



November 2017 Preliminary Economic Forecast

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This forecast is based on a modified version of IHS Markit's October 2017 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. The October Blue Chip forecast for real GDP growth in 2017 and 2018 was unchanged since September at 2.2% and 2.4%. The Blue Chip long-range forecast was also updated in October. The new forecast calls for growth rates of 2.1%, 2.1%, and 2.0% compared to 2.1%, 2.0%, and 2.0% in September.

Our oil price forecast reflects 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 25, 2017 closing prices for Brent and WTI futures. The latest futures prices are slightly higher than the prices used in the September forecast but, unlike in September, fall gradually through the forecast. The refiner acquisition price of crude oil in the first quarter of 2018 is now expected to average \$53 per barrel compared to \$50 in the September forecast. By the end of 2021, the refiner acquisition price is now expected to average \$50 per barrel compared to \$51 in the September forecast.

In a significant change from earlier forecasts, the preliminary November forecast drops the assumption of fiscal stimulus beginning in 2018. Previous forecasts had assumed a reduction in personal and corporate federal tax rates as well as additional infrastructure spending.

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 3,600 (seasonally adjusted) in September, which was 3,600 less than the 7,200 expected in the September forecast. Manufacturing gained 1,200 jobs in September including 200 aerospace jobs. The construction sector, however,

lost 900 jobs, as did government. Private, service-providing sectors added 4,200 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 raised the estimated level of total employment in August 2017 by 6,000 jobs (0.2%). As a result of the upward revision to history and weaker-than-expected growth, the net effect is 2,400 (0.1%) more jobs in September 2017 than expected in the September forecast.

In September, the Bureau of Economic Analysis released estimates for state personal income through the second quarter of 2017. We have incorporated the new BEA estimates as well as additional Washington QCEW and other wage data. The September release also incorporated the impact of the annual revision of the national income and product accounts (NIPA). Our current estimate of Washington personal income in the second quarter of 2017 is \$416.9 billion, which is \$6.8 billion (1.6%) higher than assumed in the September forecast. The new estimate of wage and salary income is \$0.7 billion lower than expected but nonwage income is \$7.5 billion higher. The much higher nonwage estimate is the result of the historical NIPA revisions, which raised the estimate for property income (dividends, interest, and rent) by \$8.4 billion in 2016.

Washington housing construction held steady in the third quarter of 2017. The number of housing units authorized by building permits averaged 43,900 units (SAAR) in the third quarter of 2017, which was very close to the September forecast. Third quarter permits were made up of 24,000 single-family units and 19,900 multi-family units. The September forecast had assumed 43,600 units (SAAR) in the third quarter, consisting of 23,600 single-family units and 19,900 multi-family units.

Washington employment is expected to grow 2.9% this year, which is the same rate expected in the September forecast. As in September, we expect growth to decelerate gradually as the recovery matures. We expect employment growth to average 1.6% per year in 2018 through 2021, which is also the same rate expected in September. Our forecast for nominal personal income growth this year is 5.2%, down from 5.8% in the September forecast. The level of personal income in 2017 is higher however due to historical revisions. Our new forecast for nominal personal income growth in 2018 through 2021 averages 5.1% per year which is the same rate as expected 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 2017

	2017Q3	2017Q4	2018Q1	2018Q2	2016	2017	2018	2019	2020	2021
Real GDP, Percent Change, Annual Rate										
ERFC (Preliminary November)	2.4	2.6	2.3	2.4	1.5	2.2	2.4	2.1	2.1	2.0
IHS	2.4	2.9	2.2	2.0	1.5	2.2	2.4	2.2	2.2	2.2
Economy.com	2.4	2.6	2.9	3.7	1.5	2.2	2.9	2.3		
Blue Chip Average*	2.4	2.6	2.3	2.4	2.2	2.4	2.1	2.1	2.0	2.0
Blue Chip Top 10*	2.9	3.2	2.9	3.1	2.2	2.8	2.5	3.1	2.6	2.6
Blue Chip Bottom 10*	1.8	2.1	1.7	1.9	2.1	2.1	1.8	1.4	1.4	1.4
Real Consumption, Percent Change, Annual Rate										
ERFC (Preliminary November)	1.9	2.5	2.4	2.5	2.7	2.6	2.4	2.2	2.0	2.0
IHS	1.9	3.0	2.4	2.3	2.7	2.7	2.5	2.3	2.4	2.4
Economy.com	1.9	2.7	2.5	2.8	2.7	2.6	2.6	2.2		
Blue Chip Average*	2.0	2.5	2.3	2.5	2.6	2.4	2.2	2.0	2.0	2.0
Blue Chip Top 10*	2.6	3.1	2.9	3.0	2.7	2.7	2.6	2.5	2.5	2.6
Blue Chip Bottom 10*	1.5	1.9	1.7	2.0	2.5	2.1	1.8	1.4	1.4	1.4
Federal Funds Rate										
ERFC (Preliminary November)	1.2	1.3	1.5	1.5	0.4	1.0	1.7	2.6	3.0	3.0
IHS	1.2	1.3	1.5	1.5	0.4	1.0	1.7	2.6	3.0	3.0
Economy.com	1.2	1.2	1.4	1.7	0.4	1.0	1.9	3.4		
Three Month T-Bill Rate										
ERFC (Preliminary November)	1.1	1.2	1.4	1.5	0.3	0.9	1.7	2.5	2.9	2.9
IHS	1.1	1.2	1.4	1.5	0.3	0.9	1.7	2.5	2.9	2.9
Blue Chip Average*	1.1	1.2	1.4	1.6		0.9	1.7	2.4	2.7	2.8
Blue Chip Top 10*	1.1	1.3	1.5	1.8		1.0	1.9	3.0	3.3	3.3
Blue Chip Bottom 10*	1.1	1.1	1.3	1.3		0.9	1.5	1.9	2.2	2.2
10-Yr. T-Note Yield										
ERFC (Preliminary November)	2.3	2.5	2.9	3.1	1.8	2.4	3.2	3.8	4.0	4.0
IHS	2.2	2.5	2.8	3.0	1.8	2.4	3.1	3.8	4.1	4.1
Economy.com	2.2	2.5	2.9	3.1	1.8	2.4	3.3	4.2		
Blue Chip Average*	2.2	2.4	2.6	2.7		2.3	2.8	3.4	3.5	3.5
Blue Chip Top 10*	2.2	2.6	2.8	3.0		2.4	3.1	4.2	4.2	4.2
Blue Chip Bottom 10*	2.2	2.3	2.4	2.4		2.3	2.5	2.7	2.9	3.0
Consumer Price Index, Percent Change, Annual Rate										
ERFC (Preliminary November)	2.6	2.8	2.8	1.0	1.3	2.2	2.0	2.0	2.3	2.2
IHS	2.2	2.2	1.6	1.3	1.3	2.1	1.7	2.2	2.7	2.4
Economy.com	1.8	2.5	2.0	2.2	1.3	2.0	2.1	2.8		
Blue Chip Average*	2.0	2.5	1.9	1.9		2.1	1.9	2.3	2.3	2.3
Blue Chip Top 10*	2.4	3.9	2.8	2.5		2.3	2.3	2.7	2.8	2.9
Blue Chip Bottom 10*	1.4	1.4	0.5	1.0		2.0	1.5	1.9	1.9	1.8
Payroll Employment, Millions										
ERFC (Preliminary November)	146.6	147.2	147.6	148.1	144.3	146.4	148.3	149.7	151.0	151.9
Percent Change, Annual Rate	1.2	1.7	1.0	1.3	1.8	1.5	1.2	1.0	0.9	0.6
IHS	146.6	147.3	147.7	148.1	144.3	146.5	148.3	150.0	151.3	152.5
Percent Change, Annual Rate	1.2	1.8	1.1	1.3	1.8	1.5	1.3	1.1	0.9	0.8
Economy.com	146.6	147.2	147.8	148.4	144.3	146.4	148.7	150.2		
Percent Change, Annual Rate	1.2	1.7	1.6	1.7	1.8	1.5	1.6	1.0		
Unemployment Rate, Percent										
ERFC (Preliminary November)	4.3	4.3	4.3	4.3	4.9	4.4	4.3	4.3	4.3	4.3
IHS	4.3	4.3	4.3	4.3	4.9	4.4	4.3	4.3	4.3	4.4
Economy.com	4.3	4.3	4.1	4.0	4.9	4.4	3.9	3.9		
Blue Chip Average*	4.3	4.3	4.2	4.2		4.4	4.1	4.2	4.3	4.4
Blue Chip Top 10*	4.3	4.4	4.4	4.3		4.4	4.3	4.6	4.8	4.9
Blue Chip Bottom 10*	4.3	4.2	4.0	4.0		4.4	3.9	3.8	3.8	4.0
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (Preliminary November)	-0.2	1.2	2.3	2.5	1.4	1.2	1.9	2.7	2.5	2.0
IHS	0.5	2.0	3.4	2.7	1.4	1.4	2.5	3.0	2.8	2.6
Blue Chip Average*	1.6	2.1	3.0	2.8		1.5	2.5	2.4	2.3	2.2
Blue Chip Top 10*	2.6	3.2	4.5	3.6		1.9	3.1	3.0	2.9	2.9
Blue Chip Bottom 10*	0.5	0.8	2.0	2.2		1.3	2.0	1.8	1.7	1.7
West Texas Intermediate										
ERFC (Preliminary November)	48.2	51.9	52.6	52.8	43.2	50.1	52.5	51.1	50.3	50.1
IHS	48.2	49.4	44.5	47.5	43.2	49.5	49.3	55.1	67.1	72.9
Economy.com	48.2	50.1	51.0	51.5	43.4	49.5	51.6	52.8		

* Forecasts beyond 2018 are from the October 2017 Blue Chip Economic Indicators

Table 2

U.S. Forecast Comparison

	2017Q3	2017Q4	2018Q1	2018Q2	2015	2016	2017	2018	2019	2020	2021
Real GDP (Billions of 2009 Dollars)											
November Forecast, Preliminary	17,134	17,245	17,344	17,446	16,472	16,716	17,078	17,491	17,859	18,234	18,598
Percent Change	2.4%	2.6%	2.3%	2.4%	2.9%	1.5%	2.2%	2.4%	2.1%	2.1%	2.0%
September Forecast	17,139	17,243	17,343	17,446	16,472	16,716	17,079	17,493	17,860	18,217	18,582
Percent Change	2.6%	2.5%	2.3%	2.4%	2.9%	1.5%	2.2%	2.4%	2.1%	2.0%	2.0%
Real Consumption (Billions of 2009 Dollars)											
November Forecast, Preliminary	11,909	11,983	12,053	12,129	11,264	11,572	11,876	12,162	12,429	12,678	12,931
Percent Change	1.9%	2.5%	2.4%	2.5%	3.6%	2.7%	2.6%	2.4%	2.2%	2.0%	2.0%
September Forecast	11,919	11,992	12,067	12,141	11,264	11,572	11,881	12,173	12,453	12,727	12,994
Percent Change	2.2%	2.5%	2.5%	2.5%	3.6%	2.7%	2.7%	2.5%	2.3%	2.2%	2.1%
PCE Price Index (2009=100)											
November Forecast, Preliminary	112.8	113.3	113.9	114.2	109.5	110.8	112.6	114.4	116.3	118.5	120.7
Percent Change	1.8%	1.9%	2.1%	1.1%	0.3%	1.2%	1.7%	1.6%	1.6%	1.9%	1.9%
September Forecast	112.8	113.3	113.7	114.2	109.5	110.8	112.6	114.4	116.3	118.5	120.9
Percent Change	1.9%	1.9%	1.4%	1.6%	0.3%	1.2%	1.7%	1.5%	1.7%	1.9%	2.0%
Real Personal Income (Billions of 2009 Dollars)											
November Forecast, Preliminary	14,590	14,635	14,723	14,819	14,206	14,377	14,570	14,869	15,295	15,730	16,122
Percent Change	0.4%	1.2%	2.4%	2.6%	4.6%	1.2%	1.3%	2.1%	2.9%	2.8%	2.5%
September Forecast	14,604	14,657	14,774	14,864	14,206	14,377	14,579	14,921	15,376	15,814	16,194
Percent Change	0.8%	1.5%	3.2%	2.5%	4.6%	1.2%	1.4%	2.3%	3.0%	2.8%	2.4%
Nonfarm Payroll Employment (Millions)											
November Forecast, Preliminary	146.6	147.2	147.6	148.1	141.8	144.3	146.4	148.3	149.7	151.0	151.9
Percent Change	1.2%	1.7%	1.0%	1.3%	2.1%	1.8%	1.5%	1.2%	1.0%	0.9%	0.6%
September Forecast	146.8	147.2	147.6	148.1	141.8	144.3	146.5	148.3	149.7	150.9	151.8
Percent Change	1.6%	1.2%	1.1%	1.2%	2.1%	1.8%	1.5%	1.2%	1.0%	0.8%	0.6%
Unemployment Rate (Percent of Labor Force)											
November Forecast, Preliminary	4.3	4.3	4.3	4.3	5.3	4.9	4.4	4.3	4.3	4.3	4.3
September Forecast	4.3	4.3	4.3	4.3	5.3	4.9	4.4	4.3	4.3	4.3	4.3
30 Year Fixed Mortgage Rate (Percent, average)											
November Forecast, Preliminary	3.9	4.1	4.6	4.9	3.9	3.6	4.0	5.0	5.8	6.0	6.0
September Forecast	3.9	4.1	4.6	4.9	3.9	3.6	4.1	5.0	5.8	6.0	6.0
3 Month T-Bill Rate (Percent, average)											
November Forecast, Preliminary	1.1	1.2	1.4	1.5	0.1	0.3	0.9	1.7	2.5	2.9	2.9
September Forecast	1.1	1.2	1.4	1.5	0.1	0.3	0.9	1.6	2.5	2.9	2.8

Table 3

Washington Forecast Comparison

	2017Q3	2017Q4	2018Q1	2018Q2	2015	2016	2017	2018	2019	2020	2021
Real Personal Income (Billions of 2009 Dollars)											
November Forecast, Preliminary	372.5	374.0	377.1	380.3	347.0	359.0	371.7	381.9	395.8	409.8	422.5
Percent Change	1.3%	1.6%	3.4%	3.5%	5.5%	3.5%	3.5%	2.8%	3.6%	3.5%	3.1%
September Forecast	366.2	367.8	371.2	374.1	339.9	351.1	365.4	375.9	390.0	403.5	415.5
Percent Change	1.0%	1.7%	3.9%	3.1%	4.3%	3.3%	4.1%	2.9%	3.7%	3.5%	3.0%
Personal Income (Billions of Dollars)											
November Forecast, Preliminary	420.0	423.7	429.4	434.3	380.0	397.8	418.6	437.1	460.2	485.5	510.2
Percent Change	3.1%	3.5%	5.6%	4.6%	5.8%	4.7%	5.2%	4.4%	5.3%	5.5%	5.1%
September Forecast	413.0	416.7	422.1	427.1	372.1	389.0	411.6	430.0	453.8	478.4	502.2
Percent Change	2.9%	3.7%	5.3%	4.8%	4.6%	4.5%	5.8%	4.5%	5.5%	5.4%	5.0%
Nonfarm Payroll Employment (Thousands)											
November Forecast, Preliminary	3350	3366	3384	3402	3146	3242	3337	3409	3466	3517	3558
Percent Change	2.6%	1.9%	2.2%	2.2%	2.9%	3.1%	2.9%	2.2%	1.7%	1.5%	1.2%
September Forecast	3345	3363	3381	3398	3146	3242	3335	3405	3461	3509	3547
Percent Change	2.2%	2.1%	2.1%	2.1%	2.9%	3.1%	2.9%	2.1%	1.6%	1.4%	1.1%
Unemployment Rate (Percent of Labor Force)											
November Forecast, Preliminary	4.6	4.6	4.5	4.5	5.6	5.4	4.6	4.5	4.5	4.4	4.3
September Forecast	4.5	4.4	4.4	4.4	5.6	5.4	4.6	4.4	4.4	4.3	4.3
Manufacturing Employment (Thousands)											
November Forecast, Preliminary	285.0	284.7	286.5	289.0	291.8	289.9	285.1	289.2	293.3	297.0	301.1
Percent Change	0.3%	-0.5%	2.6%	3.6%	1.1%	-0.7%	-1.7%	1.5%	1.4%	1.3%	1.4%
September Forecast	284.0	283.6	284.4	286.1	291.8	289.9	284.5	286.3	290.7	294.9	298.5
Percent Change	-0.8%	-0.6%	1.2%	2.4%	1.1%	-0.7%	-1.8%	0.6%	1.5%	1.4%	1.2%
Construction Employment (Thousands)											
November Forecast, Preliminary	201.7	202.1	203.7	203.5	173.3	186.5	200.8	203.5	204.2	205.4	205.8
Percent Change	0.2%	0.8%	3.3%	-0.5%	8.5%	7.6%	7.7%	1.3%	0.4%	0.6%	0.2%
September Forecast	201.4	204.0	206.0	206.3	173.3	186.5	201.0	206.5	208.3	209.4	209.6
Percent Change	0.9%	5.3%	4.1%	0.5%	8.5%	7.6%	7.8%	2.7%	0.9%	0.5%	0.1%
Housing Permits (Thousands)											
November Forecast, Preliminary	43.9	43.9	42.8	42.4	40.4	44.1	43.1	42.5	42.2	42.3	42.2
Percent Change	-0.2%	0.1%	-9.7%	-3.3%	19.1%	9.2%	-2.2%	-1.4%	-0.7%	0.3%	-0.1%
September Forecast	43.6	43.9	44.3	43.7	40.4	44.1	43.0	43.4	41.9	42.1	42.0
Percent Change	-2.9%	2.9%	4.2%	-5.7%	19.1%	9.2%	-2.4%	0.8%	-3.4%	0.5%	-0.2%