



September 2017 Preliminary Economic Forecast

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This forecast is based on a modified version of IHS Markit's August 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 August Blue Chip forecast for real GDP growth in 2017 was revised down to 2.1% from 2.2% in June. The forecast for 2018 was unchanged at 2.4%. The Blue Chip long-range forecast, which is revised only twice per year, has not been updated since March and remains at 2.1%, 2.0%, and 2.0% in 2019, 2020, and 2021.

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, August 30, 2017 closing prices for Brent and WTI futures. The latest futures prices are slightly higher than the prices used in the June forecast and, as in June, rise gradually through the forecast. The refiner acquisition price of crude oil in the fourth quarter of 2017 is now expected to average \$46 per barrel compared to \$45 in the June forecast. By the end of 2021, the refiner acquisition price is expected to average \$50 per barrel compared to \$49 in the June forecast.

As in June, the preliminary September forecast incorporates some policies proposed by the Trump administration, including lower personal and corporate federal tax rates, consistent with the House Republican plan, as well as \$220 billion in additional infrastructure spending over 10 years. The forecast does not assume a border adjustment tax nor does it assume any changes to the affordable care act.

The preliminary September forecast was produced prior to Hurricane Harvey. The impact of the storm will be reflected in the final September U.S. economic forecast but the impact on the state forecast will be minimal.

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

We have two months of new Washington employment data since the June forecast was released. Total nonfarm payroll employment rose 15,300 (seasonally adjusted) in June and July, which was 6,300 more than the 9,000 expected in the June forecast. Manufacturing gained 300 jobs in the two-month period in spite of the loss of 600 aerospace jobs. Construction employment also increased 300 in June and July. Government payrolls expanded by 2,700 jobs in the last two months. As usual, the bulk of the net new jobs occurred in private, service-providing sectors, which added 12,000 jobs.

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 May 2017 by 9,400 jobs (0.3%). As a result of the upward revision to history and stronger-than-expected growth, the total effect is 15,700 (0.5%) more jobs in July 2017 than expected in the June forecast.

In June, the Bureau of Economic Analysis released estimates for state personal income through the first quarter of 2017. We have incorporated the new BEA estimates as well as additional Washington QCEW and other wage data. Our current estimate of Washington personal income in the first quarter of 2017 is \$406.6 billion, which is \$5.0 billion (1.3%) higher than assumed in the June forecast. The variance was mostly in wages and salaries which were \$4.5 billion higher than believed in June.

Washington housing construction increased in the second quarter of 2017 but fell slightly short of the forecast. The number of housing units authorized by building permits increased to 43,900 units (SAAR) in the second quarter of 2017 from 40,800 units in the first quarter. Second quarter permits were made up of 22,500 single-family units and 21,400 multi-family units. The June forecast assumed 45,300 units (SAAR) in the second quarter, consisting of 22,600 single-family units and 22,700 multi-family units. Washington housing construction in July was about as expected in the June forecast. In July, 44,500 units (SAAR) were permitted of which 23,200 were single family and 21,300 were multi-family. The June forecast assumed an average rate of 43,800 units for the third quarter as a whole (SAAR) consisting of 24,200 single-family units and 19,600 multi-family units.

Washington employment is expected to grow 3.0% this year, up from 2.4% in the June forecast. As in June, 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 slightly higher than the 1.4% rate assumed in June. Our preliminary forecast for nominal personal income growth this year is 6.0%, up from 4.7% in the June forecast. 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 June forecast.

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

Table 1

U.S. Economic Forecast Comparison

August 2017

	2017Q2	2017Q3	2017Q4	2018Q1	2016	2017	2018	2019	2020	2021
Real GDP, Percent Change, Annual Rate										
ERFC (Preliminary September)	2.6	2.8	2.5	2.3	1.5	2.1	2.4	2.1	2.0	2.0
IHS	2.6	3.1	2.4	3.0	1.5	2.1	2.7	2.4	2.1	2.2
Economy.com	2.6	2.8	2.8	3.1	1.5	2.1	2.8	2.1		
Blue Chip Average*	2.7	2.5	2.3		2.1	2.4	2.1	2.0	2.0	
Blue Chip Top 10*	3.2	2.9	2.8		2.2	2.8	2.5	2.5	2.5	
Blue Chip Bottom 10*	2.1	2.1	1.7		2.0	2.1	1.5	1.6	1.5	
Real Consumption, Percent Change, Annual Rate										
ERFC (Preliminary September)	2.8	2.2	2.4	2.5	2.7	2.6	2.4	2.3	2.2	2.1
IHS	2.8	2.6	2.7	3.3	2.7	2.6	3.0	2.8	2.5	2.5
Economy.com	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.2		
Blue Chip Average*	2.4	2.4	2.4		2.6	2.4	2.3	2.2	2.1	
Blue Chip Top 10*	2.8	2.9	2.9		2.7	2.8	2.8	2.6	2.6	
Blue Chip Bottom 10*	2.0	2.0	1.9		2.4	2.0	1.7	1.7	1.7	
Federal Funds Rate										
ERFC (Preliminary September)	1.0	1.2	1.3	1.5	0.4	1.0	1.7	2.6	3.0	3.0
IHS	1.0	1.2	1.3	1.5	0.4	1.0	1.7	2.6	3.0	3.0
Economy.com	1.0	1.2	1.2	1.4	0.4	1.0	1.9	3.4		
Three Month T-Bill Rate										
ERFC (Preliminary September)	0.9	1.1	1.2	1.4	0.3	0.9	1.6	2.5	2.8	2.8
IHS	0.9	1.1	1.2	1.4	0.3	1.0	1.7	2.5	2.9	2.9
Blue Chip Average*		1.1	1.2	1.4		1.0	1.7	2.4	2.7	2.8
Blue Chip Top 10*		1.1	1.3	1.6		1.0	1.9	3.1	3.5	3.4
Blue Chip Bottom 10*		1.0	1.1	1.3		0.9	1.5	1.7	2.0	2.2
10-Yr. T-Note Yield										
ERFC (Preliminary September)	2.3	2.3	2.6	2.9	1.8	2.4	3.2	3.9	4.0	3.9
IHS	2.3	2.3	2.5	2.8	1.8	2.4	3.1	3.8	4.1	4.1
Economy.com	2.3	2.5	2.7	3.0	1.8	2.5	3.4	4.2		
Blue Chip Average*		2.4	2.6	2.7		2.4	2.9	3.6	3.7	3.8
Blue Chip Top 10*		2.6	2.8	3.0		2.5	3.3	4.3	4.4	4.4
Blue Chip Bottom 10*		2.3	2.4	2.5		2.3	2.6	2.8	3.0	3.1
Consumer Price Index, Percent Change, Annual Rate										
ERFC (Preliminary September)	-0.3	1.7	2.2	2.0	1.3	2.0	1.8	1.9	2.2	2.3
IHS	-0.3	1.3	2.2	1.8	1.3	2.0	1.6	2.2	2.8	2.6
Economy.com	-0.3	1.7	2.5	2.1	1.3	2.0	2.1	2.8		
Blue Chip Average*		1.6	2.3	2.3		2.0	2.0	2.3	2.4	2.3
Blue Chip Top 10*		2.1	3.0	2.9		2.1	2.3	2.8	2.8	2.8
Blue Chip Bottom 10*		1.0	1.7	1.9		1.9	1.7	1.9	2.0	2.0
Payroll Employment, Millions										
ERFC (Preliminary September)	146.2	146.8	147.4	147.7	144.3	146.5	148.2	149.5	150.7	151.6
Percent Change, Annual Rate	1.4	1.5	1.7	0.9	1.8	1.5	1.2	0.9	0.8	0.6
IHS	146.2	146.8	147.4	147.9	144.3	146.5	148.6	150.3	151.7	152.9
Percent Change, Annual Rate	1.4	1.7	1.6	1.3	1.8	1.5	1.4	1.2	0.9	0.8
Economy.com	146.2	146.8	147.3	147.8	144.3	146.5	148.5	150.2		
Percent Change, Annual Rate	1.4	1.5	1.4	1.4	1.8	1.5	1.4	1.1		
Unemployment Rate, Percent										
ERFC (Preliminary September)	4.4	4.3	4.3	4.3	4.9	4.4	4.3	4.3	4.3	4.3
IHS	4.4	4.3	4.3	4.3	4.9	4.4	4.2	4.0	4.1	4.1
Economy.com	4.4	4.4	4.3	4.2	4.9	4.4	4.1	4.0		
Blue Chip Average*		4.3	4.2	4.2		4.4	4.1	4.5	4.6	4.6
Blue Chip Top 10*		4.4	4.3	4.3		4.4	4.4	5.2	5.1	5.2
Blue Chip Bottom 10*		4.2	4.1	4.0		4.3	3.9	4.1	4.1	4.1
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (Preliminary September)	3.2	2.5	1.9	4.3	1.4	1.6	3.0	2.9	2.2	2.1
IHS	3.2	3.3	2.5	5.0	1.4	1.7	3.6	3.3	2.5	2.7
Blue Chip Average*		2.2	2.4	3.1		1.6	2.6	2.5	2.4	2.3
Blue Chip Top 10*		2.9	3.2	4.7		1.9	3.3	3.6	3.2	3.0
Blue Chip Bottom 10*		1.4	1.7	2.1		1.3	2.0	1.7	1.8	1.7
West Texas Intermediate										
ERFC (Preliminary September)	48.3	46.8	46.5	47.5	43.2	48.4	48.0	48.7	49.5	50.4
IHS	48.3	48.0	48.1	47.1	43.2	49.1	45.9	53.7	67.4	73.4
Economy.com	48.1	48.5	51.0	50.5	43.4	49.9	50.3	52.3		

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

Table 2

U.S. Forecast Comparison

	2017Q2	2017Q3	2017Q4	2018Q1	2015	2016	2017	2018	2019	2020	2021
Real GDP (Billions of 2009 Dollars)											
September Forecast, Preliminary	17,011	17,127	17,235	17,334	16,472	16,716	17,069	17,476	17,843	18,200	18,564
Percent Change	2.6%	2.8%	2.5%	2.3%	2.9%	1.5%	2.1%	2.4%	2.1%	2.0%	2.0%
June Forecast	16,983	17,083	17,182	17,283	16,397	16,662	17,027	17,437	17,804	18,160	18,523
Percent Change	2.9%	2.4%	2.3%	2.4%	2.6%	1.6%	2.2%	2.4%	2.1%	2.0%	2.0%
Real Consumption (Billions of 2009 Dollars)											
September Forecast, Preliminary	11,840	11,905	11,975	12,050	11,264	11,572	11,870	12,154	12,433	12,707	12,974
Percent Change	2.8%	2.2%	2.4%	2.5%	3.6%	2.7%	2.6%	2.4%	2.3%	2.2%	2.1%
June Forecast	11,769	11,841	11,913	11,988	11,215	11,522	11,803	12,097	12,375	12,648	12,913
Percent Change	2.8%	2.5%	2.5%	2.5%	3.2%	2.7%	2.4%	2.5%	2.3%	2.2%	2.1%
Implicit Price Deflator, PCE (2009=1.00)											
September Forecast, Preliminary	1.123	1.127	1.132	1.136	1.095	1.108	1.126	1.142	1.161	1.183	1.206
Percent Change	0.3%	1.5%	1.7%	1.5%	0.3%	1.2%	1.6%	1.5%	1.6%	1.9%	2.0%
June Forecast	1.124	1.128	1.133	1.137	1.095	1.107	1.126	1.143	1.162	1.185	1.209
Percent Change	0.8%	1.4%	1.9%	1.3%	0.4%	1.1%	1.7%	1.5%	1.7%	1.9%	2.0%
Real Personal Income (Billions of 2009 Dollars)											
September Forecast, Preliminary	14,573	14,649	14,715	14,822	14,206	14,377	14,603	14,966	15,425	15,849	16,217
Percent Change	2.7%	2.1%	1.8%	3.0%	4.6%	1.2%	1.6%	2.5%	3.1%	2.8%	2.3%
June Forecast	14,648	14,764	14,847	14,957	14,113	14,438	14,705	15,110	15,568	15,976	16,332
Percent Change	2.4%	3.2%	2.3%	3.0%	4.0%	2.3%	1.8%	2.8%	3.0%	2.6%	2.2%
Nonfarm Payroll Employment (Millions)											
September Forecast, Preliminary	146.2	146.8	147.4	147.7	141.8	144.3	146.5	148.2	149.5	150.7	151.6
Percent Change	1.4%	1.5%	1.7%	0.9%	2.1%	1.8%	1.5%	1.2%	0.9%	0.8%	0.6%
June Forecast	146.1	146.5	146.9	147.1	141.8	144.3	146.3	147.7	148.9	150.2	151.0
Percent Change	1.2%	1.0%	1.0%	0.8%	2.1%	1.8%	1.4%	0.9%	0.9%	0.8%	0.6%
Unemployment Rate (Percent of Labor Force)											
September Forecast, Preliminary	4.4	4.3	4.3	4.3	5.3	4.9	4.4	4.3	4.3	4.3	4.3
June Forecast	4.4	4.3	4.3	4.3	5.3	4.9	4.4	4.2	4.2	4.2	4.3
30 Year Fixed Mortgage Rate (Percent, average)											
September Forecast, Preliminary	4.0	4.0	4.2	4.6	3.9	3.6	4.1	4.9	5.8	6.0	6.0
June Forecast	4.1	4.3	4.5	4.7	3.9	3.6	4.3	5.0	5.8	6.0	5.9
3 Month T-Bill Rate (Percent, average)											
September Forecast, Preliminary	0.9	1.1	1.2	1.4	0.1	0.3	0.9	1.6	2.5	2.8	2.8
June Forecast	0.9	1.1	1.2	1.4	0.1	0.3	0.9	1.6	2.5	2.8	2.8

Table 3

Washington Forecast Comparison

	2017Q2	2017Q3	2017Q4	2018Q1	2015	2016	2017	2018	2019	2020	2021
Real Personal Income (Billions of 2009 Dollars)											
September Forecast, Preliminary	365.3	367.4	369.6	373.0	339.9	351.1	366.2	377.7	392.1	405.2	416.8
Percent Change	3.2%	2.3%	2.5%	3.7%	4.3%	3.3%	4.3%	3.1%	3.8%	3.3%	2.9%
June Forecast	360.0	362.2	365.1	372.2	339.7	351.2	361.3	374.1	387.8	400.0	410.9
Percent Change	2.1%	2.5%	3.3%	8.1%	4.3%	3.4%	2.9%	3.5%	3.7%	3.1%	2.7%
Personal Income (Billions of Dollars)											
September Forecast, Preliminary	410.1	414.0	418.3	423.7	372.1	389.0	412.2	431.5	455.2	479.2	502.8
Percent Change	3.5%	3.8%	4.2%	5.3%	4.6%	4.5%	6.0%	4.7%	5.5%	5.3%	4.9%
June Forecast	404.5	408.4	413.6	423.1	372.1	388.8	407.0	427.6	450.7	473.8	496.6
Percent Change	3.0%	3.9%	5.2%	9.5%	4.6%	4.5%	4.7%	5.1%	5.4%	5.1%	4.8%
Nonfarm Payroll Employment (Thousands)											
September Forecast, Preliminary	3327	3349	3371	3388	3146	3242	3338	3411	3467	3514	3553
Percent Change	2.7%	2.7%	2.6%	2.1%	2.9%	3.1%	3.0%	2.2%	1.6%	1.4%	1.1%
June Forecast	3311	3326	3341	3356	3146	3242	3318	3376	3427	3473	3510
Percent Change	2.0%	1.9%	1.8%	1.8%	2.9%	3.1%	2.4%	1.7%	1.5%	1.4%	1.1%
Unemployment Rate (Percent of Labor Force)											
September Forecast, Preliminary	4.6	4.5	4.5	4.4	5.6	5.4	4.6	4.4	4.3	4.3	4.3
June Forecast	4.5	4.5	4.4	4.4	5.6	5.4	4.6	4.3	4.3	4.3	4.3
Manufacturing Employment (Thousands)											
September Forecast, Preliminary	284.5	284.1	283.1	283.9	291.8	289.9	284.4	285.4	289.2	293.6	297.0
Percent Change	-2.0%	-0.6%	-1.4%	1.1%	1.1%	-0.7%	-1.9%	0.3%	1.3%	1.5%	1.2%
June Forecast	283.5	282.2	281.3	282.0	291.8	289.8	283.0	284.0	289.0	292.9	295.8
Percent Change	-2.3%	-1.9%	-1.3%	1.0%	1.1%	-0.7%	-2.3%	0.3%	1.8%	1.3%	1.0%
Construction Employment (Thousands)											
September Forecast, Preliminary	200.9	201.3	204.1	206.5	173.3	186.5	201.0	207.5	209.6	209.6	209.5
Percent Change	6.5%	0.7%	5.8%	4.8%	8.5%	7.6%	7.8%	3.2%	1.0%	0.0%	0.0%
June Forecast	198.5	200.8	203.6	206.0	173.3	186.4	199.6	207.4	210.7	211.4	211.2
Percent Change	6.4%	4.7%	5.6%	4.8%	8.5%	7.6%	7.1%	3.9%	1.6%	0.3%	-0.1%
Housing Permits (Thousands)											
September Forecast, Preliminary	43.9	43.6	44.0	44.5	40.4	44.1	43.1	43.6	42.3	42.4	42.0
Percent Change	33.8%	-2.9%	4.0%	4.9%	19.1%	9.2%	-2.3%	1.3%	-3.0%	0.3%	-0.9%
June Forecast	45.3	43.8	43.2	43.4	40.4	44.1	43.3	42.7	41.9	42.1	41.7
Percent Change	52.1%	-12.9%	-5.3%	1.9%	19.1%	9.2%	-1.9%	-1.3%	-1.9%	0.6%	-0.9%