



## September 2022 Preliminary Economic Forecast

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This forecast is based on a modified version of IHS Markit's August 2022 Control forecast for the U.S. economy. We have adjusted real gross domestic product (GDP) to match the August 2022 Blue Chip "Consensus" GDP forecast for 2022 and 2023. We expect real GDP to increase 1.5% in 2022 and 0.7% in 2023 which is lower than the 2.5% and 1.9% growth rates assumed in the June 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 March 2022. We expect growth rates of 2.1%, 2.0%, 2.0%, and 1.9% in 2024 through 2027 which are the same growth rates as in the June forecast.

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 Monday, August 29, 2022 closing prices for Brent and WTI futures. Oil prices have eased since the June forecast was produced. As in June, oil prices are expected to decline throughout the forecast. The latest futures prices indicate that the refiner acquisition price of crude oil will average \$99 per barrel in the third quarter of 2022 compared to \$112 in the June forecast. By the fourth quarter of 2027 the refiner acquisition price of crude is expected to average \$65 per barrel compared to \$68 per barrel in the June forecast.

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 seasonally adjusted nonfarm payroll employment increased 32,700 in June and July which was 16,800 more than the increase of 15,900 expected in the forecast. Washington employment is now 32,300 (0.9%) higher than at its February 2020 peak. Private services-providing sectors added 20,000 jobs in June and July. The manufacturing sector added 4,000 jobs, including 2,100 jobs in aerospace manufacturing, and construction employment increased by 1,100 jobs. State and local government employment increased by 7,600 jobs in the two-month period but the federal government lost 100 jobs.

Revisions to employment data subtracted 1,300 (0.0%) from the estimated level of total employment in May 2022. The combined effect of the small downward revision to historical data and the much stronger growth in the last two months is that July employment is 15,600 (0.4%) higher than expected in the June forecast.

Washington's unemployment rate declined to 3.7% in July from 3.8% in June. The July rate is 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 June, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the first quarter of 2022. Washington personal income in the first quarter of 2022 was \$1.0 billion (0.2%) lower than in the June forecast. Wages and salaries were \$0.9 billion (0.3%) higher than expected but nonwage income was \$1.8 billion (0.7%) lower than expected.

Washington housing construction slowed in the second quarter of 2022 but remained very strong, particularly in the multi-family segment. 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. The June forecast expected 51,800 units (SAAR) in the second quarter, consisting of 24,300 single-family units and 27,500 multi-family units.

We expect a 5.1% increase in Washington employment this year up from the 4.8% growth rate expected in the June forecast. The increase in growth this year is due to stronger than previously expected employment growth through July. 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 which is the same average rate as in the June forecast. Our forecast for nominal personal income growth this year is 3.3%, up from 3.0% in the June forecast. Real personal income is expected to decline 2.9% this year which is slightly less severe than the 3.0% decline expected in June. Personal income growth this year will be undermined by the withdrawal of the extraordinary stimulus of the previous two years. Our new forecast for nominal personal income growth in 2023 through 2027 averages 5.0% per year which is slightly less than the 5.3% average rate 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 2022

	2022Q2	2022Q3	2022Q4	2023Q1	2022	2023	2024	2025	2026	2027
<b>Real GDP, Percent Change, Annual Rate</b>										
ERFC (Sept. Preliminary)	-0.9	0.9	0.6	0.4	1.5	0.7	2.1	2.0	2.0	1.9
IHS	-0.9	0.6	1.0	1.2	1.5	1.0	1.7	2.1	2.0	1.9
Economy.com	-0.9	1.7	1.0	1.6	1.6	1.5				
Blue Chip Average*		1.2	0.9	0.6	1.5	0.7	2.1	2.0	2.0	1.9
Blue Chip Top 10*		2.7	2.2	2.0	1.9	1.8	2.5	2.3	2.2	2.1
Blue Chip Bottom 10*		-0.3	-0.9	-1.4	1.0	-0.9	1.7	1.6	1.7	1.7
<b>Real Consumption, Percent Change, Annual Rate</b>										
ERFC (Sept. Preliminary)	1.0	1.5	1.0	0.6	2.3	1.1	2.3	2.2	2.1	2.1
IHS	1.0	1.4	1.7	2.2	2.4	1.9	1.9	1.7	1.7	2.1
Economy.com	1.0	1.1	2.2	1.8	2.4	2.0				
Blue Chip Average*		1.4	1.1	0.8	2.3	1.1	2.3	2.2	2.1	2.1
Blue Chip Top 10*		2.3	2.2	2.0	2.6	2.0	2.7	2.6	2.4	2.3
Blue Chip Bottom 10*		0.4	-0.5	-1.1	2.1	-0.1	1.8	1.7	1.9	1.8
<b>Federal Funds Rate</b>										
ERFC (Sept. Preliminary)	0.8	2.2	3.2	3.6	1.6	3.6	3.1	2.6	2.6	2.6
IHS	0.8	2.2	3.2	3.6	1.6	3.6	3.1	2.6	2.6	2.6
Economy.com	0.8	2.2	3.1	3.3	1.5	3.3				
<b>Three Month T-Bill Rate</b>										
ERFC (Sept. Preliminary)	1.1	2.4	2.8	3.2	1.7	3.2	2.8	2.4	2.4	2.4
IHS	1.1	2.4	2.8	3.2	1.7	3.2	2.8	2.4	2.4	2.4
Blue Chip Average*		2.6	3.2	3.4	1.9	3.3	2.1	2.1	2.1	2.2
Blue Chip Top 10*		2.9	3.6	3.9	2.3	4.2	2.6	2.7	2.6	2.6
Blue Chip Bottom 10*		2.3	2.8	2.9	1.7	2.5	1.5	1.5	1.6	1.8
<b>10-Yr. T-Note Yield</b>										
ERFC (Sept. Preliminary)	2.9	2.8	2.8	2.8	2.6	2.9	3.0	3.0	3.0	3.1
IHS	2.9	2.8	2.8	2.8	2.6	2.8	3.0	3.0	3.1	3.1
Economy.com	2.9	2.9	3.1	3.3	2.7	3.4				
Blue Chip Average*		2.9	3.1	3.1	2.7	3.1	2.9	3.0	3.0	3.0
Blue Chip Top 10*		3.2	3.6	3.7	3.0	3.8	3.6	3.7	3.7	3.5
Blue Chip Bottom 10*		2.7	2.6	2.5	2.6	2.4	2.3	2.3	2.4	2.5
<b>Consumer Price Index, Percent Change, Annual Rate</b>										
ERFC (Sept. Preliminary)	10.5	7.0	4.9	3.1	8.3	4.1	1.8	1.8	1.9	2.0
IHS	10.5	6.3	4.6	3.7	8.2	4.1	1.9	1.9	2.2	2.2
Economy.com	10.5	4.1	3.7	2.9	7.8	3.4				
Blue Chip Average*		6.5	3.9	3.4	8.1	3.8	2.3	2.2	2.2	2.2
Blue Chip Top 10*		8.0	6.2	5.0	8.4	4.9	2.6	2.5	2.4	2.4
Blue Chip Bottom 10*		4.5	1.7	2.1	7.7	3.0	2.0	2.0	2.0	1.9
<b>Payroll Employment, Millions</b>										
ERFC (Sept. Preliminary)	151.6	152.8	153.3	153.5	152.0	153.4	153.7	153.9	154.4	154.9
Percent Change, Annual Rate	3.4	3.0	1.4	0.5	4.0	0.9	0.2	0.2	0.3	0.3
IHS	151.6	152.7	153.3	153.6	152.0	153.6	153.6	153.9	154.6	155.2
Percent Change, Annual Rate	3.4	3.0	1.4	0.8	4.0	1.1	0.0	0.2	0.4	0.4
Economy.com	151.6	152.6	153.1	153.4	151.9	153.9				
Percent Change, Annual Rate	3.4	2.7	1.1	0.8	4.0	1.3				
<b>Unemployment Rate, Percent</b>										
ERFC (Sept. Preliminary)	3.6	3.5	3.6	3.9	3.6	4.3	4.7	4.7	4.6	4.5
IHS	3.6	3.5	3.6	3.9	3.6	4.2	4.7	4.8	4.6	4.5
Economy.com	3.6	3.5	3.7	3.8	3.6	3.9				
Blue Chip Average*		3.5	3.6	3.8	3.6	4.0	3.6	3.7	3.8	3.8
Blue Chip Top 10*		3.7	3.9	4.2	3.7	4.7	4.0	4.2	4.3	4.2
Blue Chip Bottom 10*		3.4	3.4	3.4	3.6	3.4	3.3	3.3	3.3	3.4
<b>Real Disposable Personal Income, Percent Change, Annual Rate</b>										
ERFC (Sept. Preliminary)	-0.5	0.4	3.0	2.0	-5.4	3.0	4.3	2.7	2.5	2.6
IHS	-0.5	0.7	3.4	2.1	-5.3	3.2	4.1	2.6	2.3	2.5
Blue Chip Average*		0.6	1.3	1.9	-5.3	1.8	2.2	2.0	1.9	2.0
Blue Chip Top 10*		2.9	3.1	3.9	-4.6	3.1	2.7	2.3	2.2	2.3
Blue Chip Bottom 10*		-2.1	-1.3	-0.7	-6.1	0.2	1.8	1.7	1.7	1.7
<b>West Texas Intermediate</b>										
ERFC (Sept. Preliminary)	108.7	97.7	96.1	92.4	99.2	87.8	79.0	72.8	68.0	64.3
IHS	108.7	100.7	97.9	98.2	100.4	96.2	86.4	82.0	84.4	86.8
Economy.com	108.5	97.2	98.3	93.6	99.8	82.2				

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

**Table 2**

**U.S. Forecast Comparison**

	2022Q2	2022Q3	2022Q4	2023Q1
<b>Real GDP (Billions of 2012 Dollars)</b>				
September Forecast, Preliminary	19,682	19,724	19,756	19,776
Percent Change	-0.9%	0.9%	0.6%	0.4%
June Forecast	19,871	19,976	20,067	20,148
Percent Change	2.9%	2.1%	1.8%	1.6%
<b>Real Consumption (Billions of 2012 Dollars)</b>				
September Forecast, Preliminary	13,917	13,969	14,005	14,024
Percent Change	1.0%	1.5%	1.0%	0.6%
June Forecast	14,035	14,106	14,169	14,226
Percent Change	3.2%	2.0%	1.8%	1.6%
<b>PCE Price Index (2012=100)</b>				
September Forecast, Preliminary	122.2	123.9	125.2	126.1
Percent Change	7.1%	5.8%	4.2%	3.0%
June Forecast	122.3	123.5	124.6	125.5
Percent Change	7.4%	4.3%	3.5%	3.0%
<b>Real Personal Income (Billions of 2012 Dollars)</b>				
September Forecast, Preliminary	17,688	17,699	17,797	17,814
Percent Change	-0.2%	0.3%	2.2%	0.4%
June Forecast	17,635	17,683	17,743	17,783
Percent Change	-1.5%	1.1%	1.4%	0.9%
<b>Nonfarm Payroll Employment (Millions)</b>				
September Forecast, Preliminary	151.6	152.8	153.3	153.5
Percent Change	3.4%	3.0%	1.4%	0.5%
June Forecast	151.7	152.5	152.9	153.1
Percent Change	3.6%	2.1%	1.1%	0.5%
<b>Unemployment Rate (Percent of Labor Force)</b>				
September Forecast, Preliminary	3.6	3.5	3.6	3.9
June Forecast	3.6	3.5	3.6	3.8
<b>Oil Price, Refiner's Acquisition</b>				
September Forecast, Preliminary	109.6	99.4	96.8	92.3
June Forecast	107.7	111.6	105.2	100.1
<b>30 Year Fixed Mortgage Rate (Percent, average)</b>				
September Forecast, Preliminary	5.2	5.3	5.3	5.1
June Forecast	5.1	5.3	5.3	5.2
<b>3 Month T-Bill Rate (Percent, average)</b>				
September Forecast, Preliminary	1.1	2.4	2.8	3.2
June Forecast	1.0	1.7	2.1	2.5

	2021	2022	2023	2024	2025	2026	2027
September Forecast, Preliminary	19,427	19,722	19,866	20,283	20,689	21,102	21,503
Percent Change	5.7%	1.5%	0.7%	2.1%	2.0%	2.0%	1.9%
June Forecast	19,427	19,911	20,283	20,709	21,123	21,545	21,955
Percent Change	5.7%	2.5%	1.9%	2.1%	2.0%	2.0%	1.9%
September Forecast, Preliminary	13,625	13,943	14,093	14,417	14,734	15,043	15,359
Percent Change	7.9%	2.3%	1.1%	2.3%	2.2%	2.1%	2.1%
June Forecast	13,625	14,059	14,328	14,657	14,980	15,295	15,616
Percent Change	7.9%	3.2%	1.9%	2.3%	2.2%	2.1%	2.1%
September Forecast, Preliminary	115.5	122.8	127.0	129.2	131.4	133.8	136.4
Percent Change	3.9%	6.3%	3.4%	1.7%	1.7%	1.8%	1.9%
June Forecast	115.5	122.6	126.5	128.6	130.8	133.2	135.8
Percent Change	3.9%	6.1%	3.1%	1.6%	1.7%	1.9%	1.9%
September Forecast, Preliminary	18,266	17,720	17,930	18,415	18,916	19,393	19,891
Percent Change	3.5%	-3.0%	1.2%	2.7%	2.7%	2.5%	2.6%
June Forecast	18,266	17,691	17,947	18,497	19,040	19,572	20,099
Percent Change	3.5%	-3.2%	1.4%	3.1%	2.9%	2.8%	2.7%
September Forecast, Preliminary	146.1	152.0	153.4	153.7	153.9	154.4	154.9
Percent Change	2.8%	4.0%	0.9%	0.2%	0.2%	0.3%	0.3%
June Forecast	146.1	151.9	153.1	153.3	153.4	154.0	154.9
Percent Change	2.8%	4.0%	0.8%	0.1%	0.1%	0.4%	0.6%
September Forecast, Preliminary	5.4	3.6	4.3	4.7	4.7	4.6	4.5
June Forecast	5.4	3.6	4.0	4.4	4.6	4.5	4.3
September Forecast, Preliminary	67.5	99.5	87.9	79.5	73.7	69.3	66.1
June Forecast	67.5	104.2	95.2	85.0	77.5	72.4	69.0
September Forecast, Preliminary	3.0	4.9	5.0	4.8	4.8	4.8	4.8
June Forecast	3.0	4.9	5.2	5.0	4.9	4.8	4.8
September Forecast, Preliminary	0.0	1.7	3.2	2.8	2.4	2.4	2.4
June Forecast	0.0	1.3	2.7	2.6	2.4	2.4	2.4

**Table 3**

**Washington Forecast Comparison**

	2022Q2	2022Q3	2022Q4	2023Q1
<b>Real Personal Income (Billions of 2012 Dollars)</b>				
September Forecast, Preliminary	467.1	468.9	470.8	471.8
Percent Change	0.8%	1.5%	1.7%	0.9%
June Forecast	465.9	466.2	467.9	469.6
Percent Change	-1.0%	0.3%	1.5%	1.5%
<b>Personal Income (Billions of Dollars)</b>				
September Forecast, Preliminary	570.6	580.9	589.4	595.0
Percent Change	7.9%	7.4%	6.0%	3.9%
June Forecast	569.6	576.0	583.1	589.5
Percent Change	6.4%	4.6%	5.0%	4.5%
<b>Disposable Personal Income (Billions of Dollars)</b>				
September Forecast, Preliminary	493.7	502.7	511.3	518.0
Percent Change	7.7%	7.5%	7.0%	5.4%
June Forecast	493.5	499.8	506.5	513.4
Percent Change	5.0%	5.2%	5.5%	5.6%
<b>Nonfarm Payroll Employment (Thousands)</b>				
September Forecast, Preliminary	3520	3558	3570	3579
Percent Change	3.8%	4.4%	1.3%	1.0%
June Forecast	3521	3540	3549	3557
Percent Change	4.0%	2.1%	1.1%	0.9%
<b>Unemployment Rate (Percent of Labor Force)</b>				
September Forecast, Preliminary	3.9	3.7	3.9	4.2
June Forecast	4.0	4.0	4.1	4.3
<b>Manufacturing Employment (Thousands)</b>				
September Forecast, Preliminary	270.1	275.4	277.4	276.0
Percent Change	5.7%	8.0%	2.9%	-2.0%
June Forecast	270.1	275.3	277.4	278.1
Percent Change	5.8%	7.8%	3.2%	0.9%
<b>Construction Employment (Thousands)</b>				
September Forecast, Preliminary	234.9	236.0	230.5	228.2
Percent Change	4.1%	1.8%	-9.0%	-3.9%
June Forecast	234.9	232.9	232.1	231.4
Percent Change	4.1%	-3.4%	-1.4%	-1.2%
<b>Housing Permits (Thousands)</b>				
September Forecast, Preliminary	56.3	50.5	45.8	45.0
Percent Change	-25.2%	-35.2%	-32.5%	-6.4%
June Forecast	51.8	48.7	47.8	47.9
Percent Change	-46.4%	-21.9%	-7.1%	1.0%

	2021	2022	2023	2024	2025	2026	2027
<b>Real Personal Income (Billions of 2012 Dollars)</b>							
September Forecast, Preliminary	482.1	468.2	476.3	492.1	508.1	523.4	539.3
Percent Change	3.8%	-2.9%	1.7%	3.3%	3.2%	3.0%	3.0%
June Forecast	481.2	466.8	475.5	493.2	510.6	527.7	544.4
Percent Change	3.6%	-3.0%	1.9%	3.7%	3.5%	3.3%	3.2%
<b>Personal Income (Billions of Dollars)</b>							
September Forecast, Preliminary	556.7	575.2	605.1	635.7	667.6	700.5	735.4
Percent Change	7.8%	3.3%	5.2%	5.0%	5.0%	4.9%	5.0%
June Forecast	555.6	572.4	601.4	634.0	667.8	703.1	739.3
Percent Change	7.6%	3.0%	5.1%	5.4%	5.3%	5.3%	5.1%
<b>Disposable Personal Income (Billions of Dollars)</b>							
September Forecast, Preliminary	494.3	498.1	533.3	568.7	597.1	626.0	656.9
Percent Change	6.2%	0.8%	7.1%	6.6%	5.0%	4.9%	4.9%
June Forecast	493.5	496.8	529.9	566.4	596.2	626.4	658.0
Percent Change	6.1%	0.7%	6.7%	6.9%	5.3%	5.1%	5.0%
<b>Nonfarm Payroll Employment (Thousands)</b>							
September Forecast, Preliminary	3363	3534	3585	3614	3641	3673	3705
Percent Change	2.4%	5.1%	1.5%	0.8%	0.8%	0.9%	0.8%
June Forecast	3363	3524	3566	3592	3618	3653	3690
Percent Change	2.4%	4.8%	1.2%	0.7%	0.7%	0.9%	1.0%
<b>Unemployment Rate (Percent of Labor Force)</b>							
September Forecast, Preliminary	5.3	3.9	4.5	4.9	5.0	4.9	4.7
June Forecast	5.3	4.1	4.5	4.8	5.0	4.9	4.7
<b>Manufacturing Employment (Thousands)</b>							
September Forecast, Preliminary	259.2	272.3	274.5	270.8	268.7	266.9	266.8
Percent Change	-4.6%	5.1%	0.8%	-1.3%	-0.8%	-0.6%	0.0%
June Forecast	259.2	272.3	279.4	281.0	280.1	279.7	280.7
Percent Change	-4.6%	5.1%	2.6%	0.6%	-0.3%	-0.1%	0.4%
<b>Construction Employment (Thousands)</b>							
September Forecast, Preliminary	223.4	233.5	226.0	225.8	226.3	228.0	230.0
Percent Change	4.5%	4.5%	-3.2%	-0.1%	0.2%	0.8%	0.9%
June Forecast	223.4	233.1	231.4	233.8	235.7	238.3	240.2
Percent Change	4.5%	4.4%	-0.7%	1.0%	0.8%	1.1%	0.8%
<b>Housing Permits (Thousands)</b>							
September Forecast, Preliminary	56.9	53.3	45.6	47.2	47.3	46.2	45.4
Percent Change	29.2%	-6.5%	-14.4%	3.6%	0.1%	-2.2%	-1.7%
June Forecast	56.2	52.2	48.5	48.9	48.2	47.3	46.3
Percent Change	27.5%	-7.1%	-7.1% g		-1.5%	-1.9%	-1.9%