

UE-230172 / PacifiCorp  
November 9, 2023  
WUTC Data Request 162

### **WUTC Data Request 162**

**Cost of Capital** - Refer to page 9, lines 17-21 and footnote 14 of Witness Bulkley's Rebuttal Testimony. Please provide copy of the Blue Chip Financial Forecasts cited and also provide copy of the most recent Blue Chip Financial Forecasts.

### **Response to WUTC Data Request 162**

Please refer to Attachment WUTC 162-1 and Attachment WUTC 162-2.

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SPONSOR: Ann E. Bulkley

# Blue Chip Economic Indicators®

**Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead**  
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## Strong Q3, But Sharp Slowdown Expected Just Ahead

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**Resilience continues.** The U.S. economy continues to surprise financial markets, Blue Chip Economic Indicators (BCEI) forecasters and the Federal Reserve with its resilience. The BCEI consensus has raised its outlook for 2023 GDP growth in almost every survey this year and now looks for 2.2% growth. For Q3, the consensus has increased its GDP growth outlook in each monthly survey since June. In the June survey, the consensus looked for GDP to decline 0.3% q/q saar in Q3. In the most recent survey, that expectation has been increased to +3.5%. However, the BCEI consensus looks for a sharp slowdown after the Q3 surge with GDP rising only 0.7% in Q4, 0.2% in Q1 2024 and 0.5% in Q2, yielding a subpar 1.1% increase for all of 2024.

Significant uncertainty continues to surround the measurement of output in the economy. There are two ways to measure output—one by aggregating expenditures on goods and services produced and the other by aggregating the income generated by production. The first measure is the popular GDP gauge; the second is called Gross Domestic Income (GDI). Over the past four quarters, these two measures have diverged significantly, with GDP rising 2.4% over that period while GDI edged up just 0.2%. The gap was closed some by the benchmark revision released in September, which added to GDI previously excluded interest payments by the Federal Reserve to banks, but remains historically quite large. While the size of the current gap between these two measures is not unprecedented, it is the largest since 2008 and depicts two very different economies.

**Inflation outlook cloudy.** Even with this recent economic resilience, inflation has slowed markedly over the past year with the GDP price index increasing just 1.7% q/q saar in Q2, down from a 40+-year high of 9.1% in the middle of last year. However, more recently the inflation outlook has become clouded. Since the beginning of July, the global price of petroleum has increased more than 20%. This increase found its way into monthly PCE prices in August and will likely spread to other prices in the GDP price index. Indeed, the BCEI consensus looks for the GDP price index to have reaccelerated in Q3, rising 2.7% after the 1.7% Q2 rise. However, as noted above, the consensus looks for a sharp slowdown in the economy in Q4 and the first half of next year and for this to quickly corral inflation, with the rate of increase of the GDP price index slowing to 2.2% by the middle of next year.

**So is the labor market outlook.** The condition of the labor market has also become clouded. Until recently, financial markets had generally thought that labor markets conditions were softening. Monthly gains in employment had been slowing; the workweek had shortened; job openings had fallen sharply for two consecutive months; and unemployment claims had generally risen since the beginning of this year. However, the most recent releases have cast some doubt on this view. Employment jumped 336,000 in September, nearly twice expectations, with upward revisions to July and August totaling 119,000. Over the past month, unemployment claims

have fallen to below levels that existed in the year prior to the pandemic. And job vacancies rebounded in August, more than making up for the declines in June and July. While the Fed continues to believe that labor markets must soften for it to rein in inflation, its expectation of “by how much” has eased. In the September Summary of Economic Projections (SEP), the FOMC consensus lowered its expectations for the unemployment rate and now expects it to increase to a less alarming 4.1% by the end of 2024, an increase of only 0.3%-point from the current reading and down from 4.5% in the June SEP. The BCEI consensus is only a little less sanguine on the unemployment outlook, expecting the rate to rise to just 4.3% by the end of 2024.

**Tighter for longer.** The FOMC consensus continues to look for one more 25-bp rate hike before the end of this year. This view was unchanged from the June SEP. However, the resilience of the economy led the FOMC to expect monetary policy to remain tighter for longer. In the June SEP, the FOMC anticipated four 25-bp rate cuts during 2024. In the most recent SEP, they only look for two 25-bp cuts, a change that has roiled financial markets. The BCEI forecast panel narrowly thinks that the Fed has completed its rate hikes. Of 42 respondents to a special question, 24 think the current FFR target of 5.375% will be the peak while the remaining 18 look for one more 25-bp increase before year-end. Moreover, the economy’s resilience has also led the BCEI consensus to think that the Fed will be tighter for longer than it had previously thought. Last month, 62% of the panel thought the first cut would not occur until Q2 2024 or later. This month, that percentage jumped to 71%.

**Long-term outlook.** This month’s survey also contains the semiannual longer-term forecasts—extending out to 2034—the estimated trends that underlie the panel’s higher frequency outlook. In general, the longer-term outlook in the most recent survey is little changed from that in the March survey. Forecasters usually anticipate that the real GDP will grow on average at its potential rate over the longer term. The BCEI consensus looks for 1.9% growth in real GDP over the 2025-29 period, the same estimate as in March but much slower than the 2.5% growth experienced during the five years prior to the Covid pandemic. On inflation, the consensus expects the Federal Reserve to essentially achieve its 2% target with the PCE price index inflation rate (the measure that the Fed targets) expected to average 2.1% from 2025-29. This is slightly higher than the 2.0% estimate in the March survey. Of particular interest is that even though the economy is expected to grow at around its potential rate and that inflation is expected to stabilize near target, these occur at markedly higher interest rate levels (both short term and long term) than in the five years prior to the pandemic and even at rates higher than the consensus envisaged in March. This points to a tighter underlying monetary policy and higher real interest rates over the longer term than experienced prior to the pandemic.

*Sandy Batten (Haver Analytics, New York, NY)*

## 2023 Real GDP Forecast Increases to 2.2% from 2.1% Last Month

October 2023 Forecast for 2023 SOURCE:	----- Percent Change 2023 from 2022 (Full Year-Over-Prior Year) -----										---- Average for 2023 ----			-- Total Units-2023 --		--- 2023 ---
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Real GDP (Chained 2017\$)	GDP Price Index	Nominal GDP (Cur.\$)	Consumer Price Index	Indust. Prod. (Total)	Dis. Pers. Income (2017\$)	Personal Cons. Exp. (2017\$)	Non-Res. Fix. Inv. (2017\$)	Corp. Profits (Cur.\$)	PCE Price Index	Treas. Bills 3-mo.	Treas. Notes 10-Year	Unempl. Rate (Civ.)	Housing Starts (Mil.)	Auto&Light Truck Sales (Mil.)	Net Exports (2017\$)	
Ford Motor Company*	2.4 H	3.6	6.0	4.2	0.1	4.0	2.3	4.1	na	3.9	5.3	3.9	3.6	1.40	na	-912.8
KPMG	2.4 H	3.6	6.1	4.1	0.2	4.1	2.2	4.3	0.5 H	3.8	5.3	4.0	3.6	1.40	16.0	-912.8
Numerator	2.4 H	3.6	6.0	4.1	0.0	3.6	2.4 H	3.1	na	3.6	5.3	4.1	3.7	1.39	15.4	-930.0
S&P Global Market Intelligence***	2.4 H	3.6	6.1	4.1	0.2	4.1	2.3	4.3	0.4	3.8	5.3	4.0	3.6	1.40	15.5	-909.1
Santander Capital Markets	2.4 H	3.7	6.2	4.2	0.4	4.0	2.2	4.3	-2.0	3.9	5.3	4.1	3.6	1.41	15.4	-906.0
Societe Generale	2.4 H	3.6	6.1	4.1	0.8	4.2	2.3	4.1	0.5 H	3.8	5.3	4.0	3.5 L	1.41	15.3	-894.7 H
Barclays, US*	2.3	3.7	6.1	4.1	-0.1	na	2.2	3.8	na	3.9	5.5 H	4.3 H	3.6	1.43	na	-903.0
BMO Capital Markets*	2.3	3.6	6.0	4.2	0.5	4.2	2.1	4.5	-0.7	3.9	5.3	4.0	3.7	1.39	15.4	-910.3
Daiwa Capital Markets America	2.3	3.6	6.0	4.2	0.4	na	2.2	4.0	-2.0	3.9	5.3	4.1	3.7	1.37	15.5	-990.0
EY-Parthenon	2.3	3.6	5.9	4.1	0.4	3.8	2.2	4.3	na	3.8	5.2	4.0	3.7	1.39	15.6	-921.6
Fannie Mae*	2.3	3.6	6.0	4.1	na	na	2.1	4.0	na	3.8	5.2	4.0	3.6	1.39	15.4	-927.6
JP MorganChase, US	2.3	3.6	6.0	4.1	-0.5 L	3.9	2.1	3.6	-0.2	3.8	na	3.9	3.7	1.42	15.4	-906.0
Naroff Economics LLC*	2.3	4.0	6.3	4.3 H	0.6	3.6	2.4 H	4.5	na	4.1 H	5.2	4.1	3.6	1.42	15.7	-940.1
NatWest Markets	2.3	3.6	5.9	4.1	1.2	na	2.1	4.5	na	3.7	5.2	3.8	3.6	1.40	15.5	-923.4
Point72 Asset Management*	2.3	3.6	6.0	4.2	0.6	4.1	2.2	4.4	-0.8	3.9	5.3	4.0	3.6	1.42	15.4	-926.7
UCLA Anderson Forecast*	2.3	4.0	na	4.1	0.7	3.5	2.4 H	3.6	na	3.7	5.3	3.9	3.6	1.40	14.9	na
ACT Research*	2.2	3.6	5.8	4.0	0.3	4.1	2.0	4.7	-1.9	3.8	5.2	3.9	3.7	1.40	15.3	-925.5
Action Economics	2.2	3.8	6.1	3.6	0.3	3.5	2.4 H	3.0	-3.4	3.4	5.3	4.0	3.6	1.43	15.5	-1065.0 L
Bloomberg LP	2.2	3.3	5.4	3.1	na	na	2.4 H	4.4	na	3.3	na	na	3.7	na	na	-935.6
General Motors Corporation, US	2.2	3.7	6.0	4.1	-0.1	3.7	2.3	3.3	na	3.7	5.3	4.1	3.7	1.42	na	-915.0
Georgia State University*	2.2	3.6	5.8	4.1	0.0	4.6	2.1	4.3	-2.4	3.9	5.3	4.0	3.7	1.40	15.4	-928.5
Goldman Sachs & Co. **	2.2	3.6	6.0	4.1	0.8	4.7	2.1	4.4	na	3.8	5.4	4.1	3.6	1.42	na	-902.9
MacroPolicy Perspectives	2.2	3.3	5.5	3.0 L	2.0 H	4.6	2.1	4.5	-2.0	2.9 L	5.3	4.1	3.7	1.36	15.0	-926.7
Morgan Stanley, US***	2.2	4.0	6.2	4.2	-0.1	1.7 L	1.9 L	4.9	na	3.9	5.3	3.5 L	3.7	1.20 L	16.5 H	-908.3
Northern Trust Company**	2.2	3.3	5.5	4.2	-0.4	3.5	2.3	2.5 L	-3.0	3.6	5.3	3.9	3.6	1.40	15.4	-970.0
PNC Financial Services Group	2.2	3.8	6.1	4.0	0.1	3.4	2.3	2.8	na	3.7	5.2	4.0	3.6	1.37	15.5	-939.0
Regions Financial Corporation	2.2	3.7	6.0	4.2	0.4	4.0	2.1	4.2	-3.1	3.9	5.3	4.0	3.6	1.41	15.3	-904.2
SOM Economics, Inc.	2.2	3.6	5.8	4.2	-0.1	na	1.9 L	4.6	-4.5	3.9	5.3	4.0	3.6	1.38	15.4	-912.0
The Conference Board, US*	2.2	na	na	na	na	3.6	2.1	4.1	na	3.8	na	na	3.6	na	na	-911.0
The Lonski Group*	2.2	3.6	5.8	4.1	0.4	4.0	2.1	2.9	-3.8	3.9	5.3	4.0	3.6	1.37	15.5	-920.8
Bank of America-Merrill Lynch, US**	2.1	3.7	5.9	4.2	0.4	na	2.0	5.0 H	na	na	na	4.0	3.6	1.35	15.5	-937.3
Comerica**	2.1	3.9	6.1	4.3 H	0.0	3.5	2.4 H	3.4	-4.1	3.9	5.3	4.0	3.7	1.42	15.7	na
Eaton Corporation	2.1	3.8	5.9	4.3 H	-0.1	3.9	2.1	3.5	na	3.8	5.3	3.8	3.6	1.40	15.4	-933.8
Econoclast	2.1	3.2 L	5.3 L	4.0	0.4	4.0	1.9 L	4.2	-0.7	4.1 H	5.3	4.0	3.7	1.40	15.4	-933.0
Inforum	2.1	3.6	5.8	4.1	0.2	4.1	2.1	4.2	-1.8	3.8	5.1	4.0	3.7	1.39	15.5	-930.2
MacroFin Analytics & Rutgers Bus School	2.1	3.6	5.8	4.0	0.3	4.3	2.0	4.3	-0.7	3.8	5.3	4.0	3.7	1.39	15.5	-925.8
Moody's Analytics, US	2.1	3.7	5.9	4.1	0.0	3.9	2.4 H	2.7	-4.5	3.7	5.0 L	3.8	3.7	1.39	15.5	na
UBS	2.1	3.4	5.5	4.2	0.3	4.0	2.0	4.1	na	3.8	5.2	3.8	3.6	1.38	na	-921.9
Visa	2.1	3.7	5.9	4.2	na	3.3	2.2	2.5 L	-6.2 L	3.6	5.2	3.9	3.8 H	1.39	15.5	-947.5
Wells Fargo, US	2.1	3.7	5.8	4.1	0.0	3.8	2.1	3.8	-1.1	3.8	5.3	4.0	3.6	1.39	15.2	-923.0
Economist Intelligence Unit, UK	2.0	4.2 H	6.4 H	4.1	-0.1	3.0	2.4 H	3.7	na	na	5.1	4.1	3.7	1.26	14.5 L	-954.8
National Retail Federation	2.0	3.7	5.7	4.1	0.2	3.6	2.3	3.0	na	3.8	5.2	3.9	3.7	1.41	15.2	-931.7
Oxford Economics, US	2.0	3.3	5.4	4.2	0.1	4.3	2.1	4.2	-3.5	3.9	5.3	3.9	3.7	1.40	15.8	-897.2
Nomura Securities, US	1.9	3.5	5.4	4.1	-0.5 L	na	1.9 L	3.5	na	3.8	na	4.1	3.8 H	1.46 H	na	-926.4
AC Cutts & Associates	1.8 L	3.5	5.3 L	3.6	0.2	4.8 H	1.9 L	4.8	-3.0	3.3	5.3	3.9	3.7	1.40	15.2	-919.5
<b>2023 Consensus: October Avg.</b>	<b>2.2</b>	<b>3.6</b>	<b>5.9</b>	<b>4.1</b>	<b>0.3</b>	<b>3.9</b>	<b>2.2</b>	<b>3.9</b>	<b>-2.2</b>	<b>3.8</b>	<b>5.3</b>	<b>4.0</b>	<b>3.7</b>	<b>1.39</b>	<b>15.4</b>	<b>-927.6</b>
Top 10 Avg.	2.4	3.9	6.2	4.2	0.8	4.4	2.4	4.6	-0.5	3.9	5.3	4.1	3.7	1.43	15.7	-904.2
Bottom 10 Avg.	2.0	3.4	5.5	3.8	-0.2	3.3	2.0	2.9	-3.9	3.5	5.2	3.8	3.6	1.34	15.1	-961.3
Previous Avg.	2.1	3.7	5.9	4.1	0.1	3.5	2.3	3.0	-3.9	3.7	5.2	3.8	3.7	1.40	15.5	na
Historical data 2019	2.5	1.7	4.2	1.8	-0.7	3.1	2.0	3.7	4.4	1.4	2.1	2.1	3.7	1.29	17.0	-617.5
2020	-2.2	1.3	-0.9	1.2	-7.2	6.4	-2.5	-4.7	-3.5	1.1	0.4	0.9	8.1	1.38	14.5	-663.4
2021	5.8	4.6	10.7	4.7	4.4	3.2	8.4	5.9	22.6	4.2	0.0	1.4	5.4	1.60	14.9	-933.8
2022	1.9	7.1	9.1	8.0	3.4	-6.0	2.5	5.2	9.8	6.5	2.0	3.0	3.6	1.55	13.8	-1051.0
Number of Forecasts Changed From a Month Ago:																
Down	3	29	19	3	3	2	29	3	2	4	5	2	5	19	15	na
Same	21	9	14	23	13	6	6	6	4	8	23	5	36	15	17	na
Up	21	6	9	18	25	29	10	36	19	31	11	35	4	8	5	na
October Median	2.2	3.6	5.9	4.1	0.2	4.0	2.1	4.1	-2.0	3.8	5.3	4.0	3.6	1.40	15.4	-924.5
October Diffusion Index	70%	24%	38%	67%	77%	86%	29%	87%	84%	81%	58%	89%	49%	37%	36%	na

\*Denotes the number of times an organization or individual has won the annual Lawrence R. Klein Award for Blue Chip Forecast Accuracy.

## 2024 Real GDP Forecast Increases to 1.1% from 1.0% Last Month

October 2023 Forecast for 2024 SOURCE:	Percent Change 2024 from 2023 (Full Year-Over-Prior Year)										Average for 2024			Total Units-2024		2024
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Real GDP (Chained 2017\$) Index	GDP Price (Cur.\$) Index	Nominal GDP (Cur.\$) Index	Consumer Price Index	Indust. Prod. (Total)	Dis. Pers. Income (2017\$)	Personal Cons. Exp. (2017\$)	Non-Res. Fix. Inv. (2017\$)	Corp. Profits (Cur.\$) Index	PCE Price Index	Treas. Bills 3-mo.	Treas. Notes 10-Year	Unempl. Rate (Civ.)	Housing Starts (Mil.)	Auto&Light Truck Sales (Mil.)	Net Exports (2017\$)
Point72 Asset Management*	2.1 H	2.8	5.0 H	3.3 H	2.3	2.0	2.2 H	3.8	1.9	3.0	5.5 H	5.0 H	3.5 L	1.55 H	15.4	-951.7
Goldman Sachs & Co.**	1.9	2.5	4.5	2.8	3.0 H	3.1 H	1.7	3.6	na	2.5	5.1	4.5	3.6	1.54	na	-909.3
ACT Research*	1.8	2.2	4.0	2.4	1.2	1.6	1.5	2.9	4.2	2.4	4.8	3.8	3.8	1.42	15.7	-935.3
KPMG	1.7	2.5	4.3	2.6	-0.9	2.6	2.0	1.7	-1.3	2.5	4.8	4.2	4.0	1.37	16.1	-950.8
MacroPolicy Perspectives	1.7	2.1	3.8	2.0	2.0	2.9	1.6	2.4	4.0	1.7	4.5	4.4	4.1	1.40	14.5	-963.1
Santander Capital Markets	1.7	3.0	4.7	3.3 H	1.1	0.7	1.3	1.5	-2.0	2.8	5.4	4.3	3.8	1.44	15.6	-869.0
S&P Global Market Intelligence***	1.6	2.5	4.1	2.6	-0.9	2.6	1.8	1.5	-1.6	2.5	5.3	4.2	4.0	1.38	15.7	-945.1
Action Economics	1.5	2.2	3.7	2.6	0.9	1.8	1.0	1.7	5.9	1.9	5.1	4.2	3.9	1.46	16.4	-1075.0 L
MacroFin Analytics & Rutgers Bus School	1.5	2.3	3.8	2.6	1.5	2.2	1.5	1.7	1.6	2.6	5.1	4.1	4.3	1.35	15.8	-951.3
Naroff Economics LLC*	1.5	3.2 H	4.7	3.3 H	1.1	0.8	1.5	5.2 H	na	3.1 H	5.0	3.7	4.1	1.47	16.1	-1006.3
UCLA Anderson Forecast*	1.5	3.1	na	3.0	2.8	0.6	1.0	1.4	na	2.7	5.1	4.9	3.8	1.50	17.2 H	na
EY-Parthenon	1.4	2.0	3.3	2.5	1.0	0.1	1.2	2.0	na	2.3	4.5	3.8	4.4	1.48	16.1	-917.1
Moody's Analytics, US	1.4	2.1	3.5	2.7	0.8	2.4	1.7	1.4	0.3	2.5	4.8	3.9	4.1	1.33	16.6	na
Morgan Stanley, US***	1.4	2.7	4.1	2.4	-0.8	0.7	0.7	2.1	na	2.3	4.3	3.3	4.3	1.21	na	-866.0
Northern Trust Company**	1.4	2.0	3.4	2.9	1.2	1.6	1.3	1.0	0.6	2.4	5.1	4.1	4.0	1.40	16.0	-1055.0
Regions Financial Corporation	1.3	2.7	4.0	3.1	0.0	1.0	1.3	1.3	2.3	2.8	5.3	4.4	4.1	1.34	15.6	-905.0
BMO Capital Markets*	1.2	2.4	3.7	3.0	1.1	1.3	1.1	1.9	2.6	2.7	5.5 H	4.5	4.3	1.41	15.0	-911.3
Ford Motor Company*	1.2	2.5	3.7	2.5	-0.9	2.3	1.0	1.3	na	2.3	5.4	4.5	4.1	1.33	na	-941.2
JP MorganChase, US	1.2	2.3	3.6	2.5	0.5	0.5	1.1	1.9	3.5	2.2	na	na	4.3	1.44	15.7	-947.3
Bank of America-Merrill Lynch, US**	1.1	2.8	4.0	3.1	1.4	na	1.0	3.6	na	na	na	3.5	4.0	1.29	16.0	-977.9
Comerica**	1.1	2.7	3.8	3.2	-0.6	0.4	0.2	2.4	3.5	3.1 H	5.3	4.2	4.4	1.40	16.3	na
Eaton Corporation	1.1	2.7	3.7	3.2	-0.9	2.4	0.6	1.9	na	2.7	5.4	3.8	3.9	1.39	15.8	-954.3
General Motors Corporation, US	1.1	2.5	3.6	2.6	-1.3	2.7	1.1	0.8	na	2.4	5.1	4.6	4.1	1.37	na	-907.0
National Retail Federation	1.1	2.4	3.5	2.6	0.3	1.6	1.4	1.8	na	2.4	4.6	4.0	4.1	1.39	15.2	-940.9
NatWest Markets	1.0	1.9	2.9	2.2	1.0	na	0.8	2.9	na	2.1	4.2	3.4	4.8	1.32	15.3	-962.2
Numerator	1.0	2.2	3.2	2.6	-0.1	2.0	1.2	1.3	na	2.5	5.1	4.8	4.1	1.35	15.2	-940.0
The Lonski Group*	1.0	2.3	3.2	2.4	-0.1	0.8	1.0	0.4	0.8	2.6	4.7	3.8	4.2	1.35	15.5	-930.2
Barclays, US*	0.9	2.8	3.7	2.6	-1.4	na	1.0	0.6	na	2.7	5.3	4.1	4.2	1.43	na	-886.2
Inforum	0.9	2.5	3.3	2.7	-0.2	1.7	1.0	0.5	0.8	2.5	5.0	4.0	4.4	1.38	15.9	-933.2
Bloomberg LP	0.8	2.8	3.6	2.7	na	na	0.8	1.1	na	2.8	na	na	4.5	na	na	-944.8
Economist Intelligence Unit, UK	0.8	2.3	3.1	2.5	1.5	1.3	0.8	1.6	na	na	5.2	4.9	4.4	1.35	15.3	-972.9
Georgia State University*	0.8	2.6	3.3	3.1	-1.3	2.4	0.7	0.0	-0.6	2.8	4.3	3.5	4.3	1.37	15.1	-911.2
Societe Generale	0.8	2.0	2.9	2.5	-0.7	1.6	1.1	-0.2	-2.0	2.2	4.6	3.7	4.1	1.44	12.0 L	-874.3
The Conference Board, US*	0.8	na	na	na	na	0.9	0.4	-0.5	na	2.4	na	na	4.0	na	na	-848.0
Visa	0.8	2.0	2.8	2.6	na	-0.7 L	0.7	-0.8	0.8	2.0	3.5 L	3.5	4.6	1.28	15.0	-955.0
SOM Economics, Inc.	0.6	2.4	3.0	2.7	-1.4	na	0.0 L	0.0	-2.5 L	2.5	5.1	4.3	4.5	1.28	14.9	-820.0
Wells Fargo, US	0.6	1.9	2.5	2.2	-1.8	0.9	0.5	-1.4	-1.5	2.0	3.9	3.4	4.2	1.40	14.6	-835.6
Daiwa Capital Markets America	0.5	2.5	3.0	2.9	-0.5	na	0.5	-0.9	0.8	2.6	4.5	3.7	4.4	1.40	16.3	-960.0
PNC Financial Services Group	0.5	1.9	2.5	1.6 L	-2.3	0.9	0.8	-2.0	na	1.6 L	4.2	4.3	4.4	1.19 L	14.5	-872.4
UBS	0.5	1.9	2.4	2.4	-0.7	0.7	0.6	0.2	na	2.1	3.9	2.5 L	4.9	1.21	na	-917.6
AC Cutts & Associates	0.4	2.0	2.4	2.1	-1.4	2.4	0.8	2.2	1.0	1.9	3.7	3.3	4.0	1.44	15.9	-812.6 H
Fannie Mae*	0.4	2.5	3.0	2.6	na	na	0.6	-1.3	na	2.4	5.1	4.5	4.6	1.27	15.0	-919.1
Econoclast	0.3	2.1	2.4	2.5	0.2	0.9	0.5	0.6	2.1	2.2	5.4	3.9	4.5	1.40	14.8	-953.0
Oxford Economics, US	0.2	1.8	2.1	2.8	-0.4	2.1	0.6	-0.1	6.2 H	2.5	4.9	3.9	4.8	1.40	16.6	-875.6
Nomura Securities, US	-0.1 L	1.3 L	1.2 L	2.6	-2.4 L	na	0.5	-2.4 L	na	2.3	na	3.0	5.0 H	1.39	na	-878.7
<b>2024 Consensus: October Avg.</b>	<b>1.1</b>	<b>2.4</b>	<b>3.4</b>	<b>2.7</b>	<b>0.1</b>	<b>1.5</b>	<b>1.0</b>	<b>1.2</b>	<b>1.3</b>	<b>2.4</b>	<b>4.8</b>	<b>4.0</b>	<b>4.2</b>	<b>1.38</b>	<b>15.5</b>	<b>-925.8</b>
Top 10 Avg.	1.7	2.9	4.3	3.2	1.8	2.6	1.7	3.1	3.6	2.9	5.4	4.7	4.7	1.48	16.4	-855.2
Bottom 10 Avg.	0.4	1.9	2.4	2.2	-1.5	0.5	0.4	-1.0	-1.0	2.0	4.1	3.3	3.8	1.27	14.5	-988.2
Previous Avg.	1.0	2.4	3.4	2.6	-0.1	1.7	1.0	0.9	1.2	2.4	4.6	3.7	4.3	1.39	15.5	na
Number of Forecasts Changed From a Month Ago:																
Down	8	18	14	7	6	20	16	14	7	8	2	0	10	12	9	na
Same	15	14	12	10	13	9	13	11	6	17	12	9	29	24	21	na
Up	22	12	16	27	22	8	16	20	12	18	26	33	6	6	6	na
October Median	1.1	2.4	3.5	2.6	-0.1	1.6	1.0	1.4	0.8	2.5	5.1	4.1	4.2	1.39	15.7	-934.3
October Diffusion Index	66%	43%	52%	73%	70%	34%	50%	57%	60%	62%	80%	89%	46%	43%	46%	na

\*Denotes the number of times an organization or individual has won the annual Lawrence R. Klein Award for Blue Chip Forecast Accuracy.

BASIC DATA SOURCES: <sup>1</sup>Gross Domestic Product (GDP), chained 2017\$, National Income and Product Accounts (NIPA), Bureau of Economic Analysis (BEA); <sup>2</sup>GDP Chained Price Index, NIPA, BEA; <sup>3</sup>GDP, current dollars, NIPA, BEA; <sup>4</sup>Consumer Price Index-All Urban Consumers, Bureau of Labor Statistics (BLS); <sup>5</sup>Total Industrial Production, Federal Reserve Board (FRB); <sup>6</sup>Disposable Personal Income, 2017\$, NIPA, BEA; <sup>7</sup>Personal Consumption Expenditures, 2017\$, NIPA, BEA; <sup>8</sup>Non-residential Fixed Investment, 2017\$, NIPA, BEA; <sup>9</sup>Corporate Profits Before Taxes, current dollars, with inventory valuation and capital consumption adjustments, NIPA, BEA; <sup>10</sup>PCE Price Index, NIPA, BEA; <sup>11</sup>Treasury Bill Rate, 3-month, secondary market, bank discount basis, FRB; <sup>12</sup>Treasury note yield, 10-year, constant maturity basis, FRB; <sup>13</sup>Unemployment Rate, civilian work force, BLS; <sup>14</sup>Housing Starts, Bureau of Census; <sup>15</sup>Total U.S. Auto and Light Truck Sales (includes imports), BEA; <sup>16</sup>Net Exports of Goods and Services, 2017\$, NIPA, BEA.

### Previous Consensus Forecasts

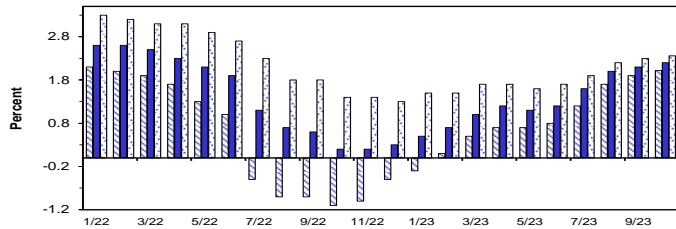
Consensus Forecast For 2023	Real GDP	GDP Price	Nominal GDP	Consumer Price	Indust. Prod.	Real Dis. Pers. Income	Real Personal Cons. Exp.	Real Non-Res. Fix. Inv.	Corp. Profits	PCE Price Index	Treas. Bills 3-mo.	Treas. Notes 10-Year	Unempl. Rate (Civ.)	Housing Starts (Mil.)	Auto/Truck Sales (Mil.)	Real Net Exports
	Chained	Index	(Cur. \$)	Index	(Total)				(Cur. \$)	Index						
January 2022 Consensus	2.6	2.5	5.2	2.4	2.6	2.4	2.4	4.4	3.2	2.3	1.1	2.3	3.5	1.56	16.8	-1356.3
February 2022 Consensus	2.6	2.5	5.1	2.5	2.5	2.6	2.5	4.4	2.8	2.3	1.6	2.5	3.4	1.56	16.9	-1353.5
March 2022 Consensus	2.5	2.7	5.2	2.6	2.4	2.5	2.3	4.3	2.7	2.5	1.7	2.6	3.4	1.58	16.7	-1375.0
April 2022 Consensus	2.3	2.9	5.3	3.0	2.2	2.5	2.2	4.1	2.4	2.8	2.4	2.9	3.5	1.59	16.6	-1405.0
May 2022 Consensus	2.1	3.1	5.3	3.2	2.2	2.2	2.0	3.9	2.1	2.9	2.7	3.1	3.6	1.57	16.4	-1467.4
June 2022 Consensus	1.9	3.2	5.1	3.3	2.1	2.1	1.9	3.4	1.6	3.0	2.8	3.2	3.7	1.55	16.0	-1476.7
July 2022 Consensus	1.1	3.5	4.7	3.6	1.5	1.7	1.3	2.3	0.6	3.2	3.3	3.4	4.0	1.49	15.5	-1461.2
August 2022 Consensus	0.7	3.8	4.5	3.8	1.0	1.8	1.1	1.5	0.1	3.3	3.3	3.1	4.0	1.47	15.2	-1441.4
September 2022 Consensus	0.6	3.8	4.4	3.7	0.9	1.7	1.0	1.2	-0.1	3.2	3.5	3.2	4.1	1.43	14.9	-1400.4
October 2022 Consensus	0.2	3.9	4.1	3.9	0.1	1.2	0.7	0.5	-1.1	3.3	4.1	3.6	4.3	1.40	14.6	-1342.4
November 2022 Consensus	0.2	3.8	4.1	4.2	0.2	1.3	0.6	0.5	-0.5	3.5	4.5	3.8	4.4	1.36	14.7	-1282.7
December 2022 Consensus	0.3	3.7	4.0	4.0	-0.1	1.4	0.9	0.7	-1.4	3.4	4.6	3.8	4.4	1.34	14.8	-1303.5
January 2023 Consensus	0.5	3.5	4.0	3.8	-0.4	1.3	1.0	0.7	-1.7	3.2	4.6	3.7	4.4	1.29	14.5	-1284.5
February 2023 Consensus	0.7	3.4	4.1	3.6	-0.7	1.7	1.0	0.7	-1.5	3.2	4.7	3.6	4.0	1.29	14.6	-1228.5
March 2023 Consensus	1.0	3.6	4.7	3.9	-0.8	2.4	1.3	1.2	-0.7	3.6	4.9	3.7	3.9	1.27	14.7	-1226.6
April 2023 Consensus	1.2	3.7	4.8	4.0	-0.9	2.7	1.4	1.4	-1.4	3.6	4.8	3.6	3.9	1.28	14.7	-1235.4
May 2023 Consensus	1.1	3.7	4.9	4.0	-0.6	3.3	1.5	1.4	-1.4	3.7	4.9	3.6	3.8	1.31	14.9	-1227.9
June 2023 Consensus	1.2	3.9	5.1	4.0	-0.3	3.3	1.7	1.7	-4.5	3.7	5.0	3.6	3.8	1.34	15.1	-1251.8
July 2023 Consensus	1.6	3.9	5.5	4.0	0.0	3.5	1.9	2.1	-3.6	3.7	5.1	3.7	3.7	1.37	15.2	-1239.3
August 2023 Consensus	2.0	3.7	5.8	4.0	0.1	3.5	2.1	3.0	-3.2	3.7	5.2	3.8	3.7	1.39	15.5	-1208.6
September 2023 Consensus	2.1	3.7	5.9	4.1	0.1	3.5	2.3	3.0	-3.9	3.7	5.2	3.8	3.7	1.40	15.5	-1212.1
<b>October 2023 Consensus</b>	2.2	3.6	5.9	4.1	0.3	3.9	2.2	3.9	-2.2	3.8	5.3	4.0	3.7	1.39	15.4	-927.6
Difference from Jan 2022 Forecast	-0.4	1.1	0.7	1.7	-2.3	1.5	-0.2	-0.5	-5.4	1.5	4.2	1.7	0.2	-0.17	-1.4	NA*
Forecast High	2.6	3.9	5.9	4.2	2.6	3.9	2.5	4.4	3.2	3.8	5.3	4.0	4.4	1.59	16.9	NA*
Forecast Low	0.2	2.5	4.0	2.4	-0.9	1.2	0.6	0.5	-4.5	2.3	1.1	2.3	3.4	1.27	14.5	NA*

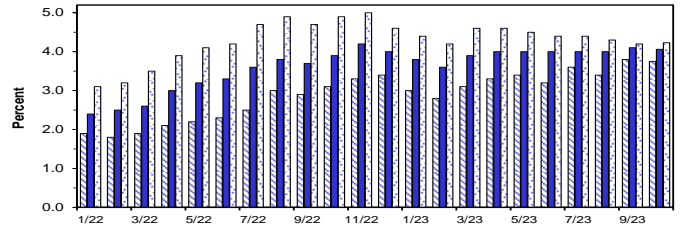
Consensus Forecast For 2024	Real GDP	GDP Price	Nominal GDP	Consumer Price	Indust. Prod.	Real Dis. Pers. Income	Real Personal Cons. Exp.	Real Non-Res. Fix. Inv.	Corp. Profits	PCE Price Index	Treas. Bills 3-mo.	Treas. Notes 10-Year	Unempl. Rate (Civ.)	Housing Starts (Mil.)	Auto/Truck Sales (Mil.)	Real Net Exports
	Chained	Index	(Cur. \$)	Index	(Total)				(Cur. \$)	Index						
January 2023 Consensus	1.2	2.3	3.6	2.3	0.4	2.2	1.1	1.0	2.7	2.2	3.5	3.3	4.8	1.36	15.3	-1274.1
February 2023 Consensus	1.2	2.4	3.5	2.4	0.5	2.1	1.1	1.3	2.3	2.2	3.7	3.3	4.6	1.35	15.2	-1227.3
March 2023 Consensus	1.1	2.5	3.5	2.5	0.4	1.9	1.0	1.1	2.3	2.3	3.9	3.4	4.5	1.33	15.2	-1221.9
April 2023 Consensus	0.9	2.5	3.4	2.5	0.1	1.8	0.9	0.8	1.6	2.4	3.8	3.3	4.5	1.34	15.2	-1229.7
May 2023 Consensus	0.7	2.5	3.3	2.5	-0.1	1.6	0.7	0.2	1.2	2.4	3.8	3.3	4.6	1.34	15.3	-1210.9
June 2023 Consensus	0.7	2.5	3.2	2.6	0.1	1.7	0.8	0.3	2.3	2.5	4.0	3.4	4.5	1.35	15.3	-1253.1
July 2023 Consensus	0.7	2.5	3.2	2.6	-0.2	1.8	0.8	0.4	1.6	2.4	4.2	3.4	4.4	1.38	15.4	-1242.3
August 2023 Consensus	0.8	2.4	3.3	2.5	-0.2	1.8	0.9	0.7	1.9	2.4	4.5	3.6	4.3	1.39	15.5	-1211.1
September 2023 Consensus	1.0	2.4	3.4	2.6	-0.1	1.7	1.0	0.9	1.2	2.4	4.6	3.7	4.3	1.39	15.5	-1220.5
<b>October 2023 Consensus</b>	1.1	2.4	3.4	2.7	0.1	1.5	1.0	1.2	1.3	2.4	4.8	4.0	4.2	1.38	15.5	-925.8
Difference from Jan 2023 Forecast	-0.1	0.1	-0.2	0.4	-0.3	-0.7	-0.1	0.2	-1.4	0.2	1.3	0.7	-0.6	0.02	0.2	NA*
Forecast High	1.2	2.5	3.6	2.7	0.5	2.2	1.1	1.3	2.7	2.5	4.8	4.0	4.8	1.39	15.5	NA*
Forecast Low	0.7	2.3	3.2	2.3	-0.2	1.5	0.7	0.2	1.2	2.2	3.5	3.3	4.2	1.33	15.2	NA*

\* Consensus forecasts starting in October 2023 are in chained 2017\$; previous consensus forecasts are in chained 2012\$.

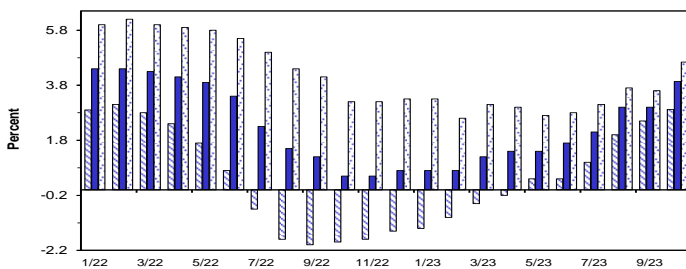
Bottom 10, Consensus, and Top 10 Forecasts of Y/Y % Change in Real GDP in 2023



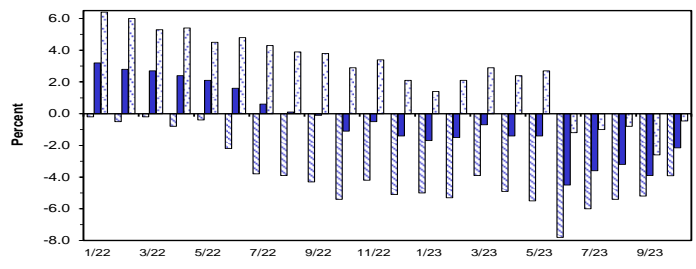
Bottom 10, Consensus, and Top 10 Forecasts of Y/Y % Change in Consumer Price Index in 2023



Bottom 10, Consensus, and Top 10 Forecasts of Y/Y %Chg in Real Nonresidential Fixed Investment in 2023



Bottom 10, Consensus, and Top 10 Forecasts of Y/Y % Change in Corporate Profits in 2023



**3. Blue Chip Consensus: Percent Change From Prior Quarter At Annual Rate And Averages For Quarter.\***

Actuals		-----% Change From Prior Quarter At Annual Rate-----							----- Average For Quarter -----							
		Real GDP	GDP Price Index	CPI	PPI	IP	Disp Personal Income	PCE	PCE Price Index	Core PCE Price Index	Nonres Fixed Inv	Unem- ployment Rate	3-Mo. Treas. Bills	10-Yr Treas. Notes	Chg in Bus Inv	Real Net Exports
<b>2022</b>	1Q	-2.0	8.5	9.2	12.6	3.7	-9.8	0.0	7.7	6.0	10.7	3.8	0.3	1.9	197.0	-1141.1
	2Q	-0.6	9.1	9.7	11.7	4.1	-1.4	2.0	7.2	4.7	5.3	3.6	1.1	2.9	92.7	-1116.2
	3Q	2.7	4.4	5.5	2.7	2.1	3.6	1.6	4.7	5.0	4.7	3.6	2.7	3.1	70.7	-981.2
	4Q	2.6	3.9	4.2	2.7	-2.5	2.2	1.2	4.1	4.7	1.7	3.6	4.0	3.8	151.9	-965.6
<b>2023</b>	1Q	2.2	3.9	3.8	0.8	-0.3	10.8	3.8	4.2	5.0	5.7	3.5	4.6	3.6	27.2	-935.1
	2Q	2.1	1.7	2.7	-1.3	0.7	3.5	0.8	2.5	3.7	7.4	3.6	5.1	3.6	14.9	-928.2

Blue Chip Forecasts		-----% Change From Prior Quarter At Annual							----- Average For Quarter -----							
<b>2023</b>	<b>3Q Consensus</b>	<b>3.5</b>	<b>2.7</b>	<b>3.4</b>	<b>2.9</b>	<b>1.5</b>	<b>0.7</b>	<b>3.2</b>	<b>2.9</b>	<b>2.9</b>	<b>1.2</b>	<b>3.7a</b>	<b>5.3a</b>	<b>4.2a</b>	<b>21.3</b>	<b>-908.2</b>
	Top 10 Avg.	4.5	3.6	3.8	4.9	3.4	3.3	4.0	3.4	4.0	4.1	na	na	na	52.4	-874.1
	Bot. 10 Avg.	2.4	2.0	3.0	1.0	-0.4	-1.1	2.3	2.5	2.4	-1.9	na	na	na	-19.0	-944.6
	<b>4Q Consensus</b>	<b>0.7</b>	<b>2.6</b>	<b>3.1</b>	<b>2.4</b>	<b>-0.7</b>	<b>1.2</b>	<b>0.8</b>	<b>2.7</b>	<b>2.8</b>	<b>0.7</b>	<b>3.8</b>	<b>5.5</b>	<b>4.4</b>	<b>17.2</b>	<b>-915.5</b>
	Top 10 Avg.	1.7	3.2	4.0	3.9	1.6	2.8	2.0	3.5	3.5	3.4	4.1	5.7	4.8	52.6	-873.6
	Bot. 10 Avg.	-0.7	2.1	2.2	1.0	-3.1	-0.5	-0.5	2.0	2.2	-2.8	3.7	5.3	3.9	-34.0	-961.4
<b>2024</b>	<b>1Q Consensus</b>	<b>0.2</b>	<b>2.4</b>	<b>2.5</b>	<b>1.6</b>	<b>-0.8</b>	<b>1.7</b>	<b>0.4</b>	<b>2.4</b>	<b>2.6</b>	<b>0.0</b>	<b>4.1</b>	<b>5.4</b>	<b>4.2</b>	<b>16.8</b>	<b>-914.7</b>
	Top 10 Avg.	1.4	3.0	3.3	2.6	1.6	3.8	1.5	3.0	3.2	2.8	4.5	5.6	4.8	65.6	-861.3
	Bot. 10 Avg.	-1.4	1.7	1.8	0.5	-3.3	-0.3	-0.9	1.6	1.9	-3.9	3.7	4.9	3.6	-47.8	-965.6
	<b>2Q Consensus</b>	<b>0.5</b>	<b>2.2</b>	<b>2.3</b>	<b>1.7</b>	<b>-0.2</b>	<b>1.6</b>	<b>0.5</b>	<b>2.2</b>	<b>2.5</b>	<b>0.5</b>	<b>4.2</b>	<b>5.1</b>	<b>4.1</b>	<b>14.2</b>	<b>-918.3</b>
	Top 10 Avg.	1.7	2.9	3.0	2.4	2.0	2.8	1.7	2.7	3.0	2.8	4.7	5.5	4.7	62.2	-851.1
	Bot. 10 Avg.	-1.1	1.5	1.5	1.1	-2.7	0.1	-1.1	1.4	1.9	-2.7	3.8	4.4	3.4	-48.3	-974.4
	<b>3Q Consensus</b>	<b>1.2</b>	<b>2.2</b>	<b>2.4</b>	<b>1.9</b>	<b>0.5</b>	<b>1.9</b>	<b>1.1</b>	<b>2.2</b>	<b>2.3</b>	<b>1.3</b>	<b>4.3</b>	<b>4.7</b>	<b>4.0</b>	<b>14.7</b>	<b>-922.8</b>
	Top 10 Avg.	2.3	2.7	3.0	2.5	2.3	3.1	2.1	2.8	2.9	3.6	4.8	5.4	4.7	64.9	-847.4
	Bot. 10 Avg.	-0.2	1.6	1.8	1.3	-1.5	0.6	0.0	1.6	1.9	-1.5	3.8	3.8	3.3	-52.0	-981.3
	<b>4Q Consensus</b>	<b>1.6</b>	<b>2.2</b>	<b>2.3</b>	<b>1.8</b>	<b>1.5</b>	<b>2.2</b>	<b>1.6</b>	<b>2.2</b>	<b>2.3</b>	<b>2.4</b>	<b>4.3</b>	<b>4.3</b>	<b>3.9</b>	<b>20.3</b>	<b>-928.2</b>
	Top 10 Avg.	2.6	2.6	2.9	2.4	3.1	3.3	2.6	2.7	2.8	5.3	4.9	5.1	4.6	69.3	-854.1
	Bot. 10 Avg.	0.7	1.6	1.8	1.2	-0.1	1.0	0.5	1.7	1.9	0.0	3.8	3.3	3.1	-46.5	-993.2

a=actual

**4. Blue Chip Consensus: Quarterly Annualized Values And Percent Change From Same Quarter In Prior Year.\***

Real Gross Domestic Product							GDP Chained Price Index						
Billions of Chained 2017\$ (SAAR)			% Change From Same Quarter In Prior Year				Index 2017 = 100 (SAAR)			% Change From Same Quarter In Prior Year			
Actual	Forecast		Actual	Forecast		Actual	Forecast		Actual	Forecast			
Quarter	2022	2023	2024	2022	2023	2024	Quarter	2022	2023	2024	2022	2023	2024
1Q	21738.9	22112.3	<b>22466.7</b>	3.6	1.7	<b>1.6</b>	1Q	115.2	121.3	<b>124.1</b>	6.9	5.3	<b>2.4</b>
2Q	21708.2	22225.4	<b>22495.6</b>	1.9	2.4	<b>1.2</b>	2Q	117.7	121.8	<b>124.8</b>	7.7	3.5	<b>2.5</b>
3Q	21851.1	<b>22416.1</b>	<b>22560.9</b>	1.7	<b>2.6</b>	<b>0.6</b>	3Q	119.0	<b>122.6</b>	<b>125.5</b>	7.2	<b>3.1</b>	<b>2.4</b>
4Q	21990.0	<b>22453.1</b>	<b>22652.9</b>	0.7	<b>2.1</b>	<b>0.9</b>	4Q	120.1	<b>123.4</b>	<b>126.2</b>	6.4	<b>2.7</b>	<b>2.2</b>

Total Industrial Production							Consumer Price Index						
Index 2017 = 100 (SAAR)			% Change From Same Quarter In Prior Year				Index 1982-1984 = 100 (SAAR)			% Change From Same Quarter In Prior Year			
Actual	Forecast		Actual	Forecast		Actual	Forecast		Actual	Forecast			
Quarter	2022	2023	2024	2022	2023	2024	Quarter	2022	2023	2024	2022	2023	2024
1Q	101.7	102.6	<b>102.8</b>	4.4	0.9	<b>0.2</b>	1Q	284.9	301.3	<b>310.2</b>	8.0	5.8	<b>3.0</b>
2Q	102.8	102.8	<b>102.7</b>	3.8	0.0	<b>0.0</b>	2Q	291.5	303.4	<b>312.0</b>	8.6	4.1	<b>2.9</b>
3Q	103.3	<b>103.1</b>	<b>102.9</b>	3.5	<b>-0.1</b>	<b>-0.3</b>	3Q	295.5	<b>305.9</b>	<b>313.9</b>	8.3	<b>3.5</b>	<b>2.6</b>
4Q	102.7	<b>103.0</b>	<b>103.2</b>	1.8	<b>0.3</b>	<b>0.2</b>	4Q	298.5	<b>308.3</b>	<b>315.7</b>	7.1	<b>3.3</b>	<b>2.4</b>

\*See explanatory notes on inside of back cover for details of how these data are compiled.



BLUE CHIP INTERNATIONAL CONSENSUS FORECASTS

	ANNUAL DATA						END OF YEAR			
	Real Economic Growth % Change GDP		Inflation % Change Consumer Prices		Current Account In Billions Of U.S. Dollars		Exchange Rate Against U.S. \$*		Interest Rates 3-Month	
	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024
<b>CANADA</b>										
<b>October 2023 Consensus</b>	1.2	1.0	3.8	2.4	-20.9	-28.5	1.35	1.29	5.08	4.11
Top 3 Avg.	1.4	1.5	4.0	2.6	-13.5	-17.8	1.37	1.31	5.17	4.28
Bottom 3 Avg.	1.0	0.3	3.6	2.1	-28.3	-36.1	1.32	1.26	5.00	3.92
Last Month Avg.	1.3	1.1	3.7	2.3	-24.7	-32.5	1.34	1.28	5.04	4.12
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	5.0	3.4	3.4	6.8	-5.5	-6.7	1.35	1.37	5.37	3.95
<b>MEXICO</b>										
<b>October 2023 Consensus</b>	3.1	1.8	5.5	4.2	-20.2	-20.8	17.64	18.81	11.19	8.42
Top 3 Avg.	3.3	2.3	5.7	4.4	-12.9	-11.5	17.98	19.70	11.27	8.81
Bottom 3 Avg.	2.9	1.2	5.2	4.0	-27.5	-29.3	17.22	17.82	11.15	8.13
Last Month Avg.	2.8	1.7	5.4	4.0	-20.3	-22.4	17.68	18.85	10.76	7.51
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	5.8	3.9	5.7	7.9	-8.3	-18.0	17.38	20.11	11.79	10.28
<b>JAPAN</b>										
<b>October 2023 Consensus</b>	1.9	0.9	3.1	2.1	130.7	128.1	145.3	131.1	0.04	0.06
Top 3 Avg.	2.1	1.4	3.4	3.1	141.4	135.8	152.2	140.2	0.06	0.09
Bottom 3 Avg.	1.6	0.5	2.9	1.2	120.0	120.3	137.5	121.5	0.03	0.04
Last Month Avg.	1.9	1.0	3.1	2.0	101.0	121.1	141.9	127.3	0.05	0.07
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	2.3	1.0	-0.2	2.5	196.8	90.6	149.2	144.7	0.02	-0.02
<b>UNITED KINGDOM</b>										
<b>October 2023 Consensus</b>	0.4	0.3	7.3	3.1	-75.8	-81.0	1.25	1.34	5.59	5.01
Top 3 Avg.	0.6	0.6	7.5	3.8	-59.6	-67.2	1.34	1.45	5.68	5.26
Bottom 3 Avg.	0.3	-0.1	7.1	2.7	-90.5	-94.9	1.19	1.25	5.52	4.73
Last Month Avg.	0.4	0.4	7.4	3.0	-75.8	-94.1	1.28	1.35	5.70	5.04
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	8.7	4.3	2.6	9.1	-14.9	-101.8	1.22	1.12	5.41	3.34
<b>SOUTH KOREA</b>										
<b>October 2023 Consensus</b>	1.1	2.0	3.3	2.0	25.7	35.7	1323	1237	3.56	2.66
Top 3 Avg.	1.4	2.4	3.5	2.4	33.0	47.8	1354	1278	3.56	2.66
Bottom 3 Avg.	0.7	1.5	3.2	1.7	16.8	23.2	1288	1197	3.56	2.66
Last Month Avg.	1.1	2.0	3.2	1.9	27.0	40.5	1301	1221	3.52	2.66
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	4.3	2.6	2.5	5.1	85.2	29.8	1349	1431	3.85	3.18
<b>GERMANY</b>										
<b>October 2023 Consensus</b>	-0.3	0.3	6.1	2.5	247.1	244.2	1.06	1.13	3.87	2.90
Top 3 Avg.	-0.2	0.8	6.4	3.3	261.4	269.5	1.10	1.17	3.93	3.22
Bottom 3 Avg.	-0.5	-0.3	5.9	1.5	232.8	218.9	1.04	1.09	3.79	2.61
Last Month Avg.	-0.3	0.7	6.0	2.5	230.8	240.7	1.09	1.14	3.86	2.90
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	3.1	1.9	3.2	8.7	329.6	173.1	1.06	0.98	3.95	1.17
<b>TAIWAN</b>										
<b>October 2023 Consensus</b>	0.7	2.9	2.2	1.6	91.7	96.9	31.96	30.68	1.51	1.04
Top 3 Avg.	1.2	3.1	2.3	1.8	96.1	102.6	32.50	31.17	1.51	1.04
Bottom 3 Avg.	0.2	2.4	2.1	1.4	86.6	90.5	31.39	30.16	1.51	1.04
Last Month Avg.	1.1	3.0	2.2	1.7	90.2	94.3	31.40	30.17	1.50	1.03
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	6.5	2.4	2.0	2.9	118.0	101.3	32.28	31.75	1.49	1.05
<b>NETHERLANDS</b>										
<b>October 2023 Consensus</b>	0.5	0.9	4.5	2.8	91.2	84.5	1.06	1.13	3.87	2.90
Top 3 Avg.	0.6	1.2	4.7	3.2	98.3	102.8	1.10	1.17	3.93	3.22
Bottom 3 Avg.	0.3	0.7	4.2	2.3	84.1	66.2	1.04	1.09	3.79	2.61
Last Month Avg.	0.8	1.2	4.6	2.9	88.2	85.4	1.09	1.14	3.86	2.90
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	6.2	4.4	2.8	11.6	124.9	93.9	1.06	0.98	3.95	1.17

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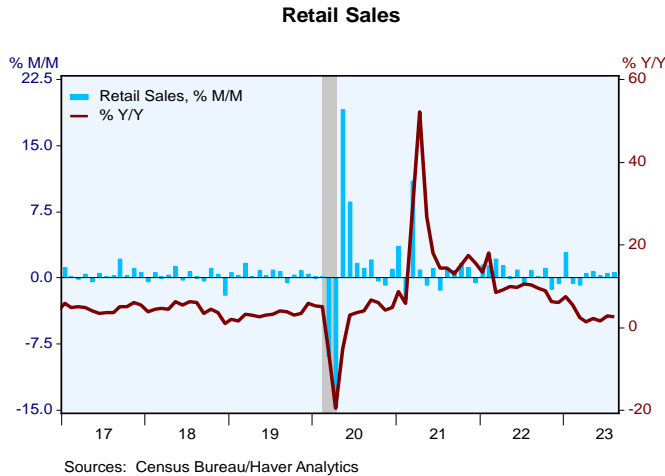
## BLUE CHIP INTERNATIONAL CONSENSUS FORECASTS

	ANNUAL DATA						END OF YEAR			
	Real Economic Growth % Change GDP		Inflation % Change Consumer Prices		Current Account In Billions Of U.S. Dollars		Exchange Rate Against U.S. \$		Interest Rates 3-Month	
	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024
<b>RUSSIA</b>										
<b>October 2023 Consensus</b>	1.2	1.6	5.6	5.2	50.3	73.7	93.29	86.74	10.57	8.32
Top 3 Avg.	2.5	2.4	6.0	6.0	69.0	129.9	104.30	92.80	11.74	8.80
Bottom 3 Avg.	-0.7	1.1	5.3	4.5	33.7	22.1	81.63	79.60	9.22	7.83
Last Month Avg.	0.9	1.5	5.3	4.7	57.2	83.3	84.81	86.01	8.55	7.49
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	5.6	-2.1	6.7	13.7	122.1	237.9	97.60	61.13	42.29	42.29
<b>FRANCE</b>										
<b>October 2023 Consensus</b>	0.7	0.6	5.6	2.6	-33.5	-40.5	1.06	1.13	3.87	2.90
Top 3 Avg.	0.8	0.9	5.9	3.0	-25.8	-30.2	1.10	1.17	3.93	3.22
Bottom 3 Avg.	0.6	0.2	5.2	2.2	-41.1	-50.7	1.04	1.09	3.79	2.61
Last Month Avg.	0.8	0.8	5.4	2.4	-36.9	-38.4	1.09	1.14	3.86	2.90
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	6.4	2.5	2.1	5.9	9.7	-56.5	1.06	0.98	3.95	1.17
<b>BRAZIL</b>										
<b>October 2023 Consensus</b>	2.9	1.5	4.7	3.9	-35.4	-54.2	4.94	5.02	11.65	9.30
Top 3 Avg.	3.1	2.0	4.9	4.2	-27.4	-45.4	5.01	5.11	11.70	9.40
Bottom 3 Avg.	2.5	0.8	4.6	3.7	-43.4	-63.0	4.88	4.93	11.61	9.13
Last Month Avg.	2.5	1.5	4.7	4.0	-37.5	-63.6	4.91	4.97	11.85	9.13
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	5.0	2.9	8.3	9.3	-46.4	-53.6	5.01	5.41	12.25	13.73
<b>HONG KONG</b>										
<b>October 2023 Consensus</b>	3.8	2.9	2.0	2.1	27.3	26.5	7.82	7.80	5.01	4.26
Top 3 Avg.	4.3	3.3	2.2	2.4	33.3	35.1	7.83	7.82	5.05	4.39
Bottom 3 Avg.	3.1	2.3	1.9	1.8	20.7	17.4	7.79	7.78	4.93	4.12
Last Month Avg.	3.9	3.0	2.1	2.2	27.1	27.4	7.82	7.79	4.99	4.06
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	6.4	-3.5	1.6	1.9	43.7	37.9	7.83	7.85	5.27	3.33
<b>INDIA</b>										
<b>October 2023 Consensus</b>	6.5	6.0	5.7	4.9	-61.7	-82.3	82.81	81.65	6.76	5.76
Top 3 Avg.	7.4	6.5	5.9	5.4	-50.4	-49.1	84.20	82.53	6.84	5.80
Bottom 3 Avg.	5.9	5.2	5.4	4.5	-73.6	-118.4	81.47	80.57	6.62	5.73
Last Month Avg.	6.2	5.9	5.4	4.8	-66.4	-90.6	82.74	81.76	6.77	5.78
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	8.9	6.7	5.1	6.7	-33.4	-79.1	83.04	81.35	6.87	6.09
<b>CHINA</b>										
<b>October 2023 Consensus</b>	4.9	4.4	0.6	1.9	303.3	262.5	7.24	6.89	2.15	2.16
Top 3 Avg.	5.1	4.8	0.8	2.4	347.1	334.3	7.39	7.11	2.15	2.16
Bottom 3 Avg.	4.7	3.8	0.4	1.3	264.3	183.6	7.09	6.71	2.15	2.16
Last Month Avg.	5.0	4.5	0.6	1.9	327.2	294.8	7.14	6.81	2.17	2.18
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	8.5	3.0	0.8	1.9	352.9	401.9	7.30	7.09	2.30	1.67
<b>AUSTRALIA</b>										
<b>October 2023 Consensus</b>	1.7	1.4	5.6	3.2	26.9	9.1	0.65	0.70	4.31	3.55
Top 3 Avg.	1.9	1.9	5.7	3.5	33.7	16.5	0.68	0.71	4.36	3.62
Bottom 3 Avg.	1.4	0.9	5.4	3.0	20.5	1.6	0.64	0.67	4.28	3.44
Last Month Avg.	1.5	1.6	5.6	3.1	21.6	-6.0	0.67	0.70	4.31	3.58
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	5.2	3.7	2.9	6.6	49.9	17.9	0.65	0.64	4.33	3.80
<b>EURO AREA</b>										
<b>October 2023 Consensus</b>	0.5	0.6	5.6	2.6	288.1	333.3	1.06	1.13	3.87	2.90
Top 3 Avg.	0.7	1.0	5.7	3.0	397.8	427.4	1.10	1.17	3.93	3.22
Bottom 3 Avg.	0.2	0.0	5.5	2.0	173.6	239.1	1.04	1.09	3.79	2.61
Last Month Avg.	0.6	0.9	5.5	2.4	316.3	387.1	1.09	1.14	3.86	2.90
	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>Latest</b>	<b>Year Ago</b>	<b>Latest</b>	<b>Year Ago</b>
Actual	5.6	3.4	2.6	8.4	414.0	-80.6	1.06	0.98	3.95	1.17

**Contributors to Blue Chip International Survey:** Bank of America-Merrill Lynch, US; Barclays, US; BMO Capital Markets, Canada; Credit Suisse, US; Eaton Corporation, US; Economist Intelligence Unit, UK; FedEx Corporation, US; General Motors Corporation, US; Grupo de Economistas y Asociados, Mexico; US; JP Morgan Chase, US; Moody's Analytics, US; Nomura Securities, US; Northern Trust, US; Oxford Economics, US; S&P Global Market Intelligence, US; Wells Fargo, US.

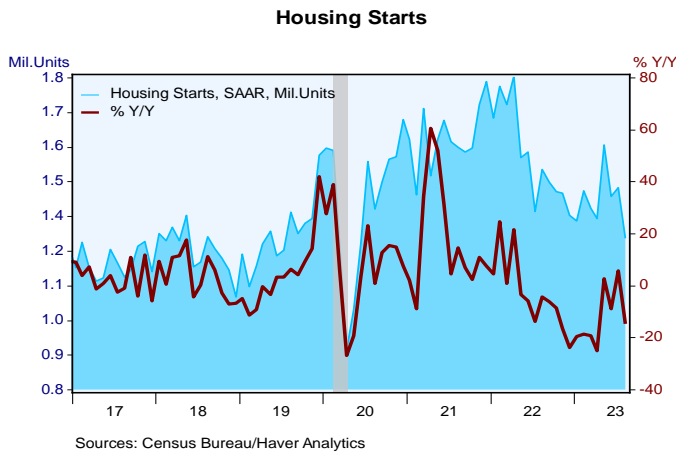
## Recent Developments:

### Retail Sales Grew a More-Than-Expected 0.6% in August, the Fifth Straight M/M Gain



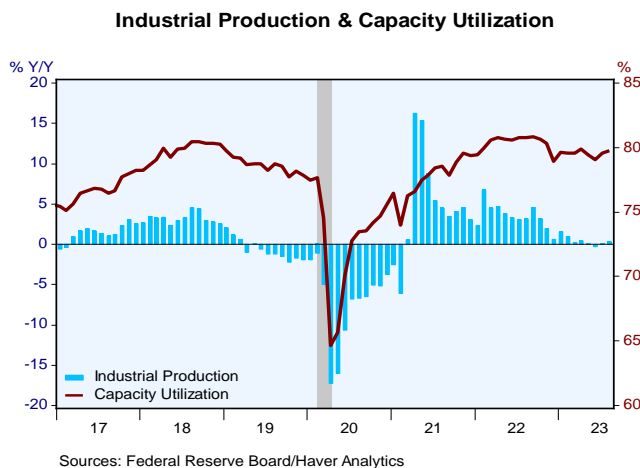
Total retail sales rose 0.6% m/m (2.5% y/y) in August after gains of 0.5% in July and 0.2% in June. Excluding motor vehicles & parts, retail sales grew 0.6% (2.0% y/y) after a 0.7% gain. Sales of motor vehicles & parts rose 0.3% (4.4% y/y), the fourth m/m rise in five months, after a 0.4% drop. Nonauto sales excl. gasoline & building materials edged up 0.1% (3.6% y/y), the fifth consecutive m/m rise. Gasoline station sales jumped 5.2% (-10.3% y/y), the most since March '22. Clothing & accessory store sales grew 0.9% (1.3% y/y), the fifth straight m/m gain. Electronics & appliance store sales rose 0.7% (-1.8% y/y) vs. a 1.1% drop. General merchandise store sales rose 0.3% (2.0% y/y), the fourth m/m rise in five months. Building materials & garden equip. store sales increased 0.1% (-4.9% y/y), the third m/m gain in four months. Nonstore retail sales were unchanged (+7.2% y/y) after four successive m/m rises. Furniture & home furnishing store sales, however, fell 1.0% (-7.8% y/y), the sixth m/m fall in seven months. Health & personal care store sales rose 0.5% (7.8% y/y), the eighth consecutive m/m rise. Food & bev. store sales grew 0.4% (2.1% y/y). Restaurant & drinking place sales increased 0.3% (8.5% y/y), the sixth straight m/m gain.

### August Housing Starts Fell 11.3% to a Lower-Than-Expected 1.283 Million AR; Lowest Since June '20



Total housing starts fell 11.3% m/m (-14.8% y/y) to 1.283 mil. saar in August after a 2.0% rise to 1.447 mil. in July and a 10.4% drop in June. Starts were 28.8% below the peak of 1.803 mil. in April '22. Single-family starts declined 4.3% (+2.4% y/y) to 941,000 vs. a 5.7% rebound to 983,000. Multi-family starts plunged 26.3% (-41.6% y/y) to 342,000, the lowest level since May '20, on top of a 4.9% drop to 464,000. Starts in the West slumped 28.9% (-20.2% y/y) to 281,000 vs. a 16.2% gain and starts in the Midwest fell 7.5% (-12.1% y/y) to 160,000 after a 3.6% rise; both were at the lowest level since March. Starts in the South slid 4.9% (-6.1% y/y) to a four-month-low 745,000 after a 3.7% drop. By contrast, starts in the Northeast rebounded 1.0% (-45.5% y/y) to 97,000 vs. a 2.0% decline. Building permits rose 6.8% (-2.8% y/y) to 1.541 mil., the highest level since October '22, after a 0.1% uptick to 1.443 mil. Single-family permits rose 1.9% (7.1% y/y) to 948,000, the seventh straight m/m rise to the highest level since June '22, after a 0.6% gain to 930,000. Multi-family permits jumped 15.6% (-15.4% y/y) to a three-month-high 593,000 vs. a 0.8% decline to 513,000.

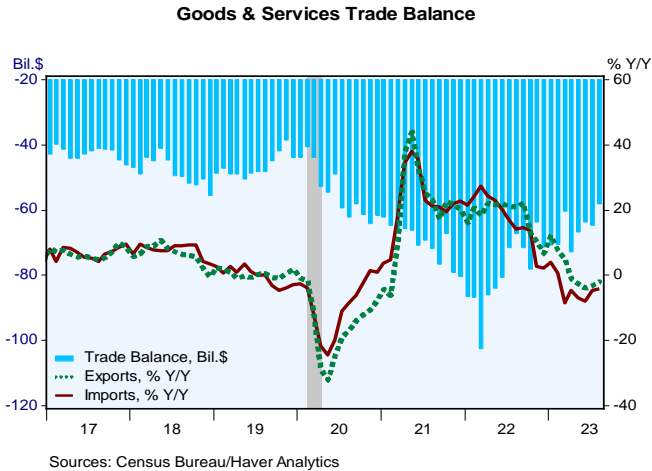
### Industrial Production Increased a More-Than-Expected 0.4% in August



Total industrial production rose 0.4% m/m (0.2% y/y) in August after a 0.7% July rise (+1.0% initially) and a 0.4% June drop (-0.8% previously). Mining activity recovered 1.4% (3.9% y/y), the largest m/m gain since January, after a 0.2% decline. Utilities output rose 0.9% (1.2% y/y) after a 4.4% July rise and three straight m/m drops. Mfg. production inched up 0.1% (-0.6% y/y) after a 0.4% rise, w/ durable goods up 0.1% (0.6% y/y) and nondurable goods up 0.2% (-2.0% y/y). Motor vehicles fell 5.0% (+5.9% y/y) vs. a 5.1% rebound, but aircraft production rose 4.8% (11.0% y/y), the largest of six straight m/m rises. Output of selected high-tech products grew 0.8% (9.7% y/y), the seventh consecutive m/m gain. Business equip. rose 0.8% (0.1% y/y) and materials production rose 0.7% (1.2% y/y), posting the second successive m/m rise. In contrast, construction supplies slid 0.4% (-2.5% y/y), the third m/m slide in four months. Consumer goods output fell 0.2% (-0.4% y/y) vs. a 1.2% rise, w/ durable consumer goods down 2.4% (-0.8% y/y) and nondurable consumer goods up 0.4% (-0.4% y/y). Capacity utilization rose to 79.7%, the highest since April, from 79.5%. Mfg. capacity utilization held steady at 77.9%.

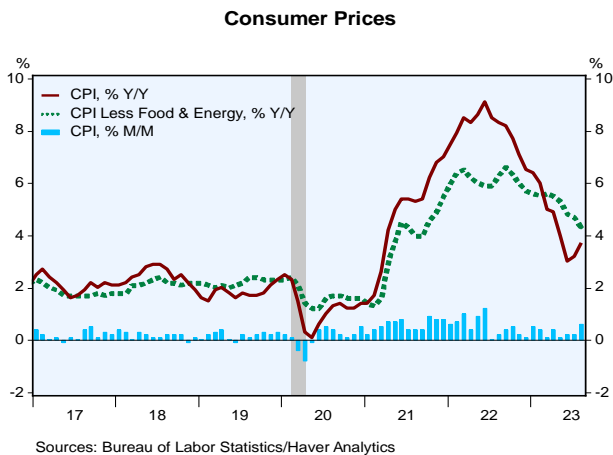
## Recent Developments:

### Trade Deficit Narrowed to \$58.30 Billion in August, the Smallest Since September 2020



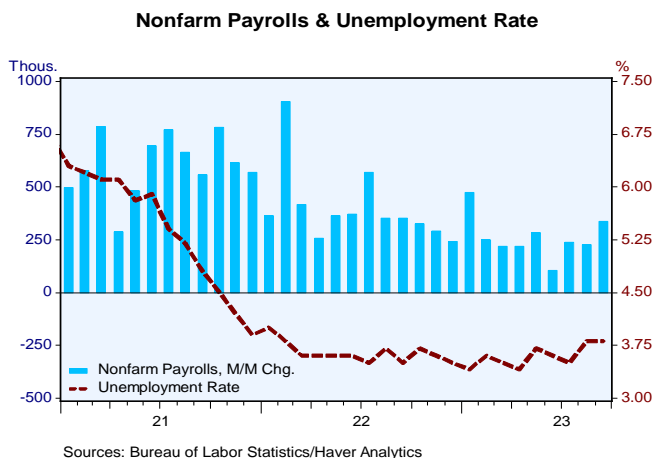
The U.S. trade deficit in goods & services narrowed to \$58.30 billion in August from \$64.72 billion in July, smaller than the \$67.32 bil. in Aug. '22. Exports rose 1.6% m/m (-2.1% y/y) after rising 1.7%. Imports fell 0.7% (-4.4% y/y), the third m/m fall in four months, after a 1.7% rise. The deficit in goods trade fell to a five-month-low \$84.47 bil. from \$89.93 bil. Goods exports rose 2.3% (-5.8% y/y) after a 1.7% rise, led by gains of 4.9% (4.6% y/y) in nonauto consumer goods, 4.7% (-18.3% y/y) in industrial supplies, and 3.7% (7.3% y/y) in other goods, but auto exports fell 8.3% (+16.3% y/y). Imports of goods fell 1.0% (-5.0% y/y) vs. a 2.1% rise, led by m/m drops of most end-use categories, while imports for industrial supplies rebounded 5.1% (-17.2% y/y). Petroleum imports jumped 13.4% (-17.3% y/y). Nonpetroleum imports fell 2.1% (-3.7% y/y). The surplus on services trade rose to \$26.17 bil., the highest level since Mar. '18, from \$25.21 bil., led by increased tourism. Services exports rose 1.2% (7.8% y/y), the sixth m/m rise in seven months. Services imports ticked up 0.1% (-1.6% y/y). The real goods trade deficit fell to \$83.92 bil., the smallest since March. The goods trade deficit w/ China shrank to a five-month-low \$22.74 bil.

### Consumer Price Inflation Rose to 3.7% Y/Y in August; Core CPI Eased to 4.3% Y/Y



Consumer prices increased an expected 0.6% m/m in August after rises of 0.2% in July and June. The y/y rate rose to 3.7%, the highest since May, from 3.2%. The CPI less food & energy rose 0.3% after a 0.2% rise. The core y/y rate eased to 4.3%, the lowest since Sept. '21, from 4.7%. Energy prices jumped 5.6% (-3.6% y/y), the most since June '22, reflecting price rises of 10.6% (-3.3% y/y) in gasoline, 9.1% (-14.8% y/y) in fuel oil, 0.2% (2.1% y/y) in electricity, and 0.1% (-16.5% y/y) in natural gas. Nonenergy svcs. prices rose 0.4% (5.9% y/y). A 0.3% gain (7.3% y/y) in shelter prices reflected rises of 0.5% in rents and 0.4% in owners' equivalent rent partly offset by a 3.0% drop in lodging away from home. Transportation prices grew 2.0% (10.3% y/y), w/ a 4.9% m/m rise in fares. Medical care svcs. costs rose 0.1% (-2.1% y/y). Food prices rose 0.2%, the fourth straight m/m rise; the y/y rate fell to 4.3%, the lowest since Aug. '21, from 4.9%. Goods prices less food & energy dipped 0.1% (+0.2% y/y), the third straight m/m decline, led by a 1.2% drop (-6.6% y/y) in used vehicle prices. New vehicle prices rose 0.3% (2.9% y/y) and apparel prices rose 0.2% (3.1% y/y).

### September Job Gains of 336K Doubled Estimates, Largest Since Jan.; Jobless Rate Unchanged at 3.8%



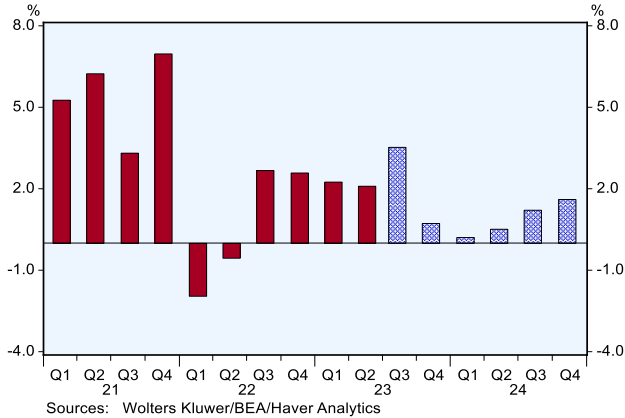
Nonfarm payrolls rose 336K (2.1% y/y) in September after rises of 227K in August (+187K initially) and 236K in July (+157K previously); the gain was above 300K for the first time since January and above the avg. m/m rise of 267K over the prior 12 months. The jobless rate held steady at 3.8%. The total jobless rate, incl. those marginally attached & working part-time for econ. reasons, fell to 7.0% from 7.1%. Total priv. payrolls grew 263K (2.0% y/y), w/ priv. svcs. jobs up 234K (2.0% y/y) and goods-producing jobs up 29K (1.6% y/y). Jobs rose in leisure & hospitality (+96K), health care (+40.9K), prof. & technical svcs. (+29K), and soc. assistance (+25K) but fell in info svcs. (-5K). Mfg. jobs gained 17K (0.7% y/y) after an 11K rebound, w/ rises of 13K in durable goods and 4K in nondurable goods. Construction jobs rose 11K (2.8% y/y), the 19<sup>th</sup> m/m gain in 20 months. Gov't. jobs surged 73K (2.8% y/y). Avg. hourly earnings rose 0.2% m/m; the y/y rate eased to 4.2%, the lowest since June '21, from 4.3%. The avg. workweek was unchanged at 34.4 hrs. The steady jobless rate at 3.8% reflected rises of 5K in unemployed, 90K in the labor force, and 86K in civilian employment. The participation rate held steady at 62.8%.

# Quarterly U.S. Forecasts:

## Real GDP

Real GDP Consensus Forecast

Real Gross Domestic Product

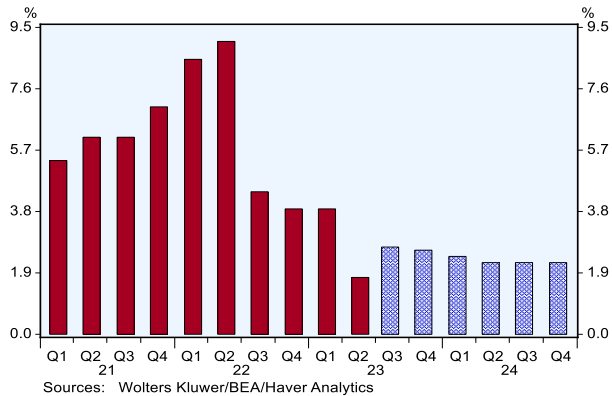


Real GDP in Q2 2023 grew at an annual rate of 2.1% from Q1, according to data released on September 28. This was the same growth rate as in the late-August report, although the more recent estimate reflects the BEA's annual benchmark revisions and the change to a 2017 base from the 2012 base used before. Also, while the total growth rate for Q2 is the same as before, revisions to the spending components are mixed. Consumer spending now has less growth in Q2, 0.8% saar versus 1.7% before. Nonresidential fixed investment was revised higher to 7.4% versus 6.1% before and residential investment fell at a 2.2% rate versus a 3.6% decline before. For Q3 GDP, the Blue Chip Economic Indicators forecast panel now has a consensus estimate of 3.5% growth after their 2.9% projection in the prior survey. The current survey has 3.2% growth in PCE, up from 2.7% before but 1.2% growth in nonresidential fixed investment, down from 1.4% estimated a month ago. For Q4, the panel forecasts a sharp slowing of GDP growth to just 0.7% annualized, although this is marginally more than the 0.6% in the prior forecast. The October pattern of quarterly estimates yields Q4 over Q4 growth of 2.1%, up from 1.9% in the September Blue Chip survey.

## Chained GDP Price Index

GDP Price Index Consensus Forecast

GDP Price Index

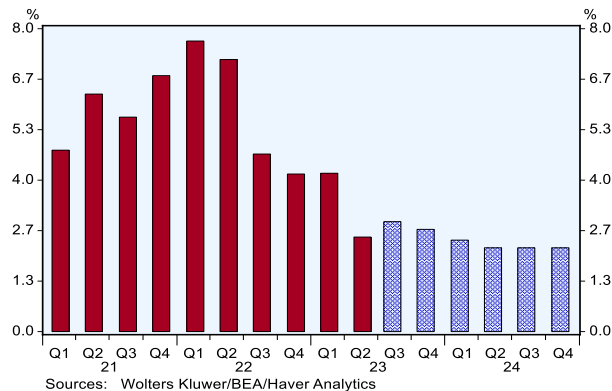


Inflation in Q2 as measured by the GDP price index was revised even lower in the third estimate—to 1.7% q/q saar from 2.0% in the second estimate and 2.2% in the advance report. This was the lowest inflation rate since prices fell sharply during the Covid lockdown in Q2 2020. The 4.1% inflation rate previously reported for Q1 was revised down to 3.9% in the benchmark revision. The rise in the PCE price index in Q2 was unrevised at 2.5%. The increase in prices of nonresidential fixed investment slowed to 0.2% in Q2 from 1.1% previously while the 7.2% gain previously reported for Q1 was revised down to 6.4%. Prices of residential investment fell 0.9% versus -1.2% previously. Export and import prices continued to fall, and by a little more than previously estimated. Prices paid by governments fell 1.1%, down from the previously reported 0.2% decline, led by a 2.9% drop in prices paid by state and local governments (vs -1.6% previously). With global energy prices having rebounded during Q3 (the price of WTI is more than 20% since the end of June), the BCEI consensus is looking for some reacceleration of GDP price inflation to 2.7% in Q3 and 2.6% in Q4 but declining to 2.2% by mid-2024.

## Chained PCE Price Index

PCE Price Index Consensus Forecast

PCE Price Index



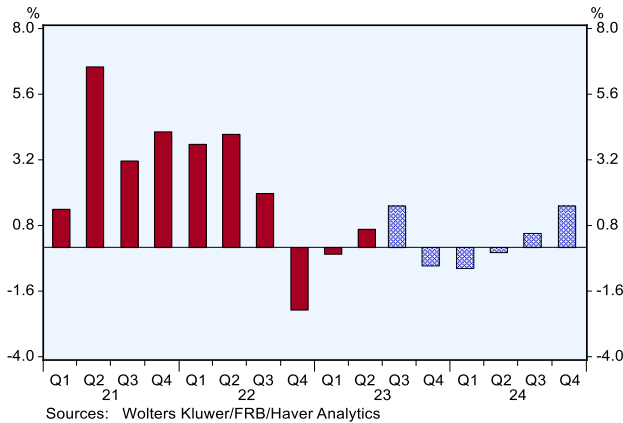
The sharp slowdown in PCE inflation to 2.5% q/q saar in Q2 was unrevised in the third estimate. However, the inflation rates for each of the preceding three quarters were revised up slightly in the benchmark revision. For those three quarters, headline PCE inflation is now estimated at 4.3% saar versus 4.0% previously. The rebound in global energy prices since early July was reflected in the 0.4% m/m jump in the headline PCE price index in August. Prices of energy goods and services jumped 6.1% m/m not annualized, their largest monthly gain since June 2022, and accounted for nearly two-thirds of the August increase in the headline index. By contrast, in the first seven months of this year, energy prices had fallen at a 7.8% annual rate. Apart from the surge in energy prices, other price increases continued to slow, with the core index (that is, excluding food and energy prices) edging up just 0.1% m/m in August, its smallest monthly gain since November 2020. The BCEI consensus looks for the rebound in energy prices to have pushed up headline PCE inflation in Q3 and Q4, to 2.9% and 2.7% respectively, but for inflation to slow to 2.2% by mid-2024.

# Quarterly U.S. Forecasts:

## Industrial Production

Industrial Production Consensus Forecast

Industrial Production

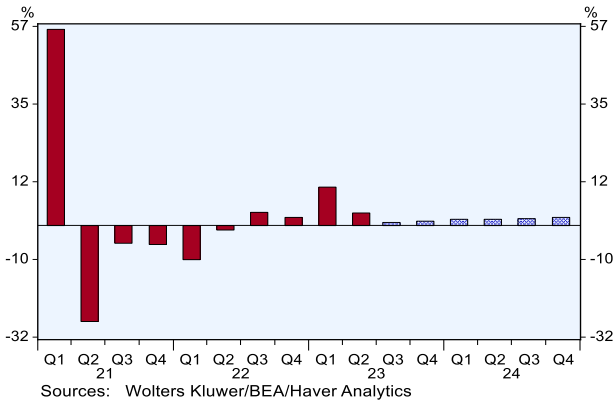


Industrial production (IP) is set to post its best annualized quarterly advance in 2023 of close to 2.0% during Q3, thanks to robust respective monthly advances of 0.7% and 0.4% in July and August. Manufacturing output rose 0.3% in July and 0.1% in August. The August rise was held back by a sharp 5.0% monthly decline in motor vehicles and parts. Excluding autos, manufacturing output rose 0.6%. The manufacturing ISM reports continue to depict a more depressed state in the sector. Activity in manufacturing continued to contract in September for the 11<sup>th</sup> consecutive month, registering a reading of 49.0, though slightly better than the August ISM index of 47.6. Encouragingly, production expanded, with the index at 52.5 in September, up from 50.0 in August, and the employment index rose to 51.2 in September from 48.5 (a reading above 50 points to expansion.) The new orders and export orders components remained in contraction territory. The October BCEI forecasts IP growth to be 1.5% in Q3, up from the September forecast of 0.5%, followed by respective declines of 0.7% and 0.8% in Q4 and Q1 2024. IP is projected to show a 0.3% rise in 2023 and a 0.1% rise in 2024.

## Real Disposable Personal Income

Real Disposable Income Consensus Forecast

Real Disposable Personal Income

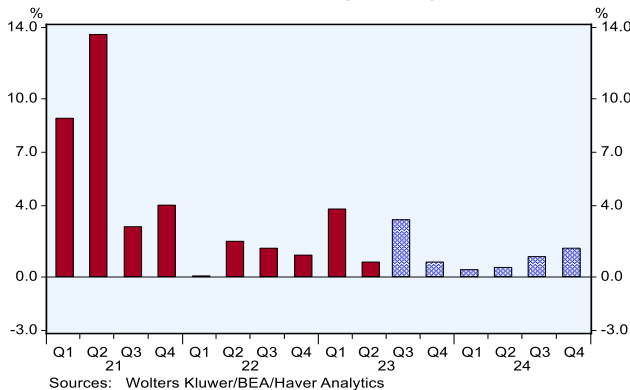


Personal income rose 0.4% (4.8% y/y) in August, reflecting rises in wages and salaries of 0.5% m/m and in rental income of 1.0% m/m. Disposable personal income (DPI) rose by a more modest 0.2% m/m as taxes strengthened 1.5% m/m during the month. However, personal consumption expenditures (PCE) prices rose 0.4% m/m, after a 0.2% m/m advance in July, so, when adjusted for inflation, personal income fell by less than 0.1% m/m (1.3% y/y) and DPI fell 0.2% m/m (+3.7% y/y), marking the second consecutive monthly decline in real DPI. The personal saving rate dropped to 3.9% in August from 4.1% in July. Third quarter to date real DPI shows an annualized quarterly decline that may be challenging to offset with only one month to go unless PCE inflation decelerates and/or compensation rises markedly. The 0.4% monthly rise in aggregate weekly payrolls during September, up slightly from the 0.3% advance in August, does not point to a significant acceleration in compensation during the month. The October BCEI forecasts increases in real DPI growth of 0.7% in Q3, 1.2% in Q4 and 1.7% in Q1 2024, yielding a rise of 3.9% in 2023 and an expected increase of 1.5% in 2024.

## Real Personal Consumption Expenditures

Real PCE Consensus Forecast

Real Personal Consumption Expenditure

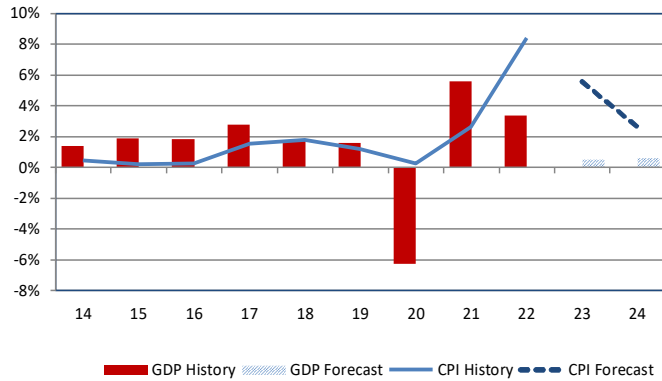


Real consumer spending in August edged up just 0.1% from July at a seasonally adjusted monthly rate. July's increase from June was unrevised at 0.6%. These later estimates for personal consumption expenditures (PCE) while seeming to show little change from the prior published numbers, do reflect the annual revisions in the National Accounts. The July total includes a 1.3% advance in spending on motor vehicles and parts, which then fell 0.9% in August. Total spending on durable goods increased 1.2% in July and then eased 0.3% in August. For nondurable goods, outlays rose 0.5% in July and then eased by 0.1% in August; this included a decline of 1.8% in gasoline and other energy in July and a further decrease of 0.4% in August. In current dollars, the July amount for gasoline fell 1.6%, but then surged 9.8% in August. For Q2 as a whole PCE had grown at 0.8% annual rate, reported on Sep 29 and revised from 1.7% reported at the end of August. For all of Q3, the Blue Chip forecast panel estimates that PCE increased at a 3.2% rate, which would be followed by just an 0.8% advance in Q4. That makes the year, Q4 over Q4, 2.2% after 1.2% in 2022.

# International Forecasts:

## Euro Area

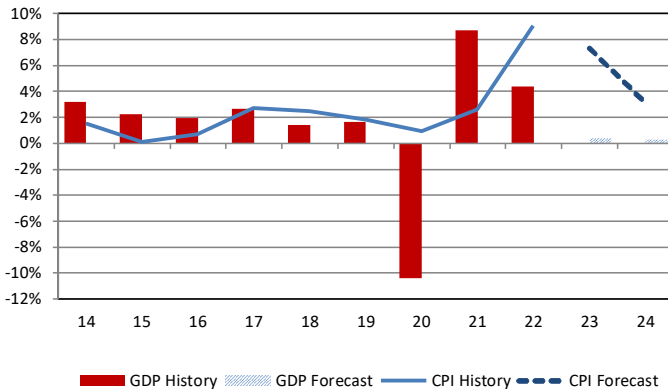
Euro Area GDP Growth and CPI Inflation



In a speech in early October, ECB Vice-President Luis de Guindos stated that economic activity had largely stagnated over the first half of the year and is expected to remain subdued in the coming months. He attributed the weakness to soft foreign demand and tight financing conditions that have particularly affected the manufacturing sector, though the services sector is now starting to “catch down” to manufacturing. The September PMI surveys for both manufacturing and services were in contraction territory. Moreover, the European Commission economic sentiment index at 93.3 in September remains below its long-term average of 100 for the 15<sup>th</sup> consecutive month. Meanwhile, the consumer sentiment index showed a deterioration to -17.8% last month from -16% in August. Inflation fell significantly to 4.3% in September from 5.2% in August. While recognizing the impact of the rate hikes to date, the ECB still sees both the scope and speed of the transmission as remaining uncertain, particularly as it pertains to the real economy, underscoring their data-dependent policy approach. The October Blue Chip forecasts GDP growth to be just 0.5% this year and 0.6% next year, and inflation to slow from 5.6% this year to 2.6% in 2024.

## UK

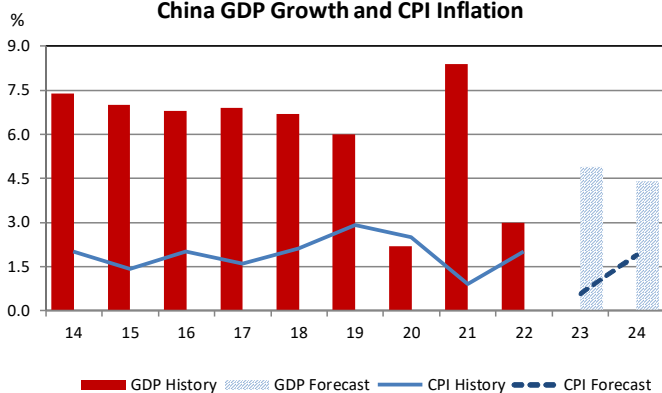
UK GDP Growth and CPI Inflation



The UK economy is exhibiting increasing signs of stress. The monthly estimate of GDP fell by 0.5% in July, thanks to a broadly based retreat in its three constituent output components, production, services and construction. That weakness found an echo in the labor market too with latest data showing the unemployment rate in the three months to July rising to 4.3%, up 0.5%-point from the previous three months. Meanwhile, the more forward-looking composite PMI, edged down to 48.5 in September, from 48.6 in August, thereby signaling the weakest performance from the economy since January. Partly thanks to these growing signs of economic stress, inflation has continued to cool in recent weeks and by more than expected. Core CPI inflation, for example, was 6.2% y/y in August 2023, down sharply from 6.9% in July. Against this backdrop, the BoE decided to pause its hiking cycle at its September 21st meeting. However, the decision was not unanimous and was accompanied by unchanged guidance, suggesting that the door to further hikes remains open. That being said, our special question on UK monetary policy this month reveals that 50% of our panelists believe the BoE has now reached the end of its tightening cycle.

## China

China GDP Growth and CPI Inflation



China's post-pandemic recovery has disappointed expectations but recent data suggest the economy may have turned a corner. Retail sales and industrial production growth, for example, picked up pace in August, while exports registered reduced rates of decline. The latest official composite PMI reading was firmer than expected, climbing to 52.0 in September, after 51.3 in August, and a second consecutive monthly advance. Broader deflation worries have eased as well off the heels of a headline CPI inflation rate of +0.1%/y/y in August after -0.3% in July. On the downside, China's FAI growth rose by just 3.2%/y/y in August, after 3.4% in July and pulled down by ongoing weakness in real estate investment. That squares with anecdotal evidence suggesting that property developers are still stressed. Combined with the absence of a compelling policy response, many panelists have been questioning the durability and strength of any cyclical upturn from here. In response to a special question, 72% of our panelists have been unimpressed by recent policy initiatives. Against this backdrop, the consensus forecast for GDP growth has been lowered to 4.9% in 2023 from a previous 5.0% and to 4.4% in 2024 from a prior 4.5%.

**2023 Historical Data**

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	2.8	-0.7	-0.9	0.4	0.7	0.2	0.5	0.6	....	....	....	....
Auto & Light Truck Sales (b)	15.10	14.88	14.93	15.68	15.51	16.05	15.94	15.34	15.67	....	....	....
Personal Income (a, current \$)	1.0	0.5	0.5	0.3	0.3	0.2	0.2	0.4	....	....	....	....
Personal Consumption (a, current \$)	1.6	0.4	-0.1	0.4	0.2	0.4	0.9	0.4	....	....	....	....
Consumer Credit (e)	5.1	2.8	4.8	3.5	-0.1	3.3	2.7	-3.8	....	....	....	....
Consumer Sentiment (U. of Mich.)	64.9	67.0	62.0	63.5	59.2	64.4	71.6	69.5	68.1	....	....	....
Household Employment (c)	894	177	577	139	-310	273	268	222	86	....	....	....
Nonfarm Payroll Employment (c)	472	248	217	217	281	105	236	227	336	....	....	....
Unemployment Rate (%)	3.4	3.6	3.5	3.4	3.7	3.6	3.5	3.8	3.8	....	....	....
Average Hourly Earnings (All, cur. \$)	33.02	33.11	33.20	33.34	33.45	33.60	33.73	33.81	33.88	....	....	....
Average Workweek (All, hrs.)	34.6	34.5	34.4	34.4	34.3	34.4	34.3	34.4	34.4	....	....	....
Industrial Production (d)	1.5	0.9	0.2	0.3	0.0	-0.3	0.0	0.2	....	....	....	....
Capacity Utilization (%)	79.6	79.5	79.5	79.8	79.4	79.0	79.5	79.7	....	....	....	....
ISM Manufacturing Index (g)	47.4	47.7	46.3	47.1	46.9	46.0	46.4	47.6	49.0	....	....	....
ISM Nonmanufacturing Index (g)	55.2	55.1	51.2	51.9	50.3	53.9	52.7	54.5	53.6	....	....	....
Housing Starts (b)	1.340	1.436	1.380	1.348	1.583	1.418	1.447	1.283	....	....	....	....
Housing Permits (b)	1.354	1.482	1.437	1.417	1.496	1.441	1.443	1.541	....	....	....	....
New Home Sales (1-family, c)	649	625	640	679	710	684	739	675	....	....	....	....
Construction Expenditures (a)	2.2	0.4	0.6	0.3	2.0	0.5	0.9	0.5	....	....	....	....
Consumer Price Index (nsa, d)	6.4	6.0	5.0	4.9	4.0	3.0	3.2	3.7	....	....	....	....
CPI ex. Food and Energy (nsa, d)	5.6	5.5	5.6	5.5	5.3	4.8	4.7	4.3	....	....	....	....
PCE Chain Price Index (d)	5.5	5.2	4.4	4.4	4.0	3.2	3.4	3.5	....	....	....	....
Core PCE Chain Price Index (d)	4.9	4.8	4.8	4.8	4.7	4.3	4.3	3.9	....	....	....	....
Producer Price Index (nsa, d)	5.7	4.7	2.7	2.3	1.1	0.1	0.8	1.6	....	....	....	....
Durable Goods Orders (a)	-1.3	-2.7	3.3	1.2	2.0	4.3	-5.6	0.1	....	....	....	....
Leading Economic Indicators (a)	-0.5	-0.5	-1.2	-0.8	-0.7	-0.6	-0.3	-0.4	....	....	....	....
Balance of Trade & Services (f)	-70.8	-70.6	-60.4	-73.0	-66.8	-63.7	-64.7	-58.3	....	....	....	....
Federal Funds Rate (%)	4.33	4.57	4.65	4.83	5.06	5.08	5.12	5.33	5.33	....	....	....
3-Mo. Treasury Bill Rate (%)	4.54	4.65	4.69	4.92	5.14	5.16	5.25	5.30	5.32	....	....	....
10-Year Treasury Note Yield (%)	3.53	3.75	3.66	3.46	3.57	3.75	3.90	4.17	4.38	....	....	....

**2022 Historical Data**

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	1.4	1.4	2.1	1.3	-0.1	0.8	-0.7	0.7	0.0	1.0	-1.3	-0.7
Auto & Light Truck Sales (b)	14.38	13.67	13.58	14.04	12.94	13.27	13.49	13.50	13.70	14.68	14.27	13.55
Personal Income (a, current \$)	-0.3	0.6	0.4	0.3	0.4	0.4	0.8	0.5	0.4	0.5	0.1	0.2
Personal Consumption (a, current \$)	0.5	0.7	1.2	0.6	0.4	1.0	0.0	0.8	0.6	0.6	-0.1	0.3
Consumer Credit (e)	4.6	8.3	10.1	7.3	6.9	8.6	6.8	7.0	6.9	8.8	8.1	4.8
Consumer Sentiment (U. of Mich.)	67.2	62.8	59.4	65.2	58.4	50.0	51.5	58.2	58.6	59.9	56.8	59.7
Household Employment (c)	1041	468	738	-346	317	-242	215	422	156	-257	-66	717
Nonfarm Payroll Employment (c)	364	904	414	254	364	370	568	352	350	324	290	239
Unemployment Rate (%)	4.0	3.8	3.6	3.6	3.6	3.6	3.5	3.7	3.5	3.7	3.6	3.5
Average Hourly Earnings (All, cur. \$)	31.63	31.63	31.83	31.94	32.06	32.18	32.33	32.43	32.53	32.66	32.80	32.92
Average Workweek (All, hrs.)	34.6	34.7	34.7	34.6	34.6	34.6	34.6	34.5	34.6	34.6	34.5	34.4
Industrial Production (d)	2.3	6.6	4.4	4.6	3.7	3.2	3.0	3.1	4.5	3.1	1.9	0.6
Capacity Utilization (%)	79.4	79.9	80.5	80.7	80.6	80.5	80.7	80.7	80.8	80.6	80.3	78.9
ISM Manufacturing Index (g)	57.6	58.4	57.0	55.9	56.1	53.1	52.7	52.9	51.0	50.0	49.0	48.4
ISM Nonmanufacturing Index (g)	60.4	57.2	58.4	57.5	56.4	56.0	56.4	56.1	55.9	54.5	55.5	49.2
Housing Starts (b)	1.669	1.771	1.713	1.803	1.543	1.561	1.371	1.505	1.463	1.432	1.427	1.357
Housing Permits (b)	1.898	1.817	1.877	1.795	1.708	1.701	1.658	1.586	1.588	1.555	1.402	1.409
New Home Sales (1-family, c)	810	773	707	611	636	563	543	638	567	577	582	636
Construction Expenditures (a)	2.4	1.5	1.4	1.8	-0.1	-0.4	-0.2	-1.2	-0.6	-0.4	0.6	-0.1
Consumer Price Index (nsa, d)	7.5	7.9	8.5	8.3	8.6	9.1	8.5	8.3	8.2	7.7	7.1	6.5
CPI ex. Food and Energy (nsa, d)	6.0	6.4	6.5	6.2	6.0	5.9	5.9	6.3	6.6	6.3	6.0	5.7
PCE Chain Price Index (d)	6.3	6.5	6.9	6.6	6.7	7.1	6.6	6.5	6.6	6.3	5.9	5.4
Core PCE Chain Price Index (d)	5.4	5.6	5.5	5.3	5.1	5.2	5.0	5.2	5.5	5.3	5.1	4.9
Producer Price Index (nsa, d)	10.1	10.4	11.7	11.2	11.1	11.2	9.7	8.7	8.5	8.2	7.4	6.4
Durable Goods Orders (a)	2.0	-1.4	-0.1	1.0	0.7	1.6	-0.8	-0.1	0.3	1.0	-3.1	4.5
Leading Economic Indicators (a)	-0.5	0.3	0.0	-0.6	-0.9	-0.7	-0.6	-0.3	-0.5	-0.9	-0.9	-0.7
Balance of Trade & Services (f)	-86.5	-87.0	-102.5	-86.0	-84.1	-80.9	-71.7	-67.3	-71.7	-78.3	-63.8	-71.4
Federal Funds Rate (%)	0.08	0.08	0.20	0.33	0.77	1.21	1.68	2.33	2.56	3.08	3.78	4.10
3-Mo. Treasury Bill Rate (%)	0.15	0.33	0.44	0.76	0.98	1.49	2.23	2.63	3.13	3.72	4.15	4.25
10-Year Treasury Note Yield (%)	1.76	1.93	2.13	2.75	2.90	3.14	2.90	2.90	3.52	3.98	3.89	3.62

(a) month-over-month % change; (b) millions, saar; (c) month-over-month change, thousands; (d) year-over-year % change; (e) annualized % change; (f) \$ billions; (g) level. Most series are subject to frequent government revisions. Use with care.



## Long-Range Consensus U.S. Economic Projections

I. The table below shows the latest U.S. Blue Chip Consensus projections by years for 2025 through 2029, an average for the five-year period 2025-2029, and an average for the next five-year period 2030-2034. There are also Top 10 and Bottom 10 averages for each variable. *Apply these projections cautiously. For the most part economic and political forces over such long time spans cannot be evaluated with accuracy.*

ECONOMIC VARIABLE		YEAR					Five-Year Averages	
		2025	2026	2027	2028	2029	2025-29	2030-34
		Percent Change, Full Year-Over-Prior Year						
1. Real GDP (chained, 2017 dollars)	CONSENSUS	1.7	2.1	1.9	1.9	1.8	1.9	1.8
	Top 10 Avg.	2.0	2.4	2.1	2.0	2.0	2.1	2.0
	Bottom 10 Avg.	1.4	1.8	1.7	1.7	1.6	1.6	1.6
2. GDP Chained Price Index	CONSENSUS	2.2	2.2	2.2	2.1	2.1	2.2	2.1
	Top 10 Avg.	2.4	2.4	2.4	2.3	2.3	2.4	2.3
	Bottom 10 Avg.	2.0	2.0	2.0	2.0	1.9	2.0	2.0
3. Nominal GDP (current dollars)	CONSENSUS	3.9	4.3	4.2	4.0	4.0	4.1	4.0
	Top 10 Avg.	4.2	4.6	4.4	4.2	4.2	4.3	4.2
	Bottom 10 Avg.	3.6	4.0	3.9	3.9	3.8	3.8	3.8
4. Consumer Price Index (for all urban consumers)	CONSENSUS	2.3	2.2	2.2	2.2	2.1	2.2	2.2
	Top 10 Avg.	2.4	2.4	2.4	2.3	2.3	2.4	2.4
	Bottom 10 Avg.	2.1	2.0	2.0	2.0	2.0	2.0	2.0
5. Industrial Production (total)	CONSENSUS	1.7	2.2	2.0	1.8	1.8	1.9	1.9
	Top 10 Avg.	2.3	2.8	2.4	2.2	2.1	2.3	2.2
	Bottom 10 Avg.	1.2	1.6	1.6	1.5	1.4	1.5	1.5
6. Disposable Personal Income (chained, 2017 dollars)	CONSENSUS	2.1	2.1	2.0	2.0	1.9	2.0	2.0
	Top 10 Avg.	2.5	2.4	2.3	2.2	2.2	2.3	2.2
	Bottom 10 Avg.	1.8	1.8	1.8	1.7	1.7	1.8	1.7
7. Personal Consumption Expenditures (chained, 2017 dollars)	CONSENSUS	1.7	2.1	2.0	2.0	1.9	1.9	2.0
	Top 10 Avg.	2.1	2.4	2.3	2.2	2.1	2.2	2.1
	Bottom 10 Avg.	1.3	1.8	1.8	1.8	1.8	1.7	1.8
8. Non-Residential Fixed Investment (chained, 2017 dollars)	CONSENSUS	2.4	3.2	3.1	3.0	2.9	2.9	3.1
	Top 10 Avg.	3.3	4.0	3.9	3.8	3.8	3.8	4.0
	Bottom 10 Avg.	1.4	2.4	2.3	2.2	2.0	2.1	2.2
9. Corporate Profits, Pretax (current dollars)	CONSENSUS	3.9	5.1	4.6	4.2	3.7	4.3	4.1
	Top 10 Avg.	5.2	6.1	5.3	4.9	4.7	5.2	4.6
	Bottom 10 Avg.	2.7	3.8	3.8	3.5	2.7	3.3	3.5
10. PCE Price Index (chain-type)	CONSENSUS	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	Top 10 Avg.	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	Bottom 10 Avg.	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<b>Annual Average</b>								
11. Treasury Bills, 3-Month (percent per annum)	CONSENSUS	3.4	2.8	2.7	2.7	2.6	2.8	2.7
	Top 10 Avg.	4.0	3.2	3.1	3.1	3.0	3.3	3.1
	Bottom 10 Avg.	2.8	2.3	2.3	2.3	2.2	2.4	2.2
12. Treasury Notes, 10-Year (yield per annum)	CONSENSUS	3.6	3.5	3.5	3.5	3.5	3.5	3.5
	Top 10 Avg.	4.1	3.9	3.9	3.9	3.9	3.9	4.0
	Bottom 10 Avg.	3.2	3.1	3.1	3.1	3.0	3.1	3.1
13. Unemployment Rate (% of civilian labor force)	CONSENSUS	4.2	4.0	4.0	4.0	4.0	4.0	4.0
	Top 10 Avg.	4.5	4.3	4.2	4.2	4.3	4.3	4.3
	Bottom 10 Avg.	3.9	3.8	3.8	3.8	3.8	3.8	3.8
<b>Total Units, Millions</b>								
14. Housing Starts (millions of units)	CONSENSUS	1.46	1.48	1.47	1.47	1.45	1.47	1.47
	Top 10 Avg.	1.53	1.55	1.55	1.56	1.56	1.55	1.58
	Bottom 10 Avg.	1.38	1.40	1.39	1.39	1.35	1.38	1.36
15. Total Auto & Light Truck Sales (millions of units)	CONSENSUS	16.1	16.2	16.3	16.2	16.1	16.2	16.2
	Top 10 Avg.	16.7	16.8	16.8	16.6	16.6	16.7	16.7
	Bottom 10 Avg.	15.5	15.6	15.8	15.9	15.7	15.7	15.8
<b>Billions of Chained, 2017 Dollars</b>								
16. Net Exports (billions of chained, 2017 dollars)	CONSENSUS	-934.0	-965.5	-984.5	-993.2	-1009.6	-977.4	-1083.0
	Top 10 Avg.	-897.4	-915.0	-932.5	-938.8	-935.9	-923.9	-953.6
	Bottom 10 Avg.	-971.3	-1015.0	-1033.7	-1043.5	-1076.5	-1028.0	-1191.1

## Long-Range Consensus U.S. Economic Projections

II. For comparison, this table includes a selection of the long-range consensus projections found on the preceding page, plus the latest long-range assumptions from the Congressional Budget Office (CBO).

ECONOMIC VARIABLE		YEAR					Five-Year Averages	
		2025	2026	2027	2028	2029	2025-29	2030-34
		Percent Change, Full Year-Over-Prior Year						
1. Real GDP (chained dollars)	CONSENSUS	1.7	2.1	1.9	1.9	1.8	1.9	1.8
	CBO	2.2	2.4	2.3	2.0	1.9	2.2	1.8
2. GDP Chained Price Index	CONSENSUS	2.2	2.2	2.2	2.1	2.1	2.2	2.1
	CBO	2.2	2.1	2.0	2.0	2.0	2.1	2.0
3. Nominal GDP (current dollars)	CONSENSUS	3.9	4.3	4.2	4.0	4.0	4.1	4.0
	CBO	4.4	4.5	4.3	4.0	3.9	4.2	3.8
4. Consumer Price Index (for all urban consumers)	CONSENSUS	2.3	2.2	2.2	2.2	2.1	2.2	2.2
	CBO	2.3	2.1	2.1	2.2	2.3	2.2	2.3
		<b>Annual Average</b>						
5. Treasury Bills, 3-Month (percent per annum)	CONSENSUS	3.4	2.8	2.7	2.7	2.6	2.8	2.7
	CBO	3.6	2.2	2.2	2.3	2.3	2.5	2.3
6. Treasury Notes, 10-Year (yield per annum)	CONSENSUS	3.6	3.5	3.5	3.5	3.5	3.5	3.5
	CBO	3.7	3.8	3.8	3.8	3.8	3.8	3.8
7. Unemployment Rate (% of civilian labor force)	CONSENSUS	4.2	4.0	4.0	4.0	4.0	4.0	4.0
	CBO	4.6	4.6	4.5	4.5	4.5	4.5	4.5

III. In this table, we compare the results of our most recent survey with those of our survey in March 2023.

ECONOMIC VARIABLE		YEAR					Five-Year Averages	
		2025	2026	2027	2028	2029	2025-29	2030-34
		Percent Change, Full Year-Over-Prior Year						
1. Real GDP (chained dollars)	October Consensus	1.7	2.1	1.9	1.9	1.8	1.9	1.8
	March Consensus	2.0	2.0	1.9	1.9	1.8	1.9	1.8
2. GDP Chained Price Index	October Consensus	2.2	2.2	2.2	2.1	2.1	2.2	2.1
	March Consensus	2.1	2.1	2.2	2.1	2.1	2.1	2.1
3. Nominal GDP (current dollars)	October Consensus	3.9	4.3	4.2	4.0	4.0	4.1	4.0
	March Consensus	4.2	4.2	4.1	4.0	3.9	4.1	3.9
4. Consumer Price Index (for all urban consumers)	October Consensus	2.3	2.2	2.2	2.2	2.1	2.2	2.2
	March Consensus	2.2	2.2	2.2	2.1	2.1	2.2	2.1
		<b>Annual Average</b>						
5. Treasury Bills, 3-Month (percent per annum)	October Consensus	3.4	2.8	2.7	2.7	2.6	2.8	2.7
	March Consensus	3.0	2.6	2.5	2.5	2.4	2.6	2.4
6. Treasury Notes, 10-Year (yield per annum)	October Consensus	3.6	3.5	3.5	3.5	3.5	3.5	3.5
	March Consensus	3.3	3.2	3.2	3.2	3.2	3.2	3.2
7. Unemployment Rate (% of civilian labor force)	October Consensus	4.2	4.0	4.0	4.0	4.0	4.0	4.0
	March Consensus	4.2	4.1	4.1	4.0	4.1	4.1	4.1

**Special Questions:**

1. What do you think will be the peak federal funds rate target (midpoint of range) in the current tightening cycle?

<u>Consensus</u>	5.47%
<u>Top 10</u>	5.63%
<u>Bottom 10</u>	5.37%

2. When will the first fed funds rate cut occur?

<u>Q4 2023</u>	<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Later</u>
7%	21%	43%	21%	7%

3. a. What is your estimate of the long-term neutral fed funds rate?

<u>Consensus</u>	2.58%
<u>Top 10</u>	3.05%
<u>Bottom 10</u>	2.16%

b. Since before the pandemic, has it increased, decreased, or remained the same?

<u>Increased</u> 64%	<u>Decreased</u> 0%	<u>Remained the same</u> 36%
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4. a. Has the European Central Bank completed its tightening cycle?      Yes 63%      No 37%

b. Has the Bank of England completed its tightening cycle?      Yes 50%      No 50%

5. a. Does the weakening of China's economy pose meaningful risks to the outlook for global growth?      Yes 86%      No 14%

b. Do you think recent policy measures in China will boost its growth rate?      Yes 28%      No 72%

## Viewpoints:

### A Sampling of Views on the Economy, Financial Markets and Government Policy Excerpted from Recent Reports Issued by Our Blue Chip Panel Members and Others

#### Supply-Side Upside Surprise in September; Jobs Report Boosts Soft Landing Odds

U.S. employers added a robust 336,000 nonfarm payroll jobs in September, and job growth in August and July were revised up a net 119,000. September's job growth was nearly twice the 170,000 consensus forecast. Factoring in the upside surprise and revisions, job growth averaged a solid 266,000 over the last three months, considerably faster than the 153,000 three-month moving average of the prior report.

The unemployment rate held steady at 3.8%, with growth of the labor force slowing after a big increase in August. The unemployment rate for men over age 20 edged up to 3.8% from 3.7%; for women 20+ edged down to 3.1% from 3.2%, and for teenagers fell to 11.6% from 12.2% (the school year's start could have had an effect there). Unemployment for White Americans was unchanged at 3.4%; for Black Americans rose to 5.7% from 5.3%; for Asian Americans fell to 2.8% from 3.1%; and for Hispanic or Latino Americans fell to 4.6% from 4.8%.

The labor force participation rate was unchanged at 62.8%; it is up half a percentage point over the last year, allowing a modest margin of slack to open in the economy. The labor force participation rate of Americans between 25 and 54 years of age—when most people are out of school and pre-retirement—was 83.5%, unchanged on the month at the highest since 2002. The labor force participation rate for all adults is down since the pandemic, reflecting a smaller share of people over 55 in the labor force.

The unemployment rate of Americans with a disability was 7.3%, unchanged from a year earlier—the Bureau of Labor Statistics doesn't adjust this indicator for seasonal variations, so month-over-month comparisons are tough to interpret. 22.5% of disabled Americans over 16 were working September 2023, up from 21.5% in September 2022. There are about 4 million more disabled adults in the United States than before the pandemic, an increase of more than 10%, and more of them are working. That reflects the dual impact of Covid-related disability and remote jobs that make it easier for people with disabilities to work.

Average hourly earnings rose 0.2% on the month, below the 0.3% consensus forecast. From a year earlier, average hourly earnings were up 4.2%, the slowest increase since June 2021—outpacing the CPI for a fourth consecutive month. The average workweek held steady at 34.4 hours. Aggregate hours worked by all payroll employees rose a moderate 0.2% on the month and were up 1.3% on the year. The last three months have seen the slowest year-ago growth of hours worked since the recovery from the pandemic went into high gear in 2021.

September's jobs report keeps the U.S. economy on course for a soft landing, meaning inflation could return to the Fed's target without a serious downturn. The month's robust job growth points to solid real GDP growth in the third quarter; Comerica forecasts 2.8% annualized growth, up from 2.1% in the second quarter and the fastest increase since the end of 2021. Mean-

while, wage-price pressures are subsiding, visible both in slower growth of average hourly earnings and in ADP's independently-produced data on private wages. The Fed would feel most comfortable with average hourly earnings growth of around 3.5%, which is their 2% inflation target plus their guess at trend growth of output per hour of around 1.5%.

One upside risk to wage growth in 2024 is larger wage increases for unionized workers given the large number of contracts under renegotiation this year. But unions only represent 6% of U.S. private workers. For the rest of the workforce—that is, the vast majority—a slower pace of job market churn is leading to slower wage increases as fewer workers quit jobs for higher wages at competitors, and as fewer employers offer higher salaries to lure those workers away. That will probably take more steam out of wage growth than union wage settlements pump into it.

The 10-year Treasury yield jumped to the highest since 2007 after the jobs report's release as the discount of 10-year interest rates relative to 2-year interest rates shrank. The jump in long-term interest rates is a financial Rorschach blob: The pessimistic read is as a warning that the fiscal deficit is spiraling out of control, while the optimistic read is to see it as evidence that financial markets are pricing in less risk of a recession. October 12's release of the Treasury Department's September financial statement will provide data to inform the debate. The deficit in July and August combined was \$299 billion smaller than in July and August of 2022. If the deficit shrank in the entire third quarter, it will bolster the more optimistic interpretation of rising long-term interest rates.

The Fed will see the jobs report as evidence that a soft landing is more likely than a serious downturn, and that inflationary pressures are subsiding although the pace of improvement is uncertain. The Fed could still raise the federal funds rate a final quarter percentage point before ending the current rate hike cycle, but it's a very close call. Arguing for a final rate hike, housing prices have surprised to the upside over the last few months, which could fuel continued shelter price inflation in 2024. Arguing against a hike, the ten-year Treasury yield is up by a full percentage point over the last three months despite the Fed only raising its policy rate a quarter percent; that means higher mortgage rates, which will likely slow house price increases. More broadly, the Fed could see higher long-term interest rates as doing the heavy lifting for them and making further increases to short-term rates unnecessary.

Whether the Fed hikes or not near-term, the path is clearing for them to pivot to rate cuts in mid-2024 as wage growth and core inflation slow further. Also, wholesale prices of gasoline traded in commodity markets fell to the lowest since the turn of the year in early October, which consumers are starting to see at the pump. At the same time, long-term financing costs are expected to stay high in 2024 as the current, unusual discount of long-term interest rates relative to short-term interest rates goes back to a more typical premium.

*Bill Adams and Waran Bhahirethan (Comerica Economics)*

## Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
<b>October 9</b> NABE Outlook (Q3)  <b>COLUMBUS DAY</b> <b>BOND MARKET CLOSED</b>	<b>10</b> Wholesale Trade (Aug) NFIB (Sep) Treasury Auction Allotments	<b>11</b> Producer Prices (Sep) Kansas City Fed Labor Market Conditions Indicators (Sep) Kansas City Financial Stress Index (Sep) Mortgage Applications	<b>12</b> CPI (Sep) Real Earnings (Sep) Transportation Services (Aug) Cleveland Fed Median CPI(Sep) Monthly Treasury (Sep) CEO Confidence Survey (Q4) OPEC Crude Oil Spot Prices (Sep) EIA Crude Oil Stocks Weekly Jobless Claims	<b>13</b> Import & Export Prices (Sep) Housing Affordability (Aug) Consumer Sentiment (Oct, Preliminary)
<b>16</b> Empire State Mfg Survey (Oct)	<b>17</b> Advance Retail Sales (Sep) IP & Capacity Utilization (Sep) MTIS (Aug) Business Leaders Survey (Oct) Home Builders (Oct) TIC Data (Aug)	<b>18</b> New Residential Construction (Sep) EIA Crude Oil Stocks Mortgage Applications	<b>19</b> Existing Home Sales (Sep) Philadelphia Fed Mfg Business Outlook Survey (Oct) Composite Indexes (Sep) Weekly Jobless Claims	<b>20</b>
<b>23</b> Treasury Auction Allotments (Oct) Chicago Fed National Activity Index (Sep)	<b>24</b> H.6 Money Stock (Sep) S&P Global Flash PMIs (Oct) Philadelphia Fed Nonmanufacturing Business Outlook Survey (Oct) Richmond Fed Mfg & Service Sector Surveys (Oct)	<b>25</b> New Residential Sales (Sep) BED (Q1) Final Building Permits (Sep) FRB Philadelphia Coincident Economic Activity Index (Sep) EIA Crude Oil Stocks Mortgage Applications	<b>26</b> Adv Durable Goods (Sep) Adv Trade & Inventories (Sep) GDP (Q3, Adv) Kansas City Fed Manufacturing Survey (Oct) Steel Imports for Consumption (Sep, Preliminary) Pending Home Sales (Sep) Weekly Jobless Claims	<b>27</b> Personal Income (Sep) Consumer Sentiment (Oct, Final) Strike Report (Oct) Dallas Fed Trimmed-Mean PCE(Sep) Alternate Measures of Labor Underutilization (Q3)
<b>30</b> NABE Business Conditions Survey (Q3) Texas Manufacturing Outlook Survey (Oct)	<b>31</b> Employment Cost Index (Q3) FHFA HPI (Aug) Case-Shiller HPI (Aug) Consumer Confidence (Oct) Housing Vacancies (Q3) Agricultural Prices (Sep) Chicago PMI (Oct) Texas Service Sector Outlook Survey (Oct) FOMC Meeting	<b>November 1</b> ADP Employment Report (Oct) JOLTS (Sep) ISM Manufacturing (Oct) S&P Global Mfg PMI (Oct) Construction (Sep) FOMC Meeting EIA Crude Oil Stocks Mortgage Applications	<b>2</b> Productivity & Costs (Q3) Manufacturers' Shipments, Inventories & Orders (Sep) Challenger Employment Report (Oct) BEA Auto & Truck Sales (Oct) Weekly Jobless Claims	<b>3</b> Employment Situation (Oct) ISM Services PMI (Oct) S&P Global Services PMI (Oct) Baker Hughes International Rig Count (Oct)
<b>6</b> Public Debt (Oct) Senior Loan Officer Survey (Q4) Interest on Public Debt (Oct)	<b>7</b> International Trade (Sep) Consumer Credit (Sep) Treasury Auction Allotments (Oct) Kansas City Fed Labor Market Conditions Indicators (Oct)	<b>8</b> Transportation Services Index (Sep) Wholesale Trade (Sep) EIA Crude Oil Stocks Mortgage Applications	<b>9</b> Kansas City Financial Stress Index (Oct) First Time Housing Affordability (Q3) Weekly Jobless Claims	<b>10</b> Consumer Sentiment (Nov, Preliminary)  <b>VETERANS DAY OBSERVED</b> <b>BOND MARKET CLOSED</b>
<b>13</b> Survey of Professional Forecasters (Q4) Dallas Fed Banking Conditions Survey (Sep) Monthly Treasury Statement (Oct) OPEC Crude Oil Spot Prices (Oct)	<b>14</b> CPI (Oct) Cleveland Fed Median CPI (Oct) NFIB (Oct)	<b>15</b> Advance Retail Sales (Oct) Producer Prices (Oct) MTIS (Sep) Empire State Mfg Survey (Nov) EIA Crude Oil Stocks Mortgage Applications	<b>16</b> Import & Export Prices (Oct) IP & Capacity Utilization (Oct) Business Leaders Survey (Nov) Philadelphia Fed Mfg Business Outlook Survey (Nov) Home Builders (Nov) Kansas City Fed Manufacturing Survey (Nov) TIC Data (Sep) Weekly Jobless Claims	<b>17</b> New Residential Construction (Oct) Retail E-Commerce Sales (Q3) Advance Quarterly Services (Q3)

## EXPLANATORY NOTES

For 47 years, *Blue Chip Economic Indicators'* monthly survey of leading business economists has provided private and public sector decision-makers timely and accurate forecasts of U.S. economic growth, inflation and a host of other critical indicators of business activity. The newsletter utilizes a standardized format that provides a fast read on the prevailing economic outlook. The survey is conducted over two days, generally during the first week of each month. Forecasts of U.S. economic activity are collected from more than 50 leading business economists each month. The newsletter is generally finished on the third day following completion of the survey and delivered to subscribers via e-mail or first class mail.

The hallmark of *Blue Chip Economic Indicators* is its *consensus forecasts*. Numerous studies have shown that by averaging the opinions of many experts, the resulting consensus forecasts tend to be more accurate over time than those of any single forecaster.

**Annual Forecasts** On pages 2 and 3 of the newsletter are individual and consensus forecasts of U.S. economic performance for this year and next. The names of the institutions that contribute forecasts to these pages are listed on the left of the page. They are ranked from top to bottom based on how fast they expect the U.S. economy to expand in the current year. Some of these institutions have one or more asterisks (\*) after their names, denoting how many times they have won the annual *Lawrence R. Klein Award for Blue Chip Forecast Accuracy*. The award winner is determined by W.P. Carey School of Business at Arizona State University.

Across the top of pages 2 and 3 is a list of the variables for which the individual cooperators have provided forecasts. Definitions and organizations that issue estimates for these variables are found at the bottom of page 3. For columns 1-10, the forecasts are for the year-over-year percent change in each variable. Columns 11-13 represent average percentage levels of the year in question. Column 16 is an inflation-adjusted dollar level, measured in billions of chained 2012 dollars. High and low forecasts from the panel members for each variable are denoted with an "H" or "L".

Immediately below the forecasts of the individual contributors are this month's consensus forecasts. The consensus is derived by averaging our panel members' forecasts for each variable. Below the consensus forecasts are averages of this month's ten highest and ten lowest forecasts for each variable. Below them are last month's consensus forecasts. To put the forecasts in context, we include four years of historical data for each variable at the bottom of page 2. Please note that these figures can change due to government revisions of previously released estimates. Below the historical data are the number of forecasts changed from a month ago for each variable, the median forecast for each variable and a diffusion index. The diffusion index serves as a leading indicator of future changes in the consensus forecast. A reading above 50% hints of future increases in the consensus; a reading below 50% hints of future declines. The diffusion index is calculated by adding to the number of forecasters who raised their forecasts for a particular variable this month, half the number of those who left their forecasts unchanged, then dividing the sum by the total number of those contributing forecasts.

**Historical Annual Consensus Forecasts** Page 4 contains the forecasts from previous issues for the current and subsequent year so that subscribers can see how the outlook has changed over time. Each issue also includes graphs and analysis focusing on noteworthy changes and trends in the consensus outlook.

**Quarterly Forecasts** Page 5 contains quarterly historical data and consensus forecasts of the U.S. economy's performance. For columns 1-10, the forecasts are for the quarter-over-quarter, seasonally-adjusted, annualized percent change in each variable. Columns 11-13 represent average percentage levels for the quarter in question. Columns 14 and 15 represent seasonally-adjusted, annualized levels for the quarter, measured in billions of inflation-adjusted dollars. As is the case on pages 2-3, the consensus quarterly forecasts on the top half of page 5 are simple averages of our contributors' forecasts. The high-10 and low-10 forecasts are averages of the 10 highest and 10 lowest forecasts for each variable. At the bottom of page 5 are additional quarterly consensus forecasts for Real GDP, GDP Price Index, Industrial Production and Consumer Price Index. These figures are produced by taking the annualized quarterly consensus forecasts found on the top of page 5 and computing a quarterly dollar value for Real GDP, and average quarterly index levels for the GDP Price Index, Industrial Production and the Consumer Price Index. We then compute a year-over-year percentage change between the relevant quarter and the corresponding quarter of the previous year.

**International Forecasts** Pages 6-7 contain historical data and consensus forecasts of five key economic variables for 15 of the U.S.'s largest trading partners. A list of the institutions contributing forecasts to these pages can be found at the bottom of page 7. Columns 1 and 2 are forecasts of the year-over-year percent change in inflation-adjusted economic growth and consumer price inflation for this year and next. Column 3 is each nation's estimated current account surplus or deficit, reported in billions of current U.S. dollars. Column 4 is the estimated value of each nation's currency versus the U.S. dollar at the end of this year and next. Column 5 is the estimated level of interest rates on 3-month interest rates in each nation at the end of this year and next. Immediately below this month's consensus and the top 3 and bottom 3 averages for each variable are last month's forecasts and a limited amount of historical data. The historical data may change from month-to-month due to government revisions.

**Special Questions** On page 16, we report on panel members' answers to our special questions. Individuals' responses to the special questions are never displayed, only consensus, top-10 and bottom-10 results. *In March and October, we publish our semi-annual, long-range surveys.* In addition to our usual forecasts for this year and next, the semiannual, long-range survey results provide subscribers with consensus forecasts of all the variables found on pages 2 and 3 for the each of the following five years, plus an average for the five-year period after that.

**Blue Chip Econometric Detail** With the March, June, September and December issues, subscribers also receive a four-page quarterly supplement entitled *Blue Chip Econometric Detail*. The supplement contains forecasts of an expanded list of economic and financial variables that are derived from the consensus forecasts found in *Blue Chip Economic Indicators*. Macroeconomic Advisers by IHS Markit of St. Louis, Missouri produces this forecast detail based on a simulation of its econometric model of the U.S. economy.

*Should you have questions about the contents, or methods used to produce Blue Chip Economic Indicators, please contact Joseph Aguinaldo at (212) 986-9300 or email him at: bluechip@haver.com.*

# Blue Chip Financial Forecasts®

**Top Analysts' Forecasts Of U.S. And Foreign Interest Rates, Currency Values  
And The Factors That Influence Them**

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## Market Rates March Higher But Expected to Soon Decline

**Market interest rates continued to march higher over the past month.** The yield on the benchmark 10-year Treasury note has risen more than 50bps since the last FOMC meeting in September and more than 100bps since the FOMC last raised its fed funds rate (FFR) target in July. Importantly, the rise over the past few months does not appear to reflect increased inflation expectations as market gauges of those expectations have been relatively steady. Since early April, the yield on the 10-year Treasury note has increased more than 150bps while market-based inflation expectations have risen less than 20bps.

In answering a special question, the top three reasons the Blue Chip Financial Forecasts (BCFF) panelists gave for the increase in market yields were the resilient US economy, increasing expectations that the Fed will be tighter for even longer and the heavier issuance of government debt from the ballooning fiscal deficit. Rising rates are taking their toll on interest-sensitive parts of the economy. Housing starts rebounded in September but are down 14% since May; nonresidential fixed investment slipped 0.1% q/q saar in Q3 after solid gains in the first and second quarters.

**Headwinds.** The US economy continues to face headwinds that pose a threat to growth in the period ahead: the lagged impact of past monetary tightening, the still-elevated price of energy from the summer rebound (the price of energy was up 19.6% q/q saar in the Q3 GDP report), the resumption of student loan payments, another potential federal government shutdown (the early-October agreement expires in mid-November), and most recently the added uncertainty generated by the Israel-Hamas conflict. BCFF forecasters look for these headwinds to significantly slow the economy in the current quarter and the first half of next year, thereby easing some of the upward pressure on market interest rates. The consensus looks for GDP to increase only 0.9% q/q saar in the current quarter and just 0.3% in the first half of next year and looks for a near-recession 0.5%-point increase in the unemployment rate by the middle of next year.

**Economy still resilient.** However, the two remaining factors that BCFF panelists think are currently supporting market rates could persist in the period just ahead. It remains unclear when the Fed will become confident of returning inflation to its target and therefore begin to remove some of its tightening. In a recent speech, Fed Chair Powell continued to note that “the record suggests that a sustainable return to our 2% inflation goal is likely to require a period of below-trend growth and some further softening in labor market conditions.” However, with GDP growth at 4.9% in Q3 and the unemployment rate just above a 50+-year low, subpar growth and rising unemployment have yet to materialize. Still, the BCFF consensus looks for a much more rate-friendly environment soon.

The FFR futures market does not anticipate the first cut until next June at the earliest, while 81% of BCFF panelists don't expect the first rate cut until the second quarter of next year or later. In last month's survey, that percentage was 69%. Moreover, last month, no respondent looked for the first cut later than

next year's third quarter. This month, 6% do. As for federal government debt issuance, with the federal deficit swelling to \$1.69 trillion in the fiscal year ended in September, there appears to be little slowdown in sight.

**Market rates to fall.** The BCFF consensus' expected sharp slowdown in the economy has led it to expect that longer-term market interest rates are peaking in the current quarter and will fall over the remainder of the six-quarter forecast horizon. Of note, the consensus looks for a 1-1/4% point decline in the mortgage interest rate by the first quarter of 2025, which should bring some relief to the floundering housing market. Moreover, notwithstanding the weak growth outlook, the consensus does not envision any stress on corporate debt with the spread between corporate debt and Treasury debt expected to be little changed over the forecast period.

**FFR has likely peaked.** As for the outlook for monetary policy, the FFR futures market has concluded that the tightening of financial conditions from the rise in market interest rates will keep the Fed on hold at its next FOMC meeting on Oct 31-Nov 1. It is now heavily discounting a rate hike at that meeting (99% probability of no change). While the highest probabilities at the next couple of meetings are for no further increases in the FFR target, the futures market places a small probability of one more 25bp increase in either December or during the first quarter of next year.

The BCFF panelists generally agree. Of the 30 respondents to a special question, 23 (77%) thought that the current FFR target of 5.375% was the peak for this cycle, while only seven thought there would be one more 25bp hike. In last month's survey, 69% thought the current target FFR was the peak. Moreover, 84% of respondents thought that the recent increase in market rates would delay or prevent any further Fed increases. These views of the BCFF consensus are also reflected in its forecasts of the quarterly average FFR. The FFR is expected to average 5.40% in the current quarter, only slightly above the current rate (that is, reflecting that a few respondents do expect one more 25bp hike). The Q1 2024 forecast is little changed at 5.43%, indicating the Fed on hold, with the first cut most likely to occur during the second quarter and reflected in the 19bp decline in the Q2 forecast.

**Monetary policy is tight.** Regardless of whether the Fed raises its FFR target another 25bps or not, monetary policy appears currently to be tight, a point that has often been made by Chair Powell. In answering a special question, respondents estimated that the neutral FFR (the rate that is neither restrictive nor expansionary) is 2.90%. While this is 40bps higher than the FOMC's latest estimate in September, it is roughly half of the current FFR target and indicates a tight policy. Moreover, the real FFR (the FFR adjusted for inflation) is currently 1.94%, just below the highest it has been since the fall of 2007 and well above -6.52% at the beginning of this tightening cycle in March 2022. This also points to a tight policy.

### Consensus Forecasts of U.S. Interest Rates and Key Assumptions

Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month		Latest Qtr		4Q	1Q	2Q	3Q	4Q	1Q
	Oct 20	Oct 13	Oct 6	Sep 29	Sep	Aug	Jul	3Q 2023	2023	2024	2024	2024	2024	2025
Federal Funds Rate	5.33	5.33	5.33	5.33	5.33	5.33	5.12	5.26	5.4	5.4	5.2	4.9	4.5	4.1
Prime Rate	8.50	8.50	8.50	8.50	8.50	8.50	8.29	8.43	8.5	8.5	8.4	8.0	7.6	7.2
SOFR	5.30	5.31	5.32	5.31	5.31	5.30	5.09	5.23	5.4	5.4	5.3	4.9	4.5	4.1
Commercial Paper, 1-mo.	5.33	5.32	5.33	5.32	5.31	5.30	5.16	5.26	5.4	5.4	5.2	4.8	4.4	4.1
Treasury bill, 3-mo.	5.60	5.62	5.62	5.57	5.56	5.56	5.49	5.54	5.5	5.4	5.2	4.8	4.5	4.1
Treasury bill, 6-mo.	5.57	5.57	5.58	5.53	5.51	5.54	5.53	5.53	5.5	5.4	5.1	4.7	4.4	4.1
Treasury bill, 1 yr.	5.44	5.40	5.44	5.46	5.44	5.37	5.37	5.39	5.4	5.2	4.9	4.6	4.3	4.0
Treasury note, 2 yr.	5.14	5.01	5.09	5.06	5.02	4.90	4.83	4.92	5.0	4.8	4.5	4.2	3.9	3.8
Treasury note, 5 yr.	4.86	4.64	4.73	4.63	4.49	4.31	4.14	4.31	4.7	4.5	4.3	4.1	3.9	3.8
Treasury note, 10 yr.	4.87	4.64	4.75	4.58	4.38	4.17	3.90	4.15	4.7	4.5	4.3	4.2	4.0	3.9
Treasury note, 30 yr.	5.00	4.81	4.89	4.71	4.47	4.28	3.96	4.24	4.8	4.7	4.5	4.5	4.3	4.2
Corporate Aaa bond	5.93	5.75	5.82	5.58	5.38	5.25	4.98	5.20	5.6	5.5	5.4	5.2	5.1	5.0
Corporate Baa bond	6.59	6.40	6.48	6.21	6.03	5.90	5.64	5.86	6.6	6.5	6.4	6.3	6.2	6.1
State & Local bonds	4.90	4.79	4.86	4.74	4.54	4.39	4.20	4.38	4.8	4.8	4.6	4.5	4.4	4.4
Home mortgage rate	7.63	7.57	7.49	7.31	7.20	7.07	6.84	7.04	7.5	7.3	7.1	6.8	6.6	6.4

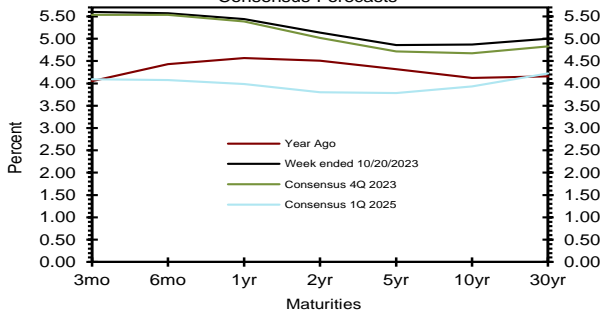
Key Assumptions	History								Consensus Forecasts-Quarterly					
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
	2021	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024	2024	2024	2025
Fed's AFE \$ Index	106.9	108.3	113.5	118.8	119.8	115.5	114.6	115.1	117.6	118.0	117.2	116.6	116.4	116.7
Real GDP	7.0	-2.0	-0.6	2.7	2.6	2.2	2.1	4.9	0.9	0.3	0.3	1.0	1.5	1.9
GDP Price Index	7.0	8.5	9.1	4.4	3.9	3.9	1.7	3.5	2.7	2.4	2.3	2.2	2.2	2.3
Consumer Price Index	8.8	9.2	9.7	5.5	4.2	3.8	2.7	3.6	3.2	2.5	2.4	2.5	2.5	2.3
PCE Price Index	6.8	7.7	7.2	4.7	4.1	4.2	2.5	2.9	2.9	2.4	2.2	2.3	2.3	2.2

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. All interest rate data are sourced from Haver Analytics. Historical data for Fed's Major Currency Index are from FRSR H.10. Historical data for Real GDP, GDP Price Index and PCE Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index history is from the Department of Labor's Bureau of Labor Statistics (BLS).

#### US Treasury Yield Curve

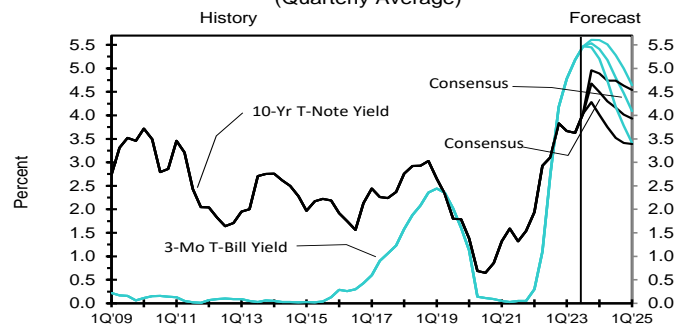
Week ended Oct 20, 2023 & Year Ago vs.

4Q 2023 & 1Q 2025  
Consensus Forecasts



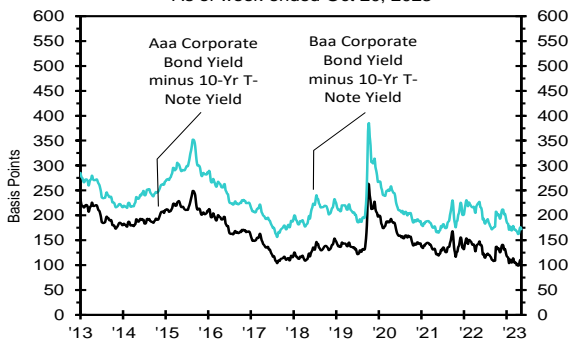
#### US 3-Mo T-Bills & 10-Yr T-Note Yield

(Quarterly Average)



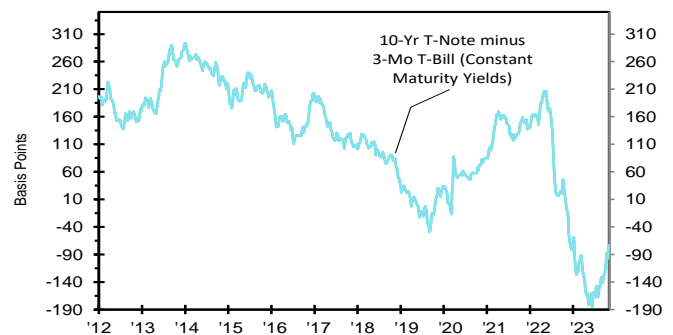
#### Corporate Bond Spreads

As of week ended Oct 20, 2023



#### US Treasury Yield Curve

As of week ended Oct 20, 2023



-----Policy Rates<sup>1</sup>-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	5.38	5.38	3.13	<b>5.49</b>	<b>5.36</b>	<b>4.52</b>
Japan	-0.10	-0.10	-0.10	<b>-0.08</b>	<b>-0.06</b>	<b>-0.05</b>
U.K.	5.25	5.25	2.25	<b>5.28</b>	<b>5.09</b>	<b>4.43</b>
Switzerland	1.75	1.75	0.50	<b>1.79</b>	<b>1.75</b>	<b>1.59</b>
Canada	5.00	5.00	3.25	<b>5.03</b>	<b>4.88</b>	<b>4.17</b>
Australia	4.10	4.10	2.60	<b>4.24</b>	<b>4.12</b>	<b>3.76</b>
Euro area	4.50	4.50	1.25	<b>4.38</b>	<b>4.22</b>	<b>3.56</b>

-----10-Yr. Government Bond Yields<sup>2</sup>-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	4.93	4.44	4.21	<b>4.64</b>	<b>4.39</b>	<b>3.92</b>
Germany	2.90	2.74	2.42	<b>2.76</b>	<b>2.63</b>	<b>2.44</b>
Japan	0.84	0.75	0.26	<b>0.85</b>	<b>0.80</b>	<b>0.66</b>
U.K.	4.67	4.29	4.16	<b>4.52</b>	<b>4.28</b>	<b>3.88</b>
France	3.52	3.29	2.99	<b>3.27</b>	<b>3.09</b>	<b>2.88</b>
Italy	4.97	4.63	4.76	<b>4.49</b>	<b>4.31</b>	<b>4.10</b>
Switzerland	1.16	1.06	1.39	<b>1.29</b>	<b>1.31</b>	<b>1.29</b>
Canada	4.07	3.91	3.62	<b>3.91</b>	<b>3.76</b>	<b>3.39</b>
Australia	4.74	4.33	4.20	<b>4.59</b>	<b>4.27</b>	<b>3.69</b>
Spain	4.03	3.78	3.53	<b>3.76</b>	<b>3.60</b>	<b>3.42</b>

-----Foreign Exchange Rates<sup>3</sup>-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	118.24	117.23	123.16	<b>119.3</b>	<b>116.4</b>	<b>112.7</b>
Japan	149.85	148.24	146.35	<b>147.2</b>	<b>142.6</b>	<b>135.3</b>
U.K.	1.22	1.23	1.13	<b>1.22</b>	<b>1.23</b>	<b>1.24</b>
Switzerland	0.89	0.91	1.00	<b>0.91</b>	<b>0.90</b>	<b>0.89</b>
Canada	1.37	1.35	1.37	<b>1.35</b>	<b>1.33</b>	<b>1.30</b>
Australia	0.63	0.65	0.64	<b>0.65</b>	<b>0.66</b>	<b>0.68</b>
Euro	1.06	1.07	0.99	<b>1.05</b>	<b>1.06</b>	<b>1.09</b>

	Consensus Policy Rates vs. US Rate			Consensus 10-Year Gov't Yields vs. U.S. Yield	
	Now	In 12 Mo.		Now	In 12 Mo.
Japan	-5.48	<b>-4.56</b>	Germany	-2.03	<b>-1.47</b>
U.K.	-0.13	<b>-0.09</b>	Japan	-4.09	<b>-3.26</b>
Switzerland	-3.63	<b>-2.93</b>	U.K.	-0.26	<b>-0.04</b>
Canada	-0.38	<b>-0.34</b>	France	-1.41	<b>-1.04</b>
Australia	-1.28	<b>-0.75</b>	Italy	0.04	<b>0.18</b>
Euro area	-0.88	<b>-0.95</b>	Switzerland	-3.77	<b>-2.63</b>
			Canada	-0.85	<b>-0.52</b>
			Australia	-0.19	<b>-0.23</b>
			Spain	-0.90	<b>-0.50</b>

**International.** The geopolitical instability in the Middle East, fueled by the conflict between Israel and Gaza, has contributed to financial market volatility in recent weeks. Despite this, there are scant indications so far to indicate that this turmoil could significantly impact the prospects for global growth. For instance, oil prices, a critical channel through which these tensions could affect economic stability, have remained relatively stable compared to their levels before the conflict. October's incoming survey data, while admittedly still weak, have also shown resilience. Nevertheless, it is probably premature to form a strong view on the conflict's repercussions. For the record, and in response to a specific question on this topic, 57% of our panelists believe the instability will trigger a substantial increase in oil prices. Among that group, 67% think this could pose considerable risks to their global growth forecasts.

Another factor, however, that has undermined financial market sentiment in recent weeks is rising bond yields. That trend can arguably be traced to a number of factors, including a tighter-for-longer Fed policy stance, stronger-than-expected US growth data, fiscal policy funding pressures, together with rising oil prices and mounting inflation concerns. However, much of the recent increase in nominal yields can be traced to higher real yields. Inflation expectations, in contrast, have been relatively steady. That last point is of note as it should allay concerns that the Fed's monetary policy stance has been too loose.

An additional element that had been weakening the global economic outlook was an unexpected slowdown in China. Recent data from the past month tentatively indicate that the economy could have turned a corner. While GDP growth in Q3 still slowed, to a 4.9%/y pace in Q3, after 6.3% in Q2, that was still stronger than expected. September's data showing firming retail sales and some stability in industrial production growth have also added weight to a more upbeat view.

However, this does not mean that China's economy is out of danger. Its property market, for example, is clearly under strain. Additional data for September suggest that building sales and real estate development investment extended steep declines from levels seen a year ago. In response, Chinese policymakers have implemented several measures to boost the sector, including reducing benchmark interest rates and relaxing homebuyer borrowing rules. Nevertheless, confidence in the outlook remains depressed. Many of our panelists are equally downbeat; 82% of our panelists believe the situation in China poses significant risks to global economic growth.

Europe is another region that could exert greater downward pressure on global growth in the period ahead. The flash composite PMI readings for the UK and the euro area remained in contraction territory in October. Additional indicators, such as downbeat messaging from bank lending surveys and year-on-year contractions in broad money supply aggregates, suggest that tighter monetary policy is having a more pronounced impact. Recent decisions from both the ECB and Bank of England to leave policy rates on hold further indicate rising levels of concern. This has led many panelists to believe that both the ECB and the BoE have reached the peak of their rate-hiking cycles; 78% of panelists believe that the ECB has concluded its tightening cycle, while 62% think UK policy rates have now reached their peak.

Finally, the focus in Japan remains at the other end of this cycle, and specifically on when exactly a normalization of monetary policy will commence. But while the economy exhibited relatively sturdy growth in H1, much of that can be traced to net trade. Domestic demand, and consumer spending in particular, have been weak. More forward-looking business surveys, such as October's flash PMI, additionally suggest the economy is losing momentum. And while headline CPI inflation has held above 2% since April 2022, wage growth has failed to keep pace. Given this, coupled with the aforementioned uncertainty about global growth prospects, the consensus (albeit a narrow one) is that a rate-hiking cycle from the Bank of Japan (BoJ) is unlikely to commence until mid-2024, at the earliest.

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: <sup>1</sup>Monetary policy rates. <sup>2</sup>Government bonds are yields to maturity. <sup>3</sup>Foreign exchange rate forecasts for U.K., Australia and the Euro are U.S. dollars per currency unit. For the U.S. dollar, forecasts are of the U.S. Federal Reserve Board's AFE Dollar Index.

# Fourth Quarter 2023

## Interest Rate Forecasts

## Key Assumptions

Blue Chip Financial Forecasts Panel Members	-----Percent Per Annum -- Average For Quarter-----															Avg. For --Qtr-- A. Fed's Adv Fgn Econ \$ Index	----- (Q-Q % Change) ----- ----- (SAAR) ----- B. C. D. E. GDP Price Cons. PCE Real Price Price Price GDP Index Index Index											
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15													
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate													
Bank of America	5.6	H	na	na	na	na	na	4.8	4.3	4.0	4.2	na	na	na	na	na	na	1.5	3.0	3.1	2.9							
Barclays	5.6	H	na	na	na	5.6	na	na	5.2	4.8	4.8	4.9	na	na	na	na	na	2.0	H	3.0	2.9	2.9						
Action Economics	5.5	8.7	H	5.7	H	5.5	5.6	5.6	5.4	5.1	4.8	4.8	4.9	5.5	6.5	4.5	7.9	115.1	1.2	2.9	3.1	2.3						
Comerica Bank	5.5	8.6	5.4	na	na	5.5	5.6	5.5	H	5.1	4.9	4.8	4.9	5.5	6.4	na	7.5	na	0.8	3.1	3.3	3.5						
Scotiabank Group	5.5	8.5	5.3	L	na	5.5	na	na	5.2	5.0	H	5.0	5.1	na	na	na	na	na	0.2	1.5	L	4.7	H	4.7	H			
TS Lombard	5.5	8.6	5.4	5.5	5.5	5.6	5.3	5.1	4.8	5.3	H	5.4	H	6.1	7.0	H	5.3	7.1	120.0	H	1.5	3.5	3.5	3.5				
BMO Capital Markets	5.4	8.5	5.3	L	5.4	5.6	5.6	5.4	5.0	4.7	4.7	4.8	5.6	6.6	5.1	7.6	117.8	0.9	2.8	3.5	3.0							
Chan Economics	5.4	8.4	5.3	L	5.3	L	5.5	5.6	5.4	H	4.9	4.8	5.0	6.0	7.0	H	5.4	H	118.0	1.5	2.6	2.8	2.6					
Chmura Economics & Analytics	5.4	8.6	5.4	5.5	5.7	H	5.7	H	5.5	H	5.2	4.9	4.9	5.0	5.6	na	na	7.6	na	1.0	2.7	3.0	2.6					
Daiwa Capital Markets America	5.4	8.6	na	na	5.5	na	na	na	4.9	4.6	4.6	4.7	na	na	na	na	7.3	118.5	0.9	3.5	3.7	3.5						
DePrince & Assoc.	5.4	8.5	5.5	5.4	5.5	5.5	5.5	H	5.1	4.6	4.4	4.4	5.2	6.2	4.5	7.1	116.9	1.2	2.8	3.1	2.9							
Fannie Mae	5.4	8.5	na	na	5.6	5.5	5.3	5.0	4.8	4.8	5.0	na	na	na	na	7.7	na	0.7	2.1	2.5	2.3							
Georgia State University	5.4	8.5	na	na	5.6	5.6	5.4	5.0	4.7	4.9	5.0	5.2	6.3	na	na	7.2	na	1.0	2.8	3.8	3.5							
GLC Financial Economics	5.4	8.5	5.4	5.4	5.5	5.4	5.3	4.8	4.5	4.4	4.6	5.2	6.0	L	4.2	L	6.8	L	117.1	0.8	2.7	3.1	2.9					
Goldman Sachs & Co.	5.4	na	na	na	5.6	na	na	5.0	4.5	4.3	4.4	na	na	na	na	na	na	na	1.6	2.1	3.0	2.4						
ING	5.4	na	na	na	na	na	na	5.2	5.0	H	5.0	5.2	na	na	na	na	na	na	1.5	na	na	na						
J.P. Morgan Chase	5.4	na	na	na	na	na	na	4.5	L	4.0	L	3.8	L	4.0	L	na	na	na	na	1.5	2.4	3.1	2.8					
KPMG	5.4	8.5	5.4	5.4	5.6	5.7	H	5.5	H	5.1	4.7	4.6	4.7	5.5	6.6	na	7.5	na	1.5	2.4	2.4	2.3						
MacroFin Analytics & Rutgers Bus School	5.4	8.5	5.3	L	5.4	5.6	5.6	5.5	H	5.0	5.0	H	4.9	5.1	5.9	6.7	4.9	7.6	118.1	0.8	3.0	2.8	2.7					
MacroPolicy Perspectives	5.4	8.5	5.3	L	5.4	5.6	5.6	5.4	5.1	4.9	4.7	5.0	5.7	6.6	4.9	7.6	118.3	1.5	2.6	2.8	2.2							
Naroff Economics LLC	5.4	8.4	5.4	5.7	H	5.5	5.5	5.4	4.9	4.6	4.8	4.9	na	na	4.2	L	7.5	117.0	1.6	3.6	H	3.5	3.2					
Nomura Securities, Inc.	5.4	8.5	na	na	na	na	na	4.8	4.4	4.2	na	na	na	na	na	na	na	na	-1.7	L	2.1	3.6	2.7					
Oxford Economics	5.4	8.0	L	5.4	na	5.5	5.5	5.3	4.8	4.4	4.3	4.4	4.8	L	na	na	7.1	118.3	-1.0	1.8	4.4	3.5						
RDQ Economics	5.4	8.5	5.4	5.5	5.4	5.4	5.2	L	5.0	4.8	4.7	4.8	5.7	6.6	5.0	7.5	117.5	1.5	3.2	3.5	2.8							
S&P Global Market Intelligence	5.4	8.5	5.4	na	5.5	5.5	5.5	H	5.1	4.7	4.7	4.8	na	na	na	7.5	na	1.7	2.0	2.4	2.3							
Santander Capital Markets	5.4	8.6	5.4	5.4	5.6	5.6	5.5	H	5.1	4.9	4.9	5.0	5.7	6.7	4.3	7.8	118.5	2.0	H	3.2	3.1	2.9						
The Lonski Group	5.4	8.5	5.4	5.4	5.5	5.5	5.2	L	5.0	4.7	4.7	4.8	5.8	6.5	4.9	7.5	118.6	-0.2	2.8	3.8	3.4							
The Northern Trust Company	5.4	8.5	5.3	L	5.4	5.6	5.6	5.5	H	5.1	4.9	4.9	5.1	5.7	6.6	5.0	7.8	117.0	0.8	2.3	3.2	2.9						
Wells Fargo	5.4	8.5	5.4	5.4	5.4	5.4	5.2	L	4.8	4.5	4.5	4.7	5.7	6.7	5.1	7.3	na	-0.1	2.9	3.6	2.9							
Economist Intelligence Unit	5.3	L	8.5	na	5.5	5.6	5.6	5.4	5.1	5.0	H	4.9	5.3	na	na	na	8.0	H	na	1.0	na	2.5	na					
EY-Parthenon	5.3	L	na	na	na	5.5	na	na	na	na	4.8	na	na	na	na	na	na	na	0.6	2.2	2.7	3.1						
Loomis, Sayles & Company	5.3	L	8.5	5.3	L	5.3	L	5.6	5.6	5.4	5.1	4.7	4.7	4.9	5.5	6.5	4.8	7.6	118.4	-0.3	2.8	3.6	3.0					
Moody's Analytics	5.3	L	8.5	5.3	L	5.5	5.3	L	5.2	L	5.2	L	4.9	4.5	4.3	4.5	5.5	6.5	4.4	7.0	na	0.5	2.9	3.2	3.1			
PNC Financial Services Corp.	5.3	L	8.5	5.3	L	na	5.5	5.5	5.4	5.1	4.8	4.6	4.7	na	6.5	4.3	7.6	114.6	L	1.3	2.6	2.2	2.1					
Regions Financial Corporation	5.3	L	8.5	5.3	L	5.4	5.4	5.5	5.4	5.1	4.8	4.8	5.0	6.2	H	7.0	H	5.1	7.7	117.7	0.3	2.5	3.0	2.6				
Societe Generale	5.3	L	8.5	5.3	L	na	5.5	5.4	5.3	4.9	4.8	4.8	4.9	na	na	na	na	na	1.0	2.7	3.7	3.1						
Via Nova Investment Mgt.	5.3	L	8.5	5.3	L	5.3	L	5.6	5.6	5.5	H	5.1	4.9	4.9	5.0	6.0	6.7	5.4	H	7.9	117.0	2.0	H	2.2	2.1	L	2.0	L
<b>November Consensus</b>	<b>5.4</b>	<b>8.5</b>	<b>5.4</b>	<b>5.4</b>	<b>5.5</b>	<b>5.5</b>	<b>5.4</b>	<b>5.0</b>	<b>4.7</b>	<b>4.7</b>	<b>4.8</b>	<b>5.6</b>	<b>6.6</b>	<b>4.8</b>	<b>7.5</b>	<b>117.6</b>	<b>0.9</b>	<b>2.7</b>	<b>3.2</b>	<b>2.9</b>								
Top 10 Avg.	5.5	8.6	5.4	5.5	5.6	5.6	5.5	5.2	4.9	5.0	5.1	5.9	6.8	5.1	7.8	118.5	1.7	3.2	3.8	3.5								
Bottom 10 Avg.	5.3	8.4	5.3	5.4	5.5	5.4	5.3	4.8	4.4	4.3	4.5	5.4	6.4	4.5	7.2	116.8	-0.1	2.1	2.5	2.3								
October Consensus	5.4	8.5	5.4	5.5	5.5	5.5	5.4	4.8	4.3	4.2	4.4	5.2	6.2	4.4	7.1	116.4	0.8	2.7	3.1	2.9								
Number of Forecasts Changed From A Month Ago:																												
Down	8	7	8	7	6	3	6	3	1	1	1	0	0	1	0	1	11	13	13	12								
Same	27	21	16	11	15	11	13	7	2	2	2	1	1	1	3	2	13	16	9	11								
Up	2	2	2	2	12	14	9	26	33	34	32	20	19	16	25	16	13	6	14	12								
Diffusion Index	42%	42%	38%	38%	59%	70%	55%	82%	94%	95%	94%	98%	98%	92%	95%	89%	53%	40%	51%	50%								

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# First Quarter 2024

## Interest Rate Forecasts

## Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For --Qtr-- A. Fed's Adv Fgn Econ \$ Index	(Q-Q % Change)																		
	Short-Term					Intermediate-Term					Long-Term						B. Real GDP	C. Price Index	D. Cons. Price Index	E. PCE Price Index															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																				
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate																				
TS Lombard	6.0	H	9.1	H	6.0	H	6.0	H	4.5	L	4.6	L	4.8	5.0	4.8	5.3	H	5.4	H	6.1	H	7.0	H	5.3	7.1	125.0	H	1.0	3.0	3.0	3.0				
Action Economics	5.6		8.8		5.9		5.6		5.6		5.5		5.3	5.0	4.6	4.7		4.8		5.4		6.4		4.4	7.8	118.9		0.6	2.2	2.5	2.0				
Bank of America	5.6		na		na		na		na		na		na	4.6	4.1	3.8		4.0		na		na		na	na	na		1.0	3.3	H	3.8	H	3.5	H	
Barclays	5.6		na		na		na		5.6		na		na	5.0	4.7	4.7		4.8		na		na		na	na	na	na		0.2	2.8	2.5	2.7			
Chmura Economics & Analytics	5.6		8.8		5.6		5.6		5.8	H	5.8	H	5.7	H	5.4	H	5.0	H	5.1		5.3		5.7		na	na	7.6	na	-0.5	2.5	2.7	2.2			
Comerica Bank	5.6		8.8		5.6		na		5.6		5.6		5.4	4.8	4.8	4.7		4.9		5.5		6.3		na	7.3	na		0.6	2.6	2.7	2.7				
Daiwa Capital Markets America	5.6		8.8		na		na		5.4		na		na	4.5	4.1	4.3		4.4		na		na		na	7.1	118.0		-1.0	2.6	2.6	2.5				
Naroff Economics LLC	5.6		8.6		5.6		5.7		5.6		5.7		5.0	4.7	4.2	4.0		4.2		na		na		4.1	7.1	117.3		-1.5	3.3	H	3.4	3.0			
S&P Global Market Intelligence	5.6		8.7		5.6		na		5.5		5.4		5.4	4.9	4.4	4.4		4.6		na		na		na	7.2	na		0.5	2.5	1.3	L	1.8			
Santander Capital Markets	5.6		8.8		5.6		5.6		5.6		5.6		5.4	5.2	4.9	4.9		5.1		5.9		6.9		4.4	7.8	119.0		1.2	3.1	3.0	2.7				
J.P. Morgan Chase	5.5		na		na		na		na		na		na	4.7	4.2	4.1		4.3		na		na		na	na	na	na		0.5	1.9	1.9	1.6			
Scotiabank Group	5.5		8.5		5.3		na		5.4		na		na	4.4	4.2	4.5		4.6		na		na		na	na	na	na		0.0	1.6	L	2.3	2.6		
BMO Capital Markets	5.4		8.5		5.3		5.4		5.6		5.6		5.2	4.6	4.4	4.7		4.6		5.6		6.7		5.1	7.3	117.2		0.2	2.6	3.1	2.9				
Chan Economics	5.4		8.4		5.3		5.3		5.5		5.6		5.4	5.4	H	4.9	4.8		5.0		6.0		7.0	H	5.4	H	7.6	118.5		1.0	2.5	2.7	2.4		
DePrince & Assoc.	5.4		8.6		5.5		5.4		5.6		5.5		5.5	5.2	4.7	4.5		4.4		5.5		6.4		4.7	7.0	116.6		0.8	2.8	3.0	2.8				
GLC Financial Economics	5.4		8.5		5.4		5.2		5.4		5.2		5.0	4.5	4.7	4.6		4.7		5.4		6.2		4.4	6.7	116.9		0.6	2.5	2.6	2.4				
Goldman Sachs & Co.	5.4		na		na		na		5.5		na		na	5.0	4.7	4.6		4.7		na		na		na	na	na	na		1.9	2.6	3.3	2.8			
ING	5.4		na		na		na		na		na		na	4.6	4.5	4.5		4.8		na		na		na	na	na	na		-0.3	na	na	na	na		
KPMG	5.4		8.5		5.4		5.2		5.4		5.6		5.5	5.1	4.6	4.5		4.7		5.4		6.5		na	7.3	na		1.0	2.6	1.9	2.2				
MacroFin Analytics & Rutgers Bus School	5.4		8.5		5.3		4.4	L	5.4		5.4		5.4	5.0	5.0	H	4.8		5.0		5.8		6.8	4.8	7.5	118.0		1.0	2.6	2.6	2.6				
MacroPolicy Perspectives	5.4		8.5		5.3		na		na		na		na	4.7	4.3	4.5		na		5.4		6.4		na	7.4	na		1.2	1.9	1.5	1.5	L			
Oxford Economics	5.4		8.2	L	5.4		na		5.3		5.3		5.1	4.5	4.2	4.1		4.3		4.6		na		na	6.9	118.7		-1.7	1.8	2.6	2.3				
RDQ Economics	5.4		8.5		5.4		5.5		5.3		5.2		4.9	4.7	4.6	4.6		4.6		5.9		6.8		4.8	7.3	116.6		0.5	3.0	3.4	3.2				
The Lonski Group	5.4		8.5		5.4		5.5		5.4		5.4		5.1	4.8	4.5	4.5		4.6		5.7		6.4		4.8	7.3	119.7		0.4	2.2	2.0	2.4				
The Northern Trust Company	5.4		8.5		5.3		5.4		5.5		5.4		5.4	5.0	4.8	4.8		5.1		5.7		6.7		5.0	7.7	117.5		0.9	2.3	2.8	2.6				
Wells Fargo	5.4		8.5		5.4		5.4		5.2		5.1	L	4.4	4.4	4.2	4.2		4.5		5.4		6.4		4.8	7.0	na		0.7	2.3	2.7	2.3				
Economist Intelligence Unit	5.3		8.5		na		5.4		5.5		5.4		5.1	5.0	4.9	4.9		5.2		na		na		na	7.9	H	na		-0.6	na	2.2	na	na		
EY-Parthenon	5.3		na		na		na		5.5		na		na	na	na	4.2		na		na		na		na	na	na	na		0.2	1.8	2.4	2.2			
Fannie Mae	5.3		8.4		na		na		5.4		5.3		5.1	4.8	4.7	4.8		5.0		na		na		na	7.6	na		-0.6	2.5	1.3	L	1.8			
Georgia State University	5.3		8.4		na		na		5.4		5.4		5.2	4.8	4.3	4.5		4.4		5.0		6.0		na	7.0	na		-0.6	2.5	2.6	2.6				
Moody's Analytics	5.3		8.5		5.3		5.4		5.1		5.0		4.9	4.7	4.4	4.1		4.5		5.5		6.6		4.4	6.8	na		0.8	2.0	2.7	2.4				
PNC Financial Services Corp.	5.3		8.5		5.3		na		5.3		5.3		5.2	5.0	4.8	4.6		4.6		na		7.0	H	5.4	H	7.5	115.1	L	-0.2	2.0	1.3	L	1.5	L	
Regions Financial Corporation	5.3		8.5		5.3		5.4		5.4		5.5		5.4	4.9	4.6	4.6		4.8		6.0		6.9		4.9	7.4	116.9		0.5	2.7	2.9	2.7				
Societe Generale	5.3		8.5		5.3		na		5.3		5.1	L	4.2	4.2	4.3	4.3		4.5		na		na		na	na	na	na		0.7	1.8	2.2	2.4			
Via Nova Investment Mgt.	5.3		8.5		5.4		5.4		5.3		5.3		5.3	4.9	4.9	4.8		4.9		5.9		6.5		5.2	7.8	116.0		2.5	H	2.1	2.1	2.1			
Loomis, Sayles & Company	5.2		8.3		5.1	L	5.1		5.3		5.3		4.8	3.9	L	3.8	3.7		3.9	L	4.5	L	5.4	L	3.8	L	6.5	L	118.6		-2.2	L	2.5	2.0	1.8
Nomura Securities, Inc.	5.1	L	8.3		na		na		na		na		na	3.9	L	3.6	L	3.6	L	na		na		na	na	na	na	na		-1.9	1.7	2.7	2.3		
<b>November Consensus</b>	<b>5.4</b>		<b>8.5</b>		<b>5.4</b>		<b>5.4</b>		<b>5.4</b>		<b>5.4</b>		<b>5.2</b>	<b>4.8</b>	<b>4.5</b>	<b>4.5</b>		<b>4.7</b>		<b>5.5</b>		<b>6.5</b>		<b>4.8</b>	<b>7.3</b>	<b>118.0</b>		<b>0.3</b>	<b>2.4</b>	<b>2.5</b>	<b>2.4</b>				
Top 10 Avg.	5.6		8.8		5.6		5.6		5.6		5.6		5.5	5.1	4.9	4.9		5.1		5.9		6.8		5.1	7.7	119.2		1.3	2.9	3.2	2.9				
Bottom 10 Avg.	5.3		8.4		5.3		5.2		5.2		5.1		4.9	4.4	4.1	4.0		4.3		5.2		6.2		4.5	6.9	116.8		-1.1	1.9	1.8	1.9				
October Consensus	5.4		8.5		5.4		5.4		5.4		5.3		5.1	4.6	4.2	4.1		4.3		5.2		6.1		4.4	6.9	116.2		0.2	2.4	2.6	2.4				
Number of Forecasts Changed From A Month Ago:																																			
Down	2		4		3		6		6		4		4	2	0	0		0		1		1		1	0	0		12	16	14	15				
Same	30		21		20		9		14		12		12	14	6	5		5		1		1		2	4	3		14	15	14	10				
Up	5		5		3		4		12		11		11	20	30	32		29		19		18		14	24	15		11	4	8	10				
Diffusion Index	54%		52%		50%		45%		59%		63%		63%	75%	92%	93%		93%		93%		93%		88%	93%	92%		49%	33%	42%	43%				





# Fourth Quarter 2024

## Interest Rate Forecasts

## Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum – Average For Quarter															Avg. For --Qtr.-- A.	(Q-Q % Change)														
	Short-Term					--Intermediate-Term--					Long-Term						B.	C.	D.	E.											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15						Fed's Adv	GDP	Cons.	PCE							
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate						Fed's Adv Fgn Econ \$ Index	Real GDP	Price Index	Price Index	Price Index						
J.P. Morgan Chase	5.3	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.0	2.3	2.3	2.0										
Chan Economics	5.2		8.2	5.1	5.1	5.3	H	5.4	H	5.2	4.7	4.6	4.8	5.8	6.8	5.2	7.4	118.8	0.8	2.3	2.5	2.1									
Comerica Bank	5.1		8.3	H	5.1	na		5.0		4.8	4.3	3.7	3.8	3.9	4.1	4.8	5.7	na	0.7	2.6	3.4	3.2									
Goldman Sachs & Co.	5.1		na	na	na	4.8	na	na	4.6	4.4	4.3	4.5	na	na	na	na	na	na	1.9	2.1	2.6	2.1									
Regions Financial Corporation	5.1		8.3	H	5.1	5.2	H	4.9	5.1	5.2	H	4.2	4.3	4.3	4.5	5.6	6.6	4.5	7.0	115.1	1.6	2.3	2.4	2.3							
S&P Global Market Intelligence	5.1		8.2		5.0	na		4.8	4.5	4.4	4.0	3.7	3.9	4.1	na	na	na	6.2	na	1.3	2.5	2.7	2.4								
Santander Capital Markets	5.1		8.3	H	5.1	5.1		5.0	4.8	4.6	4.4	4.2	4.0	4.3	5.2	6.4	3.7	6.7	116.5	1.1	2.5	2.5	2.1								
Action Economics	5.0		8.2		5.5	H	5.0	5.0	4.8	4.5	4.5	4.5	4.5	4.7	5.3	6.3	4.3	7.6	119.5	1.6	1.6	2.4	1.8								
BMO Capital Markets	5.0		8.2		5.0	5.0	5.3	H	5.3	4.6	3.7	3.8	3.9	4.0	5.3	6.3	4.7	6.7	117.5	1.5	1.9	2.1	1.9								
PNC Financial Services Corp.	5.0		8.1		5.0	na		4.7	4.7	4.6	4.7	4.7	4.8	5.0	na	7.1	H	6.0	H	7.3	122.0	H	-1.1	L	1.6	1.8	L	1.3	L		
Bank of America	4.9		na	na	na	na	na	na	na	4.0	3.8	3.5	3.7	na	na	na	na	na	na	1.0	2.5	1.9	2.2								
Barclays	4.9		na	na	na	4.9	na	na	na	na	na	na	na	na	na	na	na	na	na	1.0	2.6	2.4	2.4								
DePrince & Assoc.	4.9		8.0		4.9	4.8	4.9	4.9	5.0	4.8	4.6	4.5	4.5	5.8	6.6	4.9	6.7	114.4	2.2	2.4	2.7	2.5									
Chmura Economics & Analytics	4.8		7.9		4.8	4.8	4.8	5.1	5.2	H	5.3	H	5.2	H	5.4	H	5.6	H	5.9	H	na	na	6.8	na	2.4	2.3	2.3	2.0			
Economist Intelligence Unit	4.8		8.0		na	4.8	4.8	4.6	4.5	4.4	4.2	4.3	4.5	na	na	na	7.0	na	na	1.8	na	2.1	na								
EY-Parthenon	4.8		na	na	na	4.9	na	na	na	na	na	3.8	na	na	na	na	na	na	na	1.8	2.1	2.1	2.0								
Fannie Mae	4.8		7.9	na	na	4.8	4.7	4.6	4.6	4.7	4.8	4.9	na	na	na	na	7.1	na	1.1	2.4	2.7	2.3									
Moody's Analytics	4.8		7.9	4.7	4.7	4.5	4.4	4.4	4.2	4.0	3.9	4.4	5.4	6.4	4.3	6.3	na	na	1.4	2.0	2.2	2.3									
Oxford Economics	4.8		7.6	4.7	na	4.5	4.3	4.1	3.5	3.3	3.7	3.9	3.6	L	na	na	6.4	115.1	1.3	2.7	2.0	1.9									
KPMG	4.7		7.8	4.6	4.3	4.5	4.5	4.3	4.1	3.8	4.0	4.3	4.9	6.2	na	6.3	na	na	1.2	2.5	2.7	2.4									
RDQ Economics	4.6		7.7	4.6	4.7	4.5	4.5	4.4	4.2	4.3	4.3	4.2	5.9	H	7.0	4.4	6.8	114.6	0.9	2.9	H	3.0	3.0								
The Northern Trust Company	4.6		7.8	4.6	4.7	4.5	4.3	4.2	3.9	4.2	4.3	4.6	5.6	6.7	4.7	6.8	112.0	1.5	2.1	2.2	2.2										
MacroFin Analytics & Rutgers Bus School	4.5		7.3	4.4	3.6	4.4	4.5	4.4	4.5	3.8	4.0	4.5	5.0	5.8	3.9	6.7	117.4	1.6	2.2	2.1	2.2										
Via Nova Investment Mgt.	4.5		7.8	4.6	4.6	4.5	4.5	4.5	4.8	4.8	4.8	4.8	5.9	H	6.6	5.3	7.8	H	110.0	L	2.5	2.1	2.0	2.1							
Daiwa Capital Markets America	4.4		7.5	na	na	4.0	na	na	3.4	3.3	3.5	4.2	na	na	na	6.1	116.5	2.0	2.3	2.4	2.3										
GLC Financial Economics	4.3		7.4	4.3	4.3	4.3	4.2	4.1	3.7	4.1	4.1	4.4	4.9	5.9	4.3	6.0	115.9	1.1	2.2	2.4	2.2										
MacroPolicy Perspectives	4.2		7.4	4.2	na	na	na	na	3.5	4.0	4.3	na	5.2	6.1	na	7.1	na	na	2.0	2.5	2.7	2.1									
Societe Generale	4.1		7.3	4.1	na	3.9	3.6	3.3	3.0	3.5	3.6	3.9	na	na	na	na	na	na	4.5	H	1.8	2.2	2.1								
Naroff Economics LLC	4.0		7.0	4.0	4.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.2	na	na	4.1	6.1	115.8	2.2	2.5	2.5	2.6									
Scotiabank Group	4.0		7.0	3.8	na	3.7	na	na	3.5	3.6	4.0	4.2	na	na	na	na	na	na	1.2	1.1	L	2.9	2.9								
ING	3.9		na	na	na	na	na	na	3.3	3.4	3.5	3.9	na	na	na	na	na	na	1.3	na	na	na									
The Lonski Group	3.9		7.1	3.9	4.0	4.0	4.1	3.9	3.8	3.9	3.9	4.2	5.2	5.9	4.3	6.6	120.5	1.5	2.1	2.2	2.2										
Georgia State University	3.6		6.7	na	na	3.8	3.5	3.4	3.1	2.9	3.3	3.6	4.0	5.3	na	5.4	na	na	1.6	2.0	2.0	1.8									
Nomura Securities, Inc.	3.6		6.8	na	na	na	na	na	2.6	2.9	3.0	na	na	na	na	na	na	na	2.0	1.6	2.6	2.2									
Wells Fargo	3.6		6.8	3.6	3.6	3.4	3.3	3.2	3.2	3.3	3.4	3.8	4.6	5.6	4.0	5.9	na	na	0.4	2.5	3.1	2.5									
TS Lombard	3.0		6.1	3.0	3.0	4.0	4.1	3.8	3.5	3.6	3.8	3.9	4.6	5.5	3.8	5.6	115.0	2.5	2.5	3.5	H	3.5	H								
Loomis, Sayles & Company	2.8	L	6.0	L	2.8	L	2.8	L	2.6	L	2.3	L	2.5	L	2.8	L	3.3	L	3.6	L	4.5	L	2.9	L	5.2	L	118.3	2.2	2.1	2.7	2.2
<b>November Consensus</b>	<b>4.5</b>	<b>7.6</b>	<b>4.5</b>	<b>4.4</b>	<b>4.5</b>	<b>4.4</b>	<b>4.3</b>	<b>3.9</b>	<b>3.9</b>	<b>4.0</b>	<b>4.3</b>	<b>5.1</b>	<b>6.2</b>	<b>4.4</b>	<b>6.6</b>	<b>116.4</b>	<b>1.5</b>	<b>2.2</b>	<b>2.5</b>	<b>2.3</b>											
Top 10 Avg.	5.1	8.2	5.1	4.9	5.0	5.0	4.8	4.7	4.6	4.6	4.8	5.7	6.7	4.8	7.2	118.3	2.5	2.6	2.9	2.7											
Bottom 10 Avg.	3.7	6.8	3.8	3.9	3.8	3.8	3.7	3.1	3.2	3.4	3.8	4.5	5.7	4.0	5.9	114.4	0.7	1.8	2.0	1.9											
October Consensus	4.3	7.4	4.4	4.3	4.3	4.3	4.1	3.8	3.8	3.8	4.1	4.9	6.0	4.3	6.3	115.4	1.6	2.2	2.4	2.2											
Number of Forecasts Changed From A Month Ago:																															
Down	3	3	3	5	4	4	4	5	3	2	2	3	2	3	1	2	13	10	7	9											
Same	24	18	17	10	15	12	12	15	12	9	12	4	4	6	5	3	20	20	21	19											
Up	10	9	6	4	13	11	11	14	19	24	18	14	14	8	22	13	4	5	8	7											
Diffusion Index	59%	60%	56%	47%	64%	63%	63%	63%	74%	81%	75%	76%	80%	65%	88%	81%	38%	43%	51%	47%											





**International Interest Rate And Foreign Exchange Rate Forecasts**

Blue Chip Forecasters	Fed Fund Target Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.63	5.63	5.38
ING Financial Markets	5.38	5.38	4.13
Moody's Analytics	5.37	5.38	5.09
Northern Trust	5.38	5.38	4.63
Oxford Economics	5.38	5.38	4.88
S&P Global Market Intelligence	--	--	--
Scotiabank	5.38	5.38	4.63
TS Lombard	6.00	5.00	3.00
Wells Fargo	5.38	5.38	4.38
<b>November Consensus</b>	<b>5.49</b>	<b>5.36</b>	<b>4.52</b>
High	6.00	5.63	5.38
Low	5.37	5.00	3.00
Last Months Avg.	5.44	5.34	4.56

United States			
10 Yr. Gov't Bond Yield %			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	4.75	4.60	4.50
	5.00	4.50	3.50
	4.26	4.13	3.95
	4.80	4.70	4.30
	4.26	4.11	3.81
	4.49	4.29	3.91
	4.50	4.20	4.00
	5.25	4.75	3.75
	4.45	4.20	3.55
	<b>4.64</b>	<b>4.39</b>	<b>3.92</b>
	5.25	4.75	4.50
	4.26	4.11	3.50
	4.03	3.85	3.67

Fed's AFE \$ Index			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	--	--	--
	117.0	113.9	107.2
	--	--	--
	117.0	118.0	112.0
	118.3	118.7	116.7
	--	--	--
	--	--	--
	125.0	115.0	115.0
	--	--	--
	<b>119.3</b>	<b>116.4</b>	<b>112.7</b>
	125.0	118.7	116.7
	117.0	113.9	107.2
	114.9	113.6	112.3

Blue Chip Forecasters	Policy-Rate Balance Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	-0.10	0.00	0.00
ING Financial Markets	-0.10	-0.10	0.00
Moody's Analytics	-0.10	-0.10	-0.10
Nomura Securities	--	--	--
Northern Trust	-0.10	-0.10	0.00
Oxford Economics	-0.04	-0.04	-0.04
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	0.00	0.00	-0.10
Wells Fargo	-0.10	-0.10	-0.10
<b>November Consensus</b>	<b>-0.08</b>	<b>-0.06</b>	<b>-0.05</b>
High	0.00	0.00	0.00
Low	-0.10	-0.10	-0.10
Last Months Avg.	-0.09	-0.09	-0.06

Japan			
10 Yr. Gov't Bond Yield %			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	0.80	0.85	0.85
	0.80	0.90	1.00
	0.75	0.75	0.75
	--	--	--
	0.90	0.90	1.00
	0.72	0.70	0.69
	--	--	--
	--	--	--
	1.15	0.65	-0.35
	<b>0.85</b>	<b>0.85</b>	<b>0.70</b>
	1.15	0.90	1.00
	0.72	0.65	-0.35
	0.72	0.71	0.71

Yen per US\$			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	146.0	140.0	134.0
	148.0	140.0	130.0
	140.1	135.7	128.0
	148.0	140.0	130.0
	148.0	145.0	135.0
	150.4	152.5	145.0
	149.1	147.2	141.9
	150.0	150.0	140.0
	145.0	133.4	133.4
	--	--	--
	<b>147.2</b>	<b>142.6</b>	<b>135.3</b>
	150.4	152.5	145.0
	140.1	133.4	128.0
	142.8	139.1	135.1

Blue Chip Forecasters	Official Bank Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.25	5.25	4.75
ING Financial Markets	5.25	5.25	4.75
Moody's Analytics	5.25	5.25	5.06
Nomura Securities	--	--	--
Northern Trust	5.50	5.50	5.50
Oxford Economics	5.25	5.25	5.09
S&P Global Market Intelligence	--	--	--
Scotiabank	5.25	4.75	4.25
TS Lombard	5.25	4.25	2.25
Wells Fargo	5.25	5.25	3.75
<b>November Consensus</b>	<b>5.28</b>	<b>5.09</b>	<b>4.43</b>
High	5.50	5.50	5.50
Low	5.25	4.25	2.25
Last Months Avg.	5.38	5.30	4.68

United Kingdom			
10 Yr. Gilt Yields %			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	4.40	4.30	4.25
	4.45	4.25	3.50
	4.60	4.61	4.58
	--	--	--
	4.60	4.40	4.20
	4.53	4.48	4.40
	--	--	--
	--	--	--
	4.65	3.65	2.50
	4.40	4.25	3.70
	<b>4.52</b>	<b>4.28</b>	<b>3.88</b>
	4.65	4.61	4.58
	4.40	3.65	2.50
	4.32	4.24	4.09

US\$ per Pound Sterling			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	1.26	1.25	1.26
	1.22	1.23	1.28
	1.23	1.24	1.26
	1.16	1.20	1.27
	1.21	1.23	1.24
	1.22	1.22	1.23
	1.22	1.22	1.24
	1.25	1.25	1.30
	1.20	1.20	1.05
	--	--	--
	<b>1.22</b>	<b>1.23</b>	<b>1.24</b>
	1.26	1.25	1.30
	1.16	1.20	1.05
	1.26	1.28	1.30

Blue Chip Forecasters	SNB Policy Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	1.75	1.75	1.50
ING Financial Markets	1.75	1.75	1.75
Moody's Analytics	2.00	2.00	2.00
Nomura Securities	--	--	--
Northern Trust	1.75	1.75	1.75
Oxford Economics	1.75	1.75	1.63
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	1.75	1.50	1.25
Wells Fargo	1.75	1.75	1.25
<b>November Consensus</b>	<b>1.79</b>	<b>1.75</b>	<b>1.59</b>
High	2.00	2.00	2.00
Low	1.75	1.50	1.25
Last Months Avg.	1.82	1.79	1.63

Switzerland			
10 Yr. Gov't Bond Yield %			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	--	--	--
	1.10	1.10	1.10
	1.99	2.07	2.09
	--	--	--
	1.10	1.10	1.05
	1.15	1.30	1.34
	--	--	--
	--	--	--
	1.12	1.00	0.86
	--	--	--
	<b>1.29</b>	<b>1.31</b>	<b>1.29</b>
	1.99	2.07	2.09
	1.10	1.00	0.86
	1.09	1.24	1.29

CHF per US\$			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	0.89	0.89	0.88
	0.91	0.90	0.87
	0.93	0.89	0.85
	0.92	0.91	0.91
	0.91	0.89	0.87
	0.91	0.93	0.92
	0.91	0.90	0.88
	0.89	0.89	0.89
	0.90	0.90	0.90
	--	--	--
	<b>0.91</b>	<b>0.90</b>	<b>0.89</b>
	0.93	0.93	0.92
	0.89	0.89	0.85
	0.89	0.88	0.87

Blue Chip Forecasters	O/N MMkt Financing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.25	5.25	5.00
ING Financial Markets	5.00	5.00	4.00
Moody's Analytics	5.00	5.00	4.49
Nomura Securities	--	--	--
Northern Trust	5.00	5.00	4.50
Oxford Economics	5.00	5.00	4.63
S&P Global Market Intelligence	--	--	--
Scotiabank	5.00	4.75	4.00
TS Lombard	5.00	4.00	2.75
Wells Fargo	5.00	5.00	4.00
<b>November Consensus</b>	<b>5.03</b>	<b>4.88</b>	<b>4.17</b>
High	5.25	5.25	5.00
Low	5.00	4.00	2.75
Last Months Avg.	5.02	4.94	4.37

Canada			
10 Yr. Gov't Bond Yield %			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	--	--	--
	3.50	3.40	3.00
	4.25	4.24	4.15
	--	--	--
	3.90	3.80	3.30
	3.98	3.92	3.86
	--	--	--
	--	--	--
	3.85	3.75	3.65
	4.00	3.50	2.50
	3.90	3.70	3.30
	<b>3.91</b>	<b>3.76</b>	<b>3.39</b>
	4.25	4.24	4.15
	3.50	3.40	2.50
	3.61	3.55	3.36

C\$ per US\$			
	In 3 Mo.	In 6 Mo.	In 12 Mo.
	1.36	1.36	1.34
	1.35	1.31	1.25
	1.34	1.30	1.26
	1.35	1.34	1.32
	1.35	1.33	1.29
	1.36	1.35	1.33
	1.35	1.34	1.29
	1.33	1.33	1.28
	1.35	1.35	1.35
	--	--	--
	<b>1.35</b>	<b>1.33</b>	<b>1.30</b>
	1.36	1.36	1.35
	1.33	1.30	1.25
	1.34	1.32	1.30

## International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	Official Cash Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	4.35	3.85	3.60
ING Financial Markets	4.35	4.35	3.85
Moody's Analytics	4.10	4.10	3.85
Nomura Securities	--	--	--
Northern Trust	4.35	4.35	4.10
Oxford Economics	4.10	4.10	4.10
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	4.10	3.75	2.75
Wells Fargo	4.35	4.35	4.10
<b>November Consensus</b>	<b>4.24</b>	<b>4.12</b>	<b>3.76</b>
High	4.35	4.35	4.10
Low	4.10	3.75	2.75
Last Months Avg.	4.20	4.16	3.73

Australia		
10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.
--	--	--
4.00	3.60	3.40
4.81	4.74	4.15
--	--	--
4.75	4.65	4.40
4.49	4.45	4.31
--	--	--
--	--	--
4.90	3.90	2.20
--	--	--
<b>4.59</b>	<b>4.27</b>	<b>3.69</b>
4.90	4.74	4.40
4.00	3.60	2.20
4.15	4.10	3.63

US\$ per A\$		
In 3 Mo.	In 6 Mo.	In 12 Mo.
0.63	0.63	0.65
0.63	0.66	0.72
0.67	0.68	0.72
0.65	0.68	0.70
0.64	0.65	0.68
0.64	0.64	0.67
0.64	0.65	0.69
0.66	0.66	0.68
0.65	0.65	0.65
--	--	--
<b>0.65</b>	<b>0.66</b>	<b>0.68</b>
0.67	0.68	0.72
0.63	0.63	0.65
0.65	0.67	0.69

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	4.50	4.50	4.00
ING Financial Markets	4.50	4.50	4.25
Moody's Analytics	4.50	4.50	4.22
Nomura Securities	--	--	--
Northern Trust	4.50	4.50	4.25
Oxford Economics	4.50	4.50	3.77
S&P Global Market Intelligence	--	--	--
Scotiabank	4.50	4.25	3.75
TS Lombard	4.00	3.00	1.00
Wells Fargo	4.00	4.00	3.25
<b>November Consensus</b>	<b>4.38</b>	<b>4.22</b>	<b>3.56</b>
High	4.50	4.50	4.25
Low	4.00	3.00	1.00
Last Months Avg.	4.30	4.26	3.67

### Euro area

US\$ per Euro		
In 3 Mo.	In 6 Mo.	In 12 Mo.
1.08	1.09	1.10
1.06	1.08	1.15
1.02	1.05	1.09
1.02	1.04	1.08
1.05	1.07	1.10
1.05	1.05	1.06
1.05	1.07	1.11
1.10	1.10	1.12
1.05	1.02	1.00
--	--	--
<b>1.05</b>	<b>1.06</b>	<b>1.09</b>
1.10	1.10	1.15
1.02	1.02	1.00
1.09	1.10	1.12

Blue Chip Forecasters	10 Yr. Gov't Bond Yields %											
	Germany			France			Italy			Spain		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.45	2.30	2.00	--	--	--	--	--	--	--	--	--
ING Financial Markets	2.70	2.70	2.60	2.95	2.85	2.75	4.20	4.10	4.00	3.50	3.35	3.20
Moody's Analytics	2.75	2.72	2.64	3.22	3.14	2.96	4.41	4.32	4.00	3.78	3.81	3.69
Northern Trust	2.85	2.75	2.50	3.45	3.35	3.10	4.80	4.70	4.45	3.90	3.80	3.55
Oxford Economics	2.95	2.87	2.42	3.51	3.40	2.88	4.87	4.80	4.39	4.02	3.95	3.54
TS Lombard	2.85	2.35	2.35	3.20	2.70	2.70	4.15	3.65	3.65	3.60	3.10	3.10
Wells Fargo	2.80	2.75	2.60	--	--	--	--	--	--	--	--	--
<b>November Consensus</b>	<b>2.76</b>	<b>2.63</b>	<b>2.44</b>	<b>3.27</b>	<b>3.09</b>	<b>2.88</b>	<b>4.49</b>	<b>4.31</b>	<b>4.10</b>	<b>3.76</b>	<b>3.60</b>	<b>3.42</b>
High	2.95	2.87	2.64	3.51	3.40	3.10	4.87	4.80	4.45	4.02	3.95	3.69
Low	2.45	2.30	2.00	2.95	2.70	2.70	4.15	3.65	3.65	3.50	3.10	3.10
Last Months Avg.	2.55	2.47	2.32	3.05	2.95	2.80	4.23	4.15	4.02	3.53	3.46	3.38

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-4.09	-3.79	-3.59	-3.26
United Kingdom	-0.26	-0.12	-0.11	-0.04
Switzerland	-3.77	-3.35	-3.07	-2.63
Canada	-0.85	-0.73	-0.63	-0.52
Australia	-0.19	-0.05	-0.12	-0.23
Germany	-2.03	-1.88	-1.75	-1.47
France	-1.41	-1.37	-1.30	-1.04
Italy	0.04	-0.15	-0.07	0.18
Spain	-0.90	-0.88	-0.78	-0.50

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-5.48	-5.56	-5.30	-4.56
United Kingdom	-0.13	-0.21	-0.27	-0.09
Switzerland	-3.63	-3.70	-3.61	-2.93
Canada	-0.38	-0.46	-0.49	-0.34
Australia	-1.28	-1.24	-1.24	-0.75
Euro area	-0.88	-1.11	-1.15	-0.95

## Viewpoints:

### A Sampling of Views on the Economy, Financial Markets and Government Policy Excerpted from Recent Reports Issued by our Blue Chip Panel Members and Others

#### Divergences Abound

We have revised our global GDP growth forecast higher this month, and now forecast the global economy to grow 2.8% this year. Despite the upward revision, we are still far from optimistic on the prospects for global growth. In fact, we continue to believe global growth is in the process of plateauing, and unless something unexpected and dramatic unfolds, our global growth forecast is unlikely to be revised higher again before the end of this year. We say this as this month's global GDP forecast revision is entirely driven by the U.S. and China, not necessarily a broad-based and fundamental improvement in global growth prospects. In fact, the growth outlook for economies around the world remains on diverging paths. The United States continues to be one of the more resilient economies in the world, while China may be experiencing a short-term bout of economic stability. As far as the United States, we revised our 2023 annual growth forecast higher this month as indicators—especially the labor market—continue to suggest a “soft landing” is possible. Q3 GDP data were better than expected in China, and incorporating the latest growth and activity data, we now believe China's economy can grow 5.2% this year, up from a prior forecast of 4.8%. Our revised China forecast also implies that we now expect China to achieve, and surpass, its official 2023 growth target of 5%. At the same time, the growth outlook across Europe remains bleak and is possibly getting gloomier. As of now, we maintain our view that the United Kingdom will slip into recession, and the Eurozone may not be far behind. For the time being, we do not forecast technical recession in the Eurozone, but with October sentiment indicators underwhelming relative to expectations, the Eurozone may be the next major economy to enter recession. Also in the G10, Canada's economy is looking increasingly susceptible to a more material slowdown in growth. In response to sluggish Canadian data, we have revised our annual GDP forecast for Canada's economy lower.

While the U.S. economy has demonstrated a fair amount of resiliency this year, we still believe the most likely outcome is one where the United States falls into recession. Demand and access to credit has softened, household finances may not be as robust as they were 12 months ago, and real interest rates are likely to remain in positive territory and result in passive tightening for the foreseeable future. In our view, this combination is enough to result in two consecutive quarters of declining GDP (i.e., technical recession). With that said, we now believe a U.S. recession will materialize in Q2-2024 rather than around the turn of the new year. Still strong consumer spending, buoyed by a healthy and tight labor market, is supporting the U.S. economy for now. Inflation is also still headed lower, resulting in improved real household disposable incomes and overall purchasing power. Pushing out the timing of recession results in a revised 2023 U.S. GDP growth forecast of 2.4%, up from 2.2% a month ago, while for 2024 our GDP growth forecast has been revised up to 0.9% from 0.5%. Similar to the U.S., we have revised our China growth forecast higher, but we believe the outlook for the Chinese economy is less stellar relative to the United States. Technically, we do not forecast recession in China, but we do not ex-

pect growth of 5% to be achieved in 2024, 2025, nor in later years. Despite outperformance in Q3, China's economy will continue to face structural headwinds to growth. Real estate sector problems, demographic challenges, sluggish consumption trends and geopolitical tensions are all likely to place downward pressure on growth prospects over the medium to longer term. By 2025, we forecast China's economy to grow just 4.3%, and in our view, risks are tilted toward even slower growth as vulnerabilities mount and the risk of a financial crisis from an imploding real estate sector persists. Point being, we revised our global growth outlook higher this year, but we believe global growth will be more subdued in 2024 as U.S. recession sets in and China's economy continues to soften.

Divergences in activity and growth are also creating dynamics where the timing of central bank interest rate cuts around the world may differ. With our view now that U.S. recession will occur later than previously expected, we also now believe the Federal Reserve will begin cutting interest rates later, more specifically, in Q2-2024. But, just because the Fed is now likely to ease in mid-2024 does not mean that central banks around the world will operate in unison with the FOMC. Instead, we believe policymakers will respond more directly to local economic conditions rather than the path of Fed interest rates. These timing differences on rate cuts are already present in the emerging markets. Central banks across the emerging world, with few exceptions, have already initiated easing cycles and have cut rates at multiple meetings over the course of this year. Institutions across Latin America—such as the Chilean Central Bank, Brazilian Central Bank and Central Bank of Peru—have lowered their respective policy rates multiple times. Eastern European policymakers are also in easing mode as the Hungarian National Bank deepened its easing cycle this month, while the National Bank of Poland cut rates again in early October. Going forward, we continue to believe interest rates in the emerging markets—with exceptions in places such as Turkey, the Philippines and Indonesia where central banks are still tightening—will head lower and stay on a diverging path from the Fed until the middle of next year when the Fed starts to ease. Divergences may not be as wide in the G10. Many of the world's advanced economy central banks have also taken a “higher for longer” stance on interest rates, including the European Central Bank (ECB), Bank of England (BoE) and Bank of Canada (BoC). In our view, these institutions are likely to initiate easing cycles also in Q2, with only marginal timing differences. We believe the Bank of England and Bank of Canada will be first to cut interest rates in April 2024; however, ECB and FOMC policymakers will likely follow soon after and begin easing monetary policy in June.

#### Dollar Peak Has Not Been Reached Just Yet

Over the past month, the U.S. dollar index (DXY) has largely moved sideways. Push and pull dynamics have been somewhat prevalent in October and the dollar index struggled to gather momentum in either direction. In the past month, the dollar has strengthened against currencies such as the Norwegian krone, Canadian dollar and Japanese yen, but weakened against the likes of the euro and Swiss franc. The dollar's performance was

also mixed against emerging market currencies. Meaning, the divergences theme that has been playing out in economic activity and monetary policy has also been present in currency markets. However, in our view, while the dollar struggled for obvious direction last month, the greenback is likely to develop a clearer uptrend in the months and quarters ahead. With our view now that the U.S. economy will enter recession later than initially expected and that the Fed will delay its easing cycle until mid-2024, monetary policy dynamics should favor dollar strength into the early part of next year. In addition, the geopolitical landscape has shifted toward a worsening trajectory this month with a new military conflict in the Middle East alongside a persistent Russia-Ukraine conflict in Eastern Europe. In response to an unsettled geopolitical backdrop, we believe the U.S. dollar can strengthen on demand for safe-haven currencies as geopolitics remain tense for the time being. With the U.S. economy still resilient and the Fed maintaining its hawkish-leaning stance on monetary policy, combined with economic trends that are deteriorating in Europe, we expect currencies such as the euro and British pound to be the notable underperformers through Q1-2024. With economic developments in Canada also less constructive, we have turned more pessimistic on the prospects for the Canadian dollar over the next few quarters. Into Q1-2024, we also expect the Japanese yen to remain on the defensive; however, with the Bank of Japan (BoJ) possibly approaching another hawkish policy adjustment and Japan's Ministry of Finance (MoF) signaling potential intervention in FX markets, substantial further yen depreciation is unlikely to materialize.

In our view, dollar upside against emerging market currencies is also likely. As mentioned, central banks in the developing world have already started cutting interest rates. Coming back to the divergences theme, with many policymakers in the emerging markets opting for easing monetary policy and the Fed maintaining its hawkish-leaning stance, nominal interest rate compression should place depreciation pressure on currencies across the emerging markets spectrum. Latin America and EMEA central banks are cutting interest rates most aggressively, and we expect select currencies in both regions to be the key underperformers in the emerging markets. In particular, we expect the Chilean peso to underperform, as Chilean policymakers ease monetary policy quickly and maintain policies designed to rebuild central bank FX reserves. We also expect weaker currencies in Colombia and Brazil as the Colombian central bank is likely to initiate an easing cycle by the end of this year, and policymakers in Brazil are likely to continue cutting interest rates. Across EMEA, we are most pessimistic on the Hungarian forint as policymakers continue to lower policy rates more aggressively than financial markets are pricing. In addition to central bank activity, the tense geopolitical landscape is likely to keep risk sentiment sour for the time being. When risk sentiment deteriorates, emerging market currencies, more specifically the high-beta currencies in Chile, Colombia, Hungary, etc., are more likely to underperform. As geopolitical developments remain uncertain, we view poor risk sentiment as likely to further contribute to widespread depreciation pressures on emerging market currencies.

Longer term, we maintain our view that the U.S. dollar can broadly depreciate against G10 and emerging market currencies. This view stems from our belief that the U.S. economy will enter

recession and the Fed will respond by cutting interest rates more aggressively than markets are priced for. As recessionary conditions set in, we expect the Fed to cut interest rates 175 bps in 2024, much more easing than market participants currently expect. As interest rate differentials begin to move against the U.S. dollar, we believe foreign currencies can strengthen over the second half of next year and into 2025. Dollar weakness can spark a longer-term recovery in many of the foreign currencies for which we expect a near-term decline, although we also believe the Japanese yen can recover more than most over time. For some time, higher U.S. Treasury yields, a hawkish Fed and an accommodative Bank of Japan has weighed on the Japanese yen. Should the Fed indeed cut policy rates as we expect, and even if the BoJ continues to tighten monetary policy only very gradually, yield differentials should move in favor the Japanese yen over the longer term. As these dynamics unfold, we expect the USD/JPY exchange rate to push toward JPY146.00 by the end of next year. Easier Fed monetary policy should also take some pressure off select emerging market currencies in the second half of next year. Currencies that are not exposed to elevated local political risk as a result of elections and central banks with more prudent approaches to monetary easing can outperform. In that sense, select currencies in emerging Asia can benefit from political stability and from adopting a "higher for longer" policy stance of their own. The bond market is now hearing loud and clear.

### Geopolitics Are Again Top of Mind

The most important and influential event for financial markets this month has been the attack on Israel and renewed military conflict in the Middle East. In the days immediately following Hamas' attack on Israel, we published multiple reports. The first report focused on potential longer-term and global implications of the Israel-Gaza war. Here, we touch on how another military conflict can lead to further deglobalization and a fracturing of the global economy on geopolitical grounds. In addition, we note that the combination of the Russia-Ukraine conflict and the war in the Middle East should be a strong topic of debate and source of political volatility in most elections taking place in 2024. Our second report focused on the potential evolution of the conflict, developments we are watching to gauge whether the war is escalating into a broader regional conflict or whether the confrontation is on a path toward deescalation. As of now, there are extremely early and extremely tentative signals of deescalation as a humanitarian corridor on the Egyptian border has been opened, multiples hostages have been released, Israel has delayed a ground invasion into Gaza, and intermediaries/neutral parties (i.e., United States and Qatar primarily) have attempted diplomatic efforts for peace.

For now, given the current circumstances of the conflict, we believe the USD/ILS exchange rate can reach ILS4.15 by Q1-2024. Further out, we are making a working assumption that tensions will ease and the conflict deescalate. On that assumption, we believe the shekel can begin to recover later in 2024, but this outlook is highly contingent on how the conflict evolves, a situation we do not have much non-public visibility into.

*Nick Bennenbroek, Brendan McKenna & Anna Stein (Wells Fargo Economics)*

## Special Questions:

1. What do you think will be the peak federal funds rate target (midpoint of range) in the current tightening cycle? 5.43%

2. When will the first fed funds rate cut occur?

<u>Q4 2023</u>	<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Later</u>
0%	19%	44%	31%	6%

3. a. What is your estimate of the long-term neutral fed funds rate? 2.90%

b. Since before the pandemic, has it: increased 73% decreased 0% remained the same 27%

4. What do you think are the three most important factors behind the recent persistent rise in US longer-term interest rates?

	Count
<u>The resilient US economy</u>	27
<u>Recent reductions in Japanese and Chinese holdings of US government debt</u>	5
<u>Continued elevated US core inflation</u>	9
<u>Expectations that fed funds rate will remain elevated longer than previously thought</u>	23
<u>The Fed's ongoing quantitative tightening</u>	6
<u>Large and increasing Federal government deficit</u>	18
<u>Other</u>	2

5. Has the recent increase in longer-term market interest rates tightened financial conditions sufficiently to delay/prevent further interest rates increases? Yes 84% No 16%

6. What probability do you attach to a recession beginning over the next 12 months in the:

<u>US</u>	47%
<u>euro area</u>	56%
<u>UK</u>	59%

7. a. Does your outlook for China's economy pose meaningful risks to the outlook for global growth? Yes 82% No 18%

b. Do you think recent policy measures in China will boost its growth rate? Yes 33% No 67%

8. a. Has the European Central Bank completed its tightening cycle? Yes 78% No 22%

b. Has the Bank of England completed its tightening cycle? Yes 62% No 38%

9. What is your US unemployment rate forecast for:

<u>December 2023</u>	3.9%
<u>June 2024</u>	4.3%
<u>December 2024</u>	4.5%

10. a. Will the renewed conflict in the Middle East spur a bigger hike in oil prices? Yes 57% No 43%

b. If it will do you think this will pose more meaningful downside risks to your growth projections? Yes 67% No 33%

**2023 Historical Data**

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	2.8	-0.7	-0.9	0.4	0.7	0.2	0.6	0.8	0.7	....	....	....
Auto & Light Truck Sales (b)	15.10	14.88	14.93	15.68	15.51	16.05	15.94	15.35	15.73	....	....	....
Personal Income (a, current \$)	1.0	0.5	0.5	0.3	0.3	0.2	0.2	0.4	0.3	....	....	....
Personal Consumption (a, current \$)	1.6	0.4	-0.1	0.4	0.2	0.4	0.8	0.4	0.7	....	....	....
Consumer Credit (e)	5.1	2.8	4.8	3.5	-0.1	3.3	2.7	-3.8	....	....	....	....
Consumer Sentiment (U. of Mich.)	64.9	66.9	62.0	63.7	59.0	64.2	71.5	69.4	67.9	63.8	....	....
Household Employment (c)	894	177	577	139	-310	273	268	222	86	....	....	....
Nonfarm Payroll Employment (c)	472	248	217	217	281	105	236	227	336	....	....	....
Unemployment Rate (%)	3.4	3.6	3.5	3.4	3.7	3.6	3.5	3.8	3.8	....	....	....
Average Hourly Earnings (All, cur. \$)	33.02	33.11	33.20	33.34	33.45	33.60	33.73	33.81	33.88	....	....	....
Average Workweek (All, hrs.)	34.6	34.5	34.4	34.4	34.3	34.4	34.3	34.4	34.4	....	....	....
Industrial Production (d)	1.5	0.9	0.2	0.3	0.1	-0.4	0.2	0.1	0.1	....	....	....
Capacity Utilization (%)	79.6	79.5	79.5	79.8	79.5	78.9	79.6	79.5	79.7	....	....	....
ISM Manufacturing Index (g)	47.4	47.7	46.3	47.1	46.9	46.0	46.4	47.6	49.0	....	....	....
ISM Nonmanufacturing Index (g)	55.2	55.1	51.2	51.9	50.3	53.9	52.7	54.5	53.6	....	....	....
Housing Starts (b)	1.340	1.436	1.380	1.348	1.583	1.418	1.451	1.269	1.358	....	....	....
Housing Permits (b)	1.354	1.482	1.437	1.417	1.496	1.441	1.443	1.541	1.471	....	....	....
New Home Sales (1-family, c)	649	625	640	679	710	683	736	676	759	....	....	....
Construction Expenditures (a)	2.2	0.4	0.6	0.3	2.0	0.5	0.9	0.5	....	....	....	....
Consumer Price Index (nsa, d)	6.4	6.0	5.0	4.9	4.0	3.0	3.2	3.7	3.7	....	....	....
CPI ex. Food and Energy (nsa, d)	5.6	5.5	5.6	5.5	5.3	4.8	4.7	4.3	4.1	....	....	....
PCE Chain Price Index (d)	5.5	5.2	4.4	4.4	4.0	3.2	3.4	3.4	3.4	....	....	....
Core PCE Chain Price Index (d)	4.9	4.8	4.8	4.8	4.7	4.3	4.3	3.8	3.7	....	....	....
Producer Price Index (nsa, d)	5.7	4.7	2.7	2.3	1.1	0.2	1.1	2.0	2.2	....	....	....
Durable Goods Orders (a)	-1.3	-2.7	3.3	1.2	2.0	4.3	-5.6	-0.1	4.7	....	....	....
Leading Economic Indicators (a)	-0.5	-0.5	-1.2	-0.8	-0.7	-0.6	-0.3	-0.5	-0.7	....	....	....
Balance of Trade & Services (f)	-70.8	-70.6	-60.4	-73.0	-66.8	-63.7	-64.7	-58.3	....	....	....	....
Federal Funds Rate (%)	4.33	4.57	4.65	4.83	5.06	5.08	5.12	5.33	5.33	....	....	....
3-Mo. Treasury Bill Rate (%)	4.69	4.79	4.86	5.07	5.31	5.42	5.49	5.56	5.56	....	....	....
10-Year Treasury Note Yield (%)	3.53	3.75	3.66	3.46	3.57	3.75	3.90	4.17	4.38	....	....	....

**2022 Historical Data**

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	1.4	1.4	2.1	1.3	-0.1	0.8	-0.7	0.7	-0.1	1.2	-1.3	-0.7
Auto & Light Truck Sales (b)	14.38	13.67	13.58	14.04	12.94	13.27	13.49	13.50	13.70	14.68	14.27	13.55
Personal Income (a, current \$)	-0.3	0.6	0.4	0.3	0.4	0.4	0.8	0.5	0.4	0.5	0.1	0.2
Personal Consumption (a, current \$)	0.5	0.7	1.2	0.6	0.4	1.0	0.0	0.8	0.6	0.6	-0.1	0.3
Consumer Credit (e)	4.6	8.3	10.1	7.3	6.9	8.6	6.8	7.0	6.9	8.8	8.1	4.8
Consumer Sentiment (U. of Mich.)	67.2	62.8	59.4	65.2	58.4	50.0	51.5	58.2	58.6	59.9	56.7	59.8
Household Employment (c)	1041	468	738	-346	317	-242	215	422	156	-257	-66	717
Nonfarm Payroll Employment (c)	364	904	414	254	364	370	568	352	350	324	290	239
Unemployment Rate (%)	4.0	3.8	3.6	3.6	3.6	3.6	3.5	3.7	3.5	3.7	3.6	3.5
Average Hourly Earnings (All, cur. \$)	31.63	31.63	31.83	31.94	32.06	32.18	32.33	32.43	32.53	32.66	32.80	32.92
Average Workweek (All, hrs.)	34.6	34.7	34.7	34.6	34.6	34.6	34.6	34.5	34.6	34.6	34.5	34.4
Industrial Production (d)	2.3	6.6	4.4	4.6	3.7	3.2	3.0	3.1	4.5	3.1	1.9	0.6
Capacity Utilization (%)	79.4	79.9	80.5	80.7	80.6	80.5	80.7	80.7	80.8	80.6	80.3	78.9
ISM Manufacturing Index (g)	57.6	58.4	57.0	55.9	56.1	53.1	52.7	52.9	51.0	50.0	49.0	48.4
ISM Nonmanufacturing Index (g)	60.4	57.2	58.4	57.5	56.4	56.0	56.4	56.1	55.9	54.5	55.5	49.2
Housing Starts (b)	1.669	1.771	1.713	1.803	1.543	1.561	1.371	1.505	1.463	1.432	1.427	1.357
Housing Permits (b)	1.898	1.817	1.877	1.795	1.708	1.701	1.658	1.586	1.588	1.555	1.402	1.409
New Home Sales (1-family, c)	810	773	707	611	636	563	543	638	567	577	582	636
Construction Expenditures (a)	2.4	1.5	1.4	1.8	-0.1	-0.4	-0.2	-1.2	-0.6	-0.4	0.6	-0.1
Consumer Price Index (nsa, d)	7.5	7.9	8.5	8.3	8.6	9.1	8.5	8.3	8.2	7.7	7.1	6.5
CPI ex. Food and Energy (nsa, d)	6.0	6.4	6.5	6.2	6.0	5.9	5.9	6.3	6.6	6.3	6.0	5.7
PCE Chain Price Index (d)	6.3	6.5	6.9	6.6	6.7	7.1	6.6	6.5	6.6	6.3	5.9	5.4
Core PCE Chain Price Index (d)	5.4	5.6	5.5	5.3	5.1	5.2	5.0	5.2	5.5	5.3	5.1	4.9
Producer Price Index (nsa, d)	10.1	10.4	11.7	11.2	11.1	11.2	9.7	8.7	8.5	8.2	7.4	6.4
Durable Goods Orders (a)	2.0	-1.4	-0.1	1.0	0.7	1.6	-0.8	-0.1	0.3	1.0	-3.1	4.5
Leading Economic Indicators (a)	-0.5	0.3	0.0	-0.6	-0.9	-0.7	-0.6	-0.3	-0.5	-0.9	-0.9	-0.7
Balance of Trade & Services (f)	-86.5	-87.0	-102.5	-86.0	-84.1	-80.9	-71.7	-67.3	-71.7	-78.3	-63.8	-71.4
Federal Funds Rate (%)	0.08	0.08	0.20	0.33	0.77	1.21	1.68	2.33	2.56	3.08	3.78	4.10
3-Mo. Treasury Bill Rate (%)	0.15	0.31	0.45	0.76	0.99	1.54	2.30	2.72	3.22	3.87	4.32	4.36
10-Year Treasury Note Yield (%)	1.76	1.93	2.13	2.75	2.90	3.14	2.90	2.90	3.52	3.98	3.89	3.62

(a) month-over-month % change; (b) millions, saar; (c) month-over-month change, thousands; (d) year-over-year % change; (e) annualized % change; (f) \$ billions; (g) level. Most series are subject to frequent government revisions. Use with care.

**Calendar of Upcoming Economic Data Releases**

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>October 30</b> NABE Business Conditions Survey (Q3) Texas Manufacturing Outlook Survey (Oct)	<b>31</b> Employment Cost Index (Q3) FHFA HPI (Aug) Case-Shiller HPI (Aug) Consumer Confidence (Oct) Housing Vacancies (Q3) Agricultural Prices (Sep) Chicago PMI (Oct) Texas Service Sector Outlook Survey (Oct) FOMC Meeting	<b>November 1</b> ADP Employment Report (Oct) JOLTS (Sep) ISM Manufacturing (Oct) S&P Global Mfg PMI (Oct) Construction (Sep) FOMC Meeting EIA Crude Oil Stocks Mortgage Applications	<b>2</b> Productivity & Costs (Q3) Manufacturers' Shipments, Inventories & Orders (Sep) Challenger Employment Report (Oct) BEA Auto & Truck Sales (Oct) Weekly Jobless Claims	<b>3</b> Employment Situation (Oct) ISM Services PMI (Oct) S&P Global Services PMI (Oct)
<b>6</b> Public Debt (Oct) Senior Loan Officer Survey (Q4) Interest on Public Debt (Oct)	<b>7</b> International Trade (Sep) Consumer Credit (Sep) Treasury Auction Allotments (Oct) Kansas City Fed Labor Market Conditions Indicators (Oct)	<b>8</b> Transportation Services Index (Sep) Wholesale Trade (Sep) EIA Crude Oil Stocks Mortgage Applications	<b>9</b> Kansas City Financial Stress Index (Oct) First Time Housing Affordability (Q3) Weekly Jobless Claims	<b>10</b> Consumer Sentiment (Nov, Preliminary)  <b>VETERANS DAY OBSERVED  BOND MARKETS CLOSED</b>
<b>13</b> Survey of Professional Forecasters (Q4) Dallas Fed Banking Conditions Survey (Nov) Monthly Treasury Statement (Oct) OPEC Crude Oil Spot Prices (Oct)	<b>14</b> CPI & Real Earnings (Oct) Cleveland Fed Median CPI (Oct) NFIB (Oct)	<b>15</b> Advance Retail Sales (Oct) Producer Prices (Oct) MTIS (Sep) Empire State Mfg Survey (Nov) EIA Crude Oil Stocks Mortgage Applications	<b>16</b> Import & Export Prices (Oct) IP & Capacity Utilization (Oct) Business Leaders Survey (Nov) Philadelphia Fed Mfg Business Outlook Survey (Nov) Home Builders (Nov) Kansas City Fed Manufacturing Survey (Nov) TIC Data (Sep) Weekly Jobless Claims	<b>17</b> New Residential Construction (Oct) Retail E-Commerce Sales (Q3) Advance Quarterly Services (Q3)
<b>20</b> Composite Indexes (Oct)	<b>21</b> Existing Home Sales (Oct) CEW (Q2) Chicago Fed National Activity Index (Oct) Philadelphia Fed Nonmanufacturing Business Outlook Survey (Nov)	<b>22</b> Advance Durable Goods (Oct) Consumer Sentiment (Nov, Final) Treas Auction Allotments (Nov) FRB Philadelphia Coincident Econ Activity Index (Oct) EIA Crude Oil Stocks Mortgage Applications Weekly Jobless Claims	<b>23</b>  <b>THANKSGIVING DAY  ALL MARKETS CLOSED</b>	<b>24</b> S&P Global Flash PMIs (Nov)
<b>27</b> New Residential Sales (Oct) Final Building Permits (Oct) Texas Manufacturing Outlook Survey (Nov) Steel Imports for Consumption (Oct, Preliminary)	<b>28</b> Case-Shiller HPI (Sep) FHFA HPI (Sep & Q3) H.6 Money Stock (Oct) Richmond Fed Mfg & Service Sector Surveys (Nov) Texas Service Sector Outlook Survey (Nov) Consumer Confidence (Nov)	<b>29</b> Advance Trade & Inventories (Oct) GDP (Q3, 2nd Estimate) EIA Crude Oil Stocks Mortgage Applications	<b>30</b> Personal Income (Oct) Underlying NIPA Tables (Q3, 2nd Estimate) Agricultural Prices (Oct) Dallas Fed Trimmed-Mean PCE (Oct) Chicago PMI (Nov) Pending Home Sales (Oct) Weekly Jobless Claims	<b>December 1</b> Strike Report (Nov) ISM Manufacturing (Nov) S&P Global Mfg PMI (Nov) Construction (Oct)
<b>4</b> Manufacturers' Shipments, Inventories & Orders (Oct) NABE Outlook (Q4)	<b>5</b> JOLTS (Oct) ISM Services PMI (Nov) S&P Global Services PMI (Nov)	<b>6</b> ADP Employment Report (Nov) Productivity & Costs (Q3) Intl Trade/Supplement (Oct) Transportation Services Index (Oct) QFR (Q3) Public Debt (Nov) Interest on Public Debt (Nov) EIA Crude Oil Stocks Mortgage Applications	<b>7</b> Wholesale Trade (Oct) Treasury Auction Allotments (Nov) Consumer Credit (Oct) Financial Account (Q3) Challenger Employment Report (Nov) Weekly Jobless Claims	<b>8</b> Employment Situation (Nov) Consumer Sentiment (Dec, Preliminary)



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