



November 2020 Preliminary Economic Forecast

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This forecast is based on a modified version of IHS Markit's October 2020 Control forecast for the U.S. economy. We have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast for 2020 and 2021. We now expect real GDP to decline 4.0% in 2020 followed by a 3.9% increase in 2021. In September we expected a 4.6% decline in 2020 followed by a 3.8% increase in 2021. In September we were guided by the IHS forecast for GDP growth in 2022-25 because the latest long term Blue Chip forecast was out of date. We now have a current long term Blue Chip forecast which indicates slower growth in those years. We now expect real GDP growth rates of 2.9%, 2.3%, 2.1%, and 2.0% in 2022 through 2025 compared to the September forecast of 3.9%, 2.8%, 2.5%, and 2.3%.

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 28, 2020 closing prices for Brent and WTI futures. Oil prices are slightly lower than expected in the September forecast. The latest futures prices indicate that the refiner acquisition price of crude will average \$37 per barrel in the first quarter of 2021 compared to \$41 in the September forecast. By the fourth quarter of 2025 the refiner acquisition price of crude is expected to average \$44 per barrel compared to \$49 per barrel in the September forecast.

The fiscal policy assumptions in this forecast were developed in early October. The forecast assumes new legislation will fund both emergency unemployment benefits of \$300 per week from October through December and a second round of stimulus checks, disbursed in the fourth quarter. As of this preliminary forecast, there has been no such legislation. We will get a new Blue Chip and IHS forecast in early November and update the fiscal policy assumptions in the final November economic forecast.

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

The preliminary November forecast for Washington State assumes a more negative outlook for aerospace employment than expected in September. Growth in 2022-25 is also generally weaker due to the lower long term GDP outlook in the national forecast.

We have just one month of new Washington employment data since the September forecast was released. Employment continued to rise in September following the historic decline in March, April, and May. Total nonfarm payroll employment rose 6,300 (seasonally adjusted) in September which was 11,400 less than expected in the September forecast. Private services-providing sectors added 12,900 jobs in September. The manufacturing sector added 1,700 jobs despite the loss of 500 aerospace jobs. Construction employment increased by 2,300. Federal

government employment decreased by 3,900 however 2,300 of those were temporary Census jobs. State and local government payrolls declined by 6,800 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 subtracted 5,000 (0.2%) from the estimated level of total employment in August 2020. Because of the lower-than-expected employment growth in September in addition to the downward revision to the August estimate, employment is 16,400 (0.5%) lower in September than expected in the September forecast.

Washington's unemployment rate declined to 7.8% in September from 8.4% in August. The September rate is down significantly from the 16.3% rate reached in April which was an all-time high in the series that dates back to 1976.

This forecast incorporates Boeing's announcement of deep cuts to company-wide employment in 2021 as well as the consolidation of 787 production in South Carolina. Boeing's latest announcement indicates they plan to reduce employment from 161,000 at the beginning of 2020 to about 130,000 by the end of 2021, a reduction of 31,000 jobs. We assume that Boeing is currently slightly more than halfway through this process. We also assume that the vast majority of cuts will continue to be made in Washington State and that non-Boeing aerospace employment will also decline as a result of lower production rates. Specifically, the forecast assumes that Washington aerospace employment will be 27,700 lower in December 2021 than in January 2020. We believe we have already lost about 14,200 aerospace jobs as of October 2020 and expect a further decline of 13,500 by December 2021.

In September, after the forecast was complete, the Bureau of Economic Analysis released estimates for state personal income through the second quarter of 2020. We have incorporated the new BEA estimates as well as additional Washington Quarterly Census of Employment and Wages (QCEW) data. Our current estimate of Washington personal income in the second quarter of 2020 is \$4.8 billion (0.9%) higher than in the September forecast. Wages and salaries are \$3.0 Billion (1.2%) higher than expected and nonwage income is \$1.8 (0.6%) billion higher than expected.

Washington housing construction improved to 43,700 units (SAAR) in the third quarter from 40,300 units in the second quarter and exceeded the September forecast of 41,000 units. In the third quarter, single-family units averaged of 24,700 and multi-family units averaged 19,000.

We expect a 4.7% decline in Washington employment this year which is unchanged from the September forecast. We expect above-average growth through the remainder of the forecast as the economy recovers from this deep recession. We expect employment growth to average 1.9% per year in 2021 through 2025 compared to the 2.3% average rate expected in September. Our forecast for nominal personal income growth this year is 8.7%, up from 7.7% in the September forecast. The strong personal income growth this year is the result of extraordinary fiscal stimulus. Personal income will decline next year as the stimulus is withdrawn. We expect personal income to decline 2.3% next year compared to a 1.9% decline in the September forecast. Our new forecast for nominal personal income growth in 2023 through 2025 averages 4.2% per year, which is down from the 4.6% rate 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 2020

	2020Q3	2020Q4	2021Q1	2021Q2	2020	2021	2022	2023	2024	2025
Real GDP, Percent Change, Annual Rate										
ERFC (November Preliminary)	28.3	3.7	4.5	4.1	-4.0	3.9	2.9	2.3	2.1	2.0
IHS	33.2	3.7	3.4	2.5	-3.5	3.7	3.2	2.8	2.7	2.6
Economy.com	29.4	1.5	5.6	3.9	-4.0	4.0	4.5			
Blue Chip Average*	29.1	3.8	4.0	4.0	-4.0	3.9	2.9	2.3	2.1	2.0
Blue Chip Top 10*	34.1	6.2	6.0	5.8	-3.5	5.1	3.8	2.9	2.4	2.3
Blue Chip Bottom 10*	22.8	1.3	2.1	2.2	-4.8	2.8	2.1	1.9	1.7	1.6
Real Consumption, Percent Change, Annual Rate										
ERFC (November Preliminary)	34.6	3.7	3.9	4.3	-4.4	4.3	2.9	2.4	2.2	2.1
IHS	38.5	3.5	2.1	4.2	-4.0	4.0	3.0	2.7	2.6	2.7
Economy.com	39.9	3.0	4.8	3.9	-3.9	4.7	3.9			
Blue Chip Average*	34.5	3.6	3.7	4.2	-4.4	4.3	2.9	2.4	2.2	2.1
Blue Chip Top 10*	39.1	6.5	6.2	6.3	-3.9	5.5	3.7	3.0	2.6	2.5
Blue Chip Bottom 10*	23.7	1.1	1.7	2.3	-5.1	3.2	2.3	2.0	1.8	1.8
Federal Funds Rate										
ERFC (November Preliminary)	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
IHS	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
Economy.com	0.1	0.1	0.1	0.1	0.4	0.1	0.1			
Three Month T-Bill Rate										
ERFC (November Preliminary)	0.2	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
IHS	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
Blue Chip Average*	0.1	0.1	0.1	0.1	0.3	0.2	0.4	0.6	0.9	1.1
Blue Chip Top 10*	0.1	0.2	0.2	0.2	0.4	0.2	0.8	1.2	1.8	2.0
Blue Chip Bottom 10*	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.4
10-Yr. T-Note Yield										
ERFC (November Preliminary)	0.7	0.7	0.8	0.9	0.9	0.9	1.2	1.4	1.6	1.8
IHS	0.7	0.7	0.8	0.9	0.8	0.9	1.2	1.4	1.6	1.8
Economy.com	0.7	0.7	0.8	0.9	0.8	1.1	2.1			
Blue Chip Average*	0.7	0.8	0.8	0.9	0.9	0.9	1.4	1.7	2.0	2.2
Blue Chip Top 10*	0.7	0.9	1.0	1.2	1.0	1.2	1.9	2.4	2.7	2.9
Blue Chip Bottom 10*	0.7	0.6	0.7	0.7	0.7	0.7	1.0	1.2	1.4	1.5
Consumer Price Index, Percent Change, Annual Rate										
ERFC (November Preliminary)	5.8	1.9	3.1	2.6	1.3	2.5	2.0	1.6	1.9	2.1
IHS	5.2	2.2	3.2	2.7	1.3	2.6	2.3	1.8	1.9	2.2
Economy.com	5.4	1.7	1.0	1.9	1.3	1.9	2.8			
Blue Chip Average*	4.7	2.0	2.1	2.0	1.2	2.0	2.2	2.2	2.2	2.2
Blue Chip Top 10*	5.6	2.8	3.3	2.7	1.4	2.5	2.5	2.5	2.5	2.5
Blue Chip Bottom 10*	2.9	1.2	1.2	1.4	0.9	1.5	1.8	1.9	1.9	1.9
Payroll Employment, Millions										
ERFC (November Preliminary)	140.8	143.8	145.5	146.7	142.5	147.0	150.7	152.8	154.2	155.0
Percent Change, Annual Rate	22.9	8.7	4.9	3.2	-5.6	3.1	2.5	1.4	0.9	0.5
IHS	140.8	144.1	146.1	147.1	142.6	147.4	151.2	153.9	156.0	157.5
Percent Change, Annual Rate	22.9	9.7	5.6	2.7	-5.5	3.3	2.6	1.8	1.4	0.9
Economy.com	140.8	141.9	142.4	143.0	142.1	143.4	146.9			
Percent Change, Annual Rate	22.9	3.3	1.3	1.9	-5.9	0.9	2.5			
Unemployment Rate, Percent										
ERFC (November Preliminary)	8.8	7.6	6.9	6.7	8.3	6.5	5.1	4.6	4.3	4.3
IHS	8.8	7.3	6.7	6.5	8.2	6.4	5.0	4.3	3.7	3.5
Economy.com	8.8	8.3	8.2	8.0	8.5	7.9	6.3			
Blue Chip Average*	8.8	7.9	7.4	7.0	8.4	6.8	5.5	4.8	4.5	4.3
Blue Chip Top 10*	8.8	8.9	8.7	8.2	8.9	8.1	6.4	5.5	5.1	4.9
Blue Chip Bottom 10*	8.8	7.3	6.6	6.0	8.3	5.9	4.6	4.1	3.9	3.8
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (November Preliminary)	-20.2	20.3	-30.5	2.0	7.0	-5.2	2.5	2.7	2.4	2.4
IHS	-19.7	20.7	-30.4	1.5	7.1	-5.3	2.4	2.8	2.6	2.8
Blue Chip Average*	-17.0	-3.2	-5.6	0.9	5.7	-1.8	2.1	2.2	2.0	2.0
Blue Chip Top 10*	-7.3	10.6	7.2	4.1	7.7	1.6	2.9	2.6	2.4	2.4
Blue Chip Bottom 10*	-22.1	-12.8	-25.9	-4.2	3.6	-5.6	1.3	1.7	1.7	1.7
West Texas Intermediate										
ERFC (November Preliminary)	40.9	38.1	38.1	39.0	38.1	39.2	40.7	41.7	42.6	43.5
IHS	40.9	40.2	41.7	43.5	38.7	46.0	54.4	56.1	57.3	59.8
Economy.com	40.9	42.6	43.0	46.4	39.5	47.3	56.4			

* Forecasts beyond 2021 are from the October 2020 Blue Chip Economic Indicators

Table 2

U.S. Forecast Comparison

	2020Q3	2020Q4	2021Q1	2021Q2
Real GDP (Billions of 2012 Dollars)				
November Forecast, Preliminary	18,415	18,585	18,789	18,978
Percent Change	28.3%	3.7%	4.5%	4.1%
September Forecast	18,183	18,384	18,612	18,820
Percent Change	22.5%	4.5%	5.1%	4.5%
Real Consumption (Billions of 2012 Dollars)				
November Forecast, Preliminary	12,774	12,892	13,017	13,153
Percent Change	34.6%	3.7%	3.9%	4.3%
September Forecast	12,603	12,750	12,886	13,026
Percent Change	29.3%	4.7%	4.3%	4.4%
PCE Price Index (2012=100)				
November Forecast, Preliminary	111.7	112.1	112.7	113.3
Percent Change	4.5%	1.4%	2.3%	2.2%
September Forecast	111.3	111.7	112.3	112.9
Percent Change	3.5%	1.1%	2.3%	2.1%
Real Personal Income (Billions of 2012 Dollars)				
November Forecast, Preliminary	17,612	18,358	16,937	17,016
Percent Change	-17.3%	18.1%	-27.6%	1.9%
September Forecast	17,472	18,196	16,804	16,936
Percent Change	-20.1%	17.6%	-27.3%	3.2%
Nonfarm Payroll Employment (Millions)				
November Forecast, Preliminary	140.8	143.8	145.5	146.7
Percent Change	22.9%	8.7%	4.9%	3.2%
September Forecast	140.3	143.4	145.3	146.6
Percent Change	21.3%	9.0%	5.6%	3.6%
Unemployment Rate (Percent of Labor Force)				
November Forecast, Preliminary	8.8	7.6	6.9	6.7
September Forecast	9.3	8.0	7.1	6.7
Oil Price, Refiner's Acquisition				
November Forecast, Preliminary	40.0	36.9	37.2	38.1
September Forecast	40.0	39.4	40.5	41.6
30 Year Fixed Mortgage Rate (Percent, average)				
November Forecast, Preliminary	3.0	3.0	3.1	3.1
September Forecast	3.0	3.0	3.1	3.1
3 Month T-Bill Rate (Percent, average)				
November Forecast, Preliminary	0.2	0.1	0.1	0.1
September Forecast	0.1	0.1	0.1	0.1

	2019	2020	2021	2022	2023	2024	2025
November Forecast, Preliminary	19,092	18,328	19,043	19,595	20,046	20,467	20,876
Percent Change	2.2%	-4.0%	3.9%	2.9%	2.3%	2.1%	2.0%
September Forecast	19,092	18,215	18,912	19,641	20,195	20,702	21,181
Percent Change	2.2%	-4.6%	3.8%	3.9%	2.8%	2.5%	2.3%
November Forecast, Preliminary	13,240	12,661	13,205	13,588	13,914	14,220	14,518
Percent Change	2.4%	-4.4%	4.3%	2.9%	2.4%	2.2%	2.1%
September Forecast	13,240	12,573	13,093	13,575	13,969	14,322	14,668
Percent Change	2.4%	-5.0%	4.1%	3.7%	2.9%	2.5%	2.4%
November Forecast, Preliminary	109.9	111.3	113.6	115.5	117.2	119.1	121.3
Percent Change	1.5%	1.3%	2.1%	1.7%	1.4%	1.7%	1.8%
September Forecast	109.9	111.1	113.2	115.1	116.8	118.9	121.2
Percent Change	1.5%	1.1%	1.9%	1.7%	1.5%	1.7%	2.0%
November Forecast, Preliminary	16,888	17,883	17,064	17,514	17,981	18,393	18,818
Percent Change	2.4%	5.9%	-4.6%	2.6%	2.7%	2.3%	2.3%
September Forecast	16,888	17,810	16,972	17,491	18,014	18,449	18,921
Percent Change	2.4%	5.5%	-4.7%	3.1%	3.0%	2.4%	2.6%
November Forecast, Preliminary	150.9	142.5	147.0	150.7	152.8	154.2	155.0
Percent Change	1.4%	-5.6%	3.1%	2.5%	1.4%	0.9%	0.5%
September Forecast	150.9	142.3	146.9	150.9	153.7	155.7	157.1
Percent Change	1.4%	-5.7%	3.2%	2.7%	1.9%	1.3%	0.9%
November Forecast, Preliminary	3.7	8.3	6.5	5.1	4.6	4.3	4.3
September Forecast	3.7	8.5	6.5	5.0	4.2	3.7	3.6
November Forecast, Preliminary	59.4	37.7	38.3	40.2	41.6	42.7	43.6
September Forecast	59.4	38.1	41.9	44.0	45.5	46.8	48.1
November Forecast, Preliminary	3.9	3.2	3.1	3.1	3.3	3.4	3.6
September Forecast	3.9	3.2	3.1	3.1	3.1	3.3	3.5
November Forecast, Preliminary	2.1	0.4	0.1	0.1	0.1	0.1	0.1
September Forecast	2.1	0.4	0.1	0.1	0.1	0.1	0.1

Table 3

Washington Forecast Comparison

	2020Q3	2020Q4	2021Q1	2021Q2
Real Personal Income (Billions of 2012 Dollars)				
November Forecast, Preliminary	476.9	493.6	459.2	460.3
Percent Change	-17.0%	14.7%	-25.1%	1.0%
September Forecast	472.3	489.9	457.0	460.7
Percent Change	-17.5%	15.8%	-24.3%	3.3%
Personal Income (Billions of Dollars)				
November Forecast, Preliminary	532.5	553.1	517.5	521.6
Percent Change	-13.3%	16.4%	-23.3%	3.2%
September Forecast	525.9	547.1	513.3	520.1
Percent Change	-14.5%	17.1%	-22.5%	5.5%
Disposable Personal Income (Billions of Dollars)				
November Forecast, Preliminary	479.9	500.3	464.3	468.2
Percent Change	-17.0%	18.1%	-25.9%	3.5%
September Forecast	473.5	494.7	459.2	465.3
Percent Change	-18.5%	19.1%	-25.8%	5.4%
Nonfarm Payroll Employment (Thousands)				
November Forecast, Preliminary	3261	3317	3362	3395
Percent Change	17.0%	7.0%	5.5%	3.9%
September Forecast	3267	3340	3394	3433
Percent Change	23.8%	9.3%	6.7%	4.6%
Unemployment Rate (Percent of Labor Force)				
November Forecast, Preliminary	8.8	7.2	7.5	7.2
September Forecast	9.1	8.0	7.1	6.7
Manufacturing Employment (Thousands)				
November Forecast, Preliminary	270.4	267.5	262.4	261.5
Percent Change	1.0%	-4.2%	-7.3%	-1.5%
September Forecast	261.1	266.9	266.2	268.2
Percent Change	-0.7%	9.2%	-1.0%	3.1%
Construction Employment (Thousands)				
November Forecast, Preliminary	211.5	212.1	209.1	207.2
Percent Change	25.5%	1.1%	-5.5%	-3.7%
September Forecast	196.1	205.0	204.6	202.9
Percent Change	40.7%	19.5%	-0.8%	-3.2%
Housing Permits (Thousands)				
November Forecast, Preliminary	43.7	45.5	45.8	44.9
Percent Change	37.7%	17.9%	2.2%	-7.8%
September Forecast	41.0	45.5	44.8	44.4
Percent Change	6.5%	52.4%	-6.7%	-3.4%

	2019	2020	2021	2022	2023	2024	2025
448.9	481.7	461.2	471.2	484.1	496.4	509.8	
3.8%	7.3%	-4.3%	2.2%	2.7%	2.5%	2.7%	
450.0	479.4	461.6	475.5	489.8	501.8	515.5	
4.2%	6.5%	-3.7%	3.0%	3.0%	2.4%	2.7%	
493.1	535.9	523.8	544.4	567.2	591.2	618.4	
5.4%	8.7%	-2.3%	3.9%	4.2%	4.2%	4.6%	
494.4	532.4	522.4	547.5	572.3	596.4	624.7	
5.8%	7.7%	-1.9%	4.8%	4.5%	4.2%	4.7%	
442.2	483.7	470.0	488.2	509.1	531.3	556.2	
5.1%	9.4%	-2.8%	3.9%	4.3%	4.4%	4.7%	
439.7	479.9	467.2	488.5	510.2	531.4	556.1	
5.2%	9.1%	-2.6%	4.6%	4.4%	4.1%	4.7%	
3468	3304	3400	3491	3550	3595	3632	
2.0%	-4.7%	2.9%	2.7%	1.7%	1.3%	1.0%	
3468	3304	3440	3545	3616	3662	3701	
2.0%	-4.7%	4.1%	3.1%	2.0%	1.3%	1.1%	
4.3	8.5	7.1	5.9	5.5	5.3	5.2	
4.3	8.8	6.6	5.2	4.6	4.2	4.1	
293.6	274.9	259.9	258.7	260.1	260.3	260.6	
2.0%	-6.4%	-5.4%	-0.5%	0.5%	0.1%	0.1%	
293.6	270.5	268.2	272.9	274.1	272.9	272.9	
2.0%	-7.9%	-0.8%	1.8%	0.4%	-0.5%	0.0%	
219.3	211.7	206.0	200.8	199.4	200.3	203.6	
2.9%	-3.5%	-2.7%	-2.5%	-0.7%	0.5%	1.6%	
219.3	201.2	203.1	201.2	200.4	199.1	200.6	
2.9%	-8.3%	0.9%	-0.9%	-0.4%	-0.6%	0.7%	
48.4	44.9	44.7	43.1	41.8	40.9	40.2	
1.4%	-7.4%	-0.3%	-3.6%	-3.2%	-2.0%	-1.8%	
48.4	44.2	44.1	42.8	41.5	39.5	38.5	
1.4%	-8.8%	-0.1%	-3.0%	-3.1%	-4.7%	-2.6%	