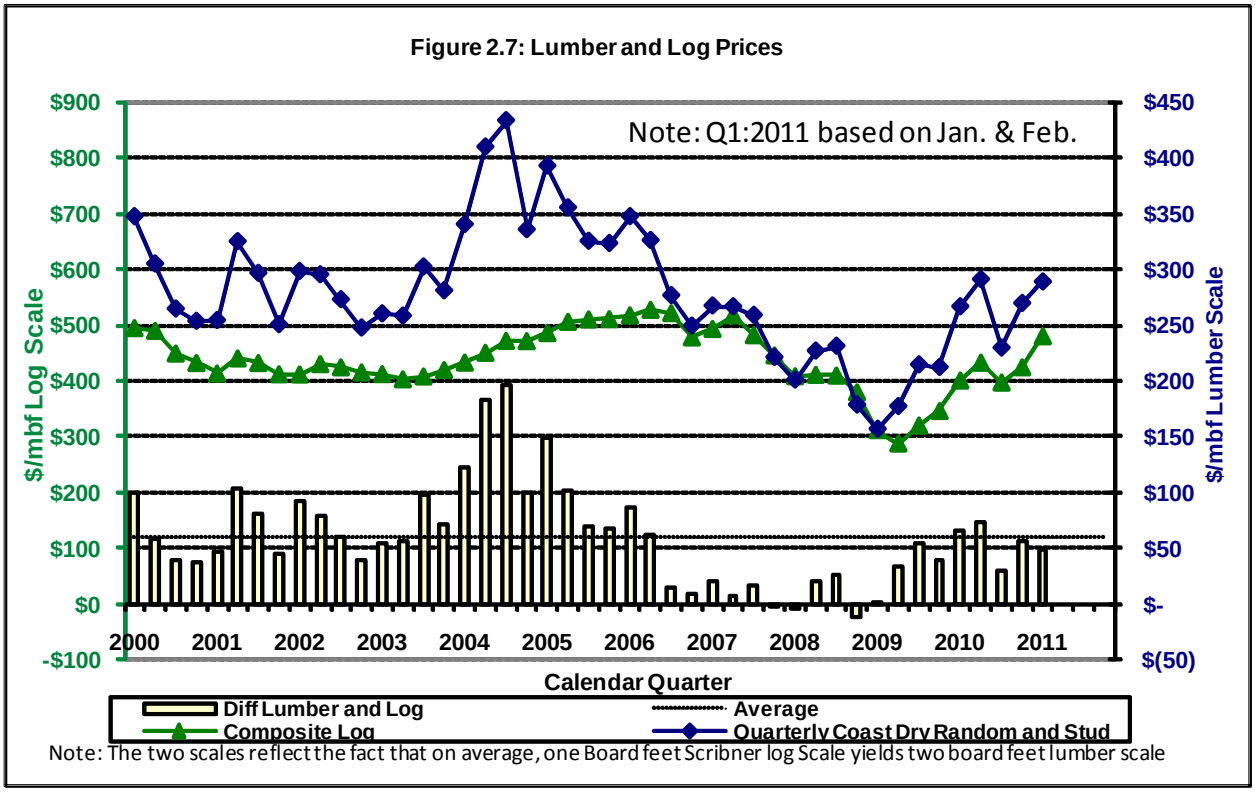
Like China, Japan has no wood reserves of its own and an increase in their wood consumption will mean increased imports. To service the increased demand, sawmills in Japan will accelerate production, and this will require increased imports of softwood logs. The United States accounted for over 40 percent of Japan's softwood log imports in 2010 and Canada 30 percent, so it is likely that Washington and Oregon will see the greatest increase in log export demand from Japanese for the same reasons mentioned above. Japan has a long history of importing logs from the Pacific Northwest, and is still the largest importer of wood products from the area. Likewise any increase in the demand for lumber is likely to come from Canada.

RISI forecasts that offshore lumber exports to double between now and the end of the forecast (FY 15).

Lumber and Log Prices. While domestic lumber markets demand remain weak, growing offshore demand for logs and lumber continue to drive prices higher.

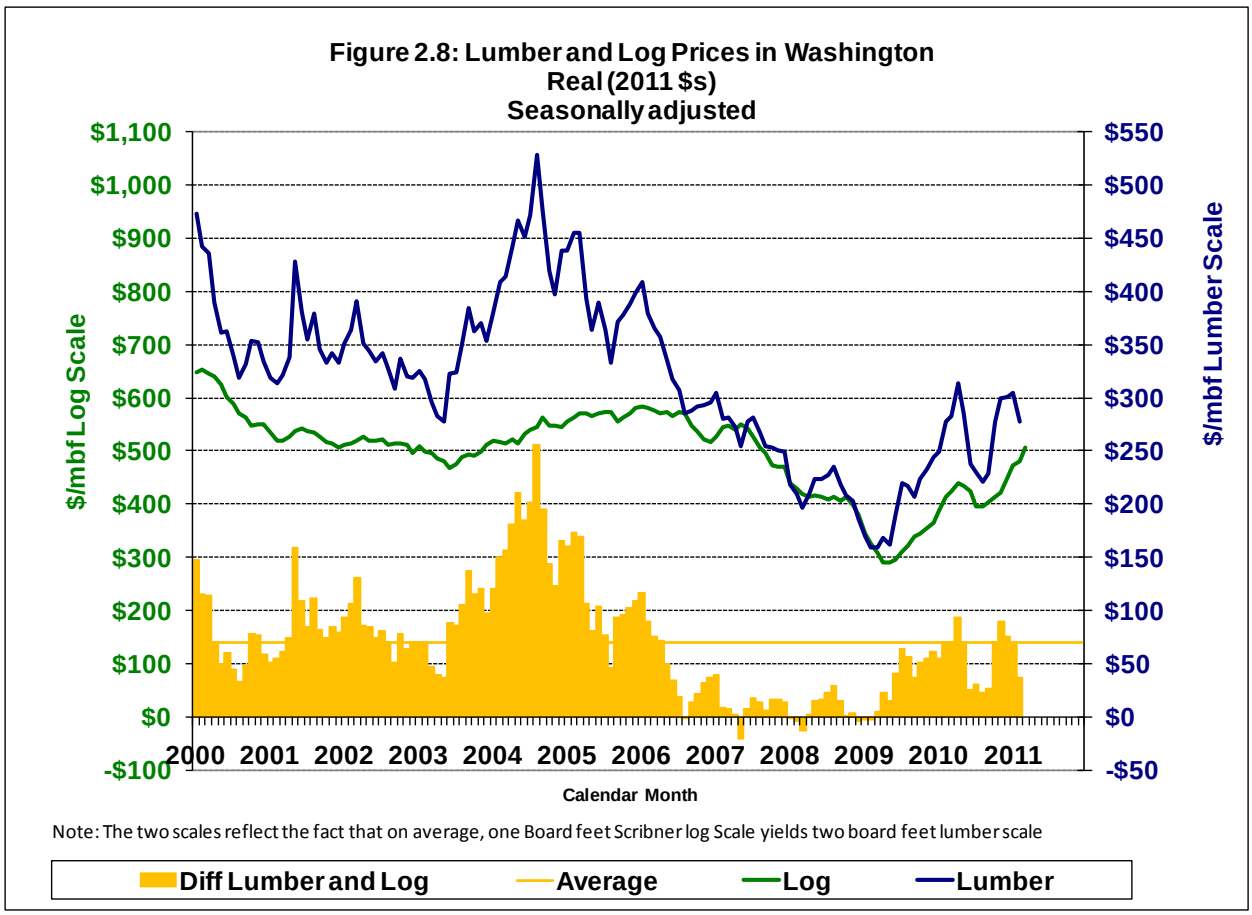
Lumber and log prices spiked last April at the height of an inventory adjustment phase. As we expected, they then fell as inventories returned to normal levels, but the prices didn’t fall back to previous low levels. In August, lumber prices were still 43 percent above the previous low and have now increased to 82 percent of the bottom.

Log prices are even higher than they were last spring and when lumber prices turned down in February, log prices continued to increase, which causedmill margins to shrinnk. (See **Figures 2.7 and 2.8**). We are now seeing rolling closures of mills citing “the high cost of logs and weak domestic pricing.”



"*A lot of people think when things are good, they're never going to be bad. A lot of people think when things are bad, they're never going to be good. All I know is the market goes up and the market goes down.*"

Jack Kleinhoff,
A timber buyer for 30 years
March 17, 2011



Log and DNR Stumpage Prices. Figure 2.9 shows prices for logs, predicted DNR stumpage, and actual DNR stumpage on an annual basis since CY 2000. The "composite log price" represents prices for logs delivered to mills weighted by the average geographic location, species, and grade composition of timber sold by DNR.

We have recalibrated our model to reflect seasonal factors and inflation. The "predicted" DNR stumpage price is calculated by deducting $169/mbf real 2011 dollars for the log price to account for logging, transportation, and other costs (L & T costs) of getting the standing timber to the mill in log form. In nominal terms, estimated L & T costs increase from $132/mbf in CY 2000 to $169/mbf in CY 2011, averaging about $152/mbf over the decade.

For the last two years these estimated costs have been trending downward and have averaged just $118/mbf. It remains a mystery why the apparent costs are so much lower but there are probably several factors at work here. One possible factor is that the Department has reduced road and other cost to purchasers. For at least part of this period the quality of the timber offered for sales may have been better than normal. Finally, it may be that contractors have reduced what they are charging purchasers because of the limited amount of work available over the last two years. It may well be that purchasers are anticipating higher stumpage values in the future when the sales are actually harvested and therefore are bidding more than what can be supported by current log values.

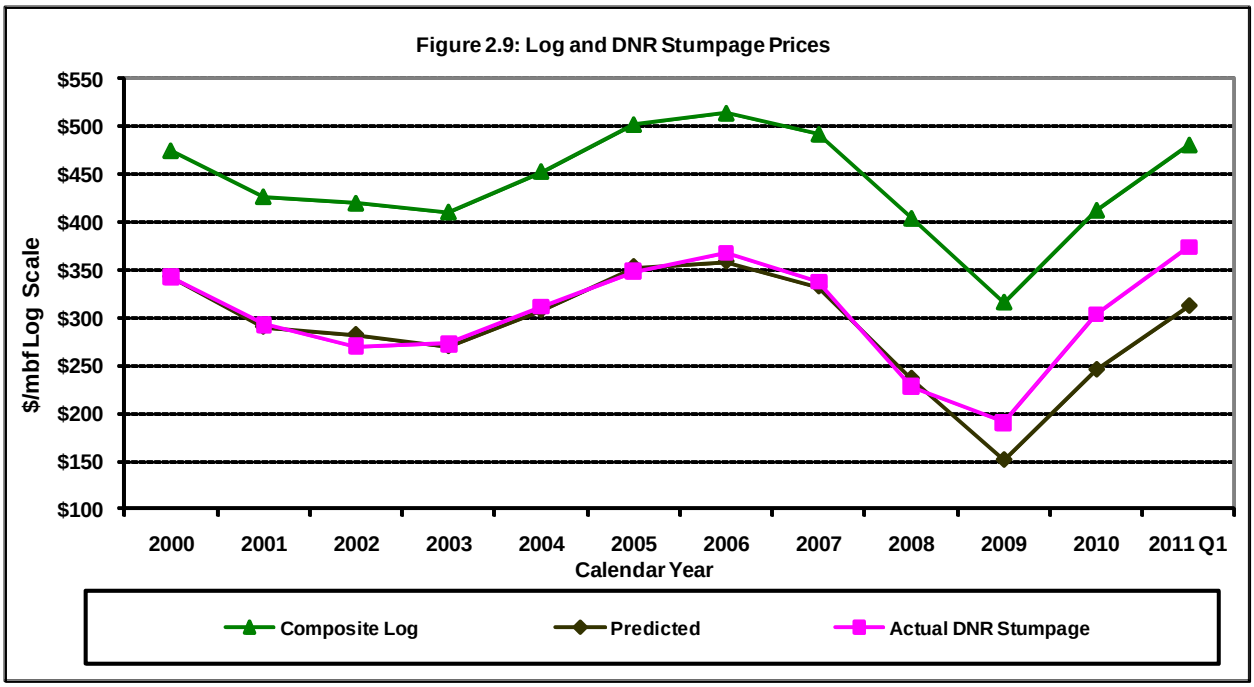


Figure 2.9: Log and DNR Stumpage Prices
$550
$500
$450
$400
$350
$300
$250
$200
$150
$100
$/mbf Log Scale
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011 Q1
Calendar Year
Composite Log
Predicted
Actual DNR Stumpage

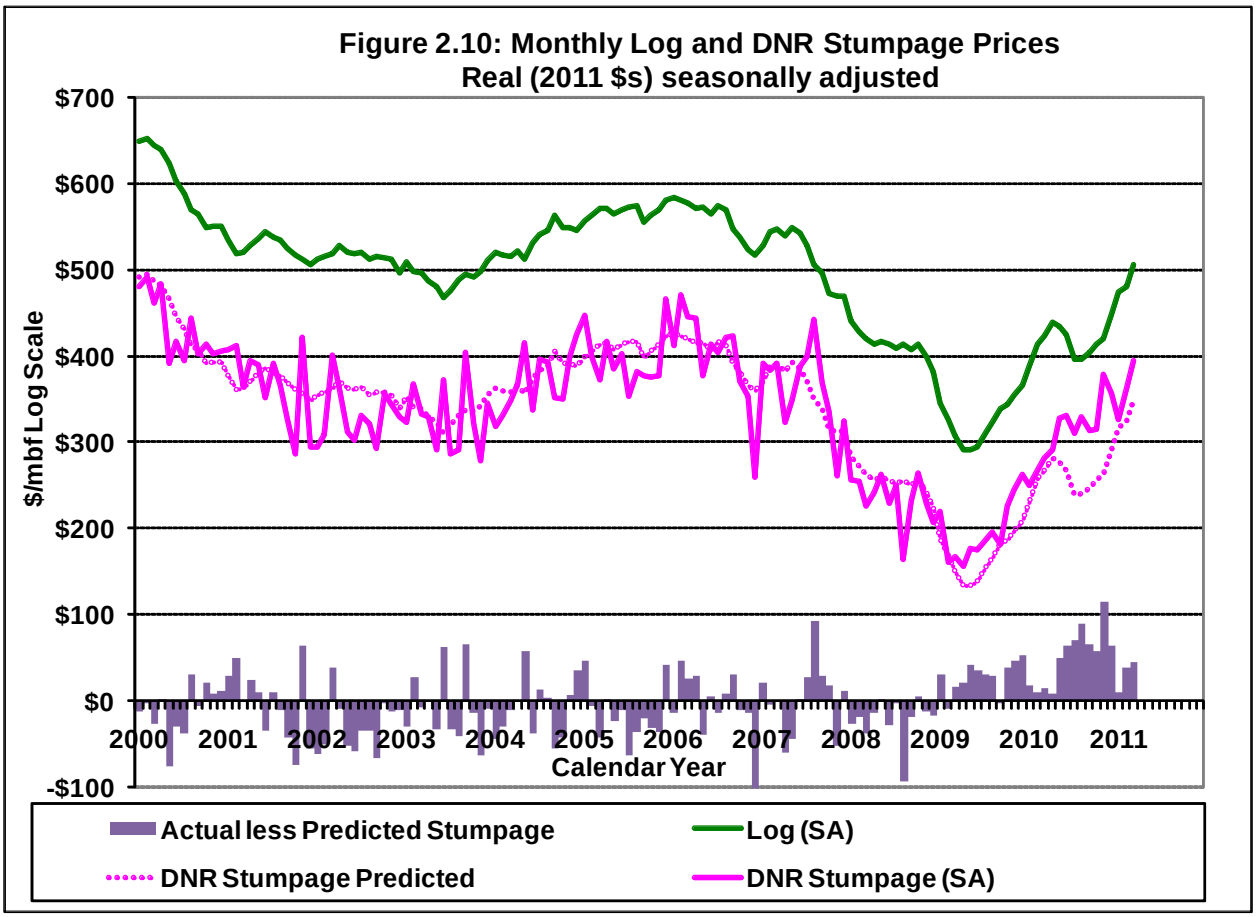
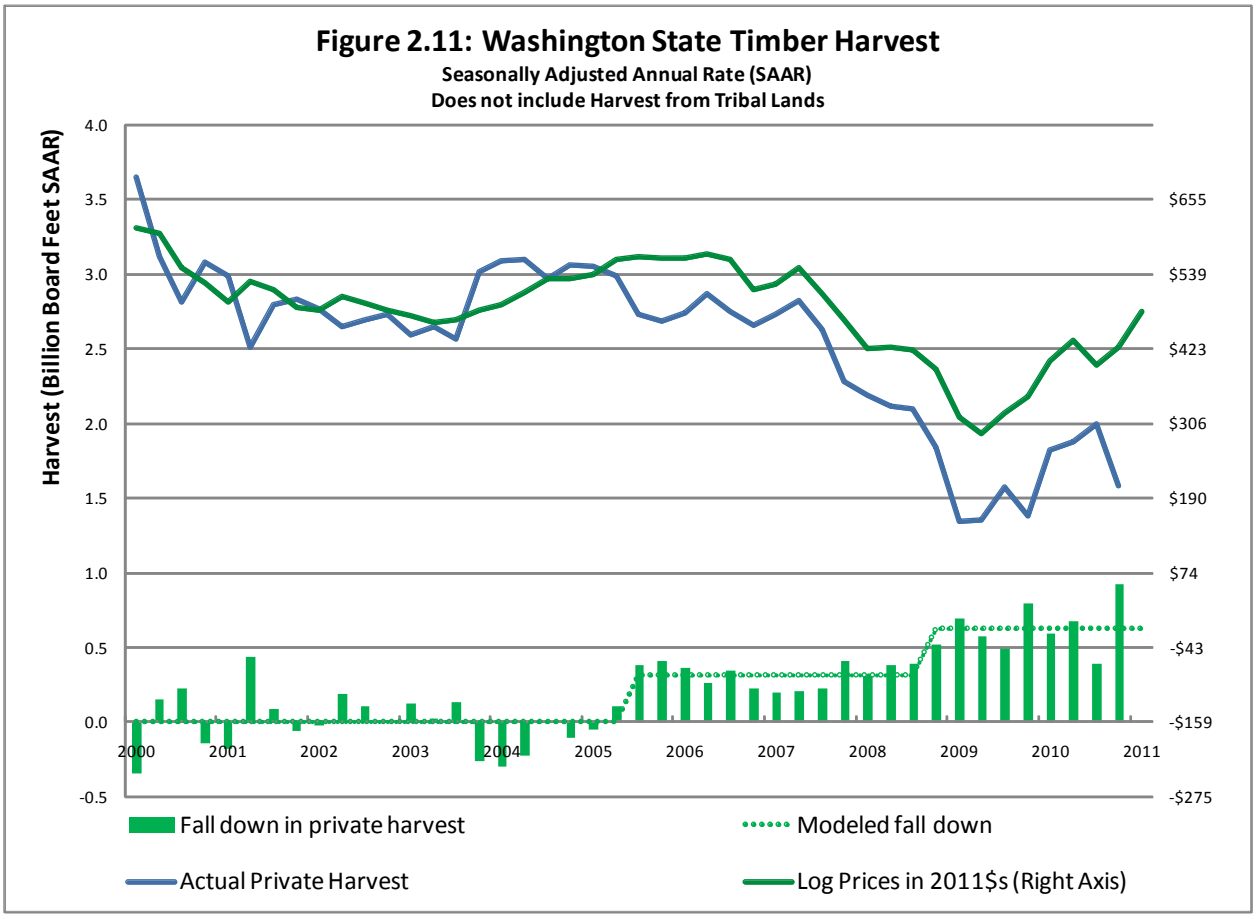


Figure 2.10: Monthly Log and DNR Stumpage Prices
Real (2011 $s) seasonally adjusted
$700
$600
$500
$400
$300
$200
$100
$0
-$100
$/mbf Log Scale
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Calendar Year
Actual less Predicted Stumpage
Log (SA)
DNR Stumpage Predicted
DNR Stumpage (SA)

Whatever the cause, DNR stumpage prices have been $50/mbf higher over the past two years than our model predicted given actual log prices.

Figure 2.10 shows the same relationship but on a monthly basis with seasonal adjustment and in real 2011 dollars. The bars at the bottom of the graph show by how much actual DNR stumpage prices are above those expected given log prices. It also shows the sharp upturn in log and predicted DNR stumpage prices in the last eight months when log prices have increased by 28 percent.

Harvest from Private Lands. We have been surprised at the low level of harvest from private lands in Washington during CY 2009 and 2010. Our analysis indicates that harvest from private lands started its decline in mid 2005 while real log prices were just reaching their peak. We believe this happened because for the most part TIMOs and REITs had liquidated most of their over-mature timber and were not able to maintain higher harvest levels without cutting under-mature timber. Our analysis indicates that the fall down may have increased in late 2008 as prices hit bottom. The harvest data[6] for the fourth quarter is preliminary, but it indicates that harvest from private lands turned down sharply in the fourth quarter.



[6] http://dor.wa.gov/content/FindTaxesAndRates/OtherTaxes/Timber/forst_stat.aspx

RISI recently reported it found evidence indicates that “private timber harvest will increase when the price of a #2 Douglas-fir sawlog delivered to the mill moves above $500/MBF Scribner” which it did in the first quarter we will be watching to see if harvest from private lands will respond as RISI expects.

Part 3. DNR's Revenue Forecast

This Revenue Forecast includes Department revenues from timber sales on trust lands, leases on trust uplands, and leases on aquatic lands. It also forecasts revenues to individual funds. Some caveats about the uncertainty of forecasting Department revenues are summarized at the end of this section.

Timber revenues

The Washington State Department of Natural Resources (DNR) sells timber through contracts. The Department determines the total volume to be offered for sale each month and the minimum bid for each timber sale. The sale is awarded to the highest bidder and the average sales price ($/mbf) is set at the time of auction. DNR collects a 10 percent initial deposit at the time of sale and holds it until the sale is completed. Revenues are collected at the time of harvest (removal). The initial deposit is credited as the last 10 percent is harvested.

DNR timber sale contracts sold over the last years ending in February, have varied in duration from less than three months to three years, with an average (weighted by volume) of about 18 months. The purchaser determines the actual timing of harvest within the terms of the contract. As a result, timber revenues to beneficiaries and DNR management funds lag current market conditions. Currently, that lag is about a year.

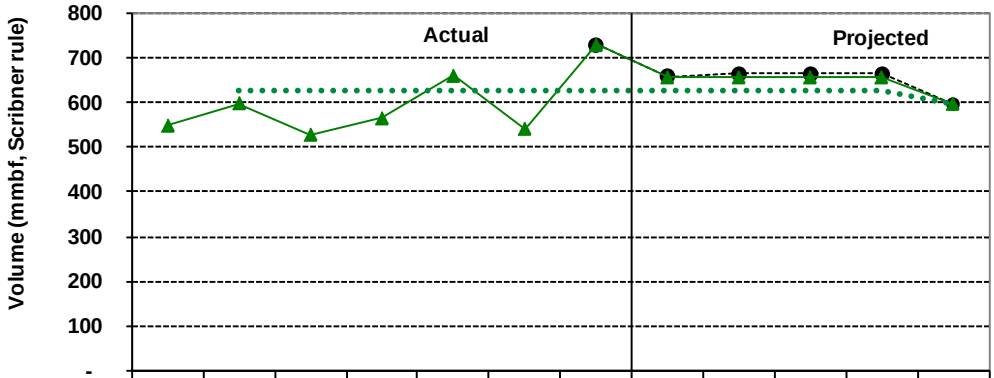
Timber that is sold but not yet harvested is referred to as "volume under contract" or "inventory". Timber volume is added to the inventory when it is sold and placed under contract and it is removed from the inventory as the timber is harvested.

Timber Sales Volume. We have made minor changes (less than 1 percent) to DNR's planned sales level to reflect past levels of harvest. As directed by law the Board of Natural Resources sets the level of sustainable harvest for western Washington on a decadal basis. The current sustainable harvest decade is from FY 05 through FY 14. For Western Washington, the current

sustainable harvest is 550 mmbf per year for the current decade and 537 mmbf for the next decade beginning in FY 15. We expect the harvest for Eastern Washington will average 75 mmbf per year over the current decade, resulting in an average statewide harvest of 625 mmbf for the current decade. By Board policy, the actual harvest may vary by up to 25 percent in any given year. For four of the first five years of the decade, harvest fell short of the sustainable level by a cumulative amount of 233 mmbf. In the sixth year of the sustainable harvest decade, the Department sold 730 mmbf, or 105 mmbf more than the sustainable harvest level, leaving a remaining shortfall of 128 mmbf. The Department's plans to spread this amount evenly over the remaining four years of the decade or 32 mmbf per year bringing planned sales for the remainder of the decade up to 657 mmbf (625 mmbf plus 32 mmbf) per year. (See **Figure 3.1)**

The last year of the forecast (FY 15) is the first year of the next sustainable harvest decade. The Department will recalculate the sustainable harvest and anticipates that the Board will adopt a new sustainable harvest before the next decade begins. Not knowing what the results of that process might be, we are using the Westside harvest calculated for the second decade of 537 mmbf, plus an Eastside harvest of 60 mmbf per year.

Figure 3.1: Forecast Sales Volume



Fiscal year ending June 30	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast							730	659	665	665	665	597
Current Forecast	548	599	528	565	660	541	730	657	657	657	657	597
Change							-	(2)	(8)	(8)	(8)	-
Percent Change							0%	0%	-1%	-1%	-1%	0%
Sustainable harvest		625	625	625	625	625	625	625	625	625	625	597

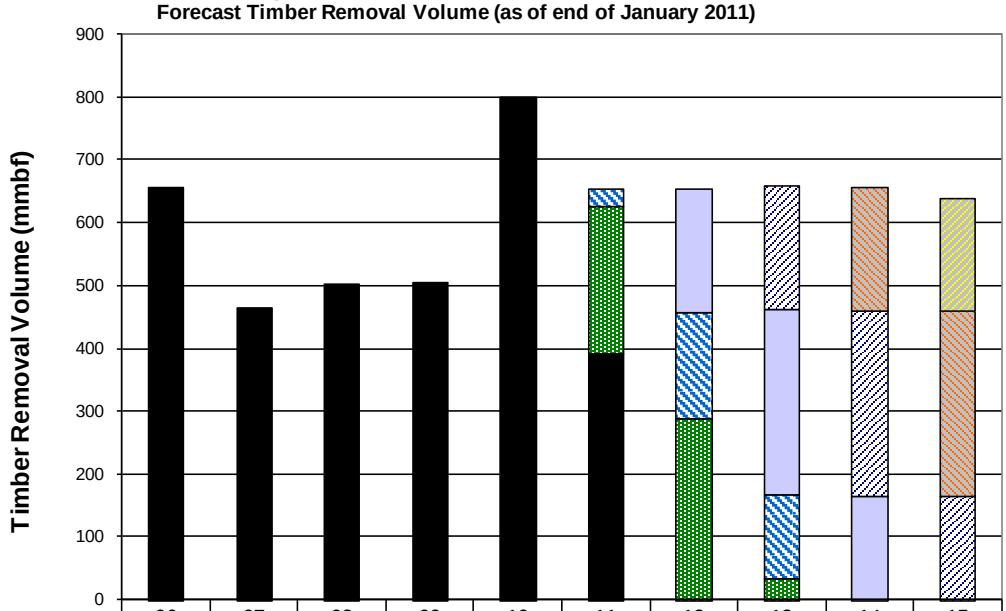
There is some downside risk in that it may be difficult for DNR to make its target timber sales volume because of environmental and operational constraints.

Timber Removal Volume. At the end of January, the Department has 557 mmbf valued at $158.7 million under contract. This is a reduction in the volume under contract from the 561 mmbf under contract when we did the November Forecast, but it is an increase in the value from $134.7 million. In January there was just over 10 months worth of volume under contract at the

forecast sales rate but we expect that to increase to almost 12 months worth at the end of the fiscal year as removals slow and sales increase in the remainder of FY 11.

For each Forecast, we survey DNR timber sale purchasers to determine their planned timing of removals from the timber volume they have under contract at the time of the survey. This Forecast's survey, conducted in the first week of February, indicates that purchasers have not significantly modified their harvest plans. Purchasers plan to harvest 234 mmbf, 42 percent of the volume under contract, this fiscal year (FY 2011) and 324 mmbf (58 percent) next biennium (2011-13) (see **Figure 3.2** for detail).

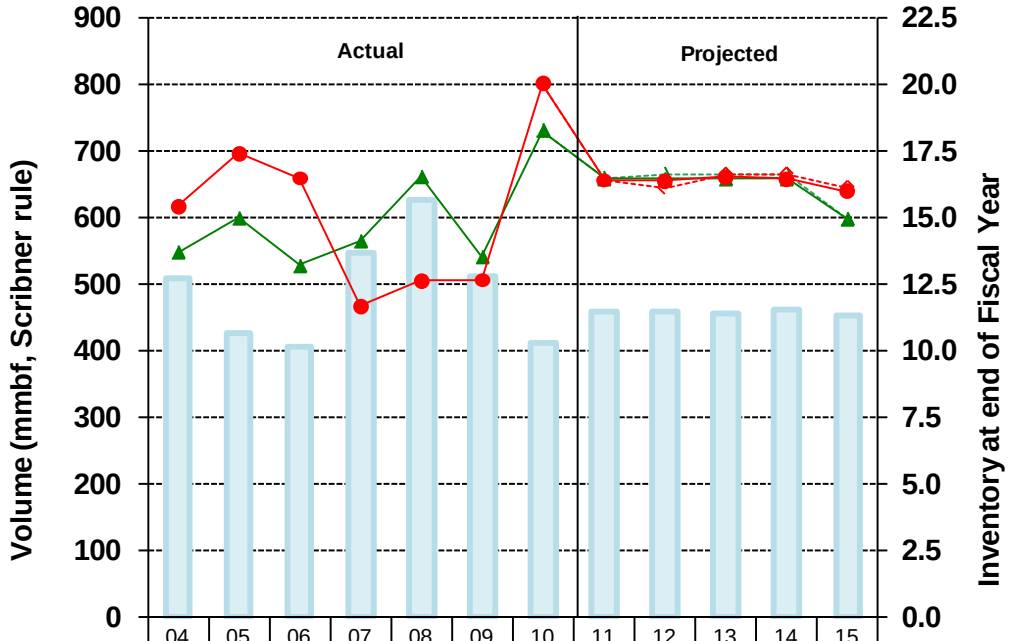
Figure 3.2: March 2010 Revenue Forecast
Forecast Timber Removal Volume (as of end of January 2011)



Fiscal Year	06	07	08	09	10	11	12	13	14	15
Sales in FY 15										179
Sales in FY 14									197	296
Sales in FY 13						-	-	197	296	164
Sales in FY 12						-	197	296	164	-
Sales in FY 11						30	169	132	-	-
Sales Under Contract						234	289	35	-	-
Actual Removals to date	658	466	504	506	801	392				
Total	658	466	504	506	801	655	655	660	657	639

Through January, purchasers removed 392 mmbf. Together with the expected removals of 234 mmbf from volume under contract and another 30 mmbf from timber sales yet to be sold in the current fiscal year, this brings our forecast of total timber removals for FY 2011 to 655 mmbf—the same as forecast in November. Like the planned sales volume we have made only minor changes to the forecast removal volumes in the later years of the forecast. (See **Figure 3.3** for details).

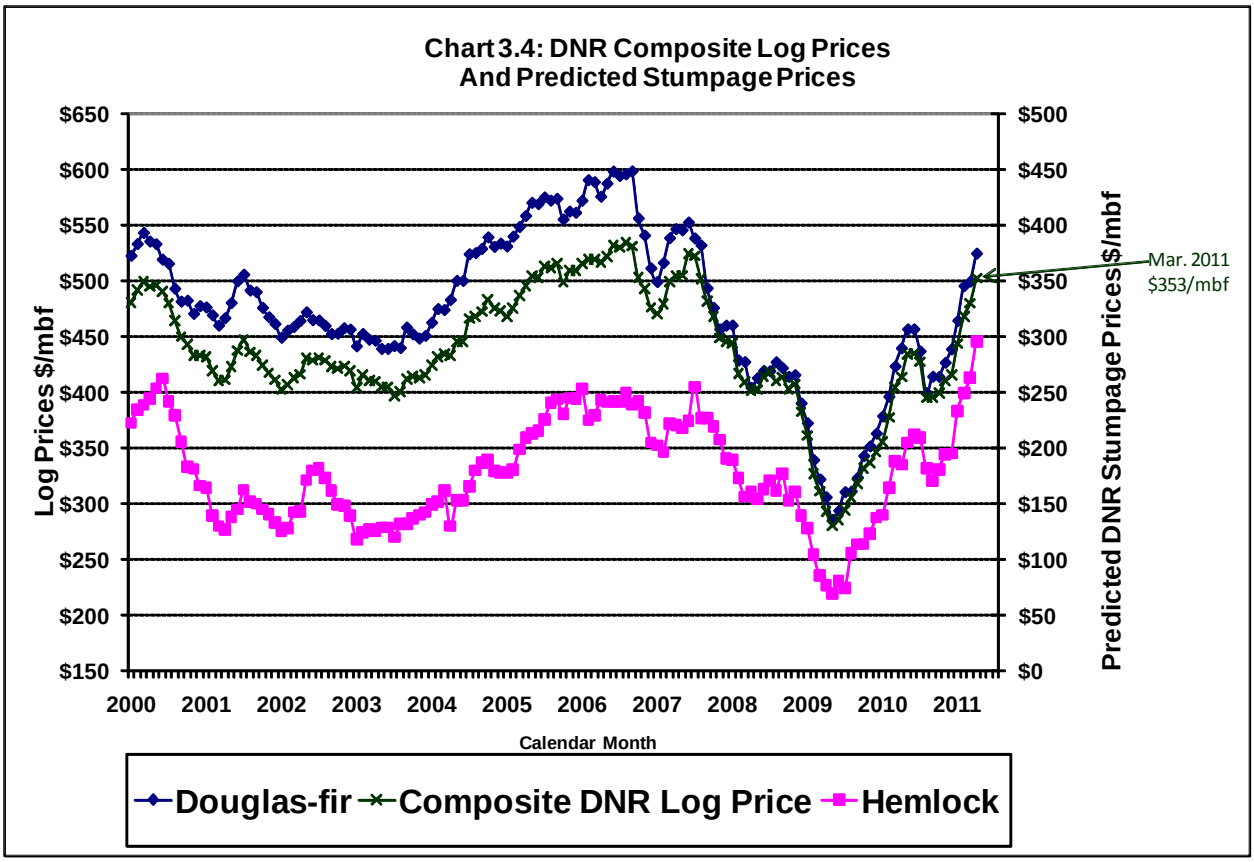
Figure 3.3: Timber Volume - Sales and Removal



	04	05	06	07	08	09	10	11	12	13	14	15
Months worth of Inventory	12.7	10.6	10.2	13.7	15.7	12.8	10.3	11.5	11.5	11.4	11.6	11.3
Sales - Previous Forecast							730	659	665	665	665	597
Sales - Current Forecast	548	599	528	565	660	541	730	657	657	657	657	597
Removals Prev. Forecast							801	655	645	665	665	645
Removals - Current Forcast	616	696	658	466	504	506	801	655	655	660	657	639
Change							0	0	10	-4	-8	-6
Percent Change							0%	0%	2%	-1%	-1%	-1%

Timber Sales Prices. When we did the November Forecast, the composite (weighted by species) projected stumpage price had increased to $265/mbf ($415/mbf composite log price minus $150/mbf logging costs). Since then (over the last four months) it has increased $88/mbf to $353 in March. See **Figure 3.4**.

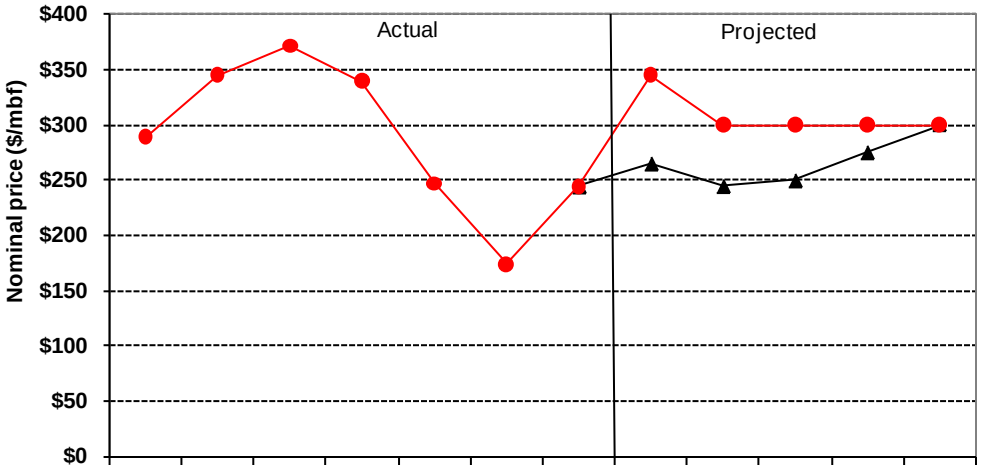
At the current time, log and stumpage markets are being supported by the export market. As China is more interested in volume than price, the greatest increase has been in hemlock log prices which are now almost $50/mbf higher than at any other time in the decade! As discussed above, we expect the export market to continue to grow as China and the world economies grow and for the demand to get a temporary boost from the reconstruction in Japan.



As a result, we are revising our forecast DNR stumpage prices upward for FY 2011 and 2012. We now expect stumpage prices to average $345/mbf for all of FY 2011, up $80/mbf from that forecast in November (see **Figure 3.5**). We are also revising our stumpage price for FY 2012 upward from $245/mbf to $300/mbf. Our forecast timber sale prices for FYs 2013-2014 are also increased to $300/mbf.

The forecast of DNR stumpage prices in the next two biennia incorporate our continued pessimism about the long-term recovery of the U.S. housing market; this pessimism is overcome by expected continued strength in export demand for both logs and lumber. We expect export demand to be the dominant force in stumpage prices over the remainder of FY 2011 and FY 2012. We expect the domestic demand to grow beginning sometime in early FY 2013. If this proves true, it will add upward pressure to stumpage prices, making our current forecast for FY 2013 and beyond low.

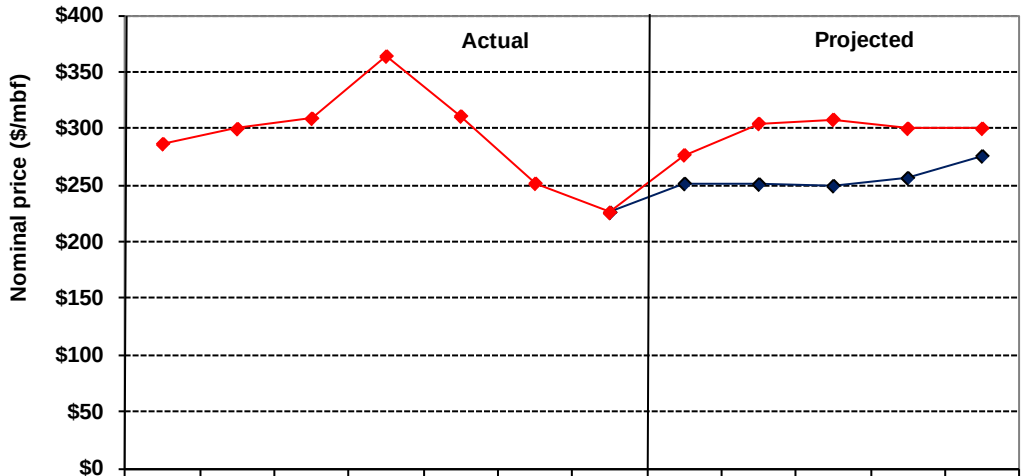
Figure 3.5: Timber Sales Prices - Comparison of Previous Forecast with Current Forecast



Fiscal year	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast							$245	$265	$245	$250	$275	$300
Current Updated	$289	$345	$371	$340	$247	$174	$245	$345	$300	$300	$300	$300
Change							$0	$80	$55	$50	$25	$0
Percent Change							0.0%	30.2%	22.4%	20.0%	9.1%	0.0%

Timber Removal Prices. Timber removal prices are a function of timber sales prices and the timing of the timber's removal. They can be thought of as a moving average of previous timber sales prices, weighted by the volume of sold timber removed in each time period. The removal volumes used to calculate the weights are shown in **Figure 3.2**, which results in a smoothing out and a lag of timber removal prices compared to timber sales prices. For example, sales prices bottomed out at $174/mbf in FY 2009 (see **Figure 3.5**). As shown in **Figure 3.6**, removal prices bottom out in FY 2010 at $226/mbf, which was $52/mbf higher and a year later than the bottom for sales prices.

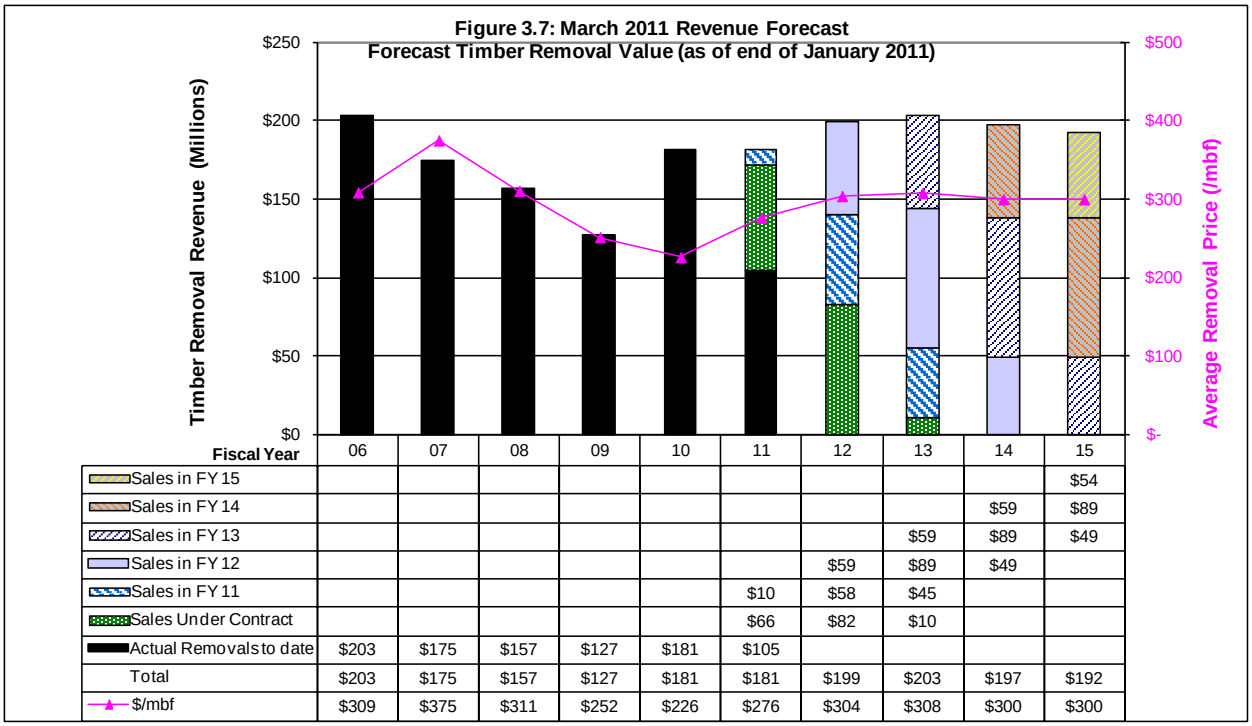
Figure 3.6: Timber Removal Prices - Comparison of Previous Forecast with Current Forecast



Fiscal year	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast							$226	$251	$251	$249	$256	$275
Current Updated	$286	$300	$309	$363	$311	$252	$226	$277	$304	$308	$300	$300
Change							$0	$25	$53	$58	$44	$25
Percent Change							0%	10%	21%	23%	17%	9%

Forecast of timber removal prices reflect the increase in sales prices averaging $55/mbf in FY12 and FY13 and average increase of 22 percent (see **Figure 3.6**).

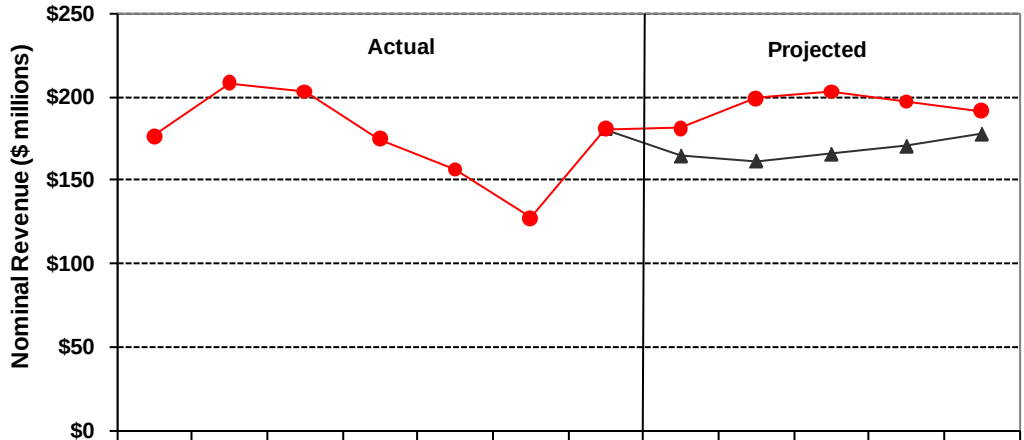
Timber Removal Revenues. Figure 3.7 shows projected annual timber removal revenues and the average removal price for that fiscal year, broken down by the fiscal year in which the timber was sold ("sales under contract" are already sold as of January 2011). Over 58 percent of the forecast timber harvest revenue this fiscal year (FY 2011) will come from sold timber already harvested to date; another 37 percent will come from previously sold timber sales currently under contract as of the end of January, and the remaining six percent will come from harvests on timber sales yet to be sold in FY 2011.



Fiscal Year	06	07	08	09	10	11	12	13	14	15
Sales in FY 15										$54
Sales in FY 14									$59	$89
Sales in FY 13								$59	$89	$49
Sales in FY 12							$59	$89	$49	
Sales in FY 11						$10	$58	$45		
Sales Under Contract						$66	$82	$10		
Actual Removals to date	$203	$175	$157	$127	$181	$105				
Total	$203	$175	$157	$127	$181	$181	$199	$203	$197	$192
$/mbf	$309	$375	$311	$252	$226	$276	$304	$308	$300	$300

As shown in **Figure 3.7,** most of the timber sold in the remainder of fiscal year 2011 will be harvested in the next biennium (FYs 2012 and 2013).

Figure 3.8: Timber Removal Revenues - Comparison of Previous Forecast with Current Forecast, 2004-2015



Fiscal year	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast							$181	$165	$162	$166	$170	$178
Current Updated	$176.5	$208.4	$203.2	$174.7	$156.6	$127.2	$181.0	$181.3	$199.2	$203.2	$197.1	$191.7
Change							-	16.7	37.5	37.5	26.7	14.1
Percent Change							0%	10%	23%	23%	16%	8%

In the current biennium (FYs 2010 and 2011), forecast timber removal revenues are up by $16.7 million, or 5.0 percent, to $362.3 million. See **Figure 3.8** for detail. In the 2011-13 Biennium (FYs 2012 and 2013), forecast timber removal revenues are up by $75.0 million, or 23 percent, to $402.4 million. In the 2013-15 Biennium, forecast of timber removal revenues are up by $40.8 million, or 12 percent, to $388.8 million.

Upland lease revenues

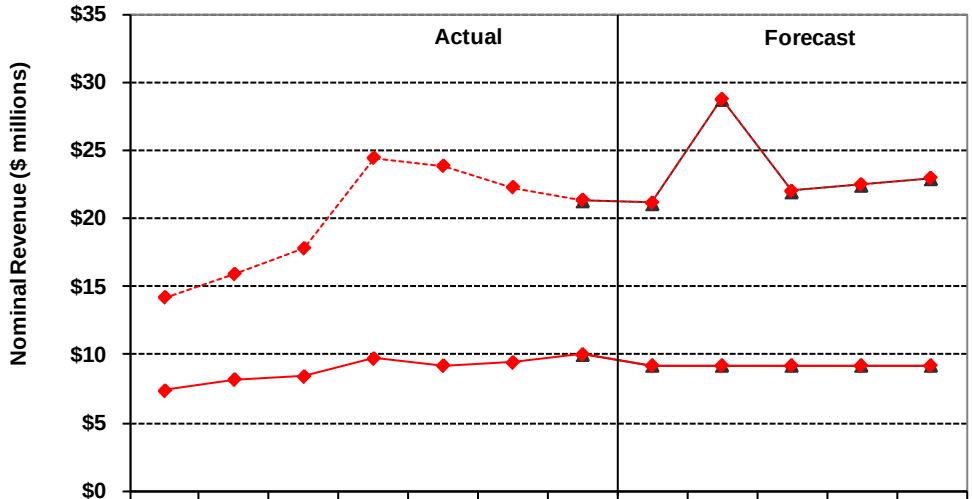
Upland lease revenues are generated primarily from leases and the sale of valuable materials, other than timber, on state trust lands. In this Forecast, upland lease revenues are divided into two categories:

> **Commercial—**Commercial real estate leases.
> **Agricultural and Other**—Agricultural, special use, mineral and hydrocarbon, right-of-way, communication site, and special forest products leases, and sale of valuable materials other than timber.

Commercial. The current U.S. recession has increased the probability that some of DNR's commercial building lessees could vacate and default. Because of the continuing sluggishness of the economic recovery and because commercial real estate especially is in the doldrums, we are leaving our forecast for future years' commercial leasing revenue at the $9.2 million level. There is more downside risk to this forecast than upside risk because of the bleak outlook for commercial real estate at the present time. The National Association of Realtors expects vacancy

rates for office space to increase to 17 percent into 2011 and to hold steady at 13 percent for retail space, with rental rates for both types continuing to fall.

Figure 3.9: Upland Lease Revenue - Comparison of Previous Forecast with Current Forecast, 2004-2015



Fiscal Year	04	05	06	07	08	09	10	11	12	13	14	15
Ag. & Other Prev. For.							21.3	21.1	28.7	22.0	22.5	23.0
Ag & Other - Current	14.2	15.9	17.8	24.4	23.8	22.3	21.3	21.1	28.7	22.0	22.5	23.0
change							0.0	0.0	0.0	0.0	0.0	0.0
% change							0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial Prev. For.							10.0	9.2	9.2	9.2	9.2	9.2
Commercial - Current	7.4	8.2	8.4	9.7	9.2	9.4	10.0	9.2	9.2	9.2	9.2	9.2
Change							0.0	0.0	0.0	0.0	0.0	0.0
% Change							0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Agricultural and Other. For the first half of FY 2011, actual upland revenue was 1 percent greater than we forecast for that period. Agricultural and commercial revenues together were over a half million higher than forecast but that was all but offset by lower mineral and "other" revenues.

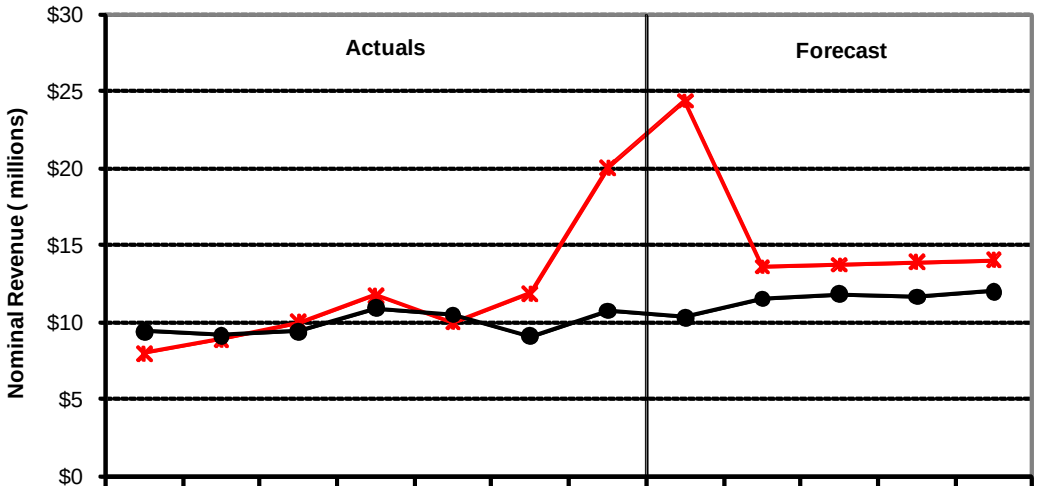
For now, we have not changed the forecast level of non-timber uplands revenues. As shown on **Figure 3.9**, we expect revenues in the agricultural and other upland leases category to increase over the forecast period. The one time bump in FY 2012 is from the sale or long term lease of communication towers and equipment.

Revenues should be up on agricultural leases as crop prices rebound. Revenues also should be up in the "other leases" category as wind power leases come on line. There will be a countervailing influence because the outlook is for revenues in the mineral, oil and gas, and rock, sand, and gravel categories to be sharply down over the forecast period.

Aquatic lands revenues

Geoduck Revenues. There were two geoduck auctions since we did the November Forecast the average price per pound was $10.30, over $4.00/lb above the $6.25/lb in the forecast. In total the two sales brought in $3.1 million more than forecast and we have increased our forecast of geoduck revenues for FY 11 by that amount. There are no more geoduck auctions scheduled for FY 11. At this time we are not increasing our forecast of geoduck prices for future fiscal years but the upside potential has increased. For detail on recent geoduck auctions see the September Forecast write-up.

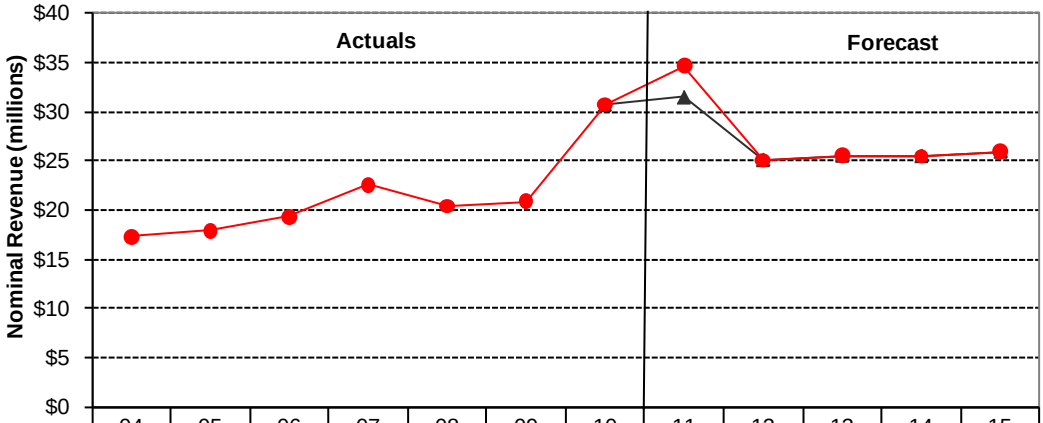
Figure 3.10: Aquatic Revenues
Forecast Geoduck and Lease & Other, FY 2010-2015



Fiscal Year	04	05	06	07	08	09	10	11	12	13	14	15
Geoduck Revenues	$7.9	$8.8	$10.0	$11.7	$9.9	$11.9	$20.0	$24.4	$13.6	$13.7	$13.9	$14.0
Lease and Other Revenues	$9.4	$9.1	$9.4	$10.9	$10.4	$9.1	$10.7	$10.2	$11.5	$11.8	$11.6	$12.0

Lease and Other Revenues. Lease and other aquatic revenues continue to come in as forecast. We have made no change in our forecast for lease and other aquatic revenues. (See **Figure 3.11** for detail.)

Figure 3.11: Aquatic Revenues
Comparison of Previous Forecast with Current Forecast, 2010-2015



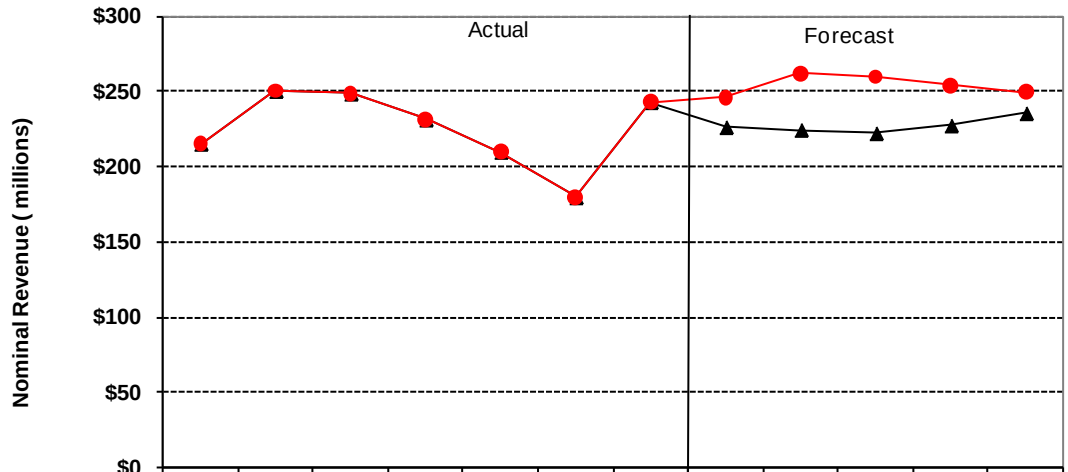
	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast							$30.8	$31.5	$25.1	$25.5	$25.5	$26.0
Current Forecast	$17.3	$17.9	$19.3	$22.6	$20.4	$20.9	$30.8	$34.6	$25.1	$25.5	$25.5	$26.0
Change							-	3.1	(0.0)	(0.0)	(0.0)	(0.0)
Percent Change							0.0%	9.9%	0.0%	0.0%	0.0%	0.0%

Fiscal year ending June 30

Total revenues from all sources

Forecast revenues for the current biennium (FYs 2010 and 2011) are up from the November Forecast by $19.8 million, or 4.1 percent (see **Figure 3.12**). This is due to forecast increase in timber revenues of $16.7 million (see **Figure 3.8**) and $3.1 million from increased geoduck revenue.

Figure 3.12: Total Revenues
Comparison of Previous Forecast with Current Forecast, 2010-2015



Fiscal Year	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast	$215	$250	$249	$231	$210	$180	$243	$226	$225	$222	$228	$236
Current Updated	$215	$250	$249	$231	$210	$180	$243	$246	$262	$260	$254	$250
Change							$-	$19.8	$37.5	$37.5	$26.7	$14.1
% Change							0%	9%	17%	17%	12%	6%

Revenues during the 2011-13 Biennium (FYs 2012 and 2013) are up from the previous Forecast by $75.0 million, or 17 percent (see **Figure 3.12**). All of this change is attributable to timber removal revenue being adjusted upward (see **Figure 3.8**) due to a $56/mbf higher predicted removal price (see **Figure 3.6**), while forecast removal volume is basically unchanged (see **Figure 3.3**).

Current forecast revenues for the 2013-15 Biennium (FYs 2014 and 2015) are up $40.8 million, or 12 percent, from the previous Forecast. This is all attributable to higher timber removal revenue due to higher timber removal prices than previously predicted.

Some caveats

DNR strives to produce the most accurate and objective forecast possible, based on the Department's current policy directions and available information. Actual revenues will depend on future policy decisions made by the Legislature and the Department, as well as market and other conditions beyond DNR's control. Listed below are issues that could potentially have a significant impact on future revenues from DNR-managed lands:

U.S. and Global Economic and Financial Crisis. The United States is still recovering from the deepest and longest recession since the Great Depression. The effects of the burst real estate bubble and the collapse of the financial system in the United States crossed over into the larger national economy and into other countries' economies. The recent shocks show just how vulnerable the U.S. and world economies are at this point in time. We judge that the outlook for the economy as unchanged since the November Forecast.

U.S. Housing Market. It has been more than four years since the housing downturn began. Inventories of existing homes remain high but are beginning to fall as household formation begins to pick up. National home prices are in a second dip and likely set new lows in the first part of CY 2011. Housing starts hit a 50-year low point last year and another all time low in February. To say the least, housing data remains discouraging and we have reduced our housing starts forecast yet again and even that may be too optimistic. It is possible that the housing recovery will be pushed back even further by a slower-than-expected economic recovery. This would likely result in lower timber sales prices than we currently forecast.

Timber Sales Volume. We forecast 657 mmbf in DNR timber sales in FY 2011 and then 658 mmbf annually for FYs 2012 through 2014. This would meet the 1995-2014 decadal sustainable harvest on DNR managed forest lands. There is some risk that DNR will not be able to sustain this level of timber sales because of administrative challenges, and potential litigation over the marbled murrelet and other environmental issues. The bias on this risk is heavily weighted to the downside.

These and other future circumstances could have a great impact on future Department revenues. As events and market conditions develop, DNR will incorporate new information into future Forecast updates. At this point we judge the upside risks to our forecast to be in balance with the downside risk, primarily because we have significantly increased our forecast of future timber prices.

Distribution of revenues

The distribution of timber revenues by trust are based on:

- The value of timber in the inventory (sales sold but not yet harvested);
- The volumes of timber in planned sales for the remainder of FY 2011 and FY 2012; and
- The distribution of the sustainable harvest for FY 2013 through FY 2015.

Timber sales are expected to be harvested on average between 11.3 and 11.6 months after they are sold. (See **Figure 3.3** for details.) Distributions of lease revenues are assumed to be proportional to historic distributions unless otherwise specified.

Since a single timber sale can be worth over $3 million, dropping, adding, or delaying even one sale can represent a significant shift in revenues to a specific trust fund.

Management Fee Deduction. The budget passed by the Legislature extended the 30 percent Resource Management Cost Account (RMCA) deduction through the end of the 2009-11 Biennium. The Governor's budget for next biennium 20011-13 is based on a 30 percent RMCA deduction as is this forecast. On April 5, 2011, the Board of Natural Resources adopted a resolution to reduce the RMCA deduction to 27 percent and the FDA deduction to 23 percent. The impact of this change is shown in **Table 3.2B**. The deduction from RMCA and FDA are assumed to return to 25 percent at the beginning of FY 2014.

Revenue forecast tables

Tables 3.1 and 3.2 on the following pages provide Forecast details. **Table 3.1** focuses on the source of revenues, and **Table 3.2** focuses on the distribution of revenues. Both tables include historical and projected figures.

Table 3.1 March 2011 Forecast by Source (In millions of dollars)

Change from November 2010 Forecast

Timber Sales		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Volume (mmbf)		528	565	660	541	730	657	657	657	657	597
	Change	-	-	-	-	-	(2)	(8)	(8)	(8)	-
	% Change	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	0%
Price ($/mbf)		$371	$340	$247	$174	$245	$345	$300	$300	$300	$300
	Change	$0	$0	$0	$0	$0	$80	$55	$50	$25	$0
	% Change	0%	0%	0%	0%	0%	30%	22%	20%	9%	0%
millions of dollars)		**$ 196.0**	**$ 191.7**	**$ 163.0**	**$ 94.0**	**$ 178.5**	**$ 226.7**	**$ 197.1**	**$ 197.1**	**$ 197.1**	**$ 179.2**
	Change	$ -	$ -	$ -	$ -	$ -	$ 52.0	$ 34.2	$ 30.9	$ 14.2	$ -
	% Change	0%	0%	0%	0%	0%	30%	21%	19%	8%	0%

Timber Removals		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Volume (mmbf)		658	466	504	506	801	655	655	660	657	639
	Change	-	-	-	-	-	0	10	(4)	(8)	(6)
	% Change	0%	0%	0%	0%	0%	0%	2%	-1%	-1%	-1%
Price ($/mbf)		$309	$363	$311	$252	$226	$277	$304	$308	$300	$300
	Change	$0	$0	$0	$0	$0	$25	$53	$58	$44	$25
	% Change	0%	0%	0%	0%	0%	10%	21%	23%	17%	9%
millions of dollars)		**$ 203.2**	**$ 174.7**	**$ 156.6**	**$ 127.2**	**$ 181.0**	**$ 181.3**	**$ 199.2**	**$ 203.2**	**$ 197.1**	**$ 191.7**
	Change	$ -	$ -	$ -	$ -	$ -	$ 16.7	$ 37.5	$ 37.5	$ 26.7	$ 14.1
	% Change	0%	0%	0%	0%	0%	10%	23%	23%	16%	8%

Lease Revenue		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Agricultural and Mineral		$ 17.8	$ 24.4	$ 23.8	$ 22.3	$ 21.3	$ 21.1	$ 28.7	$ 22.0	$ 22.5	$ 23.0
	Change	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Commercial		$ 8.4	$ 9.7	$ 9.2	$ 9.4	$ 10.0	$ 9.2	$ 9.2	$ 9.2	$ 9.2	$ 9.2
	Change	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aquatic Revenue		$ 19.3	$ 22.6	$ 20.4	$ 20.9	$ 30.8	$ 34.6	$ 25.1	$ 25.5	$ 25.5	$ 26.0
	Change	$ -	$ -	$ -	$ -	$ -	$ 3.1	$ (0.0)	$ (0.0)	$ (0.0)	$ (0.0)
	% Change	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%
Total Lease Revenue		**$ 45.6**	**$ 56.7**	**$ 53.4**	**$ 52.6**	**$ 62.1**	**$ 65.0**	**$ 63.0**	**$ 56.7**	**$ 57.2**	**$ 58.1**
	Change	$ -	$ -	$ -	$ -	$ -	$ 3.1	$ (0.0)	$ (0.0)	$ (0.0)	$ (0.0)
	% Change	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%

Total All Sources		**$ 248.7**	**$ 231.5**	**$ 210.0**	**$ 179.8**	**$ 243.1**	**$ 246.2**	**$ 262.2**	**$ 260.0**	**$ 254.3**	**$ 249.8**
	Change	$ -	$ -	$ -	$ -	$ -	$ 19.8	$ 37.5	$ 37.5	$ 26.69	$ 14.11
	% Change	0%	0%	0%	0%	0%	9%	17%	17%	12%	6%

Note: Trust land transfer is not included in distribution revenues.
This table excludes interest and Land Bank transactions, fire assessments, permits, and fees.
Totals may not add due to rounding.
Draft report - subject to change without notice

Table 3.2: March 2011 Forecast by Fund (In millions of dollars)

RMCA 30%, reduce FDA FY11, FY12 and FY 13

Return RMCA and FDA to 25% For FY 14 and FY 15

Change from November 2010 Forecast

Management Funds		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
041	RMCA - Upland	$ 38.2	$ 35.2	$ 32.0	$ 26.5	$ 33.3	$ 34.0	$ 39.2	$ 41.2	$ 34.0	$ 32.5
	Change	$ -	$ -	$ -	$ -	$ 1.5	$ 2.9	$ 6.9	$ 6.8	$ 4.5	$ 2.4
	% Change	0%	0%	0%	0%	5%	9%	21%	20%	15%	8%
041	RMCA - Aquatic	$ 8.3	$ 9.9	$ 8.6	$ 8.9	$ 13.9	$ 15.8	$ 10.8	$ 11.0	$ 11.0	$ 11.2
	Change	$ -	$ -	$ -	$ -	$ -	$ 1.6	$ (0.1)	$ (0.1)	$ (0.0)	$ (0.0)
	% Change	0%	0%	0%	0%	0%	11%	-1%	-1%	0%	0%
014	FDA	$ 22.7	$ 20.8	$ 18.6	$ 17.3	$ 25.9	$ 24.2	$ 26.9	$ 24.5	$ 23.6	$ 24.3
	Change	$ -	$ -	$ -	$ -	$ -	$ 1.6	$ 3.4	$ 3.7	$ 2.2	$ 0.9
	% Change	0%	0%	0%	0%	0%	7%	14%	18%	10%	4%
Total Management Funds		**$ 69.2**	**$ 65.9**	**$ 59.2**	**$ 52.7**	**$ 73.1**	**$ 74.0**	**$ 76.9**	**$ 76.7**	**$ 68.5**	**$ 68.0**
	Change	$ -	$ -	$ -	$ -	$ -	$ 6.0	$ 10.2	$ 10.4	$ 6.7	$ 3.4
	% Change	0%	0%	0%	0%	0%	9%	15%	16%	11%	5%

Current Funds		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
113	Common School Construction	$ 64.3	$ 56.5	$ 56.6	$ 41.5	$ 47.9	$ 55.4	$ 63.5	$ 66.3	$ 70.3	$ 68.4
	Change	$ -	$ (0.0)	$ -	$ -	$ -	$ 6.6	$ 10.3	$ 10.5	$ 9.1	$ 5.5
	% Change	0%	0%	0%	0%	0%	14%	19%	19%	15%	9%
999	Forest Board Counties	$ 72.6	$ 63.6	$ 52.5	$ 48.6	$ 67.9	$ 66.2	$ 71.1	$ 63.6	$ 61.1	$ 61.5
	Change	$ -	$ -	$ -	$ -	$ -	$ 4.8	$ 9.4	$ 9.5	$ 5.6	$ 3.1
	% Change	0%	0%	0%	0%	0%	8%	15%	18%	10%	5%
001	General Fund	$ 2.9	$ 2.9	$ 3.0	$ 1.4	$ 5.0	$ 3.2	$ 3.8	$ 3.5	$ 3.3	$ 3.2
	Change	$ -	$ -	$ -	$ -	$ -	$ 0.2	$ 0.5	$ 0.7	$ 0.5	$ 0.0
	% Change	0%	0%	0%	0%	0%	8%	14%	25%	16%	2%
348	University Bond Retirement	$ 2.3	$ 0.9	$ 2.3	$ 3.4	$ 1.8	$ 1.3	$ 1.6	$ 2.0	$ 2.0	$ 2.3
	Change	$ -	$ -	$ -	$ -	$ -	$ 0.4	$ 0.5	$ 0.4	$ 0.3	$ 0.2
	% Change	0%	0%	0%	0%	0%	40%	48%	28%	20%	11%
347	WSU Bond Retirement	$ 1.1	$ 1.1	$ 1.2	$ 1.6	$ 1.2	$ 0.9	$ 1.0	$ 1.0	$ 1.0	$ 1.0
	Change	$ -	$ -	$ -	$ -	$ -	$ (0.2)	$ (0.2)	$ (0.2)	$ (0.2)	$ (0.2)
	% Change	0%	0%	0%	0%	0%	-17%	-16%	-18%	-17%	-17%
042	CEP&RI	$ 3.8	$ 6.7	$ 3.8	$ 3.8	$ 5.6	$ 5.5	$ 6.6	$ 7.0	$ 7.4	$ 7.0
	Change	$ -	$ -	$ -	$ -	$ -	$ 0.1	$ 1.6	$ 1.5	$ 1.3	$ 0.4
	% Change	0%	0%	0%	0%	0%	2%	32%	27%	21%	7%
036	Capitol Building Construction	$ 7.0	$ 6.0	$ 5.2	$ 5.7	$ 8.7	$ 7.6	$ 8.3	$ 8.8	$ 9.2	$ 8.2
	Change	$ -	$ -	$ -	$ -	$ -	$ (0.0)	$ 1.6	$ 1.7	$ 1.4	$ 0.6
	% Change	0%	0%	0%	0%	0%	-1%	23%	24%	17%	7%
061/3/5/6	Normal (CWU, EWU, WWU, TESC	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1
	Change	$ -	$ -	$ -	$ -	$ -	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0
	% Change	0%	0%	0%	0%	0%	17%	17%	17%	17%	17%
Other Funds		$ 0.0	$ 0.5	$ 0.2	$ 0.4	$ 0.1	$ 0.0	$ 0.0	$ 0.4	$ 0.4	$ 0.5
	Change	$ -	$ -	$ -	$ -	$ -	$ (0.0)	$ (0.0)	$ 0.1	$ 0.0	$ 0.0
	% Change	0%	0%	0%	0%	0%	-60%	-69%	31%	14%	7%
Total Current Funds		**$ 154.2**	**$ 138.3**	**$ 125.0**	**$ 106.5**	**$ 138.3**	**$ 140.3**	**$ 156.1**	**$ 152.6**	**$ 155.0**	**$ 152.2**
	Change	$ -	$ (0.0)	$ -	$ -	$ -	$ 11.9	$ 23.6	$ 24.2	$ 18.0	$ 9.6
	% Change	0%	0%	0%	0%	0%	9%	18%	19%	13%	7%

(Continued)

Table 3.2 (Continued): March 2011 Forecast by Fund (In millions of dollars)

RMCA 30%, reduce FDA FY11, FY12 and FY 13
Return RMCA and FDA to 25% For FY 14 and FY 15

Change from November 2010 Forecast
30% RMCA thru FY 13

Aquatic lands Enhancement Account		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
02R		$ 11.1	$ 12.7	$ 11.7	$ 12.0	$ 16.8	$ 18.9	$ 14.3	$ 14.6	$ 14.5	$ 14.8
	Change	$ -	$ -	$ -	$ -	$ -	$ 1.6	$ 0.1	$ 0.1	$ (0.0)	$ (0.0)
	% Change	0%	0%	0%	0%	0%	9%	1%	1%	0%	0%

Permanent Funds		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
601	Agricultural College Permanent	$ 4.7	$ 4.2	$ 4.3	$ 2.9	$ 6.1	$ 3.6	$ 3.7	$ 4.2	$ 4.1	$ 3.9
	Change	$ -	$ -	$ -	$ -	$ -	$ 0.3	$ 0.7	$ 0.5	$ 0.3	$ 0.3
	% Change	0%	0%	0%	0%	0%	10%	23%	14%	9%	8%
604	Normal School Permanent	$ 3.3	$ 1.8	$ 3.1	$ 2.5	$ 4.0	$ 2.5	$ 2.9	$ 3.1	$ 3.2	$ 2.9
	Change	$ -	$ -	$ -	$ -	$ -	$ (0.1)	$ 0.6	$ 0.7	$ 0.5	$ 0.2
	% Change	0%	0%	0%	0%	0%	-2%	25%	27%	17%	9%
605	Common School Permanent	$ 0.3	$ 0.1	$ 0.2	$ 0.3	$ 0.4	$ 0.4	$ 0.5	$ 0.4	$ 0.4	$ 0.4
	Change	$ -	$ -	$ -	$ -	$ -	$ -	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%	7%	7%	0%	0%
606	Scientific Permanent	$ 5.6	$ 6.7	$ 6.0	$ 2.8	$ 5.1	$ 6.0	$ 7.1	$ 7.9	$ 8.1	$ 7.3
	Change	$ -	$ -	$ -	$ -	$ -	$ (0.1)	$ 2.1	$ 1.6	$ 1.2	$ 0.6
	% Change	0%	0%	0%	0%	0%	-1%	43%	26%	17%	8%
607	University Permanent	$ 0.5	$ 1.9	$ 0.5	$ 0.1	$ 0.7	$ 0.5	$ 0.6	$ 0.5	$ 0.5	$ 0.3
	Change	$ -	$ -	$ -	$ -	$ -	$ 0.1	$ 0.1	$ 0.1	$ 0.0	$ 0.0
	% Change	0%	0%	0%	0%	0%	13%	25%	19%	8%	10%
Total Permanent Funds		$ 14.3	$ 14.6	$ 14.1	$ 8.6	$ 16.3	$ 13.1	$ 14.8	$ 16.1	$ 16.2	$ 14.8
	Change	$ -	$ -	$ -	$ -	$ -	$ 0.2	$ 3.6	$ 2.9	$ 2.0	$ 1.1
	% Change	0%	0%	0%	0%	0%	2%	32%	22%	14%	8%

Total All Funds		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Total		$ 248.8	$ 231.6	$ 210.0	$ 179.8	$ 244.6	$ 246.2	$ 262.2	$ 260.0	$ 254.3	$ 249.8
	Change	$ -	$ (0.0)	$ -	$ -	$ -	$ 19.8	$ 37.5	$ 37.5	$ 26.7	$ 14.1
	% Change	0%	0%	0%	0%	0%	9%	17%	17%	12%	6%

Note: Trust land transfer is not included in distribution revenues.
This table excludes interest and Land Bank transactions, fire assessments, permits, and fees. 262.1547 259.9643 254.2641 249.8334
Totals may not add due to rounding.

Table 3.2B: March 2011 Forecast by Fund (In millions of dollars)

Reduce RMCA from 30% to 27%, reduce FDA from 25% to 23%

Management Funds		FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
041	RMCA - Upland	$ 33.3	$ 33.2	$ 35.4	$ 37.2	$ 34.0	$ 32.5
	Change	$ -	$ (0.9)	$ (3.8)	$ (4.0)	$ -	$ -
	% Change	0%	-3%	-10%	-10%	0%	0%
041	RMCA - Aquatic	$ 13.9	$ 15.8	$ 10.8	$ 11.0	$ 11.0	$ 11.2
	Change	$ -	$ -	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%
014	FDA	$ 25.9	$ 23.8	$ 25.2	$ 22.9	$ 23.6	$ 24.3
	Change	$ -	$ (0.4)	$ (1.7)	$ (1.6)	$ -	$ -
	% Change	0%	-2%	-6%	-6%	0%	0%
Total Management Funds		**$ 73.1**	**$ 72.7**	**$ 71.4**	**$ 71.1**	**$ 68.5**	**$ 68.0**
	Change	$ -	$ (1.3)	$ (5.5)	$ (5.6)	$ -	$ -
	% Change	0%	-2%	-7%	-7%	0%	0%

Current Funds		FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
113	Common School Constructio	$ 47.9	$ 56.0	$ 66.2	$ 69.1	$ 70.3	$ 68.4
	Change	$ -	$ 0.6	$ 2.7	$ 2.8	$ -	$ -
	% Change	0%	1%	4%	4%	0%	0%
999	Forest Board Counties	$ 67.9	$ 66.6	$ 72.9	$ 65.1	$ 61.1	$ 61.5
	Change	$ -	$ 0.4	$ 1.7	$ 1.6	$ -	$ -
	% Change	0%	1%	2%	2%	0%	0%
001	General Fund	$ 5.0	$ 3.2	$ 3.8	$ 3.5	$ 3.3	$ 3.2
	Change	$ -	$ -	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%
348	University Bond Retirement	$ 1.8	$ 1.3	$ 1.7	$ 2.0	$ 2.0	$ 2.3
	Change	$ -	$ 0.0	$ 0.1	$ 0.1	$ -	$ -
	% Change	0%	1%	4%	4%	0%	0%
347	WSU Bond Retirement	$ 1.2	$ 0.9	$ 1.0	$ 1.0	$ 1.0	$ 1.0
	Change	$ -	$ 0.0	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	1%	5%	5%	0%	0%
042	CEP&RI	$ 5.6	$ 5.6	$ 6.9	$ 7.3	$ 7.4	$ 7.0
	Change	$ -	$ 0.1	$ 0.3	$ 0.3	$ -	$ -
	% Change	0%	1%	4%	4%	0%	0%
036	Capitol Building Constructio	$ 8.7	$ 7.7	$ 8.6	$ 9.2	$ 9.2	$ 8.2
	Change	$ -	$ 0.1	$ 0.3	$ 0.4	$ -	$ -
	% Change	0%	1%	4%	4%	0%	0%
061/3/5/6	Normal (CWU, EWU, WWU,	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1
	Change	$ -	$ 0.0	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	1%	3%	3%	0%	0%
Other Funds		$ 0.1	$ 0.0	$ 0.0	$ 0.4	$ 0.4	$ 0.5
	Change	$ -	$ 0.0	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	1%	4%	0%	0%	0%
Total Current Funds		**$ 138.3**	**$ 141.5**	**$ 161.3**	**$ 157.7**	**$ 155.0**	**$ 152.2**
	Change	$ -	$ 1.2	$ 5.1	$ 5.2	$ -	$ -
	% Change	0%	1%	3%	3%	0%	0%

(Continued)

Table 3.2B (Continued): March 2011 Forecast by Fund (In millions of dollars)

Reduce RMCA from 30% to 27%, reduce FDA from 25% to 23%

Aquatic lands Enhancement Account		FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
02R		$ 16.8	$ 18.9	$ 14.3	$ 14.6	$ 14.5	$ 14.8
	Change	$ -	$ -	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%

Permanent Funds		FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
601	Agricultural College Permar	$ 6.1	$ 3.6	$ 3.7	$ 4.2	$ 4.1	$ 3.9
	Change	$ -	$ -	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%
604	Normal School Permanent	$ 4.0	$ 2.5	$ 3.0	$ 3.2	$ 3.2	$ 2.9
	Change	$ -	$ 0.0	$ 0.1	$ 0.1	$ -	$ -
	% Change	0%	1%	3%	3%	0%	0%
605	Common School Permanent	$ 0.4	$ 0.4	$ 0.5	$ 0.4	$ 0.4	$ 0.4
	Change	$ -	$ -	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%
606	Scientific Permanent	$ 5.1	$ 6.1	$ 7.4	$ 8.2	$ 8.1	$ 7.3
	Change	$ -	$ 0.1	$ 0.3	$ 0.3	$ -	$ -
	% Change	0%	1%	4%	4%	0%	0%
607	University Permanent	$ 0.7	$ 0.5	$ 0.6	$ 0.5	$ 0.5	$ 0.3
	Change	$ -	$ 0.0	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	0%	1%	2%	0%	0%
Total Permanent Funds		$ 16.3	$ 13.2	$ 15.2	$ 16.6	$ 16.2	$ 14.8
	Change	$ -	$ 0.1	$ 0.4	$ 0.4	$ -	$ -
	% Change	0%	1%	3%	3%	0%	0%

Total All Funds		FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Total		$ 244.6	$ 246.2	$ 262.2	$ 260.0	$ 254.3	$ 249.8
	Change	$ -	$ 0.0	$ -	$ -	$ -	$ -
	% Change	0%	0%	0%	0%	0%	0%

Note: Trust land transfer is not included in distribution revenues.

This table excludes interest and Land Bank transactions, fire assessments, permits, and fee

Totals may not add due to rounding.

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