

February 2016 Preliminary Economic Forecast

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This forecast was based on a modified version of Global Insight's January 2016 Control forecast for the U.S. economy. The forecast was produced prior to today's GDP release in which real GDP is estimated to have grown at a 0.7% rate (SAAR) in the fourth quarter of 2015. The forecast assumed a 1.2% rate. The final February forecast will incorporate the new data. As usual, we have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast. In the January Blue Chip release, the average forecast for real GDP growth in 2016 is 2.5%, down slightly from 2.6% in November. The Blue Chip forecasts for 2017 through 2019 were unchanged at 2.5%, 2.4%, and 2.2%. The current forecast is the first to extend through 2021. The Blue Chip average forecast for growth in 2020 and 2021 is 2.2% in each year.

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, January 27, 2016 closing prices for Brent and WTI futures. The latest futures prices are much lower than the prices used in the November forecast. The refiner acquisition price of crude oil in the first quarter of 2016 is now expected to average \$31 per barrel compared to \$49 in the November forecast. As in November, oil prices are expected to rise during the remainder of the forecast. By the end of 2021, the refiner acquisition price is expected to increase to \$49 per barrel.

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

We have two months of new Washington employment data since the November forecast was released. Total nonfarm payroll employment rose 13,600 (seasonally adjusted) in November and December, 4,900 more than the 8,700 expected in the November forecast. Private, service-providing sectors added 8,300 jobs in the last two months. The construction sector added 2,300 jobs in the last two months and the manufacturing sector added 700 jobs thanks to an

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increase of 500 in aerospace. Government payrolls expanded by 2,200 jobs in November and December.

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 October 2015 by 2,700 jobs. As a result of the downward revision to history but stronger-than-expected growth, the total effect is 2,100 (0.1%) more jobs in December 2015 than expected in the November forecast.

In December, the Bureau of Economic Analysis released estimates for state personal income through the third quarter of 2015. 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 third quarter. Our current estimate of Washington personal income in the third quarter of 2015 is \$372.5 billion which is \$1.5 billion (0.4%) higher than assumed in the November forecast.

Washington housing permits improved to 36,600 units (SAAR) in the fourth quarter of 2015 from 36,200 units in the third quarter. The November forecast projected 36,400 units in the fourth quarter. Single-family permits totaled 21,500 units in the fourth quarter compared to the forecast of 19,600 units but 15,200 multi-family units were permitted compared to the forecast of 16,800 units. The estimates for all four quarters of 2015 have been adjusted to reflect the preliminary annual estimate from the Census Bureau.

As in November, we assume a gradual decline in aerospace employment through 2019. We project no change in aerospace employment in the final two years of 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 February forecast for Washington State is lower than the November forecast. The changes are mostly due to lower inflation, a result of much lower oil prices, and weaker Washington nonresidential construction employment. Washington employment is expected to grow 1.8% this year, the same rate as in the November forecast. The preliminary February forecast for average annual employment growth from 2017 through 2019 is 1.2% per year, down from 1.4% in the November forecast. We expect employment to grow at an average rate of 1.1% per year in 2020 and 2021. Our preliminary February forecast for nominal personal income growth this year is 4.4%, down from 4.8% in the November forecast. Our new forecast for nominal personal income

growth from 2017 through 2019 averages 4.9% per year, also down from 5.3% in the November forecast.

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

Table 1
U.S. Economic Forecast Comparison lanuary 2016

January 2016											
,	2015Q4	2016Q1	2016Q2	2016Q3	•	2016	2017	2018	2019	2020	20
Real GDP, Percent Change, Ann	nual Rate										
ERFC (Preliminary February)	1.2	2.8	2.8	2.7		2.5	2.5	2.4	2.2	2.2	2.
Global Insight	1.2	3.0	3.0	3.3		2.7	2.9	2.6	2.4	2.4	2.
Economy.com	1.5	3.4	3.2	3.2		2.8	2.9				
Blue Chip Average*	1.9	2.5	2.6	2.6		2.5	2.5	2.4	2.2	2.2	2.
Blue Chip Top 10*	2.8	3.1	3.2	3.2		2.8	2.8	2.8	2.7	2.6	2.
Blue Chip Bottom 10*	1.1	2.0	2.2	2.1		2.1	2.1	1.7	1.6	1.8	1.
Blue Clip Bottom 10		2.0	2.2	2.1		2.1		1.7	1.0	1.0	-
Real Consumption, Percent Cha ERFC (Preliminary February)	ange, Annu 2.4	ıal Rate 2.8	2.8	2.8		2.8	2.5	2.4	2.3	2.3	2
Global Insight	2.4	3.0	3.2	3.4		3.0	3.2	2.8	2.6	2.3	2
Economy.com	2.2	3.6	3.7	3.9		3.3	3.4				_
Blue Chip Average*	2.5	2.8	2.8	2.8		2.8	2.5	2.4	2.3	2.3	2
Blue Chip Top 10*	3.2	3.3	3.4	3.5		3.2	3.1	2.8	2.6	2.6	2
Blue Chip Bottom 10*	2.0	2.3	2.3	2.3		2.5	2.1	2.0	2.0	2.0	1
ederal Funds Rate											
ERFC (Preliminary February)	0.2	0.5	0.8	1.0		0.9	1.9	2.9	3.3	3.3	3
Global Insight	0.2	0.5	0.8	1.0		0.9	1.9	2.9	3.3	3.3	3
Economy.com	0.2	0.3	0.7	0.8		0.7	2.1		0		
	0.2	0.5	0.7	0.0		3.7					
hree Month T-Bill Rate	.	2 -	o =			0.0		2.6	2.6	2.6	_
ERFC (Preliminary February)	0.1	0.5	0.7	1.0		0.8	1.8	2.8	3.0	3.0	3
Global Insight	0.1	0.4	0.7	1.0		0.8	1.8	2.8	3.0	3.0	3
Blue Chip Average*	0.1	0.4	0.6	0.9		0.7	1.7	2.8	3.1	3.1	3
Blue Chip Top 10*		0.5	0.8	1.4		0.9	2.4	3.7	4.0	3.8	3
Blue Chip Bottom 10*		0.2	0.4	0.6		0.5	1.2	1.8	2.3	2.5	2
.0-Yr. T-Note Yield											
ERFC (Preliminary February)	2.2	2.5	2.6	2.7		2.6	2.8	3.3	3.7	3.7	3
Global Insight	2.2	2.5	2.6	2.7		2.6	2.9	3.4	3.8	3.8	3
Economy.com	2.2	2.4	2.7	3.0		2.8	3.9	3.7	5.0	5.0	J
Blue Chip Average*	2.2	2.4	2.6	2.7		2.6	3.2	3.8	4.0	4.0	4
Blue Chip Top 10*	2.2	2.4	2.8	3.1		2.9	3.8	4.4	4.7	4.7	4
Blue Chip Bottom 10*		2.3	2.4	2.3		2.4	2.7	3.0	3.3	3.4	3
Consumer Price Index, Percent ERFC (Preliminary February)	t Change, A	Annual Ra -1.8	1.3	2.6		0.9	2.2	2.2	2.1	2.1	2
Global Insight	0.3	-1.1	1.9	4.0		1.2	2.6	2.7	2.5	2.5	2
Economy.com	0.5	1.4	2.2	2.6		1.7	2.9				
Blue Chip Average*	0.4	1.2	2.2	2.3		1.6	2.3	2.4	2.4	2.3	2
Blue Chip Top 10*	1.2	2.1	3.0	3.1		2.0	2.8	2.9	2.7	2.6	2
Blue Chip Bottom 10*	-0.3	0.0	1.5	1.8		1.2	1.9	2.0	2.0	2.0	1
Payroll Employment, Millions											
ERFC (Preliminary February)	143.0	143.7	144.2	144.6		144.4	146.0	147.4	148.6	149.6	15
Percent Change, Annual Rate	2.0	1.9	1.5	1.2		1.7	1.1	1.0	0.8	0.7	0
Global Insight	142.9	143.6	144.1	144.6		144.3	146.2	147.9	149.4	151.0	15
Percent Change, Annual Rate	1.9	1.9	1.4	1.4		1.7	1.3	1.2	1.0	1.1	0
Economy.com	143.0	143.6	144.3	145.0		144.6	147.3				
Percent Change, Annual Rate	2.0	1.7	1.9	2.0		1.9	1.8				
Inomployment Date Dage											
Inemployment Rate, Percent ERFC (Preliminary February)	5.0	4.9	4.8	4.8		4.8	4.8	4.8	4.8	4.9	4
Global Insight	5.0	5.0	4.9	4.9		4.9	4.9	4.9	5.0	5.0	5
Economy.com	5.0	4.9	4.9	4.9		4.9	4.8	7.3	3.0	5.0	3
Blue Chip Average*	5.0	4.9	4.9	4.7		4.8	4.6	4.7	4.7	4.8	4
Blue Chip Top 10*	5.0	5.0	5.0	5.0		5.0	4.0	5.1	5.1	5.2	5
Blue Chip Bottom 10*		4.8	4.6	4.3		4.5	4.9	4.1	4.2	5.2 4.4	5 4
Dide Chip Dottom 10.		4.0	4.0	٠.٦		7.3	7.1	7.1	7.2	7.4	4
teal Disposable Personal Incor	•	_	•				• •				_
ERFC (Preliminary February)	2.9	4.4	2.3	2.7		3.2	3.0	3.2	2.7	2.3	2
Global Insight	3.6	4.0	2.1	2.1		3.1	3.3	3.3	2.9	2.5	2
Blue Chip Average*	3.5	2.8	2.5	2.6		2.9	2.6	2.7	2.5	2.4	2
Blue Chip Top 10*	4.6	3.7	3.2	3.3		3.4	3.2	3.4	3.2	3.1	3
Blue Chip Bottom 10*	2.2	2.0	2.0	2.0		2.5	2.1	2.1	2.0	2.0	1
Voct Toyas Intermediate											
Vest Texas Intermediate ERFC (Preliminary February)	42.0	32.1	35.0	37.6		36.0	41.6	44.3	46.3	47.8	48
Global Insight	42.3	36.8	41.1	50.5		45.1	54.7	65.7	73.7	80.5	88
Economy.com	41.8	43.7	46.2	49.8		48.2	60.5				

 $[\]ensuremath{^{*}}$ Forecasts beyond 2016 are from the October 2015 Blue Chip Economic Indicators

Table 2

U.S. Forecast Comparison											
	2015Q4	2016Q1	2016Q2	2016Q3	2015	2016	2017	2018	2019	2020	
Real GDP (Billions of 2009 Doll	lars)										
February Forecast, Preliminary	16,462	16,577	16,693	16,806	16,347	16,747	17,158	17,570	17,957	18,352	
Percent Change	1.2%	2.8%	2.8%	2.7%	2.4%	2.5%	2.5%	2.4%	2.2%	2.2%	
November Forecast	16,503	16,612	16,722	16,826	16,352	16,772	17,191	17,604	17,991	-	
Percent Change	2.7%	2.7%	2.7%	2.5%	2.4%	2.6%	2.5%	2.4%	2.2%	-	
Real Consumption (Billions of 2	2009 Dollar	s)									
February Forecast, Preliminary	11,329	11,409	11,489	11,570	11,213	11,529	11,823	12,106	12,385	12,670	
Percent Change	2.4%	2.8%	2.8%	2.8%	3.1%	2.8%	2.5%	2.4%	2.3%	2.3%	
November Forecast	11,355	11,436	11,515	11,587	11,221	11,548	11,837	12,121	12,400	-	
Percent Change	3.1%	2.9%	2.8%	2.5%	3.2%	2.9%	2.5%	2.4%	2.3%	-	
Implicit Price Deflator, PCE (20	009=1.00)										
February Forecast, Preliminary	1.099	1.097	1.100	1.105	1.095	1.103	1.122	1.141	1.161	1.181	
Percent Change	0.6%	-0.8%	1.2%	1.8%	0.3%	0.8%	1.7%	1.8%	1.7%	1.7%	
November Forecast	1.100	1.102	1.107	1.112	1.095	1.110	1.131	1.152	1.171	-	
Percent Change	0.9%	0.8%	1.7%	1.9%	0.3%	1.4%	1.9%	1.8%	1.7%	-	
Real Personal Income (Billions	of 2009 Do	llars)									
February Forecast, Preliminary	14,200	14,349	14,431	14,513	14,030	14,473	14,882	15,314	15,725	16,121	
Percent Change	3.0%	4.3%	2.3%	2.3%	4.2%	3.2%	2.8%	2.9%	2.7%	2.5%	
November Forecast	14,137	14,264	14,348	14,441	13,984	14,394	14,813	15,266	15,700	-	
Percent Change	3.2%	3.6%	2.4%	2.6%	3.8%	2.9%	2.9%	3.1%	2.8%	-	
Nonfarm Payroll Employment ((Millions)										
February Forecast, Preliminary	143.0	143.7	144.2	144.6	142.0	144.4	146.0	147.4	148.6	149.6	
Percent Change	2.0%	1.9%	1.5%	1.2%	2.1%	1.7%	1.1%	1.0%	0.8%	0.7%	
November Forecast	142.8	143.5	144.0	144.4	141.9	144.2	145.9	147.4	148.5	-	
Percent Change	1.6%	1.8%	1.5%	1.1%	2.1%	1.6%	1.2%	1.1%	0.8%	-	
Unemployment Rate (Percent o	of Labor For	ce)									
February Forecast, Preliminary	5.0	4.9	4.8	4.8	5.3	4.8	4.8	4.8	4.8	4.9	
November Forecast	5.0	5.0	4.9	4.9	5.3	4.9	4.9	4.9	5.0	-	
30 Year Fixed Mortgage Rate (Percent, av	erage)									
February Forecast, Preliminary	3.9	4.2	4.4	4.4	3.9	4.4	4.7	5.3	5.7	5.7	
November Forecast	3.9	4.2	4.4	4.5	3.9	4.4	4.7	5.2	5.7	-	
3 Month T-Bill Rate (Percent, a	verage)										
	0.4	0.5	0.7	1.0	0.1	0.8	1.8	2.8	3.0	3.0	
February Forecast, Preliminary	0.1	0.5	0.7	1.0					0.0	5.0	

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Table 3
Washington Forecast Comparison

Washington Forecast Comparis	son										
	2015Q4	2016Q1	2016Q2	2016Q3	2015	2016	2017	2018	2019	2020	
Real Personal Income (Billions	of 2009 Do	llars)									
February Forecast, Preliminary	341.7	347.4	349.1	350.8	337.8	349.8	360.5	372.3	383.8	395.2	
Percent Change	2.6%	6.9%	1.9%	2.0%	5.2%	3.6%	3.1%	3.3%	3.1%	3.0%	
November Forecast	340.8	346.0	347.7	349.7	337.2	348.6	360.2	373.0	385.5	-	
Percent Change	3.2%	6.2%	2.0%	2.4%	5.0%	3.4%	3.3%	3.6%	3.3%	-	
Personal Income (Billions of D	ollars)										
February Forecast, Preliminary	375.5	381.1	384.0	387.7	369.7	385.9	404.4	425.0	445.7	466.9	
Percent Change	3.2%	6.1%	3.1%	3.9%	5.5%	4.4%	4.8%	5.1%	4.9%	4.8%	
November Forecast	374.7	381.2	384.7	388.8	369.1	386.8	407.4	429.6	451.6	-	
Percent Change	4.1%	7.1%	3.7%	4.3%	5.4%	4.8%	5.3%	5.5%	5.1%	-	
Nonfarm Payroll Employment ((Thousands))									
February Forecast, Preliminary	3183	3199	3211	3220	3158	3215	3256	3297	3336	3376	
Percent Change	2.0%	2.0%	1.4%	1.2%	2.8%	1.8%	1.3%	1.3%	1.2%	1.2%	
November Forecast	3183	3197	3209	3219	3159	3214	3263	3312	3353	-	
Percent Change	1.7%	1.7%	1.6%	1.3%	2.8%	1.8%	1.5%	1.5%	1.3%	-	
Unemployment Rate (Percent	of Labor For	ce)									
February Forecast, Preliminary	5.3	5.4	5.4	5.3	5.5	5.3	5.2	5.2	5.2	5.2	
November Forecast	5.2	5.2	5.2	5.2	5.5	5.2	5.2	5.2	5.3	-	
Manufacturing Employment (T	housands)										
ebruary Forecast, Preliminary	287.5	287.2	286.3	285.1	289.1	286.1	286.0	286.9	288.5	290.3	
Percent Change	-3.1%	-0.4%	-1.2%	-1.7%	0.3%	-1.0%	0.0%	0.3%	0.6%	0.6%	
November Forecast	287.9	286.9	286.6	286.5	289.2	287.0	288.5	289.8	291.2	-	
Percent Change	-2.6%	-1.3%	-0.5%	0.0%	0.4%	-0.8%	0.5%	0.5%	0.5%	-	
Construction Employment (The	ousands)										
February Forecast, Preliminary	173.2	173.3	173.0	173.7	172.4	173.7	178.8	185.7	191.3	196.5	
Percent Change	3.6%	0.3%	-0.6%	1.6%	8.2%	0.8%	2.9%	3.8%	3.0%	2.7%	
November Forecast	173.5	173.5	173.3	174.3	172.8	174.2	181.5	190.1	195.5	-	
Percent Change	1.4%	0.0%	-0.4%	2.4%	8.5%	0.8%	4.2%	4.8%	2.9%	-	
Housing Permits (Thousands)											
February Forecast, Preliminary	36.6	37.4	38.4	38.5	40.0	38.5	41.8	43.4	43.7	43.9	
Percent Change	4.4%	8.7%	11.7%	0.9%	17.9%	-3.7%	8.6%	3.7%	0.7%	0.5%	
November Forecast	36.4	37.4	38.5	39.4	41.0	38.9	42.6	44.1	44.6	-	
Percent Change	-10.2%	11.6%	12.1%	10.3%	21.1%	-5.2%	9.4%	3.7%	1.1%	-	

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