



November 2022 Preliminary Economic Forecast

CONTACT: Bret Bertolin, Senior Economist
PHONE: 360.534.1566

This forecast is based on a modified version of IHS Markit's October 2022 Control forecast for the U.S. economy. We have adjusted real gross domestic product (GDP) to be consistent with the Blue Chip "Consensus" GDP forecast for 2023. Our forecast for real GDP growth in 2022 is 0.2 percentage points higher than the Blue Chip "Consensus" forecast for 2022 based on strong GDP growth in the third quarter of 2022, and 0.2 percentage points less in 2023. We expect real GDP to increase 1.8% in 2022 and 0.0% in 2023 which compared to the 1.6% and 0.6% growth rates assumed in the September forecast. Our forecast for real GDP growth in 2024-27 is based on the most recent long term forecast from Blue Chip which was released in October 2022. We expect growth rates of 1.5%, 2.1%, 2.1%, and 1.9% in 2024 through 2027 compared to 2.1%, 2.0%, 2.0%, and 1.9% in the September forecast. The forecast assumes three quarters of negative growth from the third quarter of 2022 to the second quarter of 2023 with a peak-to-trough decline of 0.4%.

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 26, 2022 closing prices for Brent and WTI futures. Oil prices are very similar to the September forecast. As in September, oil prices are expected to decline throughout the forecast. The latest futures prices indicate that the refiner acquisition price of crude oil will average \$89 per barrel in the fourth quarter of 2022 compared to \$88 in the September forecast. By the fourth quarter of 2027 the refiner acquisition price of crude is expected to average \$65 per barrel which is the same as 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 seasonally adjusted nonfarm payroll employment increased 1,700 in September which was 3,500 less than the increase of 5,200 expected in the forecast. Private services-providing sectors added 7,500 jobs in September. The manufacturing sector added 1,000 jobs, including 800 jobs in aerospace manufacturing, and construction employment increased by 1,900 jobs. The forecast error in September was mostly in the state and local government sector. We expected a decline of 5,100 state and local government jobs due to seasonality issues, but the actual loss of 9,800 jobs was even more severe. The federal government added 1,100 jobs in September.

Revisions to employment data added 6,900 (0.2%) to the estimated level of total employment in August 2022. The combined effect of the upward revision to historical data and the weaker employment growth in September is that September employment is 3,300 (0.1%) higher than expected in the September forecast.

Washington's unemployment rate was 3.7% in September, unchanged since July. The September rate matched a record low in the series that dates to 1976. The unemployment rate is down significantly from the 16.8% rate reached in April 2020 which was an all-time high.

In September, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the second quarter of 2022. Washington personal income in the second quarter of 2022 was \$12.8 billion (2.2%) higher than in the September forecast. Wages and salaries were \$4.0 billion (1.3%) lower than expected but nonwage income was \$16.7 billion (6.5%) higher than expected.

The BEA also released revised annual personal income estimates in September for 2017 through 2021 as part of its annual revision of the National Income and Product Accounts (NIPAs). The annual revision added \$14.2 billion (2.6%) to the estimate for 2021 personal income, mostly because of a large increase in the estimate for property income (dividends, interest, and rent). The annual revision raised the estimate of property income by a whopping 13.3% in 2021, adding \$13.4 billion to the estimated level of personal income. The estimate for transfer receipts was revised up by \$3.2 billion (3.2%) while the estimate for net earnings by place of residence was revised down by \$2.3 billion (0.7%)

Washington housing construction slowed in the second quarter of 2022. The number of housing units authorized by building permits declined to 56,300 (SAAR) in the second quarter from 60,500 in the first quarter. Second quarter permits consisted of 23,300 single-family permits and 32,900 multi-family permits. Permits continued to decline in the third quarter. A total of 44,500 units (SAAR) were permitted in July, August, and September consisting of 18,400 single-family units and 26,100 multi-family units. The September forecast expected 50,500 units (SAAR) for the third quarter as a whole consisting of 20,300 single-family units and 30,200 multi-family units.

We expect a 5.1% increase in Washington employment this year up slightly from the 5.0% growth rate expected in the September forecast. The increase in growth this year is due to stronger than previously expected employment growth through September. We expect slower growth during the remainder of the forecast as the U.S. economy slows. We expect employment growth to average 0.9% per year in 2023 through 2027 which is the same average rate as in the September forecast. Our forecast for nominal personal income growth this year is 2.8%, which is down slightly from the 3.0% growth rate in the September forecast. Real personal income is expected to decline 3.4% this year, which is also weaker than the 3.0% decline in the September forecast. Real personal income growth this year will be undermined by the surge in inflation and the withdrawal of the extraordinary stimulus of the previous two years. Our new forecast for nominal personal income growth in 2023 through 2027 averages 5.2% per year which is slightly more than the 5.0% average rate 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 2022

	2022Q3	2022Q4	2023Q1	2023Q2	2022	2023	2024	2025	2026	2027
Real GDP, Percent Change, Annual Rate										
ERFC (Preliminary Nov.)	2.3	-0.2	-1.0	-0.6	1.8	0.0	1.5	2.1	2.1	1.9
IHS	2.3	-1.2	-2.3	-0.7	1.7	-0.5	1.3	2.0	2.0	1.7
Economy.com	1.7	0.2	-0.1	0.7	1.7	0.7				
Blue Chip Average*	1.3	0.2	-0.2	-0.1	1.6	0.2	1.5	2.1	2.1	1.9
Blue Chip Top 10*	2.5	1.4	1.4	1.6	1.9	1.4	2.0	2.5	2.4	2.2
Blue Chip Bottom 10*	-0.1	-1.5	-1.9	-1.8	1.1	-1.1	0.9	1.7	1.8	1.7
Real Consumption, Percent Change, Annual Rate										
ERFC (Preliminary Nov.)	0.8	0.9	0.1	0.2	2.5	0.6	1.5	2.2	2.2	2.1
IHS	0.8	0.1	-0.6	0.2	2.5	0.3	1.4	2.3	2.2	2.0
Economy.com	1.9	1.7	1.2	2.0	2.7	1.9				
Blue Chip Average*	1.2	0.7	0.2	0.3	2.5	0.7	1.5	2.2	2.2	2.1
Blue Chip Top 10*	1.9	1.8	1.6	1.8	2.6	1.6	2.1	2.6	2.5	2.3
Blue Chip Bottom 10*	0.6	-0.9	-1.3	-1.4	2.3	-0.2	0.9	1.8	1.9	1.9
Federal Funds Rate										
ERFC (Preliminary Nov.)	2.2	3.5	4.3	4.6	1.6	4.5	4.0	2.8	2.6	2.6
IHS	2.2	3.5	4.3	4.6	1.6	4.5	4.0	2.8	2.6	2.6
Economy.com	2.2	3.8	4.5	4.6	1.7	4.6				
Three Month T-Bill Rate										
ERFC (Preliminary Nov.)	2.7	3.7	4.3	4.5	1.9	4.4	3.7	2.5	2.4	2.4
IHS	2.7	3.7	4.2	4.5	1.9	4.3	3.7	2.5	2.4	2.4
Blue Chip Average*	2.7a	3.8	4.3	4.2	2.1	4.1	3.2	2.6	2.4	2.4
Blue Chip Top 10*	na	4.3	4.7	4.8	2.4	4.7	4.0	3.3	2.9	2.8
Blue Chip Bottom 10*	na	3.4	3.7	3.5	1.9	3.2	2.3	2.0	1.9	2.0
10-Yr. T-Note Yield										
ERFC (Preliminary Nov.)	3.1	3.9	3.9	3.8	3.0	3.8	3.3	3.1	3.1	3.1
IHS	3.1	3.9	3.9	3.7	3.0	3.7	3.3	3.2	3.2	3.2
Economy.com	3.1	3.9	4.6	4.6	3.0	4.6				
Blue Chip Average*	3.1a	3.7	3.8	3.7	3.0	3.6	3.3	3.2	3.1	3.2
Blue Chip Top 10*	na	4.0	4.2	4.3	3.5	4.2	3.9	3.7	3.6	3.6
Blue Chip Bottom 10*	na	3.4	3.3	3.1	2.8	2.8	2.7	2.7	2.7	2.8
Consumer Price Index, Percent Change, Annual Rate										
ERFC (Preliminary Nov.)	5.4	5.7	4.8	2.7	8.1	4.5	2.4	2.0	2.0	2.1
IHS	5.4	5.0	4.2	2.3	8.1	4.2	2.5	2.2	2.2	2.3
Economy.com	5.8	3.8	3.3	3.0	8.0	3.9				
Blue Chip Average*	5.8	4.1	3.8	2.9	8.0	3.9	2.4	2.2	2.2	2.2
Blue Chip Top 10*	7.3	6.4	5.3	4.1	8.2	4.9	2.8	2.5	2.4	2.4
Blue Chip Bottom 10*	4.9	2.1	2.5	1.7	7.7	3.1	2.1	2.0	2.0	2.0
Payroll Employment, Millions										
ERFC (Preliminary Nov.)	152.7	153.2	153.0	152.1	152.0	151.9	151.5	152.7	153.9	154.8
Percent Change, Annual Rate	3.1	1.3	-0.6	-2.3	4.0	-0.1	-0.2	0.8	0.8	0.6
IHS	152.7	153.2	152.8	151.7	152.0	151.3	150.5	151.8	152.9	153.6
Percent Change, Annual Rate	3.1	1.2	-1.1	-2.7	4.0	-0.4	-0.5	0.9	0.7	0.5
Economy.com	152.7	153.1	153.4	153.7	151.9	153.9				
Percent Change, Annual Rate	3.1	1.0	0.8	0.7	4.0	1.3				
Unemployment Rate, Percent										
ERFC (Preliminary Nov.)	3.5	3.6	3.9	4.6	3.6	4.7	5.2	4.8	4.4	4.1
IHS	3.5	3.7	4.1	4.8	3.7	5.1	5.7	5.2	4.7	4.5
Economy.com	3.6	3.6	3.7	3.9	3.6	3.9				
Blue Chip Average*	3.6	3.8	4.0	4.2	3.7	4.3	4.5	4.1	4.1	4.1
Blue Chip Top 10*	3.7	3.9	4.3	4.7	3.8	4.9	5.0	4.5	4.5	4.4
Blue Chip Bottom 10*	3.6	3.6	3.6	3.7	3.6	3.7	4.0	3.7	3.7	3.7
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (Preliminary Nov.)	0.9	0.6	3.6	0.9	-6.5	2.2	4.8	2.8	2.5	2.6
IHS	0.9	0.9	3.6	0.8	-6.4	2.1	4.6	2.8	2.3	2.4
Blue Chip Average*	0.9	1.0	1.7	1.0	-6.0	1.2	2.0	2.2	2.0	2.0
Blue Chip Top 10*	2.6	2.6	5.2	2.7	-5.0	2.8	2.6	2.5	2.3	2.2
Blue Chip Bottom 10*	-0.9	-1.1	-1.6	-1.4	-6.9	-0.8	1.4	1.8	1.8	1.8
West Texas Intermediate										
ERFC (Preliminary Nov.)	93.2	87.8	85.4	82.0	96.0	81.2	74.2	69.9	66.7	64.1
IHS	93.2	90.3	84.3	78.7	96.7	82.3	82.7	84.5	84.2	86.4
Economy.com	91.4	92.8	91.9	89.9	96.9	83.8				

* Forecasts beyond 2023 are from the October 2022 Blue Chip Economic Indicators

Table 2

U.S. Forecast Comparison

	2022Q3	2022Q4	2023Q1	2023Q2
Real GDP (Billions of 2012 Dollars)				
November Forecast, Preliminary	20,010	20,001	19,950	19,922
Percent Change	2.3%	-0.2%	-1.0%	-0.6%
September Forecast	19,737	19,751	19,758	19,785
Percent Change	0.8%	0.3%	0.1%	0.6%
Real Consumption (Billions of 2012 Dollars)				
November Forecast, Preliminary	14,128	14,158	14,161	14,169
Percent Change	0.8%	0.9%	0.1%	0.2%
September Forecast	13,980	14,008	14,015	14,047
Percent Change	1.4%	0.8%	0.2%	0.9%
PCE Price Index (2012=100)				
November Forecast, Preliminary	123.7	125.2	126.4	127.1
Percent Change	4.1%	4.8%	4.1%	2.3%
September Forecast	123.5	124.7	125.7	126.3
Percent Change	4.4%	4.0%	3.1%	1.8%
Real Personal Income (Billions of 2012 Dollars)				
November Forecast, Preliminary	17,695	17,703	17,643	17,683
Percent Change	0.8%	0.2%	-1.4%	0.9%
September Forecast	17,678	17,754	17,839	17,800
Percent Change	-0.2%	1.7%	1.9%	-0.9%
Nonfarm Payroll Employment (Millions)				
November Forecast, Preliminary	152.7	153.2	153.0	152.1
Percent Change	3.1%	1.3%	-0.6%	-2.3%
September Forecast	152.7	153.3	153.3	153.1
Percent Change	3.1%	1.5%	0.0%	-0.6%
Unemployment Rate (Percent of Labor Force)				
November Forecast, Preliminary	3.5	3.6	3.9	4.6
September Forecast	3.6	3.7	3.8	3.9
Oil Price, Refiner's Acquisition				
November Forecast, Preliminary	86.2	88.7	86.1	82.5
September Forecast	95.4	88.3	85.5	82.9
30 Year Fixed Mortgage Rate (Percent, average)				
November Forecast, Preliminary	5.6	6.7	6.6	6.4
September Forecast	5.5	5.7	5.7	5.6
3 Month T-Bill Rate (Percent, average)				
November Forecast, Preliminary	2.7	3.7	4.3	4.5
September Forecast	2.6	3.5	3.8	3.7

	2021	2022	2023	2024	2025	2026	2027
November Forecast, Preliminary	19,610	19,958	19,961	20,261	20,686	21,121	21,522
Percent Change	5.9%	1.8%	0.0%	1.5%	2.1%	2.1%	1.9%
September Forecast	19,427	19,729	19,843	20,260	20,665	21,078	21,479
Percent Change	5.7%	1.6%	0.6%	2.1%	2.0%	2.0%	1.9%
November Forecast, Preliminary	13,754	14,104	14,194	14,407	14,724	15,047	15,363
Percent Change	8.3%	2.5%	0.6%	1.5%	2.2%	2.2%	2.1%
September Forecast	13,625	13,950	14,089	14,413	14,730	15,039	15,355
Percent Change	7.9%	2.4%	1.0%	2.3%	2.2%	2.1%	2.1%
November Forecast, Preliminary	115.6	122.9	127.5	130.2	132.6	135.1	137.8
Percent Change	4.0%	6.3%	3.7%	2.1%	1.9%	1.9%	1.9%
September Forecast	115.5	122.6	126.6	128.9	131.3	133.8	136.4
Percent Change	3.9%	6.1%	3.2%	1.8%	1.9%	1.9%	2.0%
November Forecast, Preliminary	18,427	17,694	17,759	18,229	18,772	19,306	19,831
Percent Change	3.3%	-4.0%	0.4%	2.7%	3.0%	2.8%	2.7%
September Forecast	18,266	17,704	17,868	18,277	18,780	19,268	19,841
Percent Change	3.5%	-3.1%	0.9%	2.3%	2.8%	2.6%	3.0%
November Forecast, Preliminary	146.1	152.0	151.9	151.5	152.7	153.9	154.8
Percent Change	2.8%	4.0%	-0.1%	-0.2%	0.8%	0.8%	0.6%
September Forecast	146.1	152.0	153.0	153.2	153.5	154.0	154.6
Percent Change	2.8%	4.0%	0.7%	0.1%	0.2%	0.3%	0.4%
November Forecast, Preliminary	5.4	3.6	4.7	5.2	4.8	4.4	4.1
September Forecast	5.4	3.7	4.0	4.5	4.6	4.4	4.2
November Forecast, Preliminary	67.5	94.3	81.7	74.7	70.5	67.6	65.5
September Forecast	67.5	96.5	82.1	75.7	71.3	68.1	65.8
November Forecast, Preliminary	3.0	5.3	6.2	5.4	5.0	4.9	4.8
September Forecast	3.0	5.0	5.5	5.1	4.9	4.8	4.8
November Forecast, Preliminary	0.0	1.9	4.4	3.7	2.5	2.4	2.4
September Forecast	0.0	1.9	3.7	3.1	2.5	2.4	2.4

Table 3

Washington Forecast Comparison

	2022Q3	2022Q4	2023Q1	2023Q2
Real Personal Income (Billions of 2012 Dollars)				
November Forecast, Preliminary	477.3	478.1	477.6	480.0
Percent Change	0.8%	0.7%	-0.4%	2.0%
September Forecast	468.0	469.1	471.3	471.9
Percent Change	0.9%	0.9%	1.9%	0.5%
Personal Income (Billions of Dollars)				
November Forecast, Preliminary	590.3	598.4	603.8	610.3
Percent Change	5.0%	5.6%	3.6%	4.4%
September Forecast	578.0	585.1	592.3	595.7
Percent Change	5.4%	5.0%	5.0%	2.4%
Disposable Personal Income (Billions of Dollars)				
November Forecast, Preliminary	503.5	511.0	523.5	529.4
Percent Change	4.9%	6.1%	10.2%	4.5%
September Forecast	499.9	507.5	524.3	528.9
Percent Change	5.4%	6.2%	14.0%	3.5%
Nonfarm Payroll Employment (Thousands)				
November Forecast, Preliminary	3558	3573	3572	3562
Percent Change	4.5%	1.7%	-0.1%	-1.1%
September Forecast	3555	3565	3569	3571
Percent Change	4.1%	1.2%	0.4%	0.2%
Unemployment Rate (Percent of Labor Force)				
November Forecast, Preliminary	3.7	3.8	4.1	4.7
September Forecast	3.7	3.9	4.0	4.2
Manufacturing Employment (Thousands)				
November Forecast, Preliminary	274.4	276.4	277.0	276.8
Percent Change	6.6%	2.9%	0.8%	-0.3%
September Forecast	274.6	276.3	273.4	271.5
Percent Change	6.9%	2.4%	-4.1%	-2.8%
Construction Employment (Thousands)				
November Forecast, Preliminary	236.8	239.5	233.3	229.7
Percent Change	3.4%	4.5%	-10.0%	-6.0%
September Forecast	237.0	234.8	229.4	227.3
Percent Change	3.7%	-3.5%	-9.0%	-3.5%
Housing Permits (Thousands)				
November Forecast, Preliminary	44.5	41.5	42.6	43.3
Percent Change	-60.9%	-24.5%	11.5%	6.3%
September Forecast	50.5	45.5	45.0	45.0
Percent Change	-35.2%	-34.1%	-4.3%	-0.2%

	2021	2022	2023	2024	2025	2026	2027
November Forecast, Preliminary	494.1	477.4	482.5	498.5	515.6	532.8	550.0
Percent Change	4.1%	-3.4%	1.1%	3.3%	3.4%	3.3%	3.2%
September Forecast	482.1	467.6	473.9	487.8	503.9	519.9	537.7
Percent Change	3.8%	-3.0%	1.3%	2.9%	3.3%	3.2%	3.4%
November Forecast, Preliminary	570.9	586.7	615.1	649.1	683.9	720.0	757.6
Percent Change	8.2%	2.8%	4.8%	5.5%	5.4%	5.3%	5.2%
September Forecast	556.7	573.3	599.7	628.6	661.7	695.6	733.5
Percent Change	7.8%	3.0%	4.6%	4.8%	5.3%	5.1%	5.4%
November Forecast, Preliminary	504.4	500.8	537.0	580.9	611.0	640.6	673.0
Percent Change	6.5%	-0.7%	7.2%	8.2%	5.2%	4.8%	5.1%
September Forecast	494.3	496.4	533.9	566.6	594.8	622.1	653.3
Percent Change	6.2%	0.4%	7.6%	6.1%	5.0%	4.6%	5.0%
November Forecast, Preliminary	3363	3535	3560	3578	3621	3666	3704
Percent Change	2.4%	5.1%	0.7%	0.5%	1.2%	1.2%	1.0%
September Forecast	3363	3532	3572	3597	3627	3663	3697
Percent Change	2.4%	5.0%	1.1%	0.7%	0.8%	1.0%	0.9%
November Forecast, Preliminary	5.3	3.9	4.8	5.3	5.0	4.6	4.4
September Forecast	5.3	4.0	4.3	4.8	4.9	4.7	4.5
November Forecast, Preliminary	259.2	271.8	275.6	272.2	271.5	272.1	273.2
Percent Change	-4.6%	4.9%	1.4%	-1.2%	-0.2%	0.2%	0.4%
September Forecast	259.2	271.8	270.8	266.7	267.5	268.7	270.0
Percent Change	-4.6%	4.9%	-0.4%	-1.5%	0.3%	0.5%	0.5%
November Forecast, Preliminary	223.4	235.9	229.2	228.1	228.2	229.1	230.6
Percent Change	4.5%	5.6%	-2.8%	-0.5%	0.1%	0.4%	0.7%
September Forecast	223.4	234.8	226.6	224.6	225.7	229.4	233.1
Percent Change	4.5%	5.1%	-3.5%	-0.9%	0.5%	1.7%	1.6%
November Forecast, Preliminary	56.9	50.7	43.6	47.1	47.9	46.3	45.2
Percent Change	29.2%	-11.0%	-14.0%	8.1%	1.7%	-3.5%	-2.3%
September Forecast	56.9	53.2	45.2	47.1	47.5	46.6	46.0
Percent Change	29.2%	-6.6%	-15.1%	4.2%	0.9%	-1.9%	-1.2%