



## November 2015 Preliminary Economic Forecast

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This forecast was based on a modified version of Global Insight's October 2015 Control forecast for the U.S. economy. As usual, we have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast. In the October Blue Chip release, the average forecast for real GDP growth in 2015 and 2016 is 2.5% and 2.7%, the same rates as in the September forecast. For the first time since March there is a new long term Blue Chip forecast. The new forecast growth rates for 2017 through 2019 are 2.5%, 2.4%, and 2.2%, down from 2.7%, 2.6%, and 2.4%.

Our oil price forecast continues to rely on the futures markets, primarily the Brent (North Sea) oil price but also the West Texas Intermediate (WTI) benchmark. This forecast was based on the Wednesday, October 28, 2015 closing prices for Brent and WTI futures. The latest futures prices are very similar to the prices used in the September forecast. The refiner acquisition price of crude oil in the fourth quarter of 2015 is now expected to average \$46 per barrel compared to \$47 in the September forecast. As in September, oil prices are expected to rise during the remainder of the forecast. By the end of 2019, the refiner acquisition price is expected to increase to \$59 compared to \$60 in the September forecast.

A comparison of the preliminary November U.S. forecast with the September U.S. forecast is shown in Table 2.

We have just one month of new Washington employment data since the September forecast was released. Total nonfarm payroll employment rose 4,000 (seasonally adjusted) in September, 2,400 less than than the 6,400 expected in the September forecast. The shortfall in job growth was in private, service-providing sectors which added only 1,600 jobs in September. The September forecast had expected an increase of 5,200. The construction sector added 100 jobs in September and the manufacturing sector added 800 jobs thanks to an increase of 700 in aerospace. Government payrolls expanded by 1,600 jobs in September.

We have also incorporated another quarter of benchmark employment data from the Quarterly Census of Employment and Wages (QCEW). The new QCEW data and other revisions lowered the estimated level of total employment in August 2015 by 2,700 jobs. As a result of the downward revision to history and weaker-than-expected growth, the total effect is 5,100 (0.2%) fewer jobs in September 2015 than expected in the September forecast.

In September, the Bureau of Economic Analysis released estimates for state personal income through the second quarter of 2015. The September release also incorporated the annual revision of the National Income and Product Accounts. We have incorporated the new BEA estimates as well as additional Washington Quarterly Census of Employment and Wages (QCEW) and other wage data also through the second quarter. Our current estimate of Washington personal income in the second quarter of 2015 is \$369.1 billion which is \$2.1 billion (0.6%) higher than assumed in the September forecast. However, we estimate that \$1.4 billion of that \$2.1 billion variance is due to unusually strong stock option redemptions in the second quarter which are not expected to be repeated in the future.

Washington housing permits improved to 37,400 units (SAAR) in the third quarter of 2015 from 36,800 units in the second quarter. The September forecast projected 35,500 units in the third quarter. Single-family permits totaled 19,700 units in the third quarter compared to the forecast of 19,300 units and 17,700 multi-family units were permitted compared to the forecast of 16,200 units.

The Microsoft layoffs first announced in July 2014 were completed by the end of December 2014. The September forecast had assumed that there would be no further major layoffs. However, in July 2015 Microsoft announced further cuts of up to 7,800 company-wide, mostly related to its phone business and an additional 1,000 company-wide cuts were announced in October. We expect most of these will be outside of Washington State as was the case in the previous round.

As in September, we assume a gradual decline in aerospace employment throughout the forecast. We continue to believe that this downturn will be relatively mild due to the large and increasing backlog of orders. The current reductions are due to improvements in productivity rather than reductions in production.

Overall, our preliminary November forecast for Washington State is similar to the September forecast. Washington employment is expected to grow 2.7% this year compared to 3.0% expected in the September forecast. The

preliminary November forecast for average annual employment growth from 2016 through 2019 is 1.5% per year, the same rate as in the September forecast. Our preliminary November forecast for nominal personal income growth this year of 5.3% is slightly higher than the 5.1% rate in the September forecast, however, our new forecast for nominal personal income growth from 2016 through 2019 averages 5.2% per year, down slightly from 5.3% in the September forecast.

A comparison of the preliminary November Washington forecast with the September Washington forecast is shown in Table 3.

Table 1

**U.S. Economic Forecast Comparison**

October 2015

	2015Q3	2015Q4	2016Q1	2016Q2	2014	2015	2016	2017	2018	2019
<b>Real GDP, Percent Change, Annual Rate</b>										
ERFC (Preliminary November)	2.0	2.7	2.7	2.7	2.4	2.5	2.7	2.5	2.4	2.2
Global Insight	1.9	2.7	2.9	2.9	2.4	2.5	2.9	3.0	2.6	2.5
Economy.com	1.7	3.2	3.4	3.5	2.4	2.5	3.2	3.2		
Blue Chip Average*	2.1	2.7	2.6	2.7		2.5	2.7	2.5	2.4	2.2
Blue Chip Top 10*	2.7	3.2	3.0	3.2		2.6	3.0	2.9	2.8	2.7
Blue Chip Bottom 10*	1.5	2.2	2.1	2.3		2.4	2.3	2.1	1.7	1.6
<b>Real Consumption, Percent Change, Annual Rate</b>										
ERFC (Preliminary November)	3.2	3.0	3.0	2.8	2.7	3.2	2.9	2.5	2.4	2.3
Global Insight	3.7	3.2	3.2	3.1	2.7	3.2	3.3	3.1	2.8	2.6
Economy.com	3.6	4.1	3.7	3.8	2.7	3.3	3.9	3.8		
Blue Chip Average*	3.3	3.0	2.8	2.8		3.2	2.9	2.5	2.4	2.3
Blue Chip Top 10*	3.7	3.5	3.3	3.4		3.2	3.3	2.9	2.8	2.6
Blue Chip Bottom 10*	2.7	2.4	2.2	2.3		3.0	2.5	2.1	2.0	2.0
<b>Federal Funds Rate</b>										
ERFC (Preliminary November)	0.1	0.2	0.5	0.8	0.1	0.2	0.9	1.9	2.9	3.3
Global Insight	0.1	0.2	0.5	0.8	0.1	0.2	0.9	1.9	2.9	3.3
Economy.com	0.1	0.3	0.5	0.8	0.1	0.2	0.9	2.3		
<b>Three Month T-Bill Rate</b>										
ERFC (Preliminary November)	0.0	0.1	0.4	0.7	0.0	0.1	0.8	1.8	2.8	3.0
Global Insight	0.0	0.1	0.4	0.7	0.0	0.1	0.8	1.8	2.8	3.0
Blue Chip Average*	0.0	0.2	0.4	0.7		0.1	0.8	2.0	2.8	3.1
Blue Chip Top 10*		0.4	0.7	1.0		0.1	1.1	2.9	3.7	4.0
Blue Chip Bottom 10*		0.0	0.2	0.4		0.0	0.5	1.3	1.8	2.3
<b>10-Yr. T-Note Yield</b>										
ERFC (Preliminary November)	2.2	2.3	2.5	2.6	2.5	2.2	2.6	2.8	3.2	3.5
Global Insight	2.2	2.3	2.5	2.6	2.5	2.2	2.6	2.9	3.3	3.6
Economy.com	2.2	2.3	2.6	2.8	2.5	2.2	3.0	4.0		
Blue Chip Average*	2.2	2.3	2.5	2.7		2.2	2.7	3.4	3.8	4.0
Blue Chip Top 10*		2.5	2.7	3.1		2.2	3.2	4.2	4.4	4.7
Blue Chip Bottom 10*		2.1	2.2	2.3		2.1	2.4	2.8	3.0	3.3
<b>Consumer Price Index, Percent Change, Annual Rate</b>										
ERFC (Preliminary November)	2.1	-0.4	3.0	1.6	1.6	0.1	1.8	2.2	2.2	2.0
Global Insight	1.5	-1.3	3.1	2.4	1.6	0.0	1.8	2.4	2.8	2.4
Economy.com	1.8	1.4	2.1	2.3	1.6	0.2	2.1	2.8		
Blue Chip Average*	1.6	0.9	1.9	2.3		0.2	2.0	2.3	2.4	2.4
Blue Chip Top 10*	2.1	2.1	2.8	3.3		0.4	2.5	2.8	2.9	2.7
Blue Chip Bottom 10*	1.1	-0.5	1.0	1.6		0.1	1.6	2.0	2.0	2.0
<b>Payroll Employment, Millions</b>										
ERFC (Preliminary November)	142.2	142.7	143.3	143.8	139.0	141.9	144.0	145.7	147.2	148.3
Percent Change, Annual Rate	1.7	1.3	1.7	1.5	1.9	2.1	1.5	1.2	1.0	0.8
Global Insight	142.2	142.7	143.3	143.9	139.0	141.9	144.1	146.0	147.8	149.2
Percent Change, Annual Rate	1.7	1.4	1.6	1.6	1.9	2.1	1.5	1.3	1.2	1.0
Economy.com	142.2	142.8	143.5	144.2	139.0	141.9	144.6	147.7		
Percent Change, Annual Rate	1.7	1.7	1.8	2.1	1.9	2.1	1.9	2.2		
<b>Unemployment Rate, Percent</b>										
ERFC (Preliminary November)	5.2	5.2	5.1	5.1	6.2	5.3	5.1	5.1	5.1	5.2
Global Insight	5.2	5.1	5.1	5.1	6.2	5.3	5.0	4.9	5.0	5.0
Economy.com	5.2	5.0	5.0	5.0	6.2	5.3	5.0	4.7		
Blue Chip Average*	5.2	5.0	4.9	4.8		5.3	4.8	4.7	4.7	4.7
Blue Chip Top 10*		5.2	5.1	5.0		5.3	5.0	5.0	5.1	5.1
Blue Chip Bottom 10*		5.0	4.7	4.6		5.2	4.5	4.2	4.1	4.2
<b>Real Disposable Personal Income, Percent Change, Annual Rate</b>										
ERFC (Preliminary November)	3.1	4.2	3.1	2.9	2.7	3.2	3.2	3.3	3.4	3.0
Global Insight	3.5	4.9	3.0	2.4	2.7	3.3	3.2	3.4	3.1	3.0
Blue Chip Average*	3.1	3.0	2.6	2.4		3.2	2.6	2.8	2.7	2.5
Blue Chip Top 10*	4.2	4.2	3.5	3.2		3.5	3.1	3.6	3.4	3.2
Blue Chip Bottom 10*	2.3	2.1	1.9	1.7		3.0	2.1	2.1	2.1	2.0
<b>West Texas Intermediate</b>										
ERFC (Preliminary November)	46.4	46.1	47.6	49.3	93.0	49.8	49.7	53.3	55.8	57.7
Global Insight	46.4	40.0	43.9	53.1	93.0	48.3	50.7	58.9	74.3	81.2
Economy.com	46.6	50.0	52.0	54.5	93.2	50.7	55.7	64.8		

\* Forecasts beyond 2016 are from the October 2015 Blue Chip Economic Indicators

Table 2

## U.S. Forecast Comparison

	2015Q3	2015Q4	2016Q1	2016Q2	2013	2014	2015	2016	2017	2018	2019
<b>Real GDP (Billions of 2009 Dollars)</b>											
November Forecast, Preliminary	16,414	16,524	16,636	16,747	15,583	15,962	16,362	16,796	17,216	17,629	18,017
Percent Change	2.0%	2.7%	2.7%	2.7%	1.5%	2.4%	2.5%	2.7%	2.5%	2.4%	2.2%
September Forecast	16,420	16,528	16,635	16,752	15,583	15,962	16,362	16,807	17,261	17,709	18,134
Percent Change	2.4%	2.7%	2.6%	2.8%	1.5%	2.4%	2.5%	2.7%	2.7%	2.6%	2.4%
<b>Real Consumption (Billions of 2009 Dollars)</b>											
November Forecast, Preliminary	11,267	11,351	11,435	11,514	10,590	10,876	11,220	11,547	11,835	12,119	12,398
Percent Change	3.2%	3.0%	3.0%	2.8%	1.7%	2.7%	3.2%	2.9%	2.5%	2.4%	2.3%
September Forecast	11,247	11,331	11,413	11,493	10,590	10,876	11,206	11,529	11,840	12,136	12,439
Percent Change	2.9%	3.0%	2.9%	2.8%	1.7%	2.7%	3.0%	2.9%	2.7%	2.5%	2.5%
<b>Implicit Price Deflator, PCE (2009=1.00)</b>											
November Forecast, Preliminary	1.098	1.099	1.104	1.109	1.076	1.091	1.095	1.111	1.131	1.151	1.170
Percent Change	1.6%	0.2%	2.1%	1.5%	1.4%	1.4%	0.3%	1.5%	1.8%	1.8%	1.7%
September Forecast	1.099	1.100	1.104	1.108	1.076	1.091	1.095	1.110	1.129	1.149	1.169
Percent Change	1.8%	0.3%	1.6%	1.5%	1.4%	1.4%	0.4%	1.4%	1.7%	1.8%	1.7%
<b>Real Personal Income (Billions of 2009 Dollars)</b>											
November Forecast, Preliminary	14,015	14,155	14,265	14,366	13,078	13,468	13,986	14,422	14,884	15,338	15,778
Percent Change	3.0%	4.1%	3.1%	2.9%	-0.3%	3.0%	3.8%	3.1%	3.2%	3.1%	2.9%
September Forecast	14,027	14,162	14,294	14,398	13,078	13,468	13,991	14,456	14,922	15,404	15,864
Percent Change	3.3%	3.9%	3.8%	2.9%	-0.3%	3.0%	3.9%	3.3%	3.2%	3.2%	3.0%
<b>Nonfarm Payroll Employment (Millions)</b>											
November Forecast, Preliminary	142.2	142.7	143.3	143.8	136.4	139.0	141.9	144.0	145.7	147.2	148.3
Percent Change	1.7%	1.3%	1.7%	1.5%	1.7%	1.9%	2.1%	1.5%	1.2%	1.0%	0.8%
September Forecast	142.3	143.0	143.6	144.1	136.4	139.0	142.0	144.4	146.4	148.0	149.0
Percent Change	2.1%	1.9%	1.7%	1.5%	1.7%	1.9%	2.1%	1.7%	1.4%	1.1%	0.6%
<b>Unemployment Rate (Percent of Labor Force)</b>											
November Forecast, Preliminary	5.2	5.2	5.1	5.1	7.4	6.2	5.3	5.1	5.1	5.1	5.2
September Forecast	5.2	5.2	5.1	5.1	7.4	6.2	5.3	5.1	5.1	5.1	5.1
<b>30 Year Fixed Mortgage Rate (Percent, average)</b>											
November Forecast, Preliminary	4.0	4.0	4.2	4.4	4.0	4.2	3.9	4.4	4.7	5.2	5.5
September Forecast	4.0	4.1	4.3	4.4	4.0	4.2	3.9	4.4	4.7	5.2	5.5
<b>3 Month T-Bill Rate (Percent, average)</b>											
November Forecast, Preliminary	0.0	0.1	0.4	0.7	0.1	0.0	0.1	0.8	1.8	2.8	3.0
September Forecast	0.1	0.2	0.5	0.7	0.1	0.0	0.1	0.8	1.8	2.8	3.0

Table 3

## Washington Forecast Comparison

	2015Q3	2015Q4	2016Q1	2016Q2	2013	2014	2015	2016	2017	2018	2019
<b>Real Personal Income (Billions of 2009 Dollars)</b>											
November Forecast, Preliminary	337.7	340.6	345.4	347.5	307.7	321.1	337.0	348.7	361.5	374.2	386.6
Percent Change	0.3%	3.5%	5.8%	2.5%	0.0%	4.3%	5.0%	3.5%	3.7%	3.5%	3.3%
September Forecast	337.6	340.0	345.4	347.4	309.2	321.4	336.6	348.6	361.4	374.5	387.4
Percent Change	2.5%	2.9%	6.6%	2.3%	1.1%	3.9%	4.7%	3.6%	3.7%	3.6%	3.4%
<b>Personal Income (Billions of Dollars)</b>											
November Forecast, Preliminary	370.9	374.2	381.5	385.2	331.0	350.3	369.0	387.4	408.7	430.7	452.5
Percent Change	2.0%	3.7%	8.0%	4.0%	1.4%	5.8%	5.3%	5.0%	5.5%	5.4%	5.0%
September Forecast	370.9	373.8	381.3	384.8	332.7	350.6	368.6	387.0	408.0	430.4	452.9
Percent Change	4.3%	3.2%	8.2%	3.8%	2.5%	5.4%	5.1%	5.0%	5.4%	5.5%	5.2%
<b>Nonfarm Payroll Employment (Thousands)</b>											
November Forecast, Preliminary	3170	3182	3196	3208	2993	3074	3158	3212	3259	3306	3345
Percent Change	2.4%	1.5%	1.8%	1.5%	2.4%	2.7%	2.7%	1.7%	1.5%	1.4%	1.2%
September Forecast	3173	3188	3201	3214	2993	3072	3163	3220	3273	3320	3355
Percent Change	2.3%	1.9%	1.7%	1.5%	2.4%	2.7%	3.0%	1.8%	1.6%	1.4%	1.1%
<b>Unemployment Rate (Percent of Labor Force)</b>											
November Forecast, Preliminary	5.3	5.2	5.2	5.2	6.9	6.3	5.5	5.2	5.2	5.2	5.3
September Forecast	5.3	5.2	5.2	5.2	6.9	6.3	5.5	5.2	5.3	5.2	5.2
<b>Manufacturing Employment (Thousands)</b>											
November Forecast, Preliminary	289.9	288.4	288.0	287.9	286.7	288.2	289.4	288.2	289.3	290.6	292.1
Percent Change	0.4%	-2.0%	-0.5%	-0.2%	2.3%	0.5%	0.4%	-0.4%	0.4%	0.5%	0.5%
September Forecast	287.5	286.6	287.2	287.3	286.7	288.2	288.0	287.7	288.8	290.3	291.5
Percent Change	-1.4%	-1.3%	0.9%	0.2%	2.3%	0.5%	-0.1%	-0.1%	0.4%	0.5%	0.4%
<b>Construction Employment (Thousands)</b>											
November Forecast, Preliminary	172.9	172.9	173.0	172.9	149.0	159.3	172.6	173.9	181.1	189.6	195.5
Percent Change	-0.1%	-0.2%	0.3%	-0.1%	7.1%	6.9%	8.4%	0.7%	4.1%	4.7%	3.1%
September Forecast	175.0	175.6	176.4	176.9	149.0	159.3	174.4	178.1	185.4	193.1	199.0
Percent Change	1.2%	1.2%	1.9%	1.3%	7.1%	6.9%	9.5%	2.1%	4.1%	4.2%	3.0%
<b>Housing Permits (Thousands)</b>											
November Forecast, Preliminary	37.4	36.4	37.4	38.5	33.0	33.9	41.0	39.1	42.8	44.1	44.5
Percent Change	6.7%	-10.2%	11.5%	12.5%	17.2%	2.8%	21.1%	-4.7%	9.3%	3.2%	0.9%
September Forecast	35.5	36.4	37.5	38.2	33.0	33.9	40.6	39.1	42.6	44.0	44.6
Percent Change	-13.2%	10.4%	13.3%	7.6%	17.2%	2.8%	19.7%	-3.7%	9.1%	3.2%	1.3%