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Earnings Estimates

Agreement - Estimate Revisions

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LNT: Alliant Energy - Detailed Earnings Estimates - Zacks.com

	Current Qtr (12/2023)	Next Qtr (3/2024)	Current Year (12/2023)	Next Year (12/2024)
Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	0	0
Up Last 60 Days	0	0	0	0
Down Last 7 Days	0	0	0	0
Down Last 30 Days	0	0	0	0
Down Last 60 Days	0	0	0	0

Magnitude - Consensus Estimate Trend

	Current Qtr (12/2023)	Next Qtr (3/2024)	Current Year (12/2023)	Next Year (12/2024)
Current	0.55	0.66	2.88	3.08
7 Days Ago	0.55	0.66	2.88	3.08
30 Days Ago	0.55	0.66	2.88	3.08
60 Days Ago	0.55	0.66	2.88	3.08
90 Days Ago	0.66	0.77	2.87	3.08

Upside - Most Accurate Estimate Versus Zacks Consensus

	Current Qtr (12/2023)	Next Qtr (3/2024)	Current Year (12/2023)	Next Year (12/2024)
Most Accurate Estimate	0.55	0.66	2.88	3.08
Zacks Consensus Estimate	0.55	0.66	2.88	3.08
Earnings ESP	0.00%	0.00%	0.00%	0.00%

Surprise - Reported Earnings History

	Quarter Ending (9/2023)	Quarter Ending (6/2023)	Quarter Ending (3/2023)	Quarter Ending (12/2022)	Average Surprise
Reported	1.05	0.64	0.65	0.46	NA
Estimate	0.92	0.59	0.73	0.48	NA
Difference	0.13	0.05	-0.08	-0.02	0.02
Surprise	14.13%	8.47%	-10.96%	-4.17%	1.87%

Quarterly Estimates By Analyst

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	Current Qtr (3/2024)	Next Qtr (6/2024)	Current Year (12/2024)	Next Year (12/2025)
Up Last 7 Days	0	0	1	1
Up Last 30 Days	0	0	1	1
Up Last 60 Days	0	0	1	1
Down Last 7 Days	1	1	1	0
Down Last 30 Days	1	1	3	2
Down Last 60 Days	1	1	3	1

Magnitude - Consensus Estimate Trend

	Current Qtr (3/2024)	Next Qtr (6/2024)	Current Year (12/2024)	Next Year (12/2025)
Current	0.77	0.93	3.44	3.66
7 Days Ago	0.78	0.93	3.39	3.61
30 Days Ago	0.78	0.93	3.39	3.64
60 Days Ago	0.78	0.93	3.39	3.64
90 Days Ago	0.86	0.99	3.39	3.61

Upside - Most Accurate Estimate Versus Zacks Consensus

	Current Qtr (3/2024)	Next Qtr (6/2024)	Current Year (12/2024)	Next Year (12/2025)
Most Accurate Estimate	0.76	1.02	3.45	3.66
Zacks Consensus Estimate	0.77	0.93	3.44	3.66
Earnings ESP	-1.30%	10.27%	0.51%	0.07%

Surprise - Reported Earnings History

	Quarter Ending (12/2023)	Quarter Ending (9/2023)	Quarter Ending (6/2023)	Quarter Ending (3/2023)	Average Surprise
Reported	0.52	0.94	0.88	0.84	NA
Estimate	0.49	0.86	0.83	0.75	NA
Difference	0.03	0.08	0.05	0.09	0.06
Surprise	6.12%	9.30%	6.02%	12.00%	8.36%

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NEE: NextEra Energy - Detailed Earnings Estimates - Zacks.com

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NWE: NorthWestern - Detailed Earnings Estimates - Zacks.com

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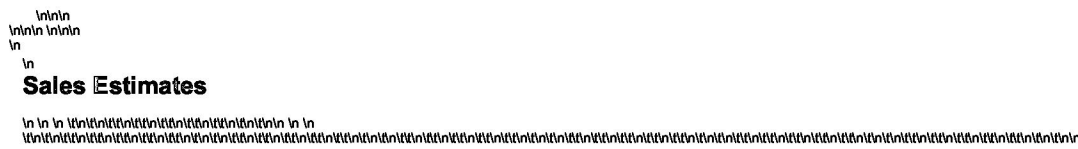
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Up Last 7 Days	0	0	0	0
Up Last 30 Days	0	0	1	1
Up Last 60 Days	0	0	1	1
Down Last 7 Days	0	0	0	0
Down Last 30 Days	0	0	0	0
Down Last 60 Days	0	0	0	1

Magnitude - Consensus Estimate Trend IN IN

	Current Qtr (12/2023)	Next Qtr (3/2024)	Current Year (12/2023)	Next Year (12/2024)
Current	0.22	0.35	2.04	2.13
7 Days Ago	0.22	0.35	2.04	2.13
30 Days Ago	0.22	0.35	2.03	2.13
60 Days Ago	0.22	0.35	2.03	2.14
90 Days Ago	0.47	0.35	2.02	2.13

Upside - Most Accurate Estimate Versus Zacks Consensus

	Current Qtr (12/2023)	Next Qtr (3/2024)	Current Year (12/2023)	Next Year (12/2024)
Most Accurate Estimate	0.22	0.35	2.04	2.15
Zacks Consensus Estimate	0.22	0.35	2.04	2.13
Earnings ESP	0.00%	0.00%	0.25%	0.82%

Surprise - Reported Earnings History \N \N

	Quarter Ending (9/2023)	Quarter Ending (6/2023)	Quarter Ending (3/2023)	Quarter Ending (12/2022)	Average Surprise
Reported	1.20	0.44	0.19	0.25	NA
Estimate	0.92	0.65	0.15	NA	NA
Difference	0.28	-0.21	0.04	NA	0.04
Surprise	30.43%	-32.31%	26.67%	NA	8.26%

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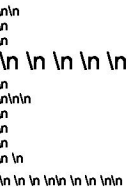
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XEL: Xcel Energy - Detailed Earnings Estimates - Zacks.com

	Current Qtr (3/2024)	Next Qtr (6/2024)	Current Year (12/2024)	Next Year (12/2025)
Up Last 7 Days	0	0	0	0
Up Last 30 Days	1	0	0	1
Up Last 60 Days	1	1	0	2
Down Last 7 Days	0	0	0	0
Down Last 30 Days	0	1	0	0
Down Last 60 Days	0	1	1	0

Magnitude - Consensus Estimate Trend

	Current Qtr (3/2024)	Next Qtr (6/2024)	Current Year (12/2024)	Next Year (12/2025)
Current	0.83	0.40	3.57	3.84
7 Days Ago	0.83	0.40	3.57	3.85
30 Days Ago	0.83	0.41	3.57	3.85
60 Days Ago	0.82	0.41	3.57	3.83
90 Days Ago	0.83	0.47	3.61	3.79

Upside - Most Accurate Estimate Versus Zacks Consensus

	Current Qtr (3/2024)	Next Qtr (6/2024)	Current Year (12/2024)	Next Year (12/2025)
Most Accurate Estimate	0.83	0.40	3.57	3.83
Zacks Consensus Estimate	0.83	0.40	3.57	3.84
Earnings ESP	-0.40%	0.84%	0.00%	-0.39%

Surprise - Reported Earnings History

	Quarter Ending (12/2023)	Quarter Ending (9/2023)	Quarter Ending (6/2023)	Quarter Ending (3/2023)	Average Surprise
Reported	0.83	1.23	0.52	0.76	NA
Estimate	0.85	1.27	0.55	0.74	NA
Difference	-0.02	-0.04	-0.03	0.02	-0.02
Surprise	-2.35%	-3.15%	-5.45%	2.70%	-2.06%

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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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Economic Surprises Continue

Full of surprises. The US economy surprised forecasters yet again in last year's fourth quarter with stronger-than-expected growth and lower-than-expected inflation. The last BCFF Q4 real GDP forecast (from the survey taken at the end of November) was for growth of 1.2% q/q saar. Just prior to the release on January 25, the market consensus expected a 2.0% increase. The actual figure was 3.3%. To be sure, some of the Q4 strength will likely be ephemeral, notably the increase in inventory investment. The inventory investment in Q4 was a little faster than needed to keep pace with trend demand growth. So, some slowdown ahead is likely.

However, demand was also solid in Q4. Personal consumption expenditures rose a solid 2.8% as continued robust labor market conditions boosted disposable income. Nonresidential investment, government spending and exports also made meaningful contributions in Q4. All in all, private domestic demand (final sales to private domestic purchasers) increased a respectable 2.6% q/q saar in Q4 2023 and 2.7% Q4/Q4.

Even as growth has remained above trend, inflation has continued to surprise on the downside. The GDP price index increased only 1.5% q/q saar in Q4, more than one percentage point below expectations. The PCE price index, the one on which the Fed places the most emphasis, increased just 1.7%, nearly one percentage point below expectations. The combination of above-trend growth and falling inflation has brightened the BCFF outlook considerably. In this month's survey, 81% of respondents think the US economy will achieve a "soft landing," that is a return of inflation to around the Fed's 2% target without the economy experiencing a recession, up markedly from 63% last month.

Expected slowdown. Still, the BCFF consensus expects much slower growth in 2024 than in 2023. It looks for real GDP growth to slow to 1.4% in Q1, and 0.9% in both Q2 and Q3. For the four quarters of 2024, the consensus looks for real GDP to advance just 1.2%, in stark contrast to the 3.1% increase in the four quarters of 2023 but up from 0.8% expected in last month's survey. Even though the consensus expects anemic growth throughout much of this year, it does not foresee a recession. The panel thinks there is only a 39% probability of a US recession occurring over the next 12 months versus 45% last month and a recent peak of 63% last February.

While the BCFF panel is not queried about the source of the expected slowdown, inferences can be made from the answers given to several special questions. First and foremost, the panel considers the current stance of monetary policy to be quite restrictive. The consensus estimate of the neutral fed funds rate (FFR) (the rate that is neither restrictive nor stimulative) is 2.86%, more than 250bps lower than the current FFR target of 5.375%, indicating a meaningfully tight policy. Furthermore, the panel accepts that changes in monetary policy impact the economy with a lag, with 80% thinking that the economy has yet to feel the full impact of previous tightening.

Less fiscal accommodation and weak growth abroad also appear to factor into the consensus US outlook. 93% of respondents think that accommodative fiscal policy played a key role

in the resilience of the economy in 2023. 77% expect less accommodation this year with 52% thinking that the reduced fiscal boost will meaningfully slow the economy. Also, the consensus does not expect much help from abroad. The euro area economy contracted slightly in the second half of last year, and respondents place a 54% probability of a recession emerging within the next 12 months. The UK economy has also been struggling. Real GDP declined in the three months to November with respondents assigning a 56% probability of a recession ahead.

Fed prepares for rate cuts. The FOMC met at the end of January and as almost universally expected, left its FFR target unchanged at 5.375%, where it has been since last July. In the announcement following the meeting, it moved to a more neutral position concerning the likely direction of future policy actions and noted explicitly that it would keep policy sufficiently restrictive until the committee is confident that inflation is on a path to the 2% target. Message to financial markets: the next move in the FFR will be down but it might not occur as soon as you expect. With the Fed expected to reduce the FFR, economic growth expected to slow, and inflation anticipated to remain near target, the BCFF consensus expects market interest rates across all maturities to decline throughout the six-quarter forecast horizon.

BCFF panelists were queried about several aspects of the near-term course for monetary policy. First was the timing of the first FFR cut. A plurality of respondents (41%) looks for the first cut to occur at the May FOMC meeting with 16% expecting one in March and 25% anticipating the first cut in June. All respondents except one expect the first cut to have occurred by July. On average, the group anticipates the FFR target to be reduced by 112bps during 2024. This stands in contrast to the FOMC which expects only 75bps of rate cuts this year. And while the fed funds futures market has recently priced out some of the rate cuts it had previously priced in, it still envisages a much larger 125bps of FFR cuts in 2024.

What about QT? A component of the recent tightening of monetary policy that has received less attention is the decline in the Fed's security holdings on its balance sheet. In support of its tightening of monetary policy via increases in the FFR target that began in March 2022, the Fed has also been allowing its security holdings to decline since June 2022 at a pace of \$80 billion per month. This is known as quantitative tightening (QT) as it reduces the reserves held by the banking system. Since June 2022, the Fed's security holdings have declined by more than \$1.3 trillion but are still more than 80% larger than they were prior to the pandemic. A question that has arisen in financial markets as they anticipate the first FFR cut is whether the Fed would stop the reduction in its balance sheet when it began to cut the FFR. BCFF panelists mostly think it won't, with only 23% expecting that QT will be halted when the Fed begins to lower interest rates.

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

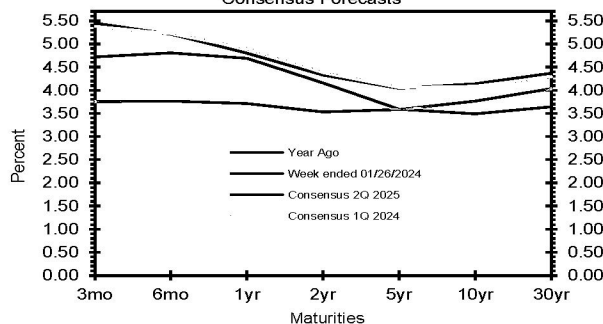
Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	-----Average For Week Ending-----				---Average For Month---				Latest Qtr		1Q 2024		2Q 2024	
	Jan 26	Jan 19	Jan 12	Jan 6	Dec	Nov	Oct	4Q 2023			2024	2024	2024	2025
Federal Funds Rate	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33			5.3	5.1	4.7	4.1
Prime Rate	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50			8.5	8.2	7.9	7.3
SOFR	5.31	5.31	5.31	5.36	5.33	5.32	5.31	5.32			5.3	5.2	4.8	4.2
Commercial Paper, 1-mo.	5.32	5.33	5.32	5.32	5.32	5.33	5.33	5.33			5.3	5.1	4.7	4.1
Treasury bill, 3-mo.	5.45	5.46	5.47	5.47	5.44	5.52	5.60	5.52			5.4	5.1	4.7	4.0
Treasury bill, 6-mo.	5.21	5.20	5.22	5.25	5.34	5.44	5.57	5.45			5.2	5.0	4.6	4.0
Treasury bill, 1 yr.	4.80	4.79	4.77	4.83	4.96	5.28	5.42	5.22			4.9	4.7	4.4	3.9
Treasury note, 2 yr.	4.33	4.32	4.30	4.36	4.46	4.88	5.07	4.80			4.4	4.2	4.0	3.7
Treasury note, 5 yr.	4.04	4.02	3.93	3.96	4.00	4.49	4.77	4.42			4.1	3.9	3.8	3.6
Treasury note, 10 yr.	4.14	4.12	4.00	3.98	4.02	4.50	4.80	4.44			4.1	4.0	3.9	3.8
Treasury note, 30 yr.	4.37	4.34	4.19	4.12	4.14	4.66	4.95	4.58			4.3	4.2	4.2	4.1
Corporate Aaa bond	5.07	5.04	4.98	4.97	4.95	5.52	5.87	5.45			5.0	5.0	4.9	4.8
Corporate Baa bond	5.57	5.55	5.50	5.51	5.51	6.15	6.53	6.07			6.0	6.0	5.9	5.8
State & Local bonds	4.17	4.10	4.05	4.03	4.13	4.56	4.88	4.52			4.3	4.3	4.2	4.1
Home mortgage rate	6.69	6.60	6.66	6.62	6.82	7.44	7.62	7.29			6.7	6.6	6.5	6.2

Key Assumptions	History								Consensus Forecasts-Quarterly					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024	2024	2024	2025	2025
Fed's AFE \$ Index	108.3	113.5	118.8	119.8	115.5	114.6	115.0	116.6	115.2	114.9	114.7	114.5	114.7	114.6
Real GDP	-2.0	-0.6	2.7	2.6	2.2	2.1	4.9	3.3	1.4	0.9	0.9	1.4	1.8	2.0
GDP Price Index	8.5	9.1	4.4	3.9	3.9	1.7	3.3	1.5	2.2	2.2	2.3	2.2	2.2	2.1
Consumer Price Index	9.2	9.7	5.5	4.2	3.8	2.7	3.6	2.8	2.5	2.4	2.4	2.3	2.2	2.2
PCE Price Index	7.7	7.2	4.7	4.1	4.2	2.5	2.6	1.7	2.2	2.3	2.2	2.2	2.1	2.1

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 and are 15+ years, 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).

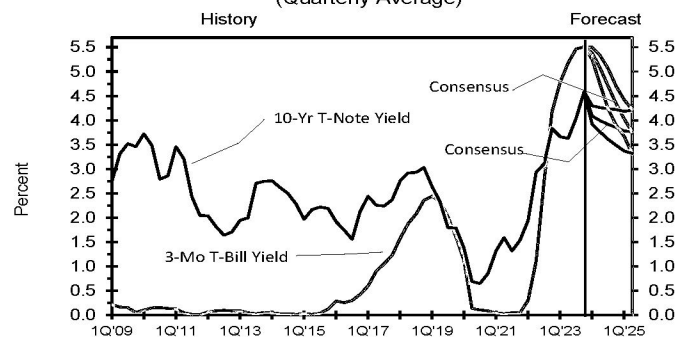
US Treasury Yield Curve

Week ended Jan 26, 2024 & Year Ago vs.
1Q 2024 & 2Q 2025
Consensus Forecasts



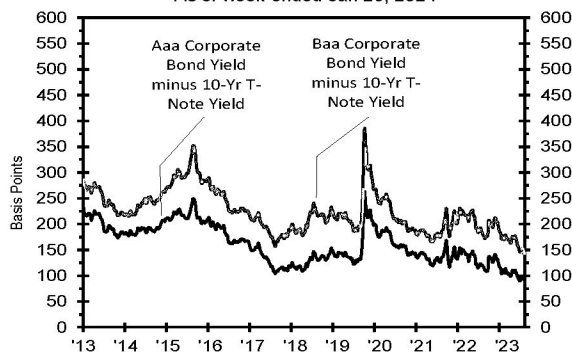
US 3-Mo T-Bills & 10-Yr T-Note Yield

(Quarterly Average)



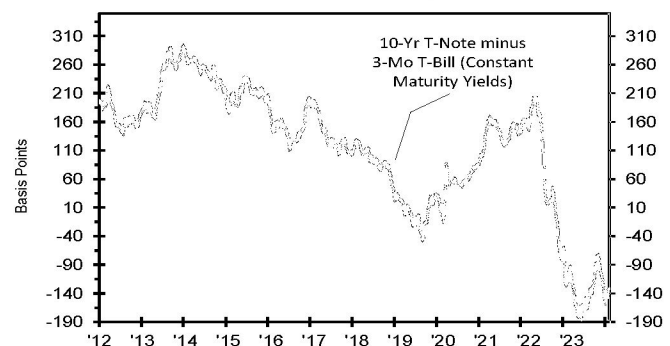
Corporate Bond Spreads

As of week ended Jan 26, 2024



US Treasury Yield Curve

As of week ended Jan 26, 2024



Policy Rates¹

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Ago:	Ago:	3	6	12
U.S.	5.38	5.38	4.38	5.31	4.95	4.24
Japan	-0.10	-0.10	-0.10	-0.07	0.03	0.04
U.K.	5.25	5.25	3.50	5.17	4.93	4.27
Switzerland	1.75	1.75	1.00	1.71	1.63	1.41
Canada	5.00	5.00	4.50	4.96	4.56	3.83
Australia	4.35	4.35	3.10	4.36	4.21	3.71
Euro area	4.50	4.50	2.50	4.33	4.05	3.38

10-Yr. Government Bond Yields²

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Ago:	Ago:	3	6	12
U.S.	4.15	3.88	3.52	4.02	3.92	3.89
Germany	2.30	2.03	2.23	2.35	2.29	2.24
Japan	0.72	0.65	0.50	0.75	0.82	0.95
U.K.	4.06	3.62	3.46	3.89	3.81	3.81
France	2.78	2.56	2.70	2.82	2.75	2.70
Italy	3.83	3.69	4.23	4.00	3.97	3.92
Switzerland	0.87	0.66	1.23	1.03	1.10	1.37
Canada	3.52	3.11	2.89	3.41	3.36	3.33
Australia	4.19	3.96	3.54	4.51	4.28	4.21
Spain	3.25	2.88	3.19	3.27	3.22	3.19

Foreign Exchange Rates³

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Ago:	Ago:	3	6	12
U.S.	115.23	112.81	113.82	113.9	113.3	113.4
Japan	147.94	140.92	129.94	145.4	140.7	135.8
U.K.	1.27	1.27	1.24	1.26	1.27	1.27
Switzerland	0.86	0.84	0.92	0.87	0.87	0.86
Canada	1.35	1.32	1.33	1.34	1.33	1.30
Australia	0.66	0.68	0.71	0.66	0.67	0.69
Euro	1.09	1.11	1.09	1.09	1.10	1.12

**Consensus
Policy Rates
vs. US Rate**

	Now	In 12 Mo.
Japan	-5.48	-4.19
U.K.	-0.13	0.04
Switzerland	-3.63	-2.82
Canada	-0.38	-0.41
Australia	-1.03	-0.52
Euro area	-0.88	-0.86

**Consensus
10-Year Gov't
Yields vs. U.S. Yield**

	Now	In 12 Mo.
Germany	-1.85	-1.64
Japan	-3.43	-2.94
U.K.	-0.09	-0.08
France	-1.37	-1.19
Italy	-0.32	0.04
Switzerland	-3.28	-2.52
Canada	-0.63	-0.56
Australia	0.04	0.32
Spain	-0.90	-0.69

International. Global bond yields have generally been climbing in the early weeks of this year as investors have been re-evaluating the scope for central banks to swiftly pivot toward looser monetary policy. This reassessment has, in turn, been reinforced by some hawkish remarks from some policymakers coupled with evidence suggesting that US and European labor markets remain tight. In the meantime, escalating tensions in the Middle East have also been choking off key shipping routes and raising concerns about the resilience of global supply chains. Despite these setbacks, global equity markets have recovered some poise in recent days and, on the whole, remain resilient. This can partly be traced to some stronger-than-expected US growth data and upbeat news on the corporate earnings front, particularly from the technology sector.

How central banks now respond to these crosscurrents remains to be seen. The recent disruption of Red Sea shipping routes has arguably shifted global growth risks to the downside. It was certainly of note that January's flash PMI data showed that manufacturers are now reporting growing issues with supply chains. Across the four largest developed economies, the US, Euro area, Japan and the UK, average supplier delivery times lengthened in January for the first time in 12 months. Still, some economies were more affected than others. The UK, for example, was worst hit, with lead times lengthening to a degree not seen since September 2022. But longer deliveries were also reported in the US, Euro area and Japan. It was notable too, however, in these surveys that this lengthening of supplier lead times was accompanied by a broadly-based rise in manufacturers' input costs.

Against that backdrop, the responses to one of our special questions this month reveals heightened optimism among our panelists about the US economic outlook, presumably, in part, due to stronger-than-expected growth momentum in Q4 2023. Specifically, our panelists now assign only a 39% probability to the likelihood of a US recession within the next 12 months, a decrease from 45% in last month's survey. However, this optimism contrasts with persistent pessimism about the European economic outlook. The probability of a recession in the Euro area is specifically placed at 54%, and 56% for the UK, with both figures little changed from last month's survey.

Our panelists' forecasts for the calibration of monetary policy in the Euro area and UK are also little-changed compared with last month with their respective policy rates expected to decline modestly within the next 3 to 6 months. When specifically asked about the timing of rate cuts by central banks, 9% of our panelists foresee the ECB starting to reduce rates in Q1 2024, 61% predict a cut in Q2, and 26% in Q3. Regarding the BoE, 4% of our panelists expect a rate cut in Q1, while 39% anticipate a move in Q2, and 48% anticipate Q3.

As for the BoJ, our panelists continue to expect a monetary policy normalization phase to proceed in the coming months. But there is now a little more unanimity about when exactly this process will commence. For example, in this month's survey 57% of panelists expect a first policy rate hike from the BoJ in Q2 2024. That contrasts with just 5% expecting a hike in Q1, a further 14% expecting a hike in Q3 with a further 24% opting for Q4 or later. These expectations also differ from last month's survey, where 16% predicted a Q1 hike, 37% a Q2 hike, 16% a Q3 hike, and 31% a hike in Q4 or later. The emerging consensus for a first rate hike in Q2 2024 could be influenced by the BoJ's recent statements emphasizing the upcoming Spring wage negotiations and the general importance of wage inflation in shaping monetary policy.

Finally, amid much uncertainty about China's economic prospects, the PBoC has recently announced that it will cut the reserve requirement ratio (RRR) for banks by 50 bps, effective February 5. Whether this latest easing initiative can alleviate the challenges China currently faces is open to much debate, however, not least given the structural roots of its many economic problems.

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: ¹Monetary policy rates. ²Government bonds are yields to maturity. ³Foreign 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.

4 ■ BLUE CHIP FINANCIAL FORECASTS ■ FEBRUARY 1, 2024

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) ----- ----- (SAAR) -----								
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		B.	C.	D.	E.					
	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		Real GDP	Price Index	Cons. Price Index	PCE Price Index					
	Rate	Rate																							
J.P. Morgan Chase	5.5	H	na	na	na	na	na	4.4	3.9	3.9	4.1	na	na	na	na	na	1.8	1.9	2.1	1.8					
Scotiabank Group	5.5	H	na	5.3	na	5.4	na	na	4.1	L	3.9	3.8	L	4.1	na	na	na	na	1.1	L	3.0	2.8			
Chmura Economics & Analytics	5.4	8.5	H	5.4	5.3	5.5	5.3	4.8	4.4	4.0	4.1	4.2	5.0	na	na	na	6.7	na	1.8	3.3	3.3	H	3.1		
EY-Parthenon	5.4	na	na	na	na	5.3	na	na	na	na	4.1	na	na	na	na	na	na	na	1.7	2.0	2.4	2.3			
Fannie Mae	5.4	8.5	H	na	na	5.3	5.0	L	4.7	4.3	4.0	4.1	4.3	na	na	na	6.6	na	0.9	1.6	2.0	1.5			
ING	5.4	na	na	na	na	na	na	4.4	4.0	4.0	4.2	na	na	na	na	na	na	na	1.8	na	na	na			
KPMG	5.4	8.5	H	5.4	5.3	5.5	5.4	4.9	4.3	3.8	L	3.8	L	4.0	L	4.7	5.8	na	6.7	na	1.3	1.4	2.4	1.5	
Naroff Economics LLC	5.4	8.4	5.3	5.2	5.4	5.2	4.8	4.4	4.0	4.1	4.3	5.0	5.5	L	4.1	6.6	115.1	0.5	3.2	3.3	H	3.0			
Nomura Securities, Inc.	5.4	8.5	H	na	na	na	na	4.3	4.1	4.2	na	na	na	na	na	na	na	na	2.4	1.3	2.5	1.7			
Oxford Economics	5.4	8.5	H	5.4	na	5.4	5.3	4.9	4.4	4.1	4.1	4.3	4.4	L	na	na	6.9	114.1	1.9	2.0	1.8	L	1.8		
Roberts Capital Advisors	5.4	8.5	H	5.4	5.4	H	5.4	5.4	5.3	4.8	4.6	H	4.6	H	5.5	6.5	4.8	7.0	116.0	2.1	2.5	2.8	2.5		
The Lonski Group	5.4	8.5	H	5.3	5.4	H	5.4	5.1	4.7	4.3	3.9	4.0	4.2	5.2	5.7	4.2	6.6	115.5	0.7	2.1	2.0	1.8			
The Northern Trust Company	5.4	8.5	H	5.3	5.4	H	5.5	5.4	5.2	4.4	4.2	4.1	4.4	5.0	6.0	4.3	7.0	116.0	1.1	2.3	2.8	2.6			
Action Economics	5.3	8.5	H	5.7	H	5.3	5.4	5.3	5.0	4.5	4.2	4.2	4.3	4.8	5.8	4.3	7.3	H	117.3	H	1.8	1.7	2.2	1.4	L
BMO Capital Markets	5.3	8.5	H	5.3	5.4	H	5.4	5.2	4.8	4.3	4.0	4.0	4.3	4.9	5.9	4.2	6.6	114.9	1.5	2.0	3.0	2.3			
Comerica Bank	5.3	8.5	H	5.3	na	5.3	5.2	4.7	4.2	3.9	4.0	4.1	4.7	5.6	na	6.5	na	1.0	3.5	H	2.7	3.3	H		
Daiwa Capital Markets America	5.3	8.5	H	5.3	na	5.3	na	na	4.3	3.9	4.0	4.2	na	na	na	6.5	116.0	1.2	2.2	2.6	2.6				
DePrince & Assoc.	5.3	8.5	H	5.3	5.4	H	5.5	5.2	4.8	4.3	3.9	4.0	4.2	4.9	5.7	4.0	6.6	115.6	1.2	2.6	2.7	2.5			
Economist Intelligence Unit	5.3	8.3	na	5.3	5.5	5.3	4.9	4.3	4.0	4.2	4.3	na	na	na	na	6.7	na	0.9	na	2.1	na				
Georgia State University	5.3	8.4	na	na	5.4	5.2	4.8	4.2	4.0	4.0	4.3	4.7	5.9	na	6.9	na	na	0.4	L	2.3	2.2	2.4			
GLC Financial Economics	5.3	8.4	5.3	5.3	5.4	5.3	5.3	5.0	H	4.6	H	4.3	4.4	5.2	6.2	4.4	7.0	115.5	0.9	2.4	2.4	2.2			
Loomis, Sayles & Company	5.3	8.5	H	5.3	5.3	5.5	5.4	5.0	4.3	4.0	4.1	4.3	4.9	5.9	4.1	6.8	115.2	1.5	1.5	2.6	1.5				
MacroFin Analytics & Rutgers Bus School	5.3	8.5	H	5.3	5.3	5.4	5.2	4.8	4.3	4.0	4.1	4.4	5.0	5.8	4.1	6.7	115.3	1.1	2.6	2.8	2.6				
Moody's Analytics	5.3	8.5	H	5.3	5.4	H	5.2	5.1	5.0	4.8	4.5	4.2	4.6	5.2	6.1	4.0	7.1	na	1.5	2.5	2.5	2.3			
NatWest Markets	5.3	8.5	H	na	5.4	H	5.6	H	5.7	H	5.8	H	4.5	4.3	4.4	4.7	H	5.7	H	6.6	H	5.1	H	6.9	
PNC Financial Services Corp.	5.3	8.5	H	5.4	na	5.3	5.3	4.8	4.4	4.0	4.0	4.1	na	5.9	3.9	6.6	117.0	0.7	2.3	2.1	1.8				
Regions Financial Corporation	5.3	8.3	5.3	5.4	H	5.4	5.2	4.8	4.3	4.0	4.1	4.3	5.1	6.1	4.4	6.7	114.9	1.8	2.1	2.0	1.6				
S&P Global Market Intelligence	5.3	8.4	5.3	na	5.3	5.1	4.8	4.2	3.8	L	3.8	L	4.0	L	na	na	na	6.6	na	1.2	1.4	2.4	1.5		
Santander Capital Markets	5.3	8.5	H	5.3	5.3	5.4	5.2	4.9	4.4	4.1	4.2	4.4	5.0	5.8	3.5	L	6.7	115.5	1.6	3.0	2.8	2.1			
Societe Generale	5.3	8.5	H	5.3	na	5.3	5.1	4.6	L	4.2	4.0	4.0	4.2	na	na	na	na	na	0.4	L	1.8	2.2	2.2		
TS Lombard	5.3	8.4	5.3	5.3	5.2	5.3	4.8	4.3	3.9	4.0	4.1	4.9	5.7	4.0	5.8	L	110.0	L	1.0	2.5	2.5	2.5			
Via Nova Investment Mgt.	5.3	8.5	H	5.3	5.3	5.5	5.3	4.8	4.3	4.0	4.1	4.4	5.2	5.9	4.1	6.9	114.8	2.5	2.1	2.1	2.1				
Bank of America	5.1	L	na	na	na	na	na	na	4.8	4.5	4.4	4.7	H	na	na	na	na	na	1.0	2.7	2.2	2.0			
Barclays	5.1	L	na	na	na	na	na	na	4.3	4.1	4.3	4.5	na	na	na	na	na	na	2.0	2.0	2.5	1.6			
Chan Economics	5.1	L	8.1	L	5.0	L	5.1	L	5.2	5.0	4.5	4.0	4.1	4.3	5.3	6.3	4.7	6.9	114.0	2.5	2.2	2.4	2.1		
Goldman Sachs & Co.	5.1	L	na	na	na	5.5	na	na	4.2	3.8	L	3.9	4.1	na	na	na	na	na	na	2.8	H	2.2	2.8	2.1	
Wells Fargo	5.1	L	8.5	H	5.4	5.1	5.2	5.0	L	4.6	L	4.3	4.0	4.0	4.2	5.2	6.2	4.6	6.8	na	1.4	2.0	2.5	2.0	
February Consensus	5.3	8.5	5.3	5.3	5.4	5.2	4.9	4.4	4.1	4.1	4.3	5.0	6.0	4.3	6.7	115.2	1.4	2.2	2.5	2.2					
Top 10 Avg.	5.4	8.5	5.4	5.4	5.5	5.4	5.1	4.6	4.3	4.3	4.5	5.3	6.2	4.5	7.0	116.0	2.2	2.8	2.9	2.8					
Bottom 10 Avg.	5.2	8.4	5.3	5.2	5.3	5.1	4.7	4.2	3.9	3.9	4.1	4.8	5.7	4.0	6.5	114.4	0.7	1.5	2.1	1.6					
January Consensus	5.3	8.4	5.3	5.3	5.4	5.3	5.0	4.5	4.2	4.2	4.3	5.1	6.1	4.3	6.9	115.2	0.9	2.3	2.4	2.2					
Number of Forecasts Changed From A Month Ago:																									
Down	8	2	2	4	4	15	17	17	17	18	18	9	11	8	19	6	3	21	12	18					
Same	27	26	19	14	21	12	8	15	13	11	8	8	6	6	6	7	6	10	11	9					
Up	2	2	4	3	7	1	3	4	6	8	9	5	4	4	3	5	28	4	13	8					
Diffusion Index	42%	50%	54%	48%	55%	25%	25%	32%	35%	36%	37%	41%	33%	39%	21%	47%	84%	26%	51%	36%					

FEBRUARY 1, 2024 ■ BLUE CHIP FINANCIAL FORECASTS ■ 5

Second 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) --(SAAR)--											
	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		Fed's Adv Fgn Econ \$ Index	Real GDP	GDP Price Index	Cons. Price Index	PCE Price Index							
Chmura Economics & Analytics	5.4	H	8.5	H	5.4	5.4	H	5.3	5.3	H	5.0	4.5	4.1	4.2	4.3	5.1	na	na	6.7	na	-0.2	3.0	3.0	H	2.9	H		
J.P. Morgan Chase	5.4	H	na	na	na	na	na	na	4.2	3.8	3.9	4.2	na	na	na	na	na	na	na	na	0.5	2.0	2.2	1.9				
Action Economics	5.3		8.4	5.8	H	5.3	5.2	5.1	4.8	4.4	4.2	4.2	4.3	4.8	5.8	4.3	7.3	H	116.5	1.9	1.4	2.3	1.7					
BMO Capital Markets	5.3		8.5	H	5.3	5.4	H	5.4	H	5.2	4.7	4.1	4.0	3.9	4.2	4.8	5.8	4.2	6.5	114.3	0.8	2.6	2.6	2.5				
Comerica Bank	5.3		8.5	H	5.3	na	5.2	5.0	4.5	3.9	3.6	3.7	3.9	4.6	5.5	L	na	6.1	na	1.0	3.3	H	2.4	2.4				
Daiwa Capital Markets America	5.3		8.4	5.2	na	4.9	na	na	4.1	3.7	3.9	4.2	na	na	na	6.3	116.0	-0.1	2.5	2.4	2.3							
MacroFin Analytics & Rutgers Bus School	5.3		8.5	H	5.3	5.3	5.2	5.2	4.7	4.3	3.8	3.9	4.0	5.0	5.8	4.0	6.8	115.1	1.0	2.3	2.5	2.5						
Naroff Economics LLC	5.3		8.4	5.2	5.2	5.2	5.0	4.8	4.3	3.9	4.0	4.3	5.0	5.5	L	4.1	6.5	114.7	2.1	2.8	3.0	H	2.8					
PNC Financial Services Corp.	5.3		8.5	H	5.3	na	5.2	5.1	4.8	4.3	4.0	4.0	4.2	na	6.6	H	4.9	H	6.6	117.8	H	0.0	1.8	1.5	L	1.4	L	
Roberts Capital Advisors	5.3		8.4	5.3	5.3	5.3	5.2	5.0	4.6	4.4	H	4.4	H	4.6	5.4	6.4	4.7	6.7	115.5	2.2	2.5	2.5	2.4					
Santander Capital Markets	5.3		8.5	H	5.3	5.3	5.4	H	5.2	4.9	4.6	4.3	4.3	4.5	5.2	6.1	3.7	L	6.8	115.0	1.5	2.8	2.9	2.6				
Scotiabank Group	5.3		na	5.1	na	5.0	na	na	3.7	3.8	3.7	4.0	na	na	na	na	na	na	na	0.1	0.5	L	2.8	2.6				
The Lonski Group	5.3		8.5	H	5.3	5.4	H	5.4	H	5.0	4.6	4.3	3.9	3.9	4.1	5.1	5.8	4.2	6.4	116.1	0.6	2.2	2.3	2.0				
The Northern Trust Company	5.3		8.4	5.2	5.4	H	5.3	5.2	5.0	4.3	4.3	4.3	4.6	5.3	6.4	4.6	7.1	115.0	1.0	2.3	2.5	2.4						
DePrince & Assoc.	5.2		8.3	5.1	5.2	5.3	5.1	4.7	4.2	3.8	4.0	4.2	5.0	5.8	4.1	6.4	116.2	1.4	2.6	2.6	2.5							
Economist Intelligence Unit	5.2		8.2	na	5.2	5.3	5.2	4.8	4.3	4.0	4.1	4.1	na	na	na	6.6	na	0.7	na	2.2	na							
Fannie Mae	5.2		8.3	na	na	4.7	4.6	4.3	4.1	4.0	4.1	4.4	na	na	na	6.5	na	0.7	2.3	2.8	2.5							
KPMG	5.2		8.3	5.2	5.0	5.2	5.1	4.6	4.1	3.7	3.7	3.9	4.5	5.6	na	6.4	na	0.9	2.2	2.9	2.5							
Oxford Economics	5.2		8.3	5.2	na	5.2	5.1	4.6	4.2	3.8	3.9	4.2	4.2	L	na	na	6.8	114.6	1.3	2.1	2.2	2.0						
EY-Parthenon	5.1		na	na	na	5.0	na	na	na	na	3.9	na	na	na	na	na	na	na	na	1.0	2.2	1.9	2.1					
GLC Financial Economics	5.1		8.2	5.1	5.1	5.1	5.0	5.1	H	4.7	H	4.3	4.1	4.4	5.1	6.1	4.4	6.8	114.9	0.6	2.4	2.4	2.2					
Loomis, Sayles & Company	5.1		8.3	5.1	5.1	5.3	5.2	4.8	4.0	3.9	4.0	4.2	4.8	5.8	4.0	6.7	114.5	1.0	2.0	2.9	2.1							
Moody's Analytics	5.1		8.3	5.1	5.1	4.9	4.9	4.8	4.6	4.4	H	4.2	4.6	5.5	H	6.4	4.2	6.9	na	1.3	2.0	2.8	2.3					
Nomura Securities, Inc.	5.1		8.3	na	na	na	na	na	4.2	4.0	4.1	na	na	na	na	na	na	na	na	1.7	1.6	2.0	2.1					
S&P Global Market Intelligence	5.1		8.2	5.1	na	4.9	4.7	4.4	3.9	3.6	3.7	3.9	na	na	na	na	6.4	na	1.1	2.2	2.8	2.4						
Societe Generale	5.1		8.3	5.1	na	4.9	4.6	4.1	L	3.7	3.8	3.8	4.0	na	na	na	na	na	na	-1.4	L	1.8	2.2	2.6				
Regions Financial Corporation	5.0		8.0	5.0	5.1	5.2	5.0	4.6	4.1	3.9	4.1	4.3	5.1	6.1	4.3	6.6	114.6	1.7	2.6	2.3	2.4							
Via Nova Investment Mgt.	5.0		8.3	5.1	5.1	5.0	5.0	5.0	4.0	3.9	3.9	4.1	5.0	5.7	3.9	6.7	114.0	2.5	H	2.1	2.1	2.1						
Bank of America	4.9		na	na	na	na	na	na	4.5	4.4	H	4.3	4.7	H	na	na	na	na	na	1.0	2.4	2.5	2.3					
Barclays	4.9		na	na	na	na	na	na	4.1	4.0	4.3	4.6	na	na	na	na	na	na	na	1.5	2.2	2.1	2.0					
Chan Economics	4.9		7.9	4.8	4.8	4.9	5.0	4.8	4.3	3.8	3.9	4.1	5.1	6.1	4.5	6.7	113.8	1.5	2.1	2.3	2.0							
ING	4.9		na	na	na	na	na	na	3.7	3.5	L	3.5	L	3.8	L	na	na	na	na	na	0.1	na	na	na				
Wells Fargo	4.8		8.0	4.9	4.8	4.6	4.5	4.3	3.9	3.8	3.9	4.1	5.1	6.1	4.5	6.6	na	1.1	2.0	2.3	2.0							
Goldman Sachs & Co.	4.6		na	na	na	5.3	na	na	4.0	3.7	3.8	4.0	na	na	na	na	na	na	na	2.5	H	1.9	2.5	2.0				
Georgia State University	4.5		7.6	na	na	4.5	4.2	L	4.2	3.8	3.7	3.9	4.2	4.8	5.9	na	6.8	na	-0.2	2.5	2.7	2.6						
TS Lombard	4.5		7.6	4.5	L	4.5	4.4	L	4.5	4.3	4.0	3.9	4.0	4.1	4.9	5.7	4.0	5.8	L	110.0	L	0.4	2.0	2.0	2.0			
NatWest Markets	4.3	L	7.5	L	na	4.4	L	4.6	4.7	4.8	3.6	L	3.8	4.3	4.7	H	5.2	6.1	4.9	H	6.7	na	-1.0	1.5	1.7	1.9		
February Consensus	5.1	8.2	5.2	5.1	5.1	5.0	4.7	4.2	3.9	4.0	4.2	5.0	6.0	4.3	6.6	114.9	0.9	2.2	2.4	2.3								
Top 10 Avg.	5.3	8.5	5.4	5.3	5.3	5.2	4.9	4.5	4.2	4.3	4.5	5.2	6.2	4.5	6.9	115.8	1.9	2.7	2.9	2.6								
Bottom 10 Avg.	4.7	8.0	5.0	4.9	4.7	4.7	4.4	3.8	3.7	3.8	4.0	4.7	5.7	4.0	6.3	114.0	-0.2	1.7	2.0	1.9								
January Consensus	5.1	8.2	5.1	5.1	5.1	5.0	4.7	4.2	4.0	4.1	4.3	5.0	6.0	4.3	6.8	114.9	0.5	2.3	2.4	2.2								
Number of Forecasts Changed From A Month Ago:																												
Down	10	7	7	4	9	12	14	15	15	13	13	6	8	6	14	6	2	16	9	12								
Same	22	18	13	13	19	11	9	15	15	18	14	11	9	9	12	7	11	12	16	11								
Up	5	5	5	4	4	5	5	6	6	6	8	5	4	3	2	5	24	7	11	12								
Diffusion Index	43%	47%	46%	50%	42%	38%	34%	38%	38%	41%	43%	48%	40%	42%	29%	47%	80%	37%	53%	50%								

Third 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)----- ----- (SAAR)-----															
	Short-Term-----					--Intermediate-Term--					Long-Term-----																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																	
	Federal	Prime	SOFR	Com.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home		Fed's Adv															
	Funds	Bank	Rate	Paper	Bills	Bills	Bills	Notes	Notes	Notes	Bond	Corp.	Corp.	Local	Mtg.		Fgn Econ	Real	Price	Price	Price											
Rate	Rate		1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index	Index												
Santander Capital Markets	5.3	H	8.5	H	5.3	5.2	H	5.1	H	4.8	4.6	H	4.3	H	4.3	4.5	5.3	6.3	3.8	L	6.8	114.0	0.9	2.7	2.7	2.3						
J.P. Morgan Chase	5.2		na		na	na		na		na	3.9		3.6		3.8	4.2	na	na	na	na	na	na	0.5	2.5	2.8	2.4						
PNC Financial Services Corp.	5.2		8.3		5.2	na		5.0		4.9	4.6		4.2		4.0	4.2	na	6.6	H	4.9	H	6.6	118.5	H	-0.8	1.7	L	1.6	L	1.5		
BMO Capital Markets	5.1		8.2		5.0	5.1		5.2	H	5.0	4.5		4.0		3.9	3.8	4.2	4.8	5.9		4.2	6.4	114.1		1.3	2.3	2.5		2.3			
Chmura Economics & Analytics	5.1		8.3		5.1	5.1		5.1	H	5.0	H	4.6	H	4.2		4.2	4.4	5.2	na		na	6.7	na		-0.5	3.1	2.9	H	2.6			
Economist Intelligence Unit	5.1		8.1		na	5.0		5.0		4.8	4.6		4.1		3.9	3.9	3.9	na	na		na	6.5	na		0.5	na	2.3		na			
MacroFin Analytics & Rutgers Bus School	5.1		8.3		5.1	5.1		5.0		5.1	H	4.5		4.2	3.8	3.8	3.9	4.9	5.7		4.0	6.8	114.9		1.3	2.2	2.3		2.4			
Action Economics	5.0		8.2		5.6	H	5.0	5.0		4.8	4.6		4.2		4.2	4.2	4.3	4.8	5.8		4.3	7.3	H	116.6		1.7	2.0		2.4	1.8		
Comerica Bank	5.0		8.2		5.0	na		5.0		4.8	4.3		3.7		3.5	3.6	3.8	L	4.5	5.4	L	na	5.9	L	na	1.9	4.0	H	2.3	2.3		
The Lonski Group	5.0		8.1		4.9	5.0		5.1		4.9	4.5		4.2		3.8	3.8	4.0	5.0	5.8		4.1	6.3	116.7		0.8	2.0	1.9		2.1			
Daiwa Capital Markets America	4.9		8.0		4.9	na		4.4		na	na		3.7		3.5	3.6	4.3	na	na		na	6.0	115.0		-0.6	2.3	2.3		2.2			
KPMG	4.9		8.1		4.9	4.6		4.8		4.8	4.4		4.0		3.6	3.6	3.8	L	4.4	5.6		na	6.1	na		1.4	2.2	2.9	H	2.4		
Naroff Economics LLC	4.9		7.9		4.8	4.8		4.7		4.7	4.7		4.3		3.8	3.9	4.2	4.8	5.4	L	4.0	6.3	114.0		3.6	H	2.6	2.8		2.6		
Oxford Economics	4.9		8.0		4.9	na		4.9		4.7	4.3		3.9		3.6	3.9	4.1	3.9	L	na		na	6.6	114.3		0.8	2.5	2.3		2.1		
Roberts Capital Advisors	4.9		8.2		4.9	4.9		5.0		4.8	4.7		4.4		4.2	4.3	4.6	5.4	6.4		4.6	6.5	115.5		2.2	2.4	2.4		2.3			
The Northern Trust Company	4.9		8.0		4.8	5.0		4.8		4.7	4.5		4.1		4.2	4.2	4.5	5.3	6.4		4.5	6.7	114.0		0.9	2.2	2.3		2.3			
EY-Parthenon	4.8		na		na	na		4.7		na	na		na		na	3.8	na	na	na		na	na	na	na		1.6	2.2	2.4		2.2		
Fannie Mae	4.8		7.9		na	na		4.4		4.3	4.1		3.9		3.9	4.1	4.3	na	na		na	6.3	na		1.2	2.3	2.7		2.4			
GLC Financial Economics	4.8		7.9		4.8	4.7		4.7		4.6	4.8		4.4		4.0	4.0	4.3	5.0	6.1		4.3	6.6	115.0		1.0	2.4	2.4		2.2			
Regions Financial Corporation	4.8		7.8		4.8	4.9		4.9		4.8	4.5		3.9		3.8	4.0	4.2	5.0	6.1		4.3	6.5	114.3		2.0	2.7	2.3		2.3			
S&P Global Market Intelligence	4.8		7.9		4.8	na		4.6		4.4	4.1		3.7		3.4	L	3.5	L	3.8	L	na	na	na	6.1	na		1.5	2.2	2.8		2.4	
Scotiabank Group	4.8		na		4.6	na		4.2		na	na		3.5		3.7	3.8	3.8	L	na		na	na	na	na	na		1.0	3.1	2.9	H	2.7	H
Via Nova Investment Mgt.	4.8		8.0		4.8	4.9		4.8		4.8	4.8		4.0		3.9	3.9	4.1	5.0	5.7		3.9	6.7	112.0	L	2.5	2.1	2.1		2.1			
DePrince & Assoc.	4.7		7.9		4.7	4.8		4.8		4.7	4.3		3.9		3.7	3.9	4.2	5.0	5.9		4.2	6.2	116.1		1.5	2.5	2.6		2.4			
Loomis, Sayles & Company	4.7		7.8		4.6	4.6		4.8		4.7	4.3		3.6		3.6	3.8	3.9	4.6	5.6		3.8	L	6.4	114.1		-1.3	1.8	1.9	1.4	L		
Moody's Analytics	4.7		7.8		4.6	4.6		4.5		4.5	4.5		4.4		4.2	4.1	4.6	5.6	H	6.5	4.3	6.7	na		1.6	1.7	L	2.6		2.2		
Bank of America	4.6		na		na	na		na		na	na		4.3		4.3	H	4.3	4.7	H	na	na	na	na	na	na		1.5	2.7	2.6		2.3	
Barclays	4.6		na		na	na		na		na	na		3.9		4.0	4.4	H	4.6	na		na	na	na	na	na		1.0	2.6	2.7		2.4	
Chan Economics	4.6		7.6		4.5	4.5		4.6		4.7	4.5		4.0		3.5	3.6	3.8	L	4.8	5.8		4.2	6.4	113.7		0.5	2.1	2.3		2.0		
Nomura Securities, Inc.	4.6		7.8		na	na		na		na	na		3.9		4.0	4.0	na	na	na		na	na	na	na	na		1.7	1.9	2.1		2.2	
Societe Generale	4.6		7.8		4.6	na		4.4		4.1	3.7		3.3		3.5	3.6	3.9	na	na		na	na	na	na	na		na	-1.5	L	1.8	2.2	2.5
Goldman Sachs & Co.	4.4		na		na	na		5.0		na	na		3.8		3.7	3.9	4.1	na	na		na	na	na	na	na		na	2.3	2.0	2.4		2.0
ING	4.4		na		na	na		na		na	na		3.4		3.4	L	3.5	L	3.9		na	na	na	na	na		na	-1.0	na	na		na
Wells Fargo	4.4		7.5		4.4	4.4		4.4		4.2	4.0		3.7		3.6	3.7	4.0	4.9	5.9		4.3	6.4	na		na		0.5	1.7	L	2.0	1.7	
Georgia State University	4.0		7.2		na	na		3.9		3.7	L	3.6	L	3.4		3.4	L	3.6	3.9		4.5	5.6	na	6.4	na		na	0.6	2.6	2.1		2.5
TS Lombard	4.0		7.1		4.0	L	4.0	3.9		4.0	4.1		4.3		4.2	4.3	4.4	5.1	6.0		4.3	6.1	112.0	L	1.5	2.0	2.0		2.0			
NatWest Markets	3.3	L	6.5	L	na	3.4	L	3.6	L	3.7	L	3.8	3.2	L	3.5	4.1	4.6	4.9	5.8		4.6	6.4	na		na		-0.5	1.9	1.7		1.7	
February Consensus	4.7		7.9		4.8	4.7		4.7		4.6	4.4		4.0		3.8	3.9	4.2	4.9	5.9		4.2	6.5	114.7		0.9	2.3	2.4		2.2			
Top 10 Avg.	5.1		8.2		5.1	5.0		5.1		4.9	4.7		4.4		4.2	4.2	4.5	5.2	6.2		4.4	6.8	115.7		2.1	2.9	2.8		2.5			
Bottom 10 Avg.	4.3		7.5		4.6	4.4		4.2		4.2	4.0		3.5		3.5	3.6	3.9	4.6	5.6		4.1	6.2	113.7		-0.5	1.9	2.0		1.8			
January Consensus	4.8		7.9		4.8	4.7		4.7		4.6	4.4		4.0		3.9	3.9	4.2	4.9	6.0		4.2	6.6	114.8		0.7	2.3	2.4		2.2			
Number of Forecasts Changed From A Month Ago:																																
Down	10		9		6	4		7		9	13		15		16	12	12	6	7		4	13	6		6		6	8	8		13	
Same	19		14		13	11		19		12	8		14		13	18	15	11	9		10	8	7		14		14	17	18		11	
Up	8		7		6	6		6		7	7		7		7	7	8	5	5		4	7	5		17		17	10	10		11	
Diffusion Index	47%		47%		50%	55%		48%		46%	39%		39%		38%	43%	44%	48%	45%		50%	39%	47%		65%		53%	53%		47%		

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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						(SAAR)											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		B.	C.	D.	E.								
	Federal	Prime	SOFR	Com.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home		Fed's Adv	GDP	Cons.	PCE								
	Funds	Bank	Rate	Paper	Bills	Bills	Bills	Notes	Notes	Notes	Bond	Corp.	Corp.	Local	Mtg.		Fgn Econ	Real	Price	Price	Price							
	Rate	Rate		1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index	Index								
Santander Capital Markets	5.1	H	8.3	H	5.1	5.0	H	4.7	4.6	4.5	4.4	4.2	4.1	4.4	5.3	6.4	3.6	L	6.5	113.0	1.1	2.5	2.5	2.1				
Chmura Economics & Analytics	4.9		8.0		4.9	4.9	H	4.9	H	4.9	H	4.6	H	4.3	4.3	4.5	5.3	na	na	6.6	na	1.0	2.8	2.8	2.5	H		
PNC Financial Services Corp.	4.9		8.1		4.9	na		4.5	4.4	4.3	4.1	4.0	4.1	4.2	na	6.3	4.8	H	6.5	119.8	H	-1.2	1.8	1.8	1.7			
Action Economics	4.8		7.9	5.3	H	4.8		4.7	4.6	4.3	4.2	4.1	4.1	4.3	4.8	5.8	4.3	7.3	H	116.8		1.7	1.5	2.4	1.8			
Comerica Bank	4.8		8.0		4.8	na		4.6	4.4	3.8	3.3	3.2	L	3.3	L	3.6	L	4.3	5.2	L	na	5.5	L	na	2.1			
Economist Intelligence Unit	4.8		7.8		na	4.7		4.8	4.6	4.5	4.0	3.8	3.7	3.8	na	na	na	na	6.4	na		0.9	na	2.0	na			
J.P. Morgan Chase	4.8		na		na	na		na	na	na	3.5	3.5	3.7	4.2	na	na	na	na	na	na		0.8	2.3	2.4	2.0			
BMO Capital Markets	4.7		7.8		4.6	4.7		4.7	4.6	4.2	3.9	3.8	3.8	4.1	4.9	5.9	4.3	6.3		113.9		1.5	2.1	2.2	2.0			
Oxford Economics	4.7		7.8		4.7	na		4.6	4.4	4.0	3.6	3.5	3.8	4.0	3.8	L	na	na	6.5	113.6		1.1	2.6	2.4	2.2			
Roberts Capital Advisors	4.7		7.8		4.7	4.7		4.7	4.5	4.4	4.1	4.2	4.2	4.5	5.3	6.3	4.6	6.3		115.0		2.2	2.3	2.4	2.3			
MacroFin Analytics & Rutgers Bus School	4.6		7.8		4.6	4.6		4.4	4.6	4.3	4.1	3.7	3.8	3.8	4.9	5.7	3.9	6.7		114.7		1.6	2.2	2.1	2.2			
The Northern Trust Company	4.6		7.7		4.5	4.7		4.4	4.3	4.1	4.0	4.1	4.1	4.4	5.4	6.5	H	4.5	6.6	112.0		1.0	2.2	2.2	2.2			
EY-Parthenon	4.5		na		na	na		4.5	na	na	na	na	3.7	na	na	na	na	na	na	na		1.7	2.1	2.1	2.1			
Fannie Mae	4.5		7.6		na	na		4.1	4.1	4.0	3.9	3.9	4.1	4.3	na	na	na	na	6.2	na		1.5	2.3	2.9	H	2.5	H	
KPMG	4.5		7.6		4.5	4.1		4.3	4.3	4.0	3.7	3.4	3.5	3.8	4.3	5.5	na	5.9		na		1.6	2.1	2.1	2.1			
Moody's Analytics	4.5		7.7		4.5	4.4		4.3	4.3	4.3	4.2	4.2	4.1	4.6	5.6	H	6.5	H	4.3	6.6	na		1.5	1.9	2.4	2.4		
S&P Global Market Intelligence	4.5		7.7		4.6	na		4.3	4.1	3.9	3.5	3.2	L	3.4	3.7	na	na	na	5.8	na		1.7	2.1	2.0	2.0			
The Lonski Group	4.5		7.6		4.4	4.5		4.5	4.3	4.2	4.0	3.7	3.7	3.9	4.9	5.7	4.0	6.1		117.3		1.2	2.1	2.0	2.2			
Via Nova Investment Mgt.	4.5		7.8		4.6	4.6		4.5	4.5	4.5	3.9	3.9	3.9	4.0	5.0	5.7	3.9	6.7		110.0	L	2.5	2.1	2.0	2.1			
Bank of America	4.4		na		na	na		na	na	na	4.0	4.2	4.3	4.8	H	na	na	na	na	na		1.5	2.3	2.0	2.0			
Barclays	4.4		na		na	na		na	na	na	3.8	4.0	4.4	4.6	na	na	na	na	na	na		1.0	2.6	2.7	2.4			
Chan Economics	4.4		7.4		4.3	4.3		4.4	4.5	4.3	3.8	3.3	3.4	3.6	L	4.6	5.6	4.0	6.2	113.5		0.8	2.1	2.3	2.0			
Daiwa Capital Markets America	4.4		7.5		4.4	na		4.0	na	na	3.4	3.3	3.5	4.2	na	na	na	5.8		115.0		0.5	2.2	2.2	2.1			
GLC Financial Economics	4.4		7.6		4.5	4.4		4.3	4.3	4.5	4.2	3.8	3.9	4.2	4.9	6.0	4.3	6.4		114.9		1.3	2.3	2.3	2.2			
Nomura Securities, Inc.	4.4		7.5		na	na		na	na	na	3.8	3.8	4.0	na	na	na	na	na	na	na		1.8	1.6	2.0	2.2			
Regions Financial Corporation	4.4		7.4		4.4	4.5		4.5	4.4	4.4	3.6	3.6	3.9	4.1	4.9	6.0	4.2	6.4		114.0		2.4	2.5	2.2	2.1			
DePrince & Assoc.	4.3		7.5		4.3	4.4		4.4	4.3	3.9	3.6	3.5	3.8	4.2	5.0	5.9	4.2	6.0		115.9		1.9	2.5	2.6	2.4			
Naroff Economics LLC	4.3		7.3		4.3	4.4		4.3	4.5	4.6	4.3	3.7	3.8	3.9	4.8	5.3	4.0	6.1		113.3		2.2	2.5	2.5	2.4			
Societe Generale	4.2		7.3		4.2	na		3.9	3.6	3.3	3.1	L	3.5	3.6	3.9	na	na	na	na	na		3.0	H	1.8	2.2	2.3		
Goldman Sachs & Co.	4.1		na		na	na		4.8	na	na	3.7	3.7	4.0	4.2	na	na	na	na	na	na		2.0	1.9	2.3	1.9			
Loomis, Sayles & Company	4.1		7.3		4.1	4.0		4.2	4.2	3.9	3.4	3.4	3.6	3.8	4.4	5.4	3.6	L	6.0	114.0		-2.2	L	1.9	1.9	1.6	L	
Wells Fargo	4.1		7.3		4.2	4.1		4.1	4.0	3.7	3.5	3.5	3.6	3.9	4.8	5.8	4.2	6.1		na		1.0	2.0	2.2	2.0			
Scotiabank Group	4.0		na		3.8	L		na	3.8	na	na	3.4	3.6	3.9	4.0	na	na	na	na	na		1.8	0.5	L	2.5	2.3		
ING	3.9		na		na	na		na	na	na	3.3	3.3	3.5	3.9	na	na	na	na	na	na		1.2	na	na	na	na		
TS Lombard	3.8		6.9		3.8	L	3.8		3.7	3.8	4.0	4.3	4.4	H	4.5	H	4.6	5.4	6.2	4.5	6.3	115.0		2.5	2.5	2.5	2.5	H
Georgia State University	3.6		6.8		na	na		3.5	3.2	L	3.1	L	3.4	3.3	3.5	3.8	4.5	5.6	na	6.4	na		0.7	2.3	1.7	L	2.1	
NatWest Markets	3.1	L	6.3	L	na	3.2	L	3.4	L	3.5	3.6	3.1	L	3.4	4.0	4.6	4.8	5.7	4.5	6.3	na		1.5	2.1	2.7	2.3		
February Consensus	4.4		7.6		4.5	4.4		4.3	4.3	4.1	3.8	3.7	3.9	4.1	4.9	5.9	4.2	6.3		114.5		1.4	2.2	2.3	2.2			
Top 10 Avg.	4.8		7.9		4.8	4.7		4.7	4.6	4.5	4.3	4.2	4.2	4.5	5.2	6.2	4.4	6.6		115.8		2.3	2.7	2.6	2.4			
Bottom 10 Avg.	3.9		7.2		4.2	4.1		3.9	3.9	3.7	3.3	3.3	3.5	3.8	4.5	5.5	4.0	6.0		113.2		0.3	1.7	2.0	1.9			
January Consensus	4.4		7.6		4.5	4.4		4.3	4.3	4.2	3.8	3.8	3.9	4.1	4.8	5.9	4.2	6.4		114.7		1.2	2.2	2.3	2.2			
Number of Forecasts Changed From A Month Ago:																												
Down	9		7		5	2		10	8	10	12	14	12	12	6	7	5	13		7		10	10	11	12			
Same	20		16		14	13		16	13	12	17	17	19	16	9	8	9	9		7		15	18	17	14			
Up	8		7		6	6		6	7	6	7	5	6	7	7	6	4	6		4		12	7	8	9			
Diffusion Index	49%		50%		52%	60%		44%	48%	43%	43%	38%	42%	43%	52%	48%	47%	38%		42%		53%	46%	46%	46%			

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First Quarter 2025

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. GDP C. Price D. Cons. E. PCE												
	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														
Chmura Economics & Analytics	4.6	H	7.8	H	4.6	4.7	H	4.6	H	4.6	H	4.7	H	4.3	4.4	4.6	5.3	na	na	6.4	na	1.8	2.5	2.6	2.4				
Economist Intelligence Unit	4.6	H	7.6		na	4.5	4.6	H	4.4	4.3	3.8	3.6	3.6	3.7	na	na	na	na	6.3	na	1.9	na	2.1	na					
Santander Capital Markets	4.6	H	7.8	H	4.6	4.6	4.2	4.1	4.0	4.0	3.8	3.8	4.1	4.9	6.0	3.3	L	6.1	112.0	1.3	2.8	2.4	2.1						
Action Economics	4.5	7.7	5.1	H	4.5	4.5	4.3	4.1	4.0	4.1	4.1	4.1	4.2	4.7	5.7	4.2	7.2	H	117.0	1.7	1.5	2.4	1.8						
Oxford Economics	4.5	7.6	4.5		na	4.3	4.2	3.9	3.5	3.4	3.7	3.8	3.7	L	na	na	6.4	112.7	1.3	2.3	2.0	2.1							
PNC Financial Services Corp.	4.4	7.6	4.4		na	4.1	4.1	4.1	4.0	4.0	4.1	4.2	na	6.1	4.7	6.4	120.7	H	-0.2	L	2.0	1.9	1.7						
Roberts Capital Advisors	4.4	7.6	4.4		4.5	4.5	4.3	4.2	4.0	4.0	4.0	4.3	5.2	6.2	4.5	6.1	115.0	2.1	2.3	2.4	2.3								
BMO Capital Markets	4.3	7.4	4.2		4.3	4.4	4.3	4.0	3.7	3.7	3.7	4.1	4.7	5.7	4.1	6.3	113.6	2.0	1.6	2.3	2.1								
Comerica Bank	4.3	7.5	4.3		na	4.2	4.0	3.4	3.0	3.1	3.3	3.6	4.3	5.2	L	na	5.3	L	na	1.7	3.6	H	2.0	2.2					
J.P. Morgan Chase	4.3	na	na		na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.0	2.3	2.5	2.1							
Moody's Analytics	4.3	7.5	4.3		4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.6	5.6	H	6.5	H	4.3	6.5	na	1.6	2.2	2.3	2.3						
Regions Financial Corporation	4.3	7.3	4.2		4.3	4.3	4.3	4.3	3.5	3.6	3.8	4.0	4.8	5.8	4.2	6.4	113.7	2.5	2.4	2.3	2.1								
Via Nova Investment Mgt.	4.3	7.5	4.3		4.4	4.2	4.3	4.4	3.9	4.1	4.1	4.1	5.2	5.8	4.1	6.9	110.0	L	2.5	2.0	2.0	2.1							
GLC Financial Economics	4.2	7.3	4.3		4.2	4.1	4.1	4.2	4.0	3.7	3.7	4.1	4.8	5.9	4.2	6.3	114.6	1.8	2.2	2.2	2.2								
KPMG	4.2	7.3	4.1		3.8	4.0	4.1	3.9	3.6	3.3	3.4	3.7	4.2	5.5	na	5.6	na	1.4	2.1	1.3	L	1.7							
S&P Global Market Intelligence	4.2	7.3	4.2		na	3.9	3.7	3.6	3.3	3.1	3.3	3.6	na	na	na	5.6	na	1.5	2.1	1.3	L	1.7							
Bank of America	4.1	na	na		na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.0	2.6	2.5	2.4							
Barclays	4.1	na	na		na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.0	2.6	2.8	2.4							
Chan Economics	4.1	7.1	4.0		4.0	4.1	4.2	4.0	3.5	3.0	3.1	L	3.3	L	4.3	5.3	3.7	5.9	113.2	1.5	2.0	2.2	1.9						
MacroFin Analytics & Rutgers Bus School	4.1	7.3	4.1		4.1	3.9	4.1	4.1	4.0	3.7	3.7	3.8	4.8	5.6	3.9	6.7	114.5	2.0	2.0	2.0	2.0								
Nomura Securities, Inc.	4.1	7.3	na		na	na	na	na	3.6	3.8	4.0	na	na	na	na	na	na	na	2.2	1.6	2.4	2.3							
The Northern Trust Company	4.1	7.3	4.1		4.2	3.9	3.7	3.5	3.8	3.9	4.1	4.4	5.4	6.5	H	4.5	6.6	111.0	1.4	2.1	2.1	2.1							
Daiwa Capital Markets America	4.0	7.1	4.0		na	3.8	na	na	3.1	3.1	3.3	4.1	na	na	na	5.7	115.0	1.3	2.2	2.0	2.0								
DePrince & Assoc.	4.0	7.1	4.0		4.0	4.0	4.0	3.6	3.4	3.4	3.7	4.1	5.0	5.8	4.2	5.9	115.8	2.0	2.5	2.6	2.4								
EY-Parthenon	4.0	na	na		na	3.9	na	na	na	na	3.6	na	na	na	na	na	na	na	2.0	2.0	2.1	2.1							
Fannie Mae	4.0	7.2	na		na	4.0	3.9	3.9	3.8	3.9	4.1	4.3	na	na	na	6.0	na	1.6	2.3	2.8	2.4								
TS Lombard	4.0	7.1	4.0		4.0	3.9	4.0	4.2	4.4	4.7	H	4.8	H	4.9	H	5.6	H	6.5	H	4.8	H	6.6	120.0	2.0	3.0	3.0	H	3.0	H
Goldman Sachs & Co.	3.9	na	na		na	4.6	H	na	na	3.6	3.7	4.0	4.2	na	na	na	na	na	2.0	2.1	2.3	2.1							
The Lonski Group	3.9	7.0	3.9		4.0	3.9	3.8	3.8	3.8	3.6	3.6	3.8	4.8	5.5	3.9	5.8	117.9	1.8	2.2	1.4	1.9								
Naroff Economics LLC	3.8	6.8	3.9		3.9	3.9	4.0	4.2	4.2	3.7	3.9	4.1	4.9	5.4	3.9	5.9	113.8	3.0	2.4	2.4	2.3								
Scotiabank Group	3.8	na	3.6	L	na	3.3	L	na	na	3.4	3.5	4.0	4.0	na	na	na	na	na	1.5	1.1	L	2.4	2.2						
Wells Fargo	3.8	7.0	3.9		3.8	3.9	3.7	3.6	3.4	3.4	3.6	3.9	4.8	5.8	4.2	5.9	na	1.8	2.3	2.5	2.3								
Loomis, Sayles & Company	3.7	6.9	3.7		3.6	3.8	3.7	3.5	3.3	3.3	3.5	3.8	4.3	5.3	3.5	5.8	113.9	1.0	2.0	2.5	2.0								
Georgia State University	3.6	6.7	na		na	3.4	3.1	L	3.1	3.3	3.1	3.4	3.7	4.4	5.5	na	6.0	na	1.4	2.0	1.4	1.4							
Societe Generale	3.6	6.8	3.6	L	na	3.4	3.2	3.0	L	2.9	L	2.7	L	3.2	3.5	na	na	na	na	3.7	H	2.0	2.2	2.2					
ING	3.4	na	na		na	na	na	na	3.2	3.6	3.8	4.2	na	na	na	na	na	na	1.5	na	na	na							
NatWest Markets	3.1	L	6.3	L	na	3.2	L	3.4	3.5	3.6	3.1	3.4	4.0	4.6	4.8	5.7	4.5	6.3	na	2.1	1.8	1.4	1.3	L					
February Consensus	4.1	7.3	4.2	4.1	4.0	4.0	3.9	3.7	3.6	3.8	4.0	4.8	5.8	4.1	6.2	114.7	1.8	2.2	2.2	2.1									
Top 10 Avg.	4.5	7.6	4.5	4.4	4.4	4.3	4.3	4.1	4.1	4.2	4.4	5.2	6.1	4.4	6.6	116.4	2.4	2.7	2.6	2.4									
Bottom 10 Avg.	3.7	6.9	3.9	3.8	3.7	3.6	3.5	3.2	3.2	3.4	3.7	4.4	5.5	3.9	5.7	112.8	1.1	1.8	1.7	1.7									
January Consensus	4.1	7.2	4.2	4.1	4.0	4.0	3.9	3.7	3.6	3.8	4.0	4.8	5.8	4.1	6.3	114.4	1.8	2.2	2.2	2.1									
Number of Forecasts Changed From A Month Ago:																													
Down	10	7	6	3	8	8	11	9	10	11	11	6	8	4	11	7	10	10	6	7									
Same	19	16	12	13	18	14	11	14	15	14	11	8	6	9	11	7	17	20	22	22									
Up	8	7	7	5	6	6	6	9	7	8	9	7	6	4	5	4	10	5	8	6									
Diffusion Index	47%	50%	52%	55%	47%	46%	41%	50%	45%	45%	47%	52%	45%	50%	39%	42%	50%	43%	53%	49%									

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Second Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr-- Fed's Adv Fgn Econ \$ Index	(Q-Q % Change)----- ----- (SAAR)-----																		
	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																				
	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 & Corp. Bonds	Home Mtg. Rate																				
TS Lombard	4.5	H	7.6	H	4.5	4.5	H	4.4	4.5	H	4.6	H	4.8	H	5.2	H	5.3	H	5.4	H	6.1	H	7.0	H	5.3	H	7.1	120.0	2.0	3.5	H	3.5	H	3.5	H
Chmura Economics & Analytics	4.4		7.5		4.4	4.4		4.3	4.4		4.5		4.6		4.4		4.4		4.5		5.2		na		na		na	6.2	na	2.7	2.4	2.5	2.4		
Economist Intelligence Unit	4.4		7.4		na	4.3		4.3	4.2		4.1		3.7		3.5		3.5		3.6		na		na		na		na	6.0	na	2.2	na	2.2	na		
Roberts Capital Advisors	4.4		7.6	H	4.4	4.5	H	4.5	H	4.3	4.2		4.0		4.0		4.0		4.3		5.2		6.2		4.5		6.1	115.0	2.2	2.2	2.3	2.2			
Action Economics	4.3		7.4		4.8	H	4.3		4.2		4.1		3.8		3.9		4.0		4.2		4.7		5.7		4.1		7.2	H	117.2	1.7	1.9	2.4	1.8		
BMO Capital Markets	4.1		7.2		4.0		4.1		4.1		4.0		3.8		3.6		3.7		3.7		4.1		4.7		5.7		4.2	6.3	113.4	1.9	2.0	2.3	2.1		
Moody's Analytics	4.1		7.2		4.0		4.0		3.8		3.9		4.0		4.0		4.0		4.1		4.6		5.5		6.5		4.2	6.4	na	1.6	2.3	2.3	2.3		
Oxford Economics	4.1		7.3		4.1		na		4.1		4.0		3.7		3.3		3.2		3.7		3.7		3.7	L	na		na	6.1	111.6	1.7	1.9	2.0	2.0		
PNC Financial Services Corp.	4.1		7.3		4.1		na		4.0		4.0		4.0		4.0		4.1		4.2		na		5.9		4.6		6.3	121.2	H	1.4	1.9	1.9	1.7		
Santander Capital Markets	4.1		7.3		4.1		4.1		3.7		3.6		3.5		3.7		3.5		3.5		3.8		4.6		5.7		3.1	L	5.7	111.0	1.5	2.5	2.4	2.1	
Regions Financial Corporation	4.0		7.0		4.0		4.1		4.0		4.1		4.2		3.4		3.5		3.7		4.0		4.7		5.7		4.1	6.3	113.9	2.6	2.2	2.3	2.2		
Via Nova Investment Mgt.	4.0		7.3		4.0		4.1		3.9		4.0		4.1		3.8		4.0		4.0		4.1		5.1		5.7		4.0	6.8	110.0	L	2.5	2.0	2.0	2.0	
Bank of America	3.9		na		na		na		na		na		na		na		na		na		na		na		na		na	na	na	2.0	2.3	2.1	2.0		
Barclays	3.9		na		na		na		na		na		na		na		na		na		na		na		na		na	na	na	1.5	2.3	2.3	2.1		
Chan Economics	3.9		6.9		3.8		3.8		3.9		4.0		3.8		3.3		2.8		2.9	L	3.1	L	4.1		5.1	L	3.5	5.7	113.0	1.0	L	2.0	2.2	1.9	
Comerica Bank	3.9		7.1		3.9		na		3.8		3.5		3.1		2.7	L	2.9		3.3		3.6		4.3		5.2		na	5.2	L	na	1.6	3.5	H	2.0	2.2
GLC Financial Economics	3.9		7.1		3.9		3.9		3.8		3.9		3.9		3.8		3.7		3.7		4.1		4.8		5.9		4.2	6.1	114.6	2.1	2.2	2.2	2.2		
Nomura Securities, Inc.	3.9		7.0		na		na		na		na		na		3.4		3.7		4.0		na		na		na		na	na	na	na	2.4	1.2	2.1	1.9	
Daiwa Capital Markets America	3.8		6.9		3.7		na		3.6		na		na		3.0		3.1		3.3		4.1		na		na		na	5.7	115.0	1.4	2.1	2.1	2.0		
J.P. Morgan Chase	3.8		na		na		na		na		na		na		na		na		na		na		na		na		na	na	na	na	2.3	2.3	1.9	1.8	
DePrince & Assoc.	3.7		6.8		3.7		3.7		3.7		3.7		3.3		3.2		3.3		3.7		4.1		5.0		5.8		4.2	5.8	115.7	2.2	2.4	2.5	2.3		
Fannie Mae	3.7		6.8		na		na		3.9		3.8		3.8		3.8		3.9		4.1		4.3		na		na		na	6.0	na	1.6	2.2	2.3	2.2		
KPMG	3.7		6.8		3.7		3.3		3.5		3.6		3.4		3.3		3.1		3.3		3.6		4.1		5.4		na	5.4	na	1.6	2.2	1.7	1.8		
Goldman Sachs & Co.	3.6		na		na		na		4.3		na		na		3.6		3.7		4.0		4.2		na		na		na	na	na	na	2.1	2.2	2.4	2.1	
MacroFin Analytics & Rutgers Bus School	3.6		6.8		3.6		3.6		3.4		3.7		3.8		3.8		3.7		3.7		3.8		4.8		5.6		3.9	6.7	114.3	2.0	2.0	2.0	2.0		
S&P Global Market Intelligence	3.6		6.8		3.6		na		3.4		3.4		3.3		3.1		3.0		3.3		3.6		na		na		na	5.4	na	1.4	2.2	1.7	1.9		
The Northern Trust Company	3.6		6.8		3.6		3.7		3.4		3.3		3.4		3.6		3.8		4.0		4.3		5.3		6.4		4.4	6.5	110.0	L	1.6	2.0	2.0	2.0	
Wells Fargo	3.6		6.8		3.7		3.6		3.6		3.5		3.4		3.3		3.4		3.5		3.8		4.7		5.7		4.1	5.8	na	2.2	2.1	2.3	2.1		
EY-Parthenon	3.5		na		na		na		3.5		na		na		na		na		3.5		na		na		na		na	na	na	na	2.1	2.0	2.1	2.2	
Georgia State University	3.5		6.7		na		na		3.3		3.2		3.2		3.2		3.2		3.4		3.8		4.6		5.6		na	5.8	na	2.2	2.1	1.6	1.7		
Loomis, Sayles & Company	3.5		6.7		3.5		3.4		3.6		3.5		3.4		3.3		3.3		3.5		3.8		4.3		5.2		3.5	5.7	113.8	2.2	1.9	2.3	1.8		
Scotiabank Group	3.5		na		3.3		na		3.1		na		na		3.3		3.5		4.0		4.0		na		na		na	na	na	na	1.8	0.9	L	2.4	2.2
The Lonski Group	3.5		6.6		3.4		3.5		3.6		3.6		3.6		3.5		3.5		3.5		3.7		4.8		5.4		3.7	5.5	118.4	2.0	2.0	2.5	2.3		
Naroff Economics LLC	3.1		6.1	L	3.2		3.2	L	3.2		3.3		3.5		3.6		3.9		4.1		4.3		5.1		5.6		4.1	5.6	114.4	3.2	2.4	2.2	2.1		
NatWest Markets	3.1		6.3		na		3.2	L	3.4		3.5		3.6		3.1		3.4		4.0		4.6		4.8		5.7		4.5	6.3	na	2.0	1.8	1.4	L	1.3	L
Societe Generale	3.1		6.3		3.1	L	na		2.9	L	2.9	L	2.9	L	2.9		2.7	L	3.2		3.5		na		na		na	na	na	4.5	H	2.0	2.2	2.2	
ING	2.9	L	na		na		na		na		na		3.0		3.7		4.0		4.4		na		na		na		na	na	na	na	1.8	na	na	na	
February Consensus	3.8		7.0		3.9		3.9		3.8		3.8		3.7		3.5		3.6		3.8		4.0		4.8		5.8		4.1	6.1	114.6	2.0	2.1	2.2	2.1		
Top 10 Avg.	4.3		7.4		4.2		4.2		4.2		4.2		4.1		4.1		4.1		4.2		4.5		5.2		6.1		4.4	6.6	116.6	2.7	2.6	2.5	2.4		
Bottom 10 Avg.	3.3		6.6		3.5		3.5		3.3		3.4		3.3		3.1		3.1		3.3		3.6		4.4		5.5		3.8	5.6	112.5	1.5	1.8	1.8	1.8		
January Consensus	3.8		7.0		3.8		3.8		3.7		3.8		3.7		3.6		3.6		3.7		4.0		4.7		5.8		4.1	6.1	114.4	2.1	2.1	2.2	2.0		
Number of Forecasts Changed From A Month Ago:																																			
Down	8		6		5		3		7		8		10		8		9		6		8		4		7		4	8	7	9	5	8	5		
Same	23		19		16		14		20		15		14		19		18		22		16		13		10		11	15	8	23	25	24	24		
Up	6		5		5		4		5		5		4		5		5		5		7		4		3		2	4	3	5	5	4	6		
Diffusion Index	47%		48%		50%		52%		47%		45%		39%		45%		44%		48%		48%		50%		40%		44%	43%	39%	45%	50%	44%	51%		

10 ■ BLUE CHIP FINANCIAL FORECASTS ■ FEBRUARY 1, 2024

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	5.13	4.88	--
BMO Capital Markets	5.38	5.13	4.38
ING Financial Markets	5.38	4.88	3.88
Moody's Analytics	5.38	5.18	4.57
Northern Trust	5.38	5.32	4.58
Oxford Economics	5.38	5.21	4.71
S&P Global Market Intelligence	--	--	--
Scotiabank	5.13	4.63	3.63
TS Lombard	5.25	4.50	4.00
Wells Fargo	5.38	4.83	4.13
February Consensus	5.31	4.95	4.24
High	5.38	5.32	4.71
Low	5.13	4.50	3.63
Last Months Avg.	5.30	5.02	4.27

Blue Chip Forecasters	Policy-Rate Balance Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.00	0.25	--
BMO Capital Markets	-0.10	0.00	0.00
ING Financial Markets	-0.10	0.00	0.00
Moody's Analytics	-0.10	-0.03	0.00
Nomura Securities	--	--	--
Northern Trust	-0.10	0.00	0.20
Oxford Economics	-0.04	0.00	0.00
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	-0.01	0.00	0.10
Wells Fargo	-0.10	0.00	0.00
February Consensus	-0.07	0.03	0.04
High	0.00	0.25	0.20
Low	-0.10	-0.03	0.00
Last Months Avg.	-0.07	-0.01	0.00

Blue Chip Forecasters	Official Bank Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.00	4.50	--
BMO Capital Markets	5.00	4.75	4.25
ING Financial Markets	5.25	5.25	4.25
Moody's Analytics	5.25	5.25	4.57
Nomura Securities	--	--	--
Northern Trust	5.25	5.00	4.25
Oxford Economics	5.25	5.08	4.35
S&P Global Market Intelligence	--	--	--
Scotiabank	5.00	4.50	3.75
TS Lombard	5.25	5.00	4.75
Wells Fargo	5.25	5.00	4.00
February Consensus	5.17	4.93	4.27
High	5.25	5.25	4.75
Low	5.00	4.50	3.75
Last Months Avg.	5.25	5.09	4.20

Blue Chip Forecasters	SNB Policy Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	1.75	1.75	--
BMO Capital Markets	1.75	1.75	1.75
ING Financial Markets	1.75	1.75	1.75
Moody's Analytics	1.75	1.75	1.50
Nomura Securities	--	--	--
Northern Trust	1.50	1.25	1.25
Oxford Economics	1.75	1.75	1.38
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	1.65	1.50	1.25
Wells Fargo	1.75	1.50	1.00
February Consensus	1.71	1.63	1.41
High	1.75	1.75	1.75
Low	1.50	1.25	1.00
Last Months Avg.	1.75	1.66	1.41

Blue Chip Forecasters	O/N MMkt Financing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.00	4.75	--
BMO Capital Markets	5.00	4.50	4.00
ING Financial Markets	5.00	4.50	3.50
Moody's Analytics	4.93	4.45	3.50
Nomura Securities	--	--	--
Northern Trust	5.00	4.75	4.00
Oxford Economics	5.00	4.88	4.38
S&P Global Market Intelligence	--	--	--
Scotiabank	4.75	4.25	3.50
TS Lombard	5.00	4.25	3.75
Wells Fargo	5.00	4.75	4.00
February Consensus	4.96	4.56	3.83
High	5.00	4.88	4.38
Low	4.75	4.25	3.50
Last Months Avg.	5.00	4.66	3.77

United States			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.28	4.33	--	
3.93	3.82	3.74	
4.00	3.50	3.50	
4.24	4.18	4.11	
4.30	4.20	4.10	
4.07	3.95	3.81	
3.75	3.58	3.37	
3.70	3.80	4.00	
4.00	4.00	4.75	
3.95	3.85	3.60	
4.02	3.92	3.89	
4.30	4.33	4.75	
3.70	3.50	3.37	
4.26	4.09	3.83	

Japan			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.93	0.98	--	
0.80	0.89	0.97	
0.60	0.80	1.00	
0.84	0.84	0.84	
--	--	--	
0.75	0.85	0.95	
0.66	0.70	0.71	
--	--	--	
--	--	--	
0.72	0.72	1.47	
0.70	0.75	0.70	
0.75	0.82	0.95	
0.93	0.98	1.47	
0.60	0.70	0.70	
0.83	0.84	0.85	

United Kingdom			
10 Yr. Gilt Yields %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.10	4.03	--	
3.77	3.76	3.74	
3.80	3.65	3.65	
3.93	3.81	3.65	
--	--	--	
4.00	3.90	3.80	
3.77	3.69	3.60	
--	--	--	
--	--	--	
3.90	3.85	4.60	
3.85	3.80	3.60	
3.89	3.81	3.81	
4.10	4.03	4.60	
3.77	3.65	3.60	
4.06	3.94	3.65	

Switzerland			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
--	--	--	
0.90	0.85	1.10	
1.55	1.73	1.78	
--	--	--	
0.95	1.00	1.00	
0.86	1.03	1.32	
--	--	--	
--	--	--	
0.90	0.90	1.65	
--	--	--	
1.03	1.10	1.37	
1.55	1.73	1.78	
0.86	0.85	1.00	
0.95	1.03	1.09	

Canada			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
3.19	3.08	3.00	
3.20	3.00	3.25	
4.00	4.04	4.04	
--	--	--	
3.50	3.40	3.30	
3.25	3.45	3.49	
--	--	--	
3.20	3.35	3.60	
3.50	3.25	2.75	
3.40	3.30	3.20	
3.41	3.36	3.33	
4.00	4.04	4.04	
3.19	3.00	2.75	
3.47	3.27	3.14	

Fed's AFE \$ Index			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
114.3	114.1	113.6	
115.0	112.7	108.0	
--	--	--	
116.0	115.0	112.0	
114.1	114.6	113.6	
--	--	--	
--	--	--	
110.0	110.0	120.0	
--	--	--	
113.9	113.3	113.4	
116.0	115.0	120.0	
110.0	110.0	108.0	
115.4	114.3	112.9	

Yen per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
152.3	150.0	--	
143.0	142.0	139.0	
140.0	135.0	130.0	
142.0	136.6	128.2	
142.0	140.0	135.0	
148.0	144.0	138.0	
146.2	144.0	137.2	
140.1	135.4	130.0	
150.0	140.0	135.0	
150.0	140.0	150.0	
--	--	--	
145.4	140.7	135.8	
152.3	150.0	150.0	
140.0	135.0	128.2	
145.2	142.6	137.2	

US\$ per Pound Sterling			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.22	1.26	--	
1.27	1.28	1.28	
1.23	1.24	1.28	
1.26	1.26	1.26	
1.27	1.28	1.30	
1.26	1.26	1.29	
1.28	1.26	1.27	
1.27	1.28	1.29	
1.25	1.30	1.32	
1.27	1.25	1.15	
--	--	--	
1.26	1.27	1.27	
1.28	1.30	1.32	
1.22	1.24	1.15	
1.25	1.25	1.26	

CHF per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.92	0.91	--	
0.86	0.86	0.85	
0.88	0.86	0.83	
0.86	0.85	0.83	
0.88	0.87	0.86	
0.87	0.87	0.85	
0.85	0.87	0.89	
0.86	0.86	0.86	
0.86	0.88	0.88	
0.90	0.90	0.90	
--	--	--	
0.87	0.87	0.86	
0.92	0.91	0.90	
0.85	0.85	0.83	
0.89	0.88	0.86	

C\$ per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.38	1.37	--	
1.33	1.33	1.31	
1.35	1.33	1.28	
1.33	1.30	1.26	
1.34	1.33	1.31	
1.36	1.34	1.30	
1.33	1.33	1.32	
1.33	1.31	1.30	
1.33	1.28	1.27	
1.35	1.35	1.35	
--	--	--	
1.34	1.33	1.30	
1.38	1.37	1.35	
1.33	1.28	1.26	
1.36	1.34	1.31	

FEBRUARY 1, 2024 ■ BLUE CHIP FINANCIAL FORECASTS ■ 11

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	4.35	--
BMO Capital Markets	4.35	4.10	3.60
ING Financial Markets	4.35	4.10	3.60
Moody's Analytics	4.35	4.35	3.85
Nomura Securities	--	--	--
Northern Trust	4.35	4.35	3.60
Oxford Economics	4.46	4.60	4.48
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	4.32	3.50	3.00
Wells Fargo	4.35	4.35	3.85
February Consensus	4.36	4.21	3.71
High	4.46	4.60	4.48
Low	4.32	3.50	3.00
Last Months Avg.	4.32	4.24	3.75

Australia			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
--	--	--	
4.80	4.30	3.70	
4.72	4.47	4.14	
--	--	--	
4.30	4.20	4.10	
4.55	4.21	4.14	
--	--	--	
--	--	--	
4.20	4.20	4.95	
--	--	--	
4.51	4.28	4.21	
4.80	4.47	4.95	
4.20	4.20	3.70	
4.51	4.17	3.86	

US\$ per A\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.64	0.65	--	
0.67	0.67	0.67	
0.67	0.69	0.70	
0.67	0.69	0.72	
0.68	0.69	0.71	
0.65	0.66	0.69	
0.66	0.68	0.68	
0.68	0.68	0.69	
0.66	0.68	0.70	
0.65	0.65	0.65	
--	--	--	
0.66	0.67	0.69	
0.68	0.69	0.72	
0.64	0.65	0.65	
0.65	0.67	0.69	

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	4.25	3.75	--
BMO Capital Markets	4.50	4.25	3.75
ING Financial Markets	4.50	4.25	3.75
Moody's Analytics	4.50	4.45	3.53
Nomura Securities	--	--	--
Northern Trust	4.50	4.25	3.25
Oxford Economics	4.50	4.21	3.24
S&P Global Market Intelligence	--	--	--
Scotiabank	4.25	3.75	3.25
TS Lombard	4.00	4.00	3.50
Wells Fargo	4.00	3.50	2.75
February Consensus	4.33	4.05	3.38
High	4.50	4.45	3.75
Low	4.00	3.50	2.75
Last Months Avg.	4.34	3.93	3.32

Euro area

US\$ per Euro			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.06	1.07	--	
1.10	1.11	1.12	
1.08	1.10	1.15	
1.10	1.11	1.12	
1.12	1.13	1.15	
1.07	1.06	1.12	
1.09	1.08	1.09	
1.10	1.11	1.13	
1.10	1.12	1.15	
1.10	1.15	1.05	
--	--	--	
1.09	1.10	1.12	
1.12	1.15	1.15	
1.06	1.06	1.05	
1.08	1.09	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	2.67	2.52	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	2.20	2.26	2.28	--	--	--	--	--	--	--	--	--
ING Financial Markets	2.20	2.10	2.30	2.80	2.70	2.85	4.00	4.00	3.95	3.30	3.20	3.30
Moody's Analytics	2.33	2.33	2.30	2.78	2.74	2.68	4.37	4.36	4.30	3.31	3.33	3.32
Northern Trust	2.35	2.25	2.15	2.85	2.75	2.65	3.90	3.80	3.70	3.25	3.15	3.05
Oxford Economics	2.16	2.17	2.12	2.71	2.70	2.57	3.85	3.89	3.97	3.15	3.16	3.15
TS Lombard	2.60	2.50	2.40	2.95	2.85	2.75	3.90	3.80	3.70	3.35	3.25	3.15
Wells Fargo	2.25	2.20	2.15	--	--	--	--	--	--	--	--	--
February Consensus	2.35	2.29	2.24	2.82	2.75	2.70	4.00	3.97	3.92	3.27	3.22	3.19
High	2.67	2.52	2.40	2.95	2.85	2.85	4.37	4.36	4.30	3.35	3.33	3.32
Low	2.16	2.10	2.12	2.71	2.70	2.57	3.85	3.80	3.70	3.15	3.15	3.05
Last Months Avg.	2.38	2.24	2.11	2.96	2.78	2.72	4.16	4.05	4.01	3.44	3.25	3.23

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.43	-3.27	-3.10	-2.94
United Kingdom	-0.09	-0.13	-0.11	-0.08
Switzerland	-3.28	-2.99	-2.82	-2.52
Canada	-0.63	-0.62	-0.56	-0.56
Australia	0.04	0.49	0.36	0.32
Germany	-1.85	-1.68	-1.63	-1.64
France	-1.37	-1.20	-1.17	-1.19
Italy	-0.32	-0.02	0.05	0.04
Spain	-0.90	-0.75	-0.70	-0.69

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-5.48	-5.38	-4.98	-4.19
United Kingdom	-0.13	-0.14	-0.03	0.04
Switzerland	-3.63	-3.60	-3.33	-2.82
Canada	-0.38	-0.35	-0.39	-0.41
Australia	-1.03	-0.95	-0.74	-0.52
Euro area	-0.88	-0.98	-0.91	-0.86

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

Let's Get Real about GDP

US' real private-sector spending lagged real GDP ...

Real GDP outran real private sector spending on final products by 7/10th of a percentage point in 2023. The annual growth rate for real private-sector spending on final goods and services slowed from yearlong 2022's 2.3% to yearlong 2023's 1.8%. By contrast, real GDP growth quickened from 2022's 1.9% to 2023's 2.5%. (Real GDP adds government spending, the trade deficit and the change inventories to real private sector spending on final products.)

Remember real GDP's great head fake of 2022's first half. That was when real GDP's back-to-back annualized quarterly setbacks of -2.0% for Q1-2022 and -0.6% for Q2-2022 were incorrectly viewed by some as evidence of a recession. One of the principal reasons why the unemployment rate did not rise in a manner that would confirm a recession was because real private sector spending on final products posted back-to-back annualized quarterly increases of 1.5% for both the first and second quarters of 2022.

In terms of annualized quarterly growth rates, real private sector purchases of final products slowed from Q3-2023's 3.0% to Q4-2023's 2.6%, which differed considerably from real GDP's accompanying deceleration from 4.9% to 3.3%.

Also, in terms of year-to-year increases, real private sector spending on final products quickened from Q4-2022's 0.8% to Q4-2023's 2.7%, which was more muted than the comparably measured jump by yearly real GDP growth from 0.7% to 3.1%.

Real private sector spending shows highest correlation with US equity market performance ...

In terms of year-on-year growth rates, the market value of US common stock shows a slightly higher correlation of 0.49 with real US private sector purchases of final products compared to the common equity market's 0.45 correlation with real GDP.

Real private sector spending on final products approximates real GDP less real net exports less the change in real inventories less real government spending.

The nominal version of US private sector purchases of final products generates a correlation of 0.42 with the market value of US common stock, where the latter generates a lower correlation of 0.35 with nominal GDP.

Unexpected surge by government spending amplified real GDP's upside surprise ...

Though real GDP's annualized quarter-to-quarter growth rate slowed from Q3-2023's 4.9% to Q4-2023's 3.3%, the latter was well above the consensus projection of 2.0% growth. Calendar year 2023's 2.5% annual advance by real GDP far outpaced the consensus' year earlier prediction that called for a 0.5% rise by 2023's US economy.

At the start of 2023, the consensus was looking for a further deceleration of US real GDP following a plunge by real GDP's annual growth rate from 2021's post-COVID surge of 5.8% to 2022's 1.9%. Few expected the US economy would accelerate given monetary tightening that both ratcheted up the federal

funds rate from 0.13% to its current 5.38% and the Fed's reduced holdings of US Treasury bonds and mortgage-backed securities.

The upside growth surprise of 2023 owes something not only to the unexpected continuation of massive government stimulus, but also to the overhang of highly liquid assets stemming from 2020-2021's most rapid expansion of the money supply since World War II.

Of special importance to 2023's US economy was the rapid growth of government spending. Yearlong 2023's 4.0% annual advance by real government spending towered over the 2.5% rate of real GDP growth. Real government spending's 4.0% increase for 2023 consisted of gains of 4.2% for real federal spending and 3.8% for real spending by state and local governments.

Without the surge in real government spending, calendar year 2023's 2.5% increase by real GDP slows to an estimated 1.9% matching its 1.9% gain for 2022.

GDP's estimate of government spending excludes social security, Medicare, and Medicaid ...

Worth noting is how real government spending does not include government transfer payments such as social security, Medicare, and Medicaid. Transfer payments enter into GDP via personal spending. For example, while the sum of spending by federal, state, and local governments included in the GDP accounts approximated 17.4% of 2023's GDP, total gross federal outlays for calendar-year 2023 approached 23.0% of GDP.

Calendar-year (CY) 2023's 7.8% annual increase by the sum of outlays for social security, Medicare, and Medicaid was faster than CY 2023's 5.6% annual increase by nominal private sector spending on final goods and services. CY 2023's nominal government spending contained in the GDP accounts that excludes transfer payments grew by a much faster 6.6% annually compared to private sector spending on final products.

Among major categories of GDP's estimate of consumer spending, government support stands out in health care spending. CY 2023's 7.7% annual increase by nominal consumer spending on health care easily outran the 5.7% increase by the rest of consumer spending.

Moreover, government subsidies and tax breaks for green energy projects and electric vehicles explained why CY 2023's 19.4% annual increase by nominal business investment spending on structures was so much faster than the comparably measured gains of 4.2% for business purchases of equipment and 6.2% for business investment in intellectual property products (including software).

Unlike the switch in real government spending's annual percent change from 2022's -0.9% drop to 2023's 4.0% advance, the calendar year growth rates for each of real GDP's broad private-sector categories slowed from 2022 to 2023.

By private sector category, the growth of real consumer spending eased from CY 2022's 2.5% to CY 2023's 2.2%, real business investment spending in capital products slowed from 5.2% to 4.4%, and the annual contraction by real residential investment spending deepened from -9.0% to -10.7%.

Spending on recreational goods led real consumer spending growth in 2023 ...

I doubt if anyone can guess the fastest growing category for CY 2023's real consumer spending? The winner was the 7.6% annual advance by real spending on recreational goods and vehicles. This category has been hot for some time. After surging by 10.3% annually, on average, during the four years ended 2019, real outlays on recreational goods and vehicles accelerated to the 14.3% average annual advance of the four years ended 2023.

But some may view 2023's 7.6% annual advance by real spending on recreational goods and vehicles to be very misleading. Investors may view the 7.6% real increase to be useless information given how nominal, or actual, consumer spending on recreational goods and vehicles rose by a much slower 4.2% annually in 2023. Inflation adjusted, or real, data must be viewed with caution.

Dollar value of consumer spending slows appreciably year-to-year ...

From the perspective of the real world, nominal consumer spending has slowed noticeably from its unsustainably rapid pace of a year ago. The annual increase of nominal consumer spending slowed from CY 2022's 9.2% to CY 2023's 6.0%. In addition, the year-on-year growth rate for nominal consumer spending dropped from Q4-2022's 7.2% to Q4-2023's 5.4%. I think the deceleration by consumer spending is far from over given (i) rising consumer loan delinquency rates, (ii) a historically low personal savings rate, and (iii) the likelihood of slower growth rates for payrolls and employment-derived income.

The annualized quarterly growth rate for real consumer spending eased from Q3-2023's 3.1% to Q4-2023's 2.8%. The latter was slightly above the latest consensus projection of 2.5%. However, not that long ago, the consensus believed Q4-2023's annualized sequential growth rate for real consumer spending would be less than 2%.

Inventory build and thinner trade gap pushes Q4-2023's real GDP growth above 3%

The contribution to GDP from changes in unsold inventories supplied an unexpected lift to Q4-2023's real GDP. Early January's Blue Chip consensus expected the increase in real inventories would drop to \$33.2 billion in 2023's final quarter following a jump from Q2-2023's \$14.9 billion to Q3-2023's \$77.8 billion.

Much to the contrary, Q4-2023 showed an advance by real inventory accumulation to \$82.7 billion. So instead of conforming to the consensus forecast and reducing real GDP by -\$44.6 billion, the change in inventories added \$4.9 billion to Q4-2023's real GDP.

Moreover, the consensus was looking for a widening of Q4-2023's real trade deficit that would have subtracted nearly -\$10 billion from real GDP. Instead, the real trade deficit narrowed from Q3-2023's -\$930.7 billion to Q4-2023's -\$908.2 billion and, thereby, added +\$22.5 billion to GDP.

After excluding the volatile additions to real GDP stemming from changes in inventories and changes in the real trade deficit, the remainder of Q4-2023's real GDP grew by a slower 2.7% annualized from Q3-2023's pace. The latter was down from Q3-2023's 3.5% comparably measured gain.

In terms of calendar year growth rates, real GDP excluding the change in inventories and the trade deficit rose from 2022's 1.7% to 2023's 2.2%, where the latter was slower than the 2.5% rise for the entirety of 2023's real GDP.

Furthermore, if we exclude only the 0.6 percentage points of growth supplied CY 2023's US real GDP by a narrower trade deficit, the annual rate of real GDP growth slows to 1.9%, which represents a slowdown from the hybrid metric's 2.3% increase of CY 2022.

John Lonski (The Lonski Group)

U.S. Job Openings Up, Quits Down ...and Jobs are "Plentiful"

Between the two surveys released at the same time.... one on confidence (and jobs) and job availability... these days, I'll go with the job survey as being more important. The two big items to focus on: 1) jobs and 2) inflation expectations

Job openings actually rose in December (Side note: Anyone remember how exciting it was when the number of openings cracked 10 mln? And they stayed there for nearly two years!) We're back over the 9 million mark, which is a 3-month high... and the bulk of the gains were in the private sector. So the good news is that there are options out there... if one is still unemployed or is looking for extra work. The bad news is that it means that the consumer could spend more and that's not what the Fed wants right now.

Firms increased their hires (so they're finding the right person), while the number of people who quit (either for those options noted above or for other personal reasons) fell for the fourth month in a row, which is noteworthy as it suggests that there is less pressure to boost wages. So that is good news.

And, yes, the Conference Board's headline index of consumer confidence showed a bigger-than-expected 6.8 pt jump in January to a 7-month high of 114.8 (lots of excitement around the 'present situation' was it the potential for rate cuts?), but check out the jobs section of the survey. Inflation expectations for the next 12 months dropped for the third month in a row to a 46-month low.

"Show of hands! Anyone still finding jobs plentiful these days? How about hard to get?" More respondents found jobs plentiful and fewer found those jobs difficult to come by. Let's go back to the opening segment here the good news is that Americans are confident about their job situation; but, the bad news is that means the U.S. economy could stay resilient for longer. Not a bad thing in the grand scheme of things, but bad for Fed Chair Powell. Also, note this suggest that the January jobless rate could fall (we will find out on Friday).

Separately.... House prices are still rising but at a more modest pace.... the S&P CoreLogic Case-Shiller Home Price Index (say that quickly 3x) edged up just 0.2% in November (still sizeable gains in Vegas.... maybe the New Edition reunion is bringing more buyers into town... but they were offset by sizeable declines in San Francisco and Seattle), while the FHFA House Price Index continued to rise at a more sedate rate of 0.3% for the second month in a row.

Bottom Line: It will be challenging to push for earlier rate cuts in this environment.

Jennifer Lee (BMO Capital Markets)

Special Questions:

1. a. At what FOMC meeting will the first FFR cut occur?

<u>Mar 2024</u>	16%	<u>May 2024</u>	41%	<u>Jun 2024</u>	25%	<u>Jul 2024</u>	16%
<u>Sep 2024</u>	0%	<u>Nov 2024</u>	3%	<u>Dec 2024</u>	0%	<u>Later</u>	0%

b. How much will the FFR target decline in 2024? 112 bps

2. a. What is your estimate of the long-term neutral fed funds rate? 2.86%

b. Since before the pandemic, has it: increased 79% decreased 7% remained the same 14%

3. The Fed has been reducing its security holdings since the middle of 2022, known as quantitative tightening. Will it halt this reduction once it begins to lower the fed funds rate target? Yes 23% No 77%

4. Changes in monetary policy affect the economy with a lag, possibly long. Is there further meaningful restraint from earlier tightening that the US economy has yet to feel? Yes 80% No 20%

5. Is the US economy headed for a “soft landing,” that is a return of inflation to around the Fed’s 2% target without the economy experiencing a recession? Yes 81% No 19%

6. a. Did accommodative US fiscal policy play a key role in the resilience of the economy in 2023? Yes 93% No 7%

b. Do you expect less accommodation in 2024? Yes 77% No 23%

c. If so, will this slow the economy meaningfully? Yes 52% No 48%

7. What is your US unemployment rate forecast for: Jun 2024 4.1% Dec 2024 4.3%

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

	<u>US</u>	<u>euro area</u>	<u>UK</u>
Consensus	39%	54%	56%
Top 10	53%	66%	69%
Bot 10	27%	42%	44%

9. a. When will the ECB begin cutting its policy rates?

<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Q4 2024</u>	<u>Later</u>
9%	61%	26%	4%	0%

b. When will the BoE begin cutting its Bank rate?

<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Q4 2024</u>	<u>Later</u>
4%	39%	48%	9%	0%

c. When will the first hike in the Bank of Japan’s short-term policy interest rate occur?

<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Q4 2024</u>	<u>Later</u>
5%	57%	14%	5%	19%

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Databank:

2024 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)
Auto & Light Truck Sales (b)
Personal Income (a, current \$)
Personal Consumption (a, current \$)
Consumer Credit (e)
Consumer Sentiment (U. of Mich.)	78.8	....	....	....	....	....	....	....	....	....	....	....
Household Employment (c)
Nonfarm Payroll Employment (c)
Unemployment Rate (%)
Average Hourly Earnings (All, cur. \$)
Average Workweek (All, hrs.)
Industrial Production (d)
Capacity Utilization (%)
ISM Manufacturing Index (g)
ISM Nonmanufacturing Index (g)
Housing Starts (b)
Housing Permits (b)
New Home Sales (1-family, c)
Construction Expenditures (a)
Consumer Price Index (nsa, d)
CPI ex. Food and Energy (nsa, d)
PCE Chain Price Index (d)
Core PCE Chain Price Index (d)
Producer Price Index (nsa, d)
Durable Goods Orders (a)
Leading Economic Indicators (a)
Balance of Trade & Services (f)
Federal Funds Rate (%)
3-Mo. Treasury Bill Rate (%)
10-Year Treasury Note Yield (%)

2023 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	3.0	-0.7	-0.9	0.4	0.7	0.2	0.6	0.7	0.8	-0.3	0.3	0.6
Auto & Light Truck Sales (b)	15.11	14.88	14.93	15.68	15.52	16.06	15.94	15.30	15.77	15.49	15.39	15.89
Personal Income (a, current \$)	1.0	0.5	0.5	0.2	0.3	0.2	0.2	0.4	0.3	0.3	0.4	0.3
Personal Consumption (a, current \$)	1.6	0.4	-0.1	0.4	0.2	0.4	0.6	0.3	0.8	0.0	0.4	0.7
Consumer Credit (e)	5.4	2.7	4.6	3.5	-0.2	2.9	3.0	-3.5	2.6	1.4	5.7	....
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	61.3	69.7
Household Employment (c)	852	149	523	138	-255	297	205	291	50	-270	586	-683
Nonfarm Payroll Employment (c)	472	248	217	217	281	105	236	165	262	105	173	216
Unemployment Rate (%)	3.4	3.6	3.5	3.4	3.7	3.6	3.5	3.8	3.8	3.8	3.7	3.7
Average Hourly Earnings (All, cur. \$)	33.02	33.11	33.20	33.34	33.45	33.60	33.73	33.82	33.91	34.00	34.12	34.27
Average Workweek (All, hrs.)	34.6	34.5	34.4	34.4	34.3	34.4	34.3	34.4	34.4	34.3	34.4	34.3
Industrial Production (d)	1.5	0.9	0.2	0.3	0.1	-0.4	0.1	0.0	-0.2	-0.9	-0.6	1.0
Capacity Utilization (%)	79.6	79.5	79.5	79.8	79.5	78.9	79.5	79.5	79.5	78.7	78.6	78.6
ISM Manufacturing Index (g)	47.4	47.7	46.3	47.1	46.9	46.0	46.4	47.6	49.0	46.7	46.7	47.4
ISM Nonmanufacturing Index (g)	55.2	55.1	51.2	51.9	50.3	53.9	52.7	54.5	53.6	51.8	52.7	50.6
Housing Starts (b)	1.340	1.436	1.380	1.348	1.583	1.418	1.451	1.305	1.356	1.376	1.525	1.460
Housing Permits (b)	1.354	1.482	1.437	1.417	1.496	1.441	1.443	1.541	1.471	1.498	1.467	1.493
New Home Sales (1-family, c)	649	625	640	679	710	683	728	654	698	676	615	664
Construction Expenditures (a)	2.2	0.4	0.6	0.3	2.0	0.5	0.7	2.1	0.4	1.2	0.4	....
Consumer Price Index (nsa, d)	6.4	6.0	5.0	4.9	4.0	3.0	3.2	3.7	3.7	3.2	3.1	3.4
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	4.0	4.0	3.9
PCE Chain Price Index (d)	5.5	5.2	4.4	4.4	4.0	3.2	3.3	3.3	3.4	2.9	2.6	2.6
Core PCE Chain Price Index (d)	4.9	4.8	4.8	4.8	4.7	4.3	4.2	3.7	3.6	3.4	3.2	2.9
Producer Price Index (nsa, d)	5.7	4.7	2.7	2.3	1.1	0.3	1.1	1.9	2.0	1.2	0.8	1.0
Durable Goods Orders (a)	-1.3	-2.7	3.3	1.2	2.0	4.3	-5.6	-0.1	4.0	-5.1	5.5	0.0
Leading Economic Indicators (a)	-0.5	-0.6	-1.2	-0.7	-0.7	-0.7	-0.3	-0.4	-0.8	-1.0	-0.5	-0.1
Balance of Trade & Services (f)	-70.8	-70.6	-60.4	-72.9	-66.9	-64.0	-65.0	-58.6	-61.2	-64.5	-63.2	....
Federal Funds Rate (%)	4.33	4.57	4.65	4.83	5.06	5.08	5.12	5.33	5.33	5.33	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	5.60	5.52	5.44
10-Year Treasury Note Yield (%)	3.53	3.75	3.66	3.46	3.57	3.75	3.90	4.17	4.38	4.80	4.50	4.02

(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.

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Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
January 29 Texas Manufacturing Outlook Survey (Jan) Short-Term Energy Outlook (Dec)	30 FHFA HPI (Nov) Case-Shiller HPI (Nov) JOLTS (Dec) BED (Q2) Consumer Confidence (Jan) Housing Vacancies (Q4) Texas Service Sector Outlook Survey (Jan) FOMC Meeting	31 ADP Employment Report (Jan) Employment Cost Index (Q4) Chicago PMI (Jan) EIA Crude Oil Stocks Mortgage Applications FOMC Meeting	February 1 Productivity & Costs (Q4) ISM Manufacturing (Jan & Rev) S&P Global Mfg PMI (Jan) Construction (Dec) Challenger Employment Report (Jan) Weekly Jobless Claims	2 Employment Situation (Jan) Consumer Sentiment (Jan, Final) Manufacturers' Shipments, Inventories & Orders (Dec) BEA Auto and Truck Sales (Jan)
5 ISM Services PMI (Jan) S&P Global Services PMI (Jan) Senior Loan Officer Survey (Q1)	6 Public Debt (Jan) Kansas City Fed Labor Market Conditions Indicators (Jan) Interest on Public Debt (Jan)	7 International Trade (Dec) Transportation Services (Dec) Consumer Credit (Dec) Treasury Auction Allotments (Jan) EIA Crude Oil Stocks Mortgage Applications	8 Wholesale Trade (Dec) CEO Confidence Survey (Q1) Housing Affordability (Dec) Weekly Jobless Claims	9 Survey of Professional Forecasters (Q1) Seas Adj CPI Revisions Kansas City Financial Stress Index (Jan)
12 Monthly Treasury (Jan)	13 CPI & Real Earnings (Jan) Cleveland Fed Median CPI (Jan) NFIB (Jan) OPEC Crude Oil Spot Prices (Jan)	14 Seas Adj PPI Revisions EIA Crude Oil Stocks Mortgage Applications	15 Import & Export Prices (Jan) Advance Retail Sales (Jan) IP & Capacity Utilization (Jan) MTIS (Dec) Philadelphia Fed Mfg Business Outlook Survey (Feb) Empire State Mfg Survey (Feb) Home Builders (Feb) TIC Data (Dec) Weekly Jobless Claims	16 New Residential Construction (Jan) Producer Prices (Jan) Consumer Sentiment (Feb, Preliminary) Business Leaders Survey (Feb)
19 PRESIDENTS' DAY ALL MARKETS CLOSED	20 Retail E-Commerce Sales (Q4) Philly Fed Nonmanufacturing Business Outlook (Feb) Dallas Fed Banking Conditions Survey (Feb) Composite Indexes (Jan)	21 CEW (Q3)	22 Adv Quarterly Services (Q4) Existing Home Sales (Jan) S&P Global Flash PMIs (Feb) Chicago Fed National Activity Index (Jan) EIA Crude Oil Stocks Mortgage Applications Weekly Jobless Claims	23 Treasury Auction Allotments (Feb)
26 Final Building Permits (Jan) New Residential Sales (Jan) H.6 Money Stock (Jan) Texas Manufacturing Outlook Survey (Feb) NABE Outlook (Q1) Steel Imports for Consumption (Jan, Preliminary)	27 Adv Durable Goods (Jan) FHFA HPI (Dec & Q4) Case Shiller HPI (Dec) Richmond Fed Mfg & Service Sector (Feb) Texas Service Sector Outlook Survey (Feb) Consumer Confidence (Feb)	28 GDP (Q4, 2nd Estimate) Adv Trade & Inventories (Jan) EIA Crude Oil Stocks Mortgage Applications	29 Personal Income (Jan) Agricultural Prices (Jan) Dallas Fed Trimmed Mean (Jan) Underlying NIPA Tables (Q4, 2nd Estimate) Chicago PMI (Feb) Kansas City Fed Manufacturing Survey (Feb) Pending Home Sales (Jan) Weekly Jobless Claims	March 1 Construction (Jan) ISM Manufacturing (Feb) S&P Global Mfg PMI (Feb) Consumer Sentiment (Feb, Final) Strike Report (Feb)
4 BEA Auto and Truck Sales (Feb)	5 ISM Services PMI (Feb) S&P Global Services PMI (Feb) Manufacturers' Shipments, Inventories & Orders (Jan)	6 ADP Employment Report (Feb) Wholesale Trade (Jan) JOLTS (Jan) Public Debt (Feb) Interest on the Public Debt (Feb) EIA Crude Oil Stocks Mortgage Applications	7 International Trade (Jan) Productivity & Costs (Q4) Treasury Auction Allotments (Feb) Financial Accounts (Q4) Consumer Credit (Jan) Challenger Employment (Feb) Weekly Jobless Claims	8 Employment Situation (Feb)

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

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BLUE CHIP FINANCIAL FORECASTS®

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Looking Back at 2023 and Ahead to 2024

As we head into 2024, it is instructive to assess the forecasts for last year. When 2023 began, the Federal Reserve had raised the federal funds rate (FFR) target by 425bps in just ten months in the face of rapidly rising inflation. Financial markets were concerned about persistent inflation and how much more the Fed might raise interest rates. As a result, most analysts thought that a recession in the US was very likely and would put downward pressure on inflation and on market interest rates. Indeed, in the January 2023 survey, the Blue Chip Financial Forecasts (BCFF) consensus estimated a 61% probability of a recession occurring in the US during 2023. As we end 2023, there is still some lingering concern over the state of the US economy. Mostly, however, financial markets have been surprised by how much inflation has fallen with above-trend economic growth and without a meaningful rise in unemployment. Now, they are wondering how many times the Fed will cut its policy interest rate in 2024.

Near recession had been expected in 2023. The BCFF consensus at the beginning of 2023 was expecting just 0.1% Q4/Q4 growth in real GDP last year. While this would not have been a recession, it would have been close enough to one to feel like a recession. Accordingly, the consensus expected the unemployment rate to increase 1.2 percentage points to 4.8% by the end of 2023. A rise in the unemployment rate of this magnitude and this quickly has only occurred in the past when the economy was entering a recession.

A by-product of a very weak economy is usually downward pressure on inflation and market interest rates. This is just what the BCFF consensus expected. It looked for headline PCE price inflation to slow from 5.8% in the four quarters of 2022 to 2.8% in the four quarters of 2023. With growth expected to slow and inflation expected to fall, the BCFF consensus looked for the FOMC to raise the FFR target only another 50bps and to begin cutting rates by late in the third quarter. Longer-term market interest rates were expected to rise slightly early in the year and then to decline over the rest of the forecast period.

But 2023 turned out to be a year full of surprises. Clearly, the biggest surprise was the resilience of the US economy. US real GDP growth was stronger in 2023 than in 2022, something that almost no analyst foresaw as 2023 began. Even including the Q4 2023 slowdown in GDP growth, to 1.2%, expected by the BCFF consensus, real GDP would be up 2.6% in the four quarters of 2023, well above trend, which is typically estimated as being between 1-3/4% and 2%. As it had at the beginning of 2023, the BCFF consensus is looking for very anemic, below-trend real GDP growth in 2024, presumably a reflection of lagged restraint from the tighter monetary policy already in place. The consensus does not forecast a recession but places a 45% probability on one occurring this year.

Faster growth, slower inflation in 2023. Notwithstanding the much faster-than-expected growth in real GDP in 2023, inflation slowed, with headline PCE inflation falling from 4.2% in Q1 to 1.8% AR in October/November compared to the Q3 average. Even though inflation surprises grabbed the headlines, inflation in 2023 was about as the BCFF consensus had

expected at the beginning of the year. The surprise was that this decline in inflation occurred as the economy grew at a much faster pace than trend, and than expected, and that the unemployment rate was relatively stable. The BCFF expects the disinflation already in place to continue in early 2024 and for inflation rates to flatten over the second half of the year.

Market interest rates went in the wrong direction in 2023.

Another big surprise in 2023 was the behavior of market interest rates, which rose to levels not seen in more than 15 years. For example, the yield on the benchmark 10-year Treasury note rose to 4.98% in the third week of October, its highest reading since July 2007, and up markedly from 3.79% at the beginning of the year. Increases were linked primarily to the resilient economy and concerns that the economy's resilience would compel the Fed to even further and longer lasting rate hikes. However, market rates have declined since October due largely to consistently better-than-expected inflation news.

The BCFF consensus expects further declines in market rates over 2024 with short-term rates falling relatively more than longer-term rates, reflecting in part the expected decline in the FFR. Consequently, both the 10yr/2yr and 10yr/3mo yield curves are expected to become less inverted over the forecast horizon. However, the 10yr/3mo curve is expected to remain slightly inverted, a sign of lingering recession concern, while the 10yr/2yr curve is expected to normalize by the end of 2024 (that is, regain a positive slope).

Looking for the first FFR cut. Financial markets have been rather ebullient since late October and are now anticipating that the near-term course for US monetary policy will include several reductions in the FFR target. The BCFF consensus agrees, looking for the FFR target to be reduced 102bps during 2024. Market expectations were given a significant fillip by the Fed after the mid-December 2023 FOMC meeting. It left the FFR target unchanged as had been widely expected but in the accompanying Summary of Economic Projections (SEP) removed the additional 25bp rate hike that it had previously anticipated and now looks for three 25bp cuts during 2024 versus only two previously.

While expectations of the FOMC and of the BCFF panel seem to be generally on the same page, those of the fed funds futures market do not. Every BCFF survey respondent expects the Fed to begin to lower the FFR during 2024. Indeed, 88% look for the first cut by the July meeting. However, only 21% expect the first cut as soon as March. A plurality (25%) of respondents looks for the first FFR cut at the May 2024 meeting with 21% favoring June and another 21% favoring July. In stark contrast, the FFR futures market is currently looking for earlier and more rate cuts this year. It anticipates the first cut in March (74% probability) with a 100% probability of at least one cut by the May meeting. Moreover, it is expecting 150bps of rate cuts this year, twice what the FOMC is anticipating.

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

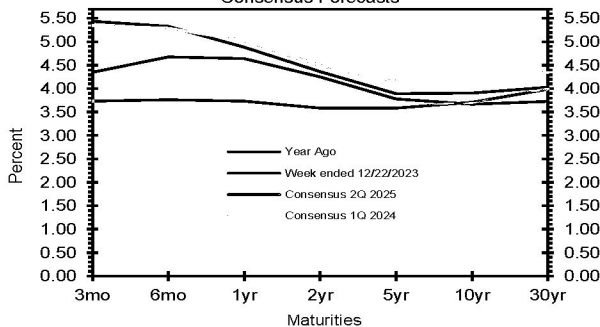
Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	-----Average For Week Ending-----				---Average For Month---				1Q	2Q	3Q	4Q	1Q	2Q
	Dec 22	Dec 15	Dec 8	Dec 1	Nov	Oct	Sep	4Q 2023*	2024	2024	2024	2024	2025	2025
Federal Funds Rate	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.3	5.1	4.8	4.4	4.1	3.8
Prime Rate	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.4	8.2	7.9	7.6	7.2	7.0
SOFR	5.31	5.31	5.33	5.33	5.32	5.31	5.31	5.32	5.3	5.1	4.8	4.5	4.2	3.8
Commercial Paper, 1-mo.	5.32	5.32	5.33	5.34	5.33	5.33	5.31	5.33	5.3	5.1	4.7	4.4	4.1	3.8
Treasury bill, 3-mo.	5.44	5.45	5.45	5.46	5.52	5.60	5.56	5.53	5.4	5.1	4.7	4.3	4.0	3.7
Treasury bill, 6-mo.	5.33	5.36	5.38	5.39	5.44	5.57	5.51	5.46	5.3	5.0	4.6	4.3	4.0	3.8
Treasury bill, 1 yr.	4.88	5.01	5.08	5.16	5.28	5.42	5.44	5.25	5.0	4.7	4.4	4.2	3.9	3.7
Treasury note, 2 yr.	4.36	4.54	4.62	4.70	4.88	5.07	5.02	4.85	4.5	4.2	4.0	3.8	3.7	3.6
Treasury note, 5 yr.	3.90	4.06	4.17	4.27	4.49	4.77	4.49	4.47	4.2	4.0	3.9	3.8	3.6	3.6
Treasury note, 10 yr.	3.91	4.06	4.19	4.32	4.50	4.80	4.38	4.49	4.2	4.1	3.9	3.9	3.8	3.7
Treasury note, 30 yr.	4.03	4.17	4.30	4.49	4.66	4.95	4.47	4.63	4.3	4.3	4.2	4.1	4.0	4.0
Corporate Aaa bond	4.84	4.95	5.11	5.27	5.52	5.87	5.38	5.51	5.1	5.0	4.9	4.8	4.8	4.7
Corporate Baa bond	5.39	5.51	5.70	5.88	6.15	6.53	6.03	6.13	6.1	6.0	6.0	5.9	5.8	5.8
State & Local bonds	4.05	4.16	4.23	4.33	4.56	4.88	4.54	4.57	4.3	4.3	4.2	4.2	4.1	4.1
Home mortgage rate	6.67	6.95	7.03	7.22	7.44	7.62	7.20	7.36	6.9	6.8	6.6	6.4	6.3	6.1

Key Assumptions	History								Consensus Forecasts-Quarterly					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
	2022	2022	2022	2022	2023	2023	2023	2023**	2024	2024	2024	2024	2025	2025
Fed's AFE \$ Index	108.3	113.5	118.8	119.8	115.5	114.6	115.0	117.1	115.2	114.9	114.8	114.7	114.4	114.4
Real GDP	-2.0	-0.6	2.7	2.6	2.2	2.1	4.9	1.2	0.9	0.5	0.7	1.2	1.8	2.1
GDP Price Index	8.5	9.1	4.4	3.9	3.9	1.7	3.3	2.7	2.3	2.3	2.3	2.2	2.2	2.1
Consumer Price Index	9.2	9.7	5.5	4.2	3.8	2.7	3.6	2.9	2.4	2.4	2.4	2.3	2.2	2.2
PCE Price Index	7.7	7.2	4.7	4.1	4.2	2.5	2.6	2.6	2.2	2.2	2.2	2.2	2.1	2.0

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 and are 15+ years, 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. *Interest rate data for 4Q 2023 based on historical data through the week ended December 22. **Data for 4Q 2023 for the Fed's AFE \$ Index based on data through the week ended December 22. Figures for 4Q 2023 Real GDP, GDP Chained Price Index, Consumer Price Index, and PCE Price Index are consensus forecasts from the December 2023 survey.

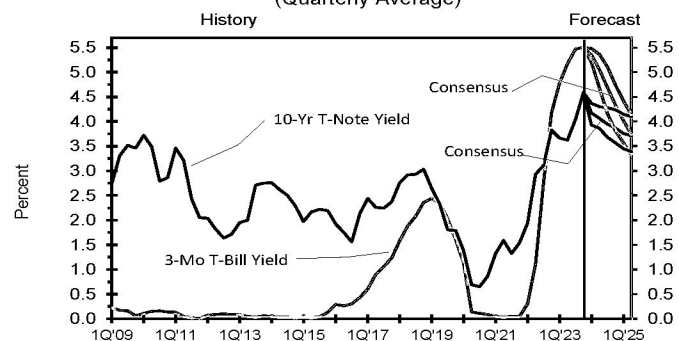
US Treasury Yield Curve

Week ended Dec 22, 2023 & Year Ago vs.
1Q 2024 & 2Q 2025
Consensus Forecasts



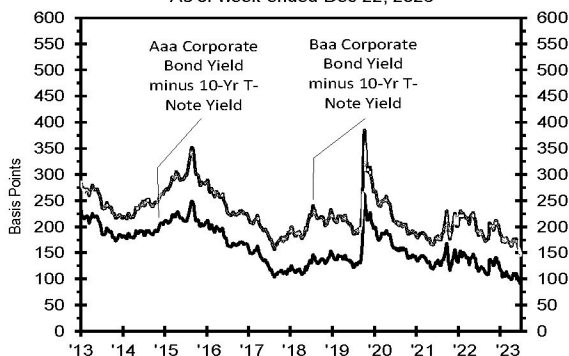
US 3-Mo T-Bills & 10-Yr T-Note Yield

(Quarterly Average)



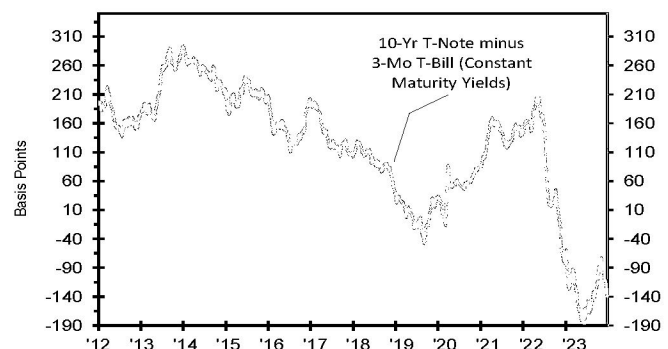
Corporate Bond Spreads

As of week ended Dec 22, 2023



US Treasury Yield Curve

As of week ended Dec 22, 2023



Policy Rates¹

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Ago:	Ago:	3	6	12
U.S.	5.38	5.38	4.38	5.30	5.02	4.27
Japan	-0.10	-0.10	-0.10	-0.07	-0.01	0.00
U.K.	5.25	5.25	3.50	5.25	5.09	4.20
Switzerland	1.75	1.75	1.00	1.75	1.66	1.41
Canada	5.00	5.00	4.25	5.00	4.66	3.77
Australia	4.35	4.35	3.10	4.32	4.24	3.75
Euro area	4.50	4.50	2.50	4.34	3.93	3.32

10-Yr. Government Bond Yields²

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Ago:	Ago:	3	6	12
U.S.	3.90	4.47	3.75	4.26	4.09	3.83
Germany	1.98	2.64	2.41	2.38	2.24	2.11
Japan	0.65	0.79	0.42	0.83	0.84	0.85
U.K.	3.62	4.34	3.77	4.06	3.94	3.65
France	2.46	3.20	2.93	2.96	2.78	2.72
Italy	3.56	4.39	4.50	4.16	4.05	4.01
Switzerland	0.65	0.98	1.49	0.95	1.03	1.09
Canada	3.21	3.72	3.18	3.47	3.27	3.14
Australia	4.01	4.55	3.83	4.51	4.17	3.86
Spain	2.94	3.58	3.35	3.44	3.25	3.23

Foreign Exchange Rates³

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Ago:	Ago:	3	6	12
U.S.	114.30	115.69	116.38	115.4	114.3	112.9
Japan	141.80	149.57	132.78	145.2	142.6	137.2
U.K.	1.27	1.26	1.21	1.25	1.25	1.26
Switzerland	0.87	0.88	0.93	0.89	0.88	0.86
Canada	1.34	1.36	1.36	1.36	1.34	1.31
Australia	0.67	0.66	0.67	0.65	0.67	0.69
Euro	1.09	1.09	1.06	1.08	1.09	1.12

**Consensus
Policy Rates
vs. US Rate**

	Now	In 12 Mo.
Japan	-5.48	-4.27
U.K.	-0.13	-0.07
Switzerland	-3.63	-2.86
Canada	-0.38	-0.50
Australia	-1.03	-0.52
Euro area	-0.88	-0.95

**Consensus
10-Year Gov't
Yields vs. U.S. Yield**

	Now	In 12 Mo.
Germany	-1.92	-1.72
Japan	-3.25	-2.98
U.K.	-0.28	-0.18
France	-1.44	-1.11
Italy	-0.34	0.19
Switzerland	-3.25	-2.74
Canada	-0.69	-0.68
Australia	0.11	0.03
Spain	-0.96	-0.59

International. The growing belief that central banks may start easing cycles within the next few months, coupled with the increasing plausibility of a soft landing for the world economy, has fueled a rally in financial markets over recent weeks. This optimism has been bolstered by data showing a continued easing of inflationary pressures. However, the main catalyst was the latest projections from the Federal Reserve, which indicated three policy rate cuts in 2024, more than previously expected.

That optimistic market appraisal, nevertheless, raises several questions. Firstly, does the possibility of a soft landing for the world economy align with much of the dataflow—and many of our panelists' recession fears—which run counter to that view? Secondly, if current data were instead far more upbeat, wouldn't central banks be more hesitant to relax their monetary policies? Thirdly, and to that point, is the anticipation of an easing cycle in several major economies next year consistent with the recent messages from other central banks, and not just the Fed?

Regarding the first question about the compatibility of recent data with a soft-landing scenario, the evidence is mixed. For instance, the flash PMI survey data for December showed that the major developed economies were collectively close to a standstill. However, details at the country level indicated some differences. In the euro area, the data hinted at a further contraction towards the end of the year. But the data from other regions pointed to modest growth in the UK, Japan, and the US. Responses to a specific query also reflect considerable uncertainty about the global economic outlook. For example, the likelihood of a recession within the next 12 months was placed at 56% for the euro area and 58% for the UK, and just 45% for the US.

On the second and third questions, the picture is equally nuanced. As expected, the ECB left its key policy rates unchanged at its last meeting. But the policy statement, press conference and forecasts suggest the ECB was aiming to be hawkish. A similar conclusion could be drawn from the BoE's last meeting. While UK policy rates were also left unchanged, the voting pattern—three out of nine members voted to increase rates—and subsequent remarks from Governor Bailey suggested that the Bank was aiming to push back against market pricing of interest rate cuts.

Perhaps in light of their recession fears, many of our panelists have arguably not yet heeded these messages. Policy rates are expected to be reduced within the next six to nine months in the euro area and UK. When asked specifically when these central banks would start cutting their respective policy rates, 58% of our panelists opted for Q2 2024 for the ECB, while only 32% opted for Q2 for the BoE. A plurality, 42%, opted for Q3 2024 instead.

The other central bank that's worthy of some focus is the BoJ. While there were few signals at its December meeting that the groundwork is being laid for an imminent change, there remains much speculation about the calibration of monetary policy in 2024. Indeed, the responses to a special question revealed that 16% of our panelists expect a hike in policy rates as soon as Q1 2024 with 37% opting for Q2.

The bottom line from this discussion is that the latest views of Blue Chip panelists, investors and central banks seem to be out of synch. Relatively high recession odds for the euro area and UK, for instance, contrast with the expectation of soft-landing scenarios in financial markets. In the meantime, relatively hawkish overtures from the ECB and BoE, coupled with expectations of some policy normalization from the BoJ, contrast, more recently, with some relatively dovish overtures from the Fed.

As a final thought, 78% of our panelists also believe the outlook for China's economy poses meaningful risks to the outlook for global growth next year. And notwithstanding the heavy use of monetary and fiscal policy tools in 2023, only 35% believe this activism has offered any support to the economy.

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: ¹Monetary policy rates. ²Government bonds are yields to maturity. ³Foreign 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.

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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-----					----- (SAAR) -----											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		B.	C.	D.	E.								
	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		Real GDP	Price Index	Cons. Price Index	PCE Price Index								
J.P. Morgan Chase	5.5	H	na	na	na	na	na	4.4	3.9	3.9	4.1	na	na	na	na	na	1.3	1.9	1.8	1.6								
Barclays	5.4		8.5	H	na	na	na	na	4.3	4.1	4.3	4.5	na	na	na	na	1.5	2.1	2.7	2.2								
BMO Capital Markets	5.4		8.5	H	5.3	5.4	H	5.4	5.3	4.9	4.3	4.0	4.0	4.1	4.9	6.0	4.3	6.8	117.2	0.5	2.4	2.8	2.4					
Chmura Economics & Analytics	5.4		8.5	H	5.4	5.3	5.4	5.4	5.1	4.7	4.2	4.3	4.3	5.0	na	na	6.9	na	-0.2	3.3	H	3.3	3.1					
Comerica Bank	5.4		8.5	H	5.4	na	5.4	5.3	5.1	4.5	4.4	4.5	H	4.7	H	5.4	6.3	na	7.3	H	na	0.5	2.2	2.4	2.5			
EY-Parthenon	5.4		na	na	na	5.3	na	na	na	na	4.1	na	na	na	na	na	na	na	na	0.2	2.3	2.4	2.2	na				
Fannie Mae	5.4		8.5	H	na	na	5.3	5.1	4.7	4.3	3.9	3.9	4.0	na	na	na	na	6.6	na	0.7	1.9	1.7	L	1.5				
GLC Financial Economics	5.4		8.5	H	5.3	5.4	H	5.4	5.3	5.1	4.7	4.6	H	4.5	H	4.7	H	5.5	6.3	4.6	7.1	116.5	0.9	2.6	2.6	2.4		
ING	5.4		na	na	na	na	na	na	4.5	4.2	4.3	4.5	na	na	na	na	na	na	na	0.0	na	na	na	na	na			
KPMG	5.4		8.5	H	5.3	5.3	5.5	5.4	5.2	4.6	4.3	4.3	4.4	5.2	6.3	na	7.2	na	na	1.3	2.0	1.9	1.8	na				
Naroff Economics LLC	5.4		8.4	5.3	5.2	5.5	5.5	5.2	4.3	3.8	3.9	4.0	na	na	na	na	6.9	114.0	0.3	3.3	H	3.4	H	3.0				
Nomura Securities, Inc.	5.4		8.5	H	na	na	na	na	4.4	4.1	4.1	na	na	na	na	na	na	na	na	1.3	1.3	L	1.7	L	1.6			
Oxford Economics	5.4		8.5	H	5.4	na	5.5	5.4	5.2	4.8	H	4.2	4.3	4.5	4.7	L	na	na	7.2	116.2	0.3	2.2	2.4	2.1				
S&P Global Market Intelligence	5.4		8.5	H	5.3	na	5.3	5.2	5.1	4.6	4.1	4.2	4.3	na	na	na	7.0	na	na	1.1	2.1	2.1	1.8	na				
The Northern Trust Company	5.4		8.5	H	5.3	5.4	H	5.5	5.4	5.2	4.8	H	4.5	4.4	4.7	H	5.3	6.4	4.6	7.3	H	117.5	H	0.8	2.3	2.8	2.6	
Wells Fargo	5.4		8.5	H	5.4	5.4	H	5.3	5.0	4.5	L	4.3	4.0	4.0	4.2	5.2	6.2	4.6	6.9	na	1.0	2.3	2.8	2.3	na			
Action Economics	5.3		8.5	H	5.7	H	5.3	5.4	5.3	5.0	4.5	4.2	4.2	4.3	4.8	5.8	4.3	7.3	H	117.3	1.3	2.3	2.6	2.0				
DePrince & Assoc.	5.3		8.4	5.2	5.3	5.4	5.3	5.0	4.5	4.1	4.2	4.3	4.8	5.7	4.0	6.7	116.2	0.7	2.7	2.8	2.6	na	na	na				
Economist Intelligence Unit	5.3		8.3	na	5.4	H	5.5	5.4	5.1	4.7	4.3	4.2	4.2	na	na	na	7.1	na	-0.9	L	na	2.3	na	na				
Georgia State University	5.3		8.4	na	na	5.4	5.2	5.2	4.5	4.2	4.3	4.5	5.4	6.6	H	na	7.2	na	0.3	2.3	1.9	1.9	na	na				
Loomis, Sayles & Company	5.3		8.5	H	5.3	5.3	5.5	5.5	5.2	4.8	H	4.5	4.3	4.4	5.1	6.0	4.4	7.1	116.0	1.7	1.8	1.8	1.5	na	na			
MacroFin Analytics & Rutgers Bus School	5.3		8.5	H	5.3	5.3	5.3	5.3	4.9	4.3	3.9	3.9	4.1	4.9	5.4	L	4.0	6.9	114.2	1.0	2.6	2.8	2.6	na	na			
Moody's Analytics	5.3		8.5	H	5.3	5.4	H	5.1	5.1	5.0	4.8	H	4.5	4.3	4.7	H	5.4	6.5	4.1	7.0	na	1.1	2.5	2.5	2.4			
NatWest Markets	5.3		8.5	H	na	5.4	H	5.6	H	5.7	H	5.8	H	4.5	4.3	4.4	4.7	H	5.7	H	6.6	H	5.1	H	6.9	na		
PNC Financial Services Corp.	5.3		8.5	H	5.3	na	5.3	5.3	5.0	4.6	4.3	4.3	4.5	na	6.4	4.4	7.1	117.0	0.7	2.2	2.1	1.8	na	na	na			
Regions Financial Corporation	5.3		8.3	5.3	5.3	5.4	5.3	4.9	4.2	L	3.9	3.9	4.0	4.9	5.7	4.1	6.7	114.1	1.3	2.2	2.1	2.1	na	na	na			
Santander Capital Markets	5.3		8.5	H	5.3	5.3	5.4	5.3	5.1	4.6	4.1	4.1	4.3	5.0	5.9	3.6	L	6.9	115.5	1.7	3.1	3.0	2.5	na	na			
Societe Generale	5.3		8.5	H	5.3	na	5.3	5.1	4.6	4.2	L	4.1	4.1	4.3	na	na	na	na	na	0.5	1.8	2.2	2.7	na	na			
The Lonski Group	5.3		8.5	H	5.3	5.4	H	5.3	5.4	4.8	4.3	3.7	L	3.8	L	4.0	4.9	5.6	3.9	6.5	115.0	0.4	2.2	1.8	2.0	na	na	
Via Nova Investment Mgt.	5.3		8.5	H	5.4	5.4	H	5.3	5.3	4.2	L	3.9	3.9	3.9	L	5.0	5.7	3.9	6.7	113.0	2.5	H	2.1	2.1	2.1	na	na	
Bank of America	5.1		na	na	na	na	na	na	4.8	H	4.5	4.4	4.7	H	na	na	na	na	na	1.0	2.6	2.2	2.3	na	na	na		
Chan Economics	5.1		8.1	5.0	5.0	5.1	5.2	5.0	4.5	4.0	4.1	4.3	5.3	6.3	4.7	6.9	114.0	2.0	2.3	2.5	2.4	na	na	na	na			
TS Lombard	4.8	L	7.9	L	4.8	L	4.7	L	4.8	L	4.5	L	4.3	4.2	4.3	4.4	5.1	6.0	4.3	6.1	L	110.0	L	0.2	3.2	3.2	3.2	H
January Consensus	5.3	8.4	5.3	5.3	5.4	5.3	5.0	4.5	4.2	4.2	4.3	5.1	6.1	4.3	6.9	115.2	0.9	2.3	2.4	2.2								
Top 10 Avg.	5.4	8.5	5.4	5.4	5.5	5.4	5.3	4.7	4.4	4.4	4.6	5.4	6.4	4.5	7.2	116.4	1.6	2.8	3.0	2.7								
Bottom 10 Avg.	5.2	8.3	5.2	5.2	5.2	5.1	4.8	4.3	3.9	3.9	4.1	4.9	5.8	4.1	6.7	114.2	0.1	1.9	1.9	1.7								
December Consensus	5.4	8.5	5.3	5.4	5.4	5.3	5.2	4.8	4.5	4.5	4.7	5.5	6.4	4.7	7.3	116.3	0.7	2.4	2.5	2.4								
Number of Forecasts Changed From A Month Ago:																												
Down	5	7	7	8	11	16	18	24	26	27	24	16	15	14	22	12	3	14	16	16								
Same	25	19	16	10	15	9	7	7	6	6	7	4	4	2	3	2	14	13	10	12								
Up	3	1	0	2	2	2	2	1	0	0	0	1	1	1	1	2	16	4	6	3								
Diffusion Index	47%	39%	35%	35%	34%	24%	20%	14%	9%	9%	11%	14%	15%	12%	10%	19%	70%	34%	34%	29%								

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Second 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)----- ------(SAAR)-----											
	-----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		Fed's Adv Fgn Econ \$ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index							
BMO Capital Markets	5.4	H	8.5	H	5.3	5.4	5.4	5.3	4.8	4.1	4.0	3.9	4.1	4.9	5.9	4.3	6.7	117.1	0.8	2.3	2.6	2.3						
J.P. Morgan Chase	5.4	H	na		na	na	na	na	4.2	3.8	3.9	4.2	na	na	na	na	na	na	0.5	2.0	1.8	1.5						
Oxford Economics	5.4	H	8.5	H	5.4	na	5.4	5.4	5.2	H	4.7	4.1	4.2	4.4	4.6	L	na	na	7.1	116.3	0.3	2.2	2.3	2.1				
The Northern Trust Company	5.4	H	8.5	H	5.3	5.5	H	5.4	5.3	5.2	H	4.7	4.4	H	4.3	4.6	5.3	6.4	4.6	7.1	116.0	0.9	2.3	2.5	2.4			
Action Economics	5.3		8.4	5.8	H	5.3	5.2	5.1	4.8	4.4	4.2	4.2	4.3	4.8	5.8	4.3	7.3	H	116.5	1.0	1.8	2.1	1.5					
Chmura Economics & Analytics	5.3		8.4	5.3		5.3	5.3	5.4	5.2	H	4.8	H	4.4	H	4.4	H	4.5	5.1	na	na	6.8	na	-0.5	3.0	3.0	2.9		
Comerica Bank	5.3		8.5	H	5.3	na	5.3	5.2	4.8	4.1	4.1	4.2	4.5	5.2	6.1	na	na	6.8	na	na	1.0	2.1	2.0	2.2				
Loomis, Sayles & Company	5.3		8.5	H	5.3	5.3	5.5	H	5.5	H	5.1	4.3	4.3	4.0	4.2	4.8	5.8	4.1	6.7	115.2	1.0	2.4	2.6	2.2				
MacroFin Analytics & Rutgers Bus School	5.3		8.5	H	5.3	5.3	5.2	5.3	4.8	4.3	3.8	3.9	4.0	4.8	5.4	L	4.0	6.8	114.0	1.0	2.3	2.5	2.5					
Moody's Analytics	5.3		8.5	H	5.3	5.2	5.0	4.9	4.9	4.7	4.4	H	4.2	4.6	5.5	H	6.6	4.2	6.8	na	1.2	2.0	2.8	2.4				
Naroff Economics LLC	5.3		8.4	5.2	5.2	5.4	5.4	5.1	4.3	3.8	3.9	4.0	na	na	na	na	6.7	113.5	2.1	3.0	3.1	2.9						
PNC Financial Services Corp.	5.3		8.5	H	5.3	na	5.2	5.2	5.0	4.5	4.4	H	4.4	H	4.6	na	7.0	H	5.4	H	7.2	117.8	H	0.0	1.8	1.5	1.4	L
S&P Global Market Intelligence	5.3		8.4	5.3	na	5.2	4.9	4.8	4.3	3.9	4.1	4.2	na	na	na	na	6.8	na	na	0.6	2.6	2.7	2.5					
Santander Capital Markets	5.3		8.5	H	5.3	5.3	5.4	5.2	5.0	4.7	4.3	4.3	4.5	5.2	6.2	3.8	L	7.1	115.0	1.3	2.9	2.9	2.6					
Economist Intelligence Unit	5.2		8.2	na	5.2	5.3	5.2	4.8	4.5	4.1	4.1	4.0	na	na	na	na	6.9	na	na	0.5	na	2.3	na					
Fannie Mae	5.2		8.3	na	na	na	4.9	4.7	4.4	4.1	3.8	3.9	4.0	na	na	na	na	6.4	na	-1.4	2.2	1.8	1.9					
GLC Financial Economics	5.2		8.3	5.2	5.1	5.1	5.0	4.8	4.4	4.3	4.3	4.5	5.2	6.3	4.5	6.9	115.0	1.2	2.4	2.4	2.2							
KPMG	5.2		8.3	5.1	5.0	5.2	4.9	4.6	4.1	3.8	4.0	4.2	4.9	6.0	na	na	6.8	na	na	0.7	2.7	2.9	2.7					
Barclays	5.1		8.3	na	na	na	na	na	4.1	4.0	4.3	4.6	na	na	na	na	na	na	na	1.0	2.4	2.4	2.1					
EY-Parthenon	5.1		na	na	na	5.0	na	na	na	na	3.9	na	na	na	na	na	na	na	na	0.8	2.3	1.9	2.1					
Nomura Securities, Inc.	5.1		8.3	na	na	na	na	na	4.1	3.9	4.0	na	na	na	na	na	na	na	na	1.4	1.5	1.5	1.9					
Societe Generale	5.1		8.3	5.1	na	4.9	4.6	4.1	3.8	4.0	4.0	4.2	na	na	na	na	na	na	na	-1.6	1.8	2.2	1.6					
Wells Fargo	5.1		8.3	5.1	5.1	4.7	4.2	3.8	3.7	3.7	3.8	4.0	5.0	6.0	4.4	6.6	na	na	-0.3	1.6	1.7	1.6						
Regions Financial Corporation	5.0		8.0	5.0	5.1	5.1	5.1	4.7	4.0	3.8	3.8	4.0	4.8	5.8	4.0	6.6	113.8	1.5	2.6	2.4	2.3							
Via Nova Investment Mgt.	5.0		8.3	5.1	5.1	5.0	5.0	5.0	4.0	3.9	3.9	3.9	L	5.0	5.7	3.9	6.7	114.0	2.5	H	2.1	2.1	2.1					
Bank of America	4.9		na	na	na	na	na	na	4.5	4.4	H	4.3	4.7	H	na	na	na	na	na	1.0	2.5	2.7	2.4					
Chan Economics	4.9		7.9	4.8	4.8	4.9	5.0	4.8	4.3	3.8	3.9	4.1	5.1	6.1	4.5	6.7	113.8	1.0	2.2	2.4	2.4							
DePrince & Assoc.	4.9		8.0	4.8	4.9	5.0	5.0	4.7	4.2	3.9	4.1	4.3	4.9	5.8	4.2	6.5	116.7	1.0	2.5	2.6	2.5							
ING	4.9		na	na	na	na	na	na	4.1	4.0	4.0	4.4	na	na	na	na	na	na	na	-2.0	L	na	na	na				
The Lonski Group	4.9		8.1	4.9	5.0	4.9	5.0	4.5	4.1	3.6	L	3.7	L	3.9	L	4.9	5.6	3.9	6.4	116.0	0.2	2.3	2.3	1.8				
Georgia State University	4.5		7.6	na	na	4.5	4.2	4.1	3.9	4.0	4.0	4.4	5.2	6.3	na	7.1	na	na	-0.5	2.8	2.7	2.6						
NatWest Markets	4.3		7.5	na	4.4	4.6	4.7	4.8	3.6	L	3.8	4.3	4.7	H	5.2	6.1	4.9	6.7	na	-1.5	1.3	L	1.3	L	1.6			
TS Lombard	3.5	L	6.6	L	3.5	L	3.4	L	3.5	L	3.6	L	3.8	3.9	4.0	4.1	4.9	5.7	4.0	5.8	L	108.0	L	0.4	3.2	H	3.2	H
January Consensus	5.1		8.2	5.1	5.1	5.1	5.0	4.7	4.2	4.0	4.1	4.3	5.0	6.0	4.3	6.8	114.9	0.5	2.3	2.4	2.2							
Top 10 Avg.	5.3		8.5	5.4	5.3	5.4	5.3	5.1	4.6	4.3	4.3	4.6	5.2	6.3	4.5	7.0	116.2	1.4	2.8	2.9	2.7							
Bottom 10 Avg.	4.7		7.9	4.9	4.8	4.7	4.6	4.3	3.9	3.8	3.9	4.0	4.8	5.8	4.0	6.5	113.8	-0.7	1.8	1.8	1.7							
December Consensus	5.2		8.3	5.2	5.1	5.1	5.1	4.9	4.5	4.3	4.3	4.5	5.3	6.4	4.6	7.1	115.9	0.3	2.3	2.3	2.2							
Number of Forecasts Changed From A Month Ago:																												
Down	12		8	5	7	11	12	17	21	22	25	23	16	15	14	21	11	3	13	12	13							
Same	17		16	15	11	13	13	7	9	9	7	7	4	4	2	4	2	18	15	11	14							
Up	4		3	3	2	4	2	3	2	1	1	1	1	1	1	1	3	12	3	9	4							
Diffusion Index	38%		41%	46%	38%	38%	31%	24%	20%	17%	14%	15%	14%	15%	12%	12%	25%	64%	34%	45%	35%							

Key Assumptions

Diffusion Index

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Fourth Quarter 2024

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr.-- Fed's Adv Fgn Econ \$ Index	(Q-Q % Change)																
	Short-Term					Intermediate-Term					Long-Term						(SAAR)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		A.	B.	C.	D.	E.												
	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	Real GDP	Price Index	Cons. Price Index	PCE Price Index												
Santander Capital Markets	5.1	H	8.3	H	5.1	5.0	H	4.7	4.6	4.5	4.4	4.2	4.1	4.4	5.3	6.4	3.6	L	6.8	113.0	1.1	2.5	2.5	2.1									
Loomis, Sayles & Company	5.0		8.2		5.0	5.0	H	5.1	H	5.0	H	4.6	3.9	4.0	3.6	3.7	4.4	5.4	3.7	6.0	114.8	-2.2	L	1.9	1.9	1.6							
Oxford Economics	5.0		8.2		5.0	na		5.0		4.9	4.8	H	4.3	3.7	4.0	4.2	4.1	L	na	na	6.9	114.9	0.7	2.7	2.5	2.2							
PNC Financial Services Corp.	4.9		8.1		4.9	na		4.6		4.5	4.5		4.4	4.6	H	4.7	H	4.9	H	na	7.1	H	5.7	H	7.3	H	119.8	H	-1.2	1.8	1.8	L	1.7
Action Economics	4.8		7.9		5.3	H	4.8		4.7		4.6		4.3	4.2	4.1	4.1	4.3	4.8	5.8	4.3	7.3	H	116.8	1.4	1.5	L	2.4	1.8					
Comerica Bank	4.8		8.0		4.8	na		4.7		4.5	4.0		3.5	3.5	3.7	4.0	4.7	5.6	na	6.0	na	1.5	2.0	2.1	2.2								
Economist Intelligence Unit	4.8		7.8		na		4.7		4.8		4.6		4.5	4.3	3.8	3.7	3.8	na	na	na	6.5	na	1.2	na	2.1	na							
J.P. Morgan Chase	4.8		na		na	na		na	na	na	3.5		3.5	3.7	4.2	na	na	na	na	na	na	0.8	2.3	2.5	2.1								
Moody's Analytics	4.8		7.9		4.7		4.7		4.5		4.5		4.3	4.2	4.1	4.6	5.6	H	6.6	4.3	6.5	na	1.5	1.9	2.4	2.4							
S&P Global Market Intelligence	4.8		7.9		4.8	na		4.5		4.3	4.1		3.8	3.5	3.7	3.9	na	na	na	na	6.1	na	1.4	2.2	1.9	2.0							
Barclays	4.6		7.8		na	na		na	na	na	3.8		4.0	4.4	4.6	na	na	na	na	na	na	na	1.0	2.7	2.3	2.3							
BMO Capital Markets	4.6		7.8		4.6		4.7		4.7		4.7		4.3	3.9	3.8	3.8	4.1	5.0	6.0	4.4	6.5	116.7	1.5	2.2	2.3	2.1							
Fannie Mae	4.6		7.7		na	na		4.1		4.0	3.9		3.8	3.7	3.8	4.0	na	na	na	na	6.0	na	0.4	2.2	2.8	2.3							
MacroFin Analytics & Rutgers Bus School	4.6		7.8		4.6		4.6		4.5		4.6		4.6	4.1	3.7	3.8	3.9	4.7	5.3	L	3.9	6.7	113.6	1.6	2.2	2.1	2.2						
The Northern Trust Company	4.6		7.8		4.6		4.7		4.5		4.3		4.2	3.9	4.2	4.1	4.4	5.3	6.4	4.5	6.6	114.0	1.4	2.2	2.2	2.2							
Chmura Economics & Analytics	4.5		7.7		4.5		4.6		4.6		4.7	H	4.7	H	4.5	4.5	4.6	5.1	na	na	6.4	na	1.8	2.8	2.8	2.5							
EY-Parthenon	4.5		na		na	na		4.5	na	na	na		na	na	3.7	na	na	na	na	na	na	na	1.8	2.1	2.1	2.1							
GLC Financial Economics	4.5		7.6		4.5		4.4		4.4		4.4		4.2	3.9	4.0	4.1	4.4	5.0	6.1	4.4	6.5	115.8	1.6	2.2	2.2	2.2							
Via Nova Investment Mgt.	4.5		7.8		4.6		4.6		4.5		4.5		4.5	3.9	3.9	3.9	3.9	5.0	5.7	3.9	6.7	110.0	L	2.5	2.1	2.0	2.1						
Bank of America	4.4		na		na	na		na	na	na	4.0		4.2	4.3	4.3	4.8	na	na	na	na	na	na	1.5	2.3	1.9	1.9							
Chan Economics	4.4		7.4		4.3		4.3		4.4		4.5		4.3	3.8	3.3	3.4	L	3.6	L	4.6	5.6	4.0	6.2	113.5	0.8	2.1	2.3	1.9					
KPMG	4.4		7.5		4.4		4.0		4.3		4.2		4.0	3.7	3.5	3.6	3.9	4.5	5.7	na	6.0	na	1.8	2.2	1.9	2.0							
Naroff Economics LLC	4.4		7.4		4.3		4.4		4.5		4.5		4.7	4.3	3.7	3.8	3.9	na	na	na	6.2	113.8	2.2	2.5	2.5	2.6							
Nomura Securities, Inc.	4.4		7.5		na	na		na	na	na	3.0	L	3.1	L	3.5	na	na	na	na	na	na	na	-1.9	1.5	L	1.9	2.1						
Regions Financial Corporation	4.4		7.4		4.4		4.5		4.5		4.4		4.4	3.7	3.6	3.6	3.8	4.6	5.6	3.9	6.3	113.4	2.1	2.4	2.6	2.4							
Societe Generale	4.2		7.3		4.2		na		3.9		3.6		3.3	3.2	3.7	3.8	4.1	na	na	na	na	na	4.1	H	1.8	2.2	1.4	L					
DePrince & Assoc.	4.0		7.1		3.9		4.0		4.0		4.1		3.9	3.6	3.6	3.9	4.2	5.0	5.9	4.3	6.1	116.1	1.9	2.5	2.6	2.5							
ING	3.9		na		na	na		na	na	na	3.3		3.4	3.5	3.9	3.9	na	na	na	na	na	na	1.0	na	na	na							
The Lonski Group	3.9		7.1		3.9		4.0		3.9		4.0		3.9	3.9	3.4	3.6	3.8	4.7	5.4	3.7	6.1	116.7	1.5	2.1	2.0	1.8							
Georgia State University	3.6		6.8		na	na		3.5		3.2		3.1	L	3.4	3.4	3.7	4.0	4.7	5.9	na	6.6	na	0.8	2.2	2.0	2.0							
TS Lombard	3.5		6.6		3.5		3.5		3.4		3.5		3.6	3.8	3.9	4.0	4.1	4.9	5.7	4.0	5.8	L	112.0	2.0	3.2	H	3.2	H	3.2	H			
Wells Fargo	3.4		6.5		3.4	L	3.4		3.2	L	3.1	L	3.1	L	3.2	3.3	3.5	3.8	4.7	5.7	4.1	6.0	na	0.4	2.3	2.6	2.3						
NatWest Markets	3.1	L	6.3	L	na		3.2	L	3.4		3.5		3.6	3.1	3.4	4.0	4.6	4.8	5.7	4.5	6.3	na	1.5	2.0	2.7	2.5							
January Consensus	4.4		7.6		4.5		4.4		4.3		4.3		4.2	3.8	3.8	3.9	4.1	4.8	5.9	4.2	6.4	114.7	1.2	2.2	2.3	2.2							
Top 10 Avg.	4.9		8.0		4.9		4.7		4.7		4.7		4.6	4.3	4.2	4.2	4.6	5.1	6.2	4.5	6.8	115.9	2.2	2.6	2.7	2.5							
Bottom 10 Avg.	3.8		7.0		4.1		4.0		3.8		3.8		3.6	3.4	3.4	3.6	3.8	4.6	5.6	3.9	6.0	113.3	0.0	1.9	1.9	1.8							
December Consensus	4.6		7.7		4.6		4.5		4.5		4.4		4.3	4.0	4.0	4.1	4.4	5.1	6.2	4.5	6.7	115.7	1.2	2.2	2.3	2.2							
Number of Forecasts Changed From A Month Ago:																																	
Down	16		12		10		10		12		13		12	16	18	20	18	12	10	9	14	13	7	8	8	10							
Same	14		12		10		7		11		9		10	11	12	11	10	6	7	6	8	2	21	16	15	13							
Up	3		3		3		3		5		5		5	5	2	2	3	3	3	2	4	1	5	7	9	8							
Diffusion Index	30%		33%		35%		33%		38%		35%		37%	33%	25%	23%	26%	29%	33%	29%	31%	13%	47%	48%	52%	47%							

First Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	-----Percent Per Annum -- Average For Quarter-----															Avg. For --Qtr-- A.	----- (Q-Q % Change) ----- (SAAR)											
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----						Fed's Adv Fgn Econ \$ Index	B. Real GDP	C. GDP 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. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate													
	H	H	H	H	H	H	H	H	H	H	H	L	L	L	L													
Oxford Economics	4.8	H	8.0	H	4.8	na	4.7	H	4.7	H	4.6	H	4.2	3.4	3.9	3.9	4.0	L	na	na	6.7	113.5	1.3	2.2	1.4	2.1		
Economist Intelligence Unit	4.6		7.6		na	4.5	4.6		4.4	4.3	4.2		3.6	3.6	3.7	3.7	na	na	na	na	6.3	na	1.9	na	2.2	na		
Santander Capital Markets	4.6		7.8		4.6	H	4.2		4.1	4.0	4.0		3.8	3.8	4.1	4.9	6.0	3.3	L	6.4	112.0	1.3	2.8	2.4	2.1			
Action Economics	4.5		7.7		5.1	H	4.5		4.5	4.3	4.1		4.0	4.1	4.1	4.2	4.7	5.7	4.2	7.2	117.0	1.6	1.6	L	2.4	1.8		
Loomis, Sayles & Company	4.5		7.7		4.5		4.5		4.6	4.5	4.3		3.8	4.0	3.5	3.7	4.3	5.3	L	3.6	5.8	L	114.7	1.0	2.1	2.5	2.0	
Moody's Analytics	4.5		7.7		4.5		4.4		4.3	4.2	4.3		4.2	4.1	4.1	4.6	5.6	H	6.6	4.3	6.4	na	1.6	2.2	2.3	2.3		
Barclays	4.4		7.5		na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.0	2.8	2.6	2.5		
Comerica Bank	4.4		7.5		4.4	na	4.2		4.1	3.6	3.1		3.3	3.5	3.9	4.7	5.5	na	na	5.8	L	na	1.5	1.9	2.0	2.0		
Fannie Mae	4.4		7.5		na	na	3.9		3.9	3.8	3.7		3.7	3.8	4.0	na	na	na	na	5.9	na	na	1.3	2.2	2.8	2.3		
GLC Financial Economics	4.4		7.5		4.4		4.3		4.3	4.2	4.2		3.9	3.8	3.9	4.2	4.9	6.1	4.4	6.3	115.5	2.0	2.1	2.1	2.1			
PNC Financial Services Corp.	4.4		7.6		4.4	na	4.1		4.1	4.2	4.4	H	4.7	H	4.9	H	5.2	H	na	7.4	H	120.7	H	-0.2	L	2.0	1.9	1.7
S&P Global Market Intelligence	4.4		7.5		4.4	na	4.1		3.9	3.8	3.5		3.3	3.6	3.8	na	na	na	na	5.8	L	na	1.4	2.2	1.2	1.7		
BMO Capital Markets	4.3		7.4		4.2		4.3		4.4	4.3	4.1		3.7	3.7	3.7	4.0	4.8	5.9	4.1	6.5	116.5	1.7	2.1	2.2	2.1			
J.P. Morgan Chase	4.3		na		na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.0	2.3	2.5	2.1		
Regions Financial Corporation	4.3		7.3		4.2		4.3		4.3	4.3	3.5		3.5	3.5	3.5	3.8	4.5	5.5	3.9	6.2	113.5	2.4	2.5	2.4	2.3			
Via Nova Investment Mgt.	4.3		7.5		4.3		4.4		4.2	4.3	4.4		3.9	4.1	4.1	4.1	5.2	5.8	4.1	6.9	110.0	L	2.5	2.0	2.0	2.1		
Chmura Economics & Analytics	4.2		7.3		4.2		4.2		4.3	4.4	4.4	H	4.5	4.5	4.5	4.6	5.1	na	na	6.2	na	2.7	2.5	2.6	2.4			
KPMG	4.2		7.3		4.1		3.8		4.0	3.9	3.7		3.4	3.3	3.5	3.9	4.4	5.7	na	5.8	L	na	1.4	2.1	1.1	L	1.7	
Bank of America	4.1		na		na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.0	2.6	2.4	2.3		
Chan Economics	4.1		7.1		4.0		4.0		4.1	4.2	4.0		3.5	3.0	3.1	L	3.3	L	4.3	5.3	L	3.7	5.9	113.2	1.5	2.0	2.2	1.8
MacroFin Analytics & Rutgers Bus School	4.1		7.3		4.1		4.1		4.0	4.1	4.2		4.0	3.7	3.7	3.8	4.7	5.3	L	3.9	6.7	113.4	2.0	2.0	2.0	2.0		
The Northern Trust Company	4.1		7.3		4.1		4.2		4.0	3.8	3.8		3.8	3.9	4.1	4.4	5.3	6.4	4.5	6.6	112.0	1.5	2.1	2.1	2.1			
EY-Parthenon	4.0		na		na	na	3.9		na	na	na	na	na	3.6	na	na	na	na	na	na	na	na	2.3	2.0	2.1	2.1		
Naroff Economics LLC	3.9		6.9		3.8		3.9		4.0	4.2	4.4		4.2	3.7	3.8	4.0	na	na	na	6.0	114.4	3.0	2.4	2.4	2.3			
Nomura Securities, Inc.	3.9		7.0		na	na	na	na	na	2.8	L		3.1	3.5	na	na	na	na	na	na	na	na	0.4	1.6	L	2.4	2.3	
DePrince & Assoc.	3.6		6.8		3.6		3.7		3.7	3.8	3.6		3.3	3.5	3.9	4.2	5.0	5.9	4.3	6.0	115.9	2.0	2.5	2.6	2.5			
Georgia State University	3.6		6.7		na	na	3.4		3.1	L	3.1	L	3.3	3.3	3.5	4.0	4.7	5.8	na	6.2	na	1.8	1.9	1.5	1.4			
Societe Generale	3.6		6.8		3.6	na	3.4		3.2	3.1	L	3.1	2.9	L	3.4	3.7	na	na	na	na	na	4.0	H	2.0	2.2	1.4		
The Lonski Group	3.5		6.7		3.5		3.6		3.5	3.6	3.6		3.4	3.5	3.7	4.7	5.3	L	3.7	5.8	L	116.6	1.9	2.2	1.4	1.9		
TS Lombard	3.5		6.6		3.5		3.5		3.4	3.5	3.6		3.8	3.9	4.0	4.1	4.9	5.7	4.0	5.8	L	112.0	2.5	3.0	H	3.0	H	
ING	3.4		na		na	na	na	na	na	3.2	3.4		3.5	3.9	na	na	na	na	na	na	na	na	1.5	na	na	na	na	
NatWest Markets	3.1	L	6.3	L	na		3.2		3.4	3.5	3.6		na	na	na	na	na	na	na	na	na	na	2.0	1.8	1.4	1.3	L	
Wells Fargo	3.1	L	6.3	L	3.2	L	3.1	L	3.1	L	3.1	L	3.1	3.3	3.5	3.8	4.7	5.7	4.1	5.9	na	na	2.0	2.5	2.9	2.5		
January Consensus	4.1	7.2	4.2	4.1	4.0	4.0	3.9	3.7	3.6	3.8	4.0	4.8	5.8	4.1	6.3	114.4	1.8	2.2	2.2	2.1								
Top 10 Avg.	4.5	7.7	4.5	4.4	4.4	4.4	4.3	4.2	4.1	4.2	4.4	5.0	6.1	4.4	6.7	115.8	2.5	2.6	2.6	2.4								
Bottom 10 Avg.	3.5	6.7	3.8	3.7	3.6	3.5	3.5	3.2	3.2	3.5	3.7	4.5	5.5	3.8	5.9	112.9	1.0	1.9	1.6	1.7								
December Consensus	4.2	7.4	4.3	4.2	4.2	4.1	4.1	3.9	3.8	4.0	4.3	5.0	6.1	4.4	6.5	115.7	1.7	2.2	2.2	2.1								
Number of Forecasts Changed From A Month Ago:																												
Down	14	12	8	7	12	12	12	17	14	18	15	12	11	10	13	13	5	8	11	11								
Same	16	12	11	9	13	13	11	8	10	7	7	5	4	2	7	1	19	16	14	17								
Up	3	3	4	4	3	2	4	3	4	4	5	3	4	4	5	2	9	7	7	3								
Diffusion Index	33%	33%	41%	43%	34%	31%	35%	25%	32%	26%	31%	28%	32%	31%	34%	16%	56%	48%	44%	37%								

Key Assumptions

[illegible]

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	5.38	5.13	--
BMO Capital Markets	5.38	5.38	4.38
ING Financial Markets	5.38	4.88	3.88
Moody's Analytics	5.37	5.37	5.09
Northern Trust	5.38	5.38	4.63
Oxford Economics	5.38	5.38	5.04
TS Lombard	4.75	3.50	3.50
Wells Fargo	5.38	5.13	3.38
January Consensus	5.30	5.02	4.27
High	5.38	5.38	5.09
Low	4.75	3.50	3.38
Last Months Avg.	5.28	5.06	4.52

Blue Chip Forecasters	Policy-Rate Balance Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.00	0.10	--
BMO Capital Markets	-0.10	-0.10	-0.10
ING Financial Markets	-0.10	0.00	0.00
Moody's Analytics	-0.10	-0.10	0.00
Nomura Securities	--	--	--
Northern Trust	-0.10	0.00	0.20
Oxford Economics	--	--	--
S&P Global Market Intelligence	--	--	--
TS Lombard	0.00	0.00	-0.10
Wells Fargo	-0.10	0.00	0.00
January Consensus	-0.07	-0.01	0.00
High	0.00	0.10	0.20
Low	-0.10	-0.10	-0.10
Last Months Avg.	-0.08	-0.06	0.01

Blue Chip Forecasters	Official Bank Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.25	5.25	--
BMO Capital Markets	5.25	5.00	4.50
ING Financial Markets	5.25	5.25	4.25
Moody's Analytics	5.25	5.25	5.06
Nomura Securities	--	--	--
Northern Trust	5.25	5.25	4.75
Oxford Economics	5.25	5.25	4.85
S&P Global Market Intelligence	--	--	--
TS Lombard	5.25	4.25	2.25
Wells Fargo	5.25	5.25	3.75
January Consensus	5.25	5.09	4.20
High	5.25	5.25	5.06
Low	5.25	4.25	2.25
Last Months Avg.	5.25	5.01	4.25

Blue Chip Forecasters	SNB Policy Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	1.75	1.75	--
BMO Capital Markets	1.75	1.75	1.75
ING Financial Markets	1.75	1.75	1.75
Moody's Analytics	1.75	1.75	1.50
Nomura Securities	--	--	--
Northern Trust	1.75	1.50	1.25
Oxford Economics	1.75	1.75	1.38
S&P Global Market Intelligence	--	--	--
TS Lombard	1.75	1.50	1.25
Wells Fargo	1.75	1.50	1.00
January Consensus	1.75	1.66	1.41
High	1.75	1.75	1.75
Low	1.75	1.50	1.00
Last Months Avg.	1.78	1.72	1.55

Blue Chip Forecasters	O/N MMkt Financing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.00	4.75	--
BMO Capital Markets	5.00	4.75	4.00
ING Financial Markets	5.00	4.50	3.50
Moody's Analytics	5.00	4.93	3.99
Nomura Securities	--	--	--
Northern Trust	5.00	5.00	4.25
Oxford Economics	5.00	4.88	4.38
S&P Global Market Intelligence	--	--	--
TS Lombard	5.00	4.00	2.75
Wells Fargo	5.00	4.50	3.50
January Consensus	5.00	4.66	3.77
High	5.00	5.00	4.38
Low	5.00	4.00	2.75
Last Months Avg.	5.03	4.78	4.12

United States			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.27	4.32	--	
3.98	3.89	3.74	
4.25	4.00	3.50	
4.58	4.35	4.15	
4.40	4.30	4.10	
4.27	4.18	4.00	
4.25	4.00	4.00	
4.25	3.80	3.50	
4.26	4.09	3.83	
4.58	4.35	4.15	
3.98	3.80	3.50	
4.54	4.33	4.03	

Japan			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.92	0.97	--	
0.85	0.90	1.00	
1.00	1.00	1.20	
0.77	0.88	0.90	
--	--	--	
0.75	0.85	0.95	
0.76	0.79	0.73	
--	--	--	
0.65	0.40	0.40	
0.90	0.90	0.75	
0.83	0.84	0.85	
1.00	1.00	1.20	
0.65	0.40	0.40	
0.88	0.86	0.90	

United Kingdom			
10 Yr. Gilt Yields %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.10	4.07	--	
4.09	3.98	3.75	
4.25	4.25	3.50	
4.26	3.93	3.73	
--	--	--	
3.70	3.60	3.40	
4.05	4.04	3.99	
--	--	--	
4.10	3.85	3.85	
3.90	3.80	3.30	
4.06	3.94	3.65	
4.26	4.25	3.99	
3.70	3.60	3.30	
4.25	4.12	3.87	

Switzerland			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
--	--	--	
1.10	1.10	1.10	
1.10	1.69	1.93	
--	--	--	
0.75	0.65	0.55	
1.00	1.15	1.32	
--	--	--	
0.80	0.55	0.55	
--	--	--	
0.95	1.03	1.09	
1.10	1.69	1.93	
0.75	0.55	0.55	
1.10	1.17	1.19	

Canada			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
3.16	3.09	3.00	
3.50	3.25	3.00	
3.91	4.15	4.06	
--	--	--	
3.30	3.20	3.00	
3.59	3.67	3.60	
--	--	--	
3.50	2.25	2.25	
3.35	3.25	3.10	
3.47	3.27	3.14	
3.91	4.15	4.06	
3.16	2.25	2.25	
3.78	3.52	3.37	

Fed's AFE \$ Index			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
117.2	117.0	116.7	
116.2	114.0	109.1	
--	--	--	
117.5	116.0	112.0	
116.2	116.3	114.9	
110.0	108.0	112.0	
--	--	--	
115.4	114.3	112.9	
117.5	117.0	116.7	
110.0	108.0	109.1	
115.9	114.9	113.6	

Yen per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
152.7	151.0	--	
143.0	142.0	140.0	
140.0	135.0	130.0	
148.2	144.0	133.6	
142.0	140.0	135.0	
149.0	146.0	140.0	
146.2	146.5	140.8	
140.4	136.4	130.9	
145.0	142.4	147.6	
--	--	--	
145.2	142.6	137.2	
152.7	151.0	147.6	
140.0	135.0	130.0	
148.1	145.4	139.8	

US\$ per Pound Sterling			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.22	1.24	--	
1.27	1.27	1.28	
1.23	1.24	1.28	
1.25	1.26	1.26	
1.27	1.28	1.30	
1.24	1.26	1.30	
1.26	1.26	1.26	
1.25	1.25	1.27	
1.27	1.20	1.15	
--	--	--	
1.25	1.25	1.26	
1.27	1.28	1.30	
1.22	1.20	1.15	
1.24	1.24	1.26	

CHF per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.91	0.92	--	
0.87	0.86	0.80	
0.91	0.90	0.87	
0.87	0.86	0.82	
0.88	0.87	0.86	
0.89	0.87	0.85	
0.88	0.89	0.90	
0.87	0.87	0.87	
0.90	0.90	0.90	
--	--	--	
0.89	0.88	0.86	
0.91	0.92	0.90	
0.87	0.86	0.80	
0.90	0.89	0.88	

C\$ per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.39	1.38	--	
1.35	1.34	1.33	
1.35	1.33	1.27	
1.35	1.32	1.26	
1.34	1.33	1.31	
1.38	1.34	1.30	
1.37	1.37	1.34	
1.34	1.33	1.30	
1.35	1.35	1.35	
--	--	--	
1.36	1.34	1.31	
1.39	1.38	1.35	
1.34	1.32	1.26	
1.36	1.34	1.31	

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	4.35	--
BMO Capital Markets	4.35	4.10	3.60
ING Financial Markets	4.35	4.10	3.60
Moody's Analytics	4.20	4.35	4.10
Nomura Securities	--	--	--
Northern Trust	4.35	4.35	3.85
Oxford Economics	4.48	4.60	4.48
S&P Global Market Intelligence	--	--	--
TS Lombard	4.10	3.75	2.75
Wells Fargo	4.35	4.35	3.85
January Consensus	4.32	4.24	3.75
High	4.48	4.60	4.48
Low	4.10	3.75	2.75
Last Months Avg.	4.32	4.24	3.81

Australia		
10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.
--	--	--
--	--	--
4.80	4.30	3.70
4.62	4.81	4.34
--	--	--
4.20	4.10	3.90
4.55	4.45	4.14
--	--	--
4.40	3.20	3.20
--	--	--
4.51	4.17	3.86
4.80	4.81	4.34
4.20	3.20	3.20
4.70	4.33	3.95

US\$ per A\$		
In 3 Mo.	In 6 Mo.	In 12 Mo.
--	--	--
0.67	0.67	0.67
0.63	0.66	0.72
0.64	0.66	0.71
0.68	0.69	0.71
0.64	0.66	0.68
0.66	0.67	0.68
0.66	0.67	0.69
0.65	0.65	0.65
--	--	--
0.65	0.67	0.69
0.68	0.69	0.72
0.63	0.65	0.65
0.65	0.66	0.69

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	4.25	3.75	--
BMO Capital Markets	4.50	4.25	3.75
ING Financial Markets	4.50	4.25	3.75
Moody's Analytics	4.50	4.50	4.03
Nomura Securities	--	--	--
Northern Trust	4.50	4.25	3.25
Oxford Economics	4.50	4.21	3.24
S&P Global Market Intelligence	--	--	--
TS Lombard	4.00	2.75	2.75
Wells Fargo	4.00	3.50	2.50
January Consensus	4.34	3.93	3.32
High	4.50	4.50	4.03
Low	4.00	2.75	2.50
Last Months Avg.	4.39	4.11	3.61

Euro area

US\$ per Euro		
In 3 Mo.	In 6 Mo.	In 12 Mo.
1.05	1.07	--
1.10	1.10	1.11
1.08	1.10	1.15
1.07	1.08	1.12
1.12	1.13	1.15
1.07	1.10	1.14
1.08	1.08	1.09
1.08	1.09	1.12
1.10	1.10	1.10
--	--	--
1.08	1.09	1.12
1.12	1.13	1.15
1.05	1.07	1.09
1.08	1.09	1.11

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	2.68	2.58	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	2.20	2.00	1.75	--	--	--	--	--	--	--	--	--
ING Financial Markets	2.40	2.30	2.30	3.30	3.20	3.30	4.70	4.40	4.50	3.85	3.60	3.70
Moody's Analytics	2.68	2.46	2.50	3.24	2.92	2.89	4.55	4.68	4.60	3.72	3.44	3.53
Northern Trust	2.10	2.00	1.80	2.60	2.50	2.30	3.70	3.60	3.40	3.10	3.00	2.80
Oxford Economics	2.38	2.31	2.19	2.90	2.80	2.61	4.14	4.13	4.12	3.37	3.32	3.24
TS Lombard	2.40	2.15	2.15	2.75	2.50	2.50	3.70	3.45	3.45	3.15	2.90	2.90
Wells Fargo	2.20	2.15	2.05	--	--	--	--	--	--	--	--	--
January Consensus	2.38	2.24	2.11	2.96	2.78	2.72	4.16	4.05	4.01	3.44	3.25	3.23
High	2.68	2.58	2.50	3.30	3.20	3.30	4.70	4.68	4.60	3.85	3.60	3.70
Low	2.10	2.00	1.75	2.60	2.50	2.30	3.70	3.45	3.40	3.10	2.90	2.80
Last Months Avg.	2.60	2.50	2.32	3.17	3.03	2.87	4.43	4.28	4.15	3.67	3.51	3.40

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.25	-3.44	-3.26	-2.98
United Kingdom	-0.28	-0.21	-0.15	-0.18
Switzerland	-3.25	-3.31	-3.07	-2.74
Canada	-0.69	-0.79	-0.83	-0.68
Australia	0.11	0.25	0.08	0.03
Germany	-1.92	-1.88	-1.85	-1.72
France	-1.44	-1.31	-1.31	-1.11
Italy	-0.34	-0.11	-0.04	0.19
Spain	-0.96	-0.83	-0.84	-0.59

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-5.48	-5.37	-5.00	-4.27
United Kingdom	-0.13	-0.05	0.08	-0.07
Switzerland	-3.63	-3.55	-3.36	-2.86
Canada	-0.38	-0.30	-0.36	-0.50
Australia	-1.03	-0.98	-0.77	-0.52
Euro area	-0.88	-0.96	-1.09	-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

Could Inflation Fall Below Two Percent?

Core PCE inflation has fallen nearly 2pp over the last year, from 5.1% year-on-year last November to 3.2% last month. And following the softer November price data and their accompanying downward revisions, we recently lowered our core PCE inflation forecast to 2.2% for December 2024 (yoy). In today's Daily, we explore the plausibility of a decline in core inflation below the 2% target next year, driven by a further normalization in consumer goods price levels and by continued inflation softness in labor-reliant services categories.

Price levels for supply-constrained goods categories remain elevated relative to pre-pandemic trends, even after their partial normalization from peak.

The history of past price bubbles reveals a wide range of outcomes in their aftermath, and it cautions against assuming full normalization. For example, the above-trend increases in appliance prices during the mid-2000 housing boom only partially reversed during the subsequent housing bust, suggesting scope for price levels in that category to remain somewhat elevated in 2024 even though microchip supply has returned to normal.

That being said, we find that prices also remain elevated relative to unit production costs in the BEA input-output accounts. Illustratively, if prices in these ex-auto consumer goods categories were to converge to the cost inflation trend, we estimate it would lower core consumer prices by 0.6%—or core PCE inflation by 0.3pp per year in both 2024 and 2025.

We view the magnitude of this disinflationary impulse as an upper-bound estimate, because it is based on unit production costs and does not reflect the margin effects of higher interest rates and depreciation expenses. We complement this approach with a review of corporate profit margins in consumer goods industries, which we reweight to reflect consumer spending shares in the national accounts. On this basis, after-tax profit margins remain elevated by 0.5pp, even after the normalization that occurred in 2022. A return to 2019 profit margins for these industries would lower overall core inflation by 0.1-0.15pp, other things equal.

A second plausible source of inflation downside is in labor-reliant consumer services, where inflation has already returned to target-consistent levels. Specifically, core services prices excluding housing, healthcare, and financials rose 2.8% annualized in Q3 and over the last six months, undershooting the 3.5% pace of our fundamental model and down dramatically from the 5.9% pace of the previous six months.

We see two explanations for this larger-than-expected decline in services inflation: First, a reversal of the 2021-22 overshoot (relative to our model). And second, this year's rebound in service-sector productivity growth (to approximately 2.5% year-on-year in Q3). Regardless of the driver, if prices in these service categories do not reaccelerate, it would lower overall core PCE inflation by another 0.2-0.25pp relative to our baseline.

In a scenario where consumer goods margins normalize and core services prices do not reaccelerate, we forecast year-on-year core PCE inflation would drop to 2.0% year-on-year in May and to 1.9% in December (vs. consensus of 2.5% in Q4), other things equal.

Another source of potential downside is in healthcare services, which represent 18% of the core PCE basket. Our baseline assumes that year-on-year healthcare inflation picks up from 2.6% currently to 3.1% in 2024, as price levels catch up to the higher cost environment. Medicare data indicates that input costs have outpaced output prices by nearly 6%, and government statisticians have set larger-than-usual price increases for Medicare as a result (+4.3% in FY23 and +3.1% in FY24). However, the recent pace has been soft, with healthcare PCE prices rising 2.3% annualized over the last six months. If this pace is sustained in 2024, it would lower core PCE inflation by another 0.15pp relative to our baseline—and potentially to 1.75-2.05% depending on the assumptions for consumer goods and other services.

In terms of the Fed, we believe below-target core inflation would lead the Committee to consider consecutive 25bp cuts at every FOMC meeting until the funds rate approaches their estimate of neutral at that time, provided that the inflation decline does not appear temporary and that labor market rebalancing has not started to reverse.

Spencer Hill (Goldman Sachs)

Global Economic Growing Pains

For most of the past five decades, the global economy has been successful in “weathering the storm.” Not just a storm, but storms. Double-digit inflation during the 1980s, military conflict in the 1990s, the dot-com bubble and geopolitical shocks in the early 2000s, the '08-'09 Global Financial Crisis, COVID and everything in between that caused outsized economic disruption. Despite shocks like these, the global economy has held up quite well over time. While the global economy has ebbed and flowed in response to certain events as well as the normal business cycle, global GDP growth has averaged around 3.5% per year since 1980. However, in just the past few years, the global economy has been hit by many of the same events it experienced during the past five decades. Another bout of elevated inflation, military conflict in Europe and the Middle East, theories of another bubble in the technology sector, escalating worldwide geopolitical tensions, and regional bank failures in the U.S. and Europe have all occurred in the past two years. Tack on aggressive central bank monetary tightening and clearer structural growth challenges in China, and these simultaneous shocks are placing downward pressure on the prospects for global growth. In our view, weathering the storm may be more challenging this time around. We believe the long-run ~3.5% average global growth rate is unlikely to be reached in 2024, and instead, we believe the global economy is likely to grow at a below-trend pace of 2.4% next year.

2024 is likely to be characterized as a low-growth environment. While technically we are not forecasting global recession (i.e., global growth below 2%), we do expect many economies around the world to experience downturns. In our view, the U.S. economy is still likely to enter recessionary conditions by the middle of next year. We believe delayed effects of Fed interest rate hikes and balance sheet reduction, a pending consumer spending slowdown and tighter bank lending policies will result in a mild U.S. recession in 2024. With that said, the probability of the Federal Reserve orchestrating a soft landing has risen. Tighter monetary policy has not meaningfully disrupted economic activity up to this point, while softer inflation is leading to improved real incomes and household purchasing power. Financial conditions have also eased as U.S. Treasury yields have retreated, also boosting the likelihood that a soft landing can be achieved. While the outlook for the U.S. economy has improved recently, growth prospects in select peer G10 economies have worsened heading into 2024. Eurozone GDP contracted in Q3-2023, and with manufacturing and services sentiment indices in contraction territory through December, we expect the economy to also decline in Q4 and for technical recession—defined by two quarters of consecutive contraction—to form. We also forecast technical recession in the United Kingdom. Elevated inflation and high Bank of England interest rates are likely to place downward pressure on the U.K. economy next year. In fact, we expect the U.K. to experience a deeper recession relative to the U.S. and Eurozone, and we forecast the British economy to grow just 0.1% next year.

We expect emerging market economies to be more resilient relative to advanced economies in 2024. The recessions we forecast in the G10 may not be as present in the developing world, and the clearest economic outperformers are also likely to be found in the emerging markets. To that point, we forecast G10 economies to grow 1.0% in 2024, down from 1.8% in 2023. On the other hand, we believe developing market economies can grow 3.4% next year, only slightly lower than the 3.7% growth experienced in 2023. Not only do we expect EM economies to grow at a faster pace than advanced economies, but the delta between 2023 vs. 2024 aggregate GDP growth rates is much smaller in the developing markets, a signal of relative economic strength and resilience in the emerging economies. As far as outperformers, we expect Asia, more specifically India, to be the region and country where growth prospects will be most robust. India's economy likely grew 7% in calendar year 2023, and we expect a similar growth profile in 2024. Many global and local developments—such as geopolitical conflict, softer foreign demand and aggressive central bank monetary tightening—that are likely to contribute to slower activity abroad are not particularly relevant to India. As a result, India can be one of the fastest growing economies in the world next year. Regional economies such as Vietnam, Indonesia and the Philippines should also represent relative economic outperformers. But within the developing world, select regions and economies could experience more lackluster growth, and in certain cases, recession. In our view, Latin America is likely to be the region that acts as a drag on overall EM and global growth. Economies such as Brazil, Chile

and Peru are examples of where high interest rates, reduced fiscal support and elevated political risks are likely to weigh on activity. While Latin American economies were resilient in 2023, we believe the probability of recession for these countries will remain elevated in 2024. However, not all of Latin America is on the brink of recession. Mexico is a clear outlier, and even though growth should slow as the U.S. economy decelerates, the positive impacts of nearshoring as well as local political and financial market stability should prevent recession from materializing.

While India and broader Asia should be the most apparent growth outperformer next year, there are still troubled economies percolating across the region. The one challenged economy that garners the most attention, and rightfully so, is China. In our view, long gone are the days when China's economy would, and could, grow at double-digit growth rates. Instead, China's economy is now defined by structural issues—such as an aging population and shrinking work force, a real estate sector crisis, an overleveraged non-financial corporate sector, deflation and declining household consumption—that should place downward pressure on growth rates for an extended period of time. On top of structural, not-easy-to-fix challenges, China has been at the center of multiple geopolitical controversies and operating under an uncertain policy mix. Economic struggles combined with foreign and domestic policy uncertainty is slowly resulting in China being replaced in global supply chains and making investors reconsider whether China is an attractive destination for capital deployment. Both of these dynamics can compound China's structural economic slowdown. In fairness, Chinese authorities recognize impediments to growth and have adjusted monetary and fiscal policy settings in response. Lending rates and bank reserve requirement ratios have come down in 2023, and policymakers recently hinted that more fiscal support could be offered in the near future. On the margin, more accommodative policy can support China's economy; however, fiscal support directed at the real estate sector and easier monetary policy will not fix demographic issues, rising geopolitical tensions, low consumer confidence or sluggish domestic consumption. This is why we believe China's economy will slow sharply and experience growth of just 4.5% in 2024, and also that regional power and economic dynamics may be shifting in India's favor. India is a prime candidate to replace China as a manufacturing hub, while foreign direct investment and portfolio flows seeking exposure to Asia have trended toward India and away from China over the past few years. More favorable economic fundamentals and recent trends also have India being considered for sovereign credit rating upgrades. Conversely, China's economic challenges and weakening public finance position resulted in a revised negative credit rating outlook from Moody's that could spark further capital outflows should a rating downgrade be delivered in 2024.

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

Special Questions:

1. a. At what FOMC meeting will the first FFR cut occur?

<u>Jan 2024</u>	0%	<u>May 2024</u>	25%	<u>Jul 2024</u>	21%	<u>Nov 2024</u>	4%	<u>Later</u>	0%
<u>Mar 2024</u>	21%	<u>Jun 2024</u>	21%	<u>Sep 2024</u>	8%	<u>Dec 2024</u>	0%		

b. How much will the FFR target decline in 2024? 102 bps

2. a. What is your estimate of the long-term neutral fed funds rate? 2.77%

b. Since before the pandemic, has it: increased 78% decreased 0% remained the same 22%

3. Is the US economy headed for a “soft landing”? Yes 63% No 38%

4. a. Has accommodative US fiscal policy played a key role in the current resilience of the economy? Yes 100% No 0%

b. Do you expect less accommodation in 2024? Yes 75% No 25%

c. If so, will this slow the economy meaningfully? Yes 48% No 52%

5. What is your US unemployment rate forecast for: Jun 2024 4.2% Dec 2024 4.4%

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

<u>US</u>	45%
<u>euro area</u>	56%
<u>UK</u>	58%

7. a. Does your outlook for China’s economy pose meaningful risks to the outlook for global growth? Yes 78% No 22%

b. Do you think recent policy measures in China will boost its growth rate? Yes 35% No 65%

8. a. When will the ECB begin cutting its policy rates?

<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Q4 2024</u>	<u>Later</u>
11%	58%	32%	0%	0%

b. When will the BoE begin cutting its Bank rate?

<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Q4 2024</u>	<u>Later</u>
5%	32%	42%	16%	5%

c. When will the first hike in the Bank of Japan’s short-term policy interest rate occur?

<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2024</u>	<u>Q4 2024</u>	<u>Later</u>
16%	37%	16%	5%	26%

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Databank:

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	0.7	0.8	-0.2	0.3	....
Auto & Light Truck Sales (b)	15.10	14.88	14.93	15.68	15.51	16.06	15.94	15.29	15.66	15.45	15.32	....
Personal Income (a, current \$)	1.0	0.5	0.5	0.2	0.3	0.2	0.2	0.4	0.3	0.3	0.4	....
Personal Consumption (a, current \$)	1.6	0.4	-0.1	0.4	0.2	0.4	0.6	0.3	0.8	0.1	0.2	....
Consumer Credit (e)	5.1	2.8	4.8	3.3	-0.2	3.1	3.2	-3.0	3.0	1.2	....	....
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	61.3	69.7
Household Employment (c)	894	177	577	139	-310	273	268	222	86	-348	747	....
Nonfarm Payroll Employment (c)	472	248	217	217	281	105	236	165	262	150	199	....
Unemployment Rate (%)	3.4	3.6	3.5	3.4	3.7	3.6	3.5	3.8	3.8	3.9	3.7	....
Average Hourly Earnings (All, cur. \$)	33.02	33.11	33.20	33.34	33.45	33.60	33.73	33.82	33.91	33.98	34.10	....
Average Workweek (All, hrs.)	34.6	34.5	34.4	34.4	34.3	34.4	34.3	34.4	34.4	34.3	34.4	....
Industrial Production (d)	1.5	0.9	0.2	0.3	0.1	-0.4	0.1	0.0	-0.2	-1.0	-0.4	....
Capacity Utilization (%)	79.6	79.5	79.5	79.8	79.5	78.9	79.6	79.5	79.5	78.7	78.8	....
ISM Manufacturing Index (g)	47.4	47.7	46.3	47.1	46.9	46.0	46.4	47.6	49.0	46.7	46.7	....
ISM Nonmanufacturing Index (g)	55.2	55.1	51.2	51.9	50.3	53.9	52.7	54.5	53.6	51.8	52.7	....
Housing Starts (b)	1.340	1.436	1.380	1.348	1.583	1.418	1.451	1.305	1.356	1.359	1.560	....
Housing Permits (b)	1.354	1.482	1.437	1.417	1.496	1.441	1.443	1.541	1.471	1.498	1.467	....
New Home Sales (1-family, c)	649	625	640	679	710	683	728	654	700	672	590	....
Construction Expenditures (a)	2.2	0.4	0.6	0.3	2.0	0.5	0.7	2.1	0.2	0.6	....	....
Consumer Price Index (nsa, d)	6.4	6.0	5.0	4.9	4.0	3.0	3.2	3.7	3.7	3.2	3.1	....
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	4.0	4.0	....
PCE Chain Price Index (d)	5.5	5.2	4.4	4.4	4.0	3.2	3.3	3.3	3.4	2.9	2.6	....
Core PCE Chain Price Index (d)	4.9	4.8	4.8	4.8	4.7	4.3	4.2	3.7	3.6	3.4	3.2	....
Producer Price Index (nsa, d)	5.7	4.7	2.7	2.3	1.1	0.3	1.1	1.9	2.0	1.2	0.9	....
Durable Goods Orders (a)	-1.3	-2.7	3.3	1.2	2.0	4.3	-5.6	-0.1	4.0	-5.1	5.4	....
Leading Economic Indicators (a)	-0.5	-0.5	-1.2	-0.8	-0.7	-0.7	-0.3	-0.4	-0.8	-1.0	-0.5	....
Balance of Trade & Services (f)	-70.8	-70.6	-60.4	-72.9	-66.9	-64.0	-65.0	-58.6	-61.2	-64.3	....	....
Federal Funds Rate (%)	4.33	4.57	4.65	4.83	5.06	5.08	5.12	5.33	5.33	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	5.60	5.52	....
10-Year Treasury Note Yield (%)	3.53	3.75	3.66	3.46	3.57	3.75	3.90	4.17	4.38	4.80	4.50	....

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	-0.3	1.5	-1.5	-0.6
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.

16 ■ BLUE CHIP FINANCIAL FORECASTS ■ DECEMBER 28, 2023

Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
January 1 NEW YEAR'S DAY ALL MARKETS CLOSED	2 Construction (Nov) Dallas Fed Banking Conditions Survey (Nov) S&P Global Mfg PMI (Dec)	3 ISM Manufacturing (Dec) JOLTS (Nov) Mortgage Applications	4 ADP Employment Report (Dec) Challenger Employment Report (Dec) S&P Global Services PMI (Dec) BEA Auto & Truck Sales (Dec) EIA Crude Oil Stocks Weekly Jobless Claims	5 Employment Situation (Dec) MSIO (Nov) Public Debt (Dec) Interest Expense on Public Debt (Dec) ISM Services PMI (Dec)
8 Consumer Credit (Nov)	9 International Trade (Nov) NFIB (Dec) Kansas City Financial Stress Index (Dec) Kansas City Fed Labor Market Conditions (Dec)	10 Wholesale Trade (Nov) EIA Crude Oil Stocks Mortgage Applications	11 CPI & Real Earnings (Dec) Cleveland Fed Median CPI(Dec) Monthly Treasury Statement (Dec) Transportation Services (Nov) Weekly Jobless Claims	12 Producer Prices (Dec)
15 MARTIN LUTHER KING JR DAY ALL MARKETS CLOSED	16 Empire State Mfg Survey (Jan)	17 Advance Retail Sales (Dec) IP & Capacity Utilization (Dec) MTIS (Nov) Import & Export Prices (Dec) Business Leaders Survey (Jan) Home Builders (Jan) OPEC Crude Oil Spot Prices (Dec) EIA Crude Oil Stocks Mortgage Applications	18 Housing Starts (Dec) Philadelphia Fed Manufacturing (Jan) Weekly Jobless Claims	19 Existing Home Sales (Dec) TIC Data (Nov) Consumer Sentiment (Jan, Preliminary)
22 NABE Business Conditions Survey (Q4) Composite Indexes (Dec)	23 H.6 Money Stock (Dec) Treasury Auction Allotments (Jan) Richmond Fed Mfg & Service Sector Surveys (Jan) Philly Fed Nonmfg (Jan)	24 S&P Global Flash PMIs (Jan) Phil Fed Nonmfg Business Outlook (Jan) EIA Crude Oil Stocks Mortgage Applications	25 GDP (Q4, Adv) Advance Durable Goods (Dec) Adv Trade & Inventories (Dec) New Residential Sales (Dec) Final Building Permits (Dec) Chicago Fed Natl Activity (Dec) Kansas City Fed Mfg (Jan) Steel Imports for Consumption (Dec, Preliminary) Weekly Jobless Claims	26 Personal Income (Dec) Underlying NIPA Tables (Q4, Adv) Dallas Fed Trimmed Mean Strike Report (Jan) Alternate Measures of Labor Underutilization (Q4) Pending Home Sales (Dec)
29 Texas Manufacturing Outlook Survey (Jan) Short-Term Energy Outlook (Dec)	30 FHFA HPI (Nov) Case-Shiller HPI (Nov) JOLTS (Dec) BED (Q2) Consumer Confidence (Jan) Housing Vacancies (Q4) Texas Service Sector Outlook Survey (Jan) FOMC Meeting	31 ADP Employment Report (Jan) Employment Cost Index (Q4) Chicago PMI (Jan) EIA Crude Oil Stocks Mortgage Applications FOMC Meeting	February 1 Productivity & Costs (Q4) ISM Manufacturing (Jan) S&P Global Mfg PMI (Jan) Construction (Dec) Challenger Employment Report (Jan) Weekly Jobless Claims	2 Employment Situation (Jan) Consumer Sentiment (Jan, Final) Manufacturers' Shipments, Inventories & Orders (Dec)
5 ISM Services PMI (Jan) S&P Global Services PMI (Jan) Senior Loan Officer Survey (Q1)	6 Public Debt (Jan) Kansas City Fed Labor Market Conditions Indicators (Jan) Interest on Public Debt (Jan)	7 International Trade (Dec) Transportation Services (Dec) Consumer Credit (Dec) Treasury Auction Allotments (Jan) EIA Crude Oil Stocks Mortgage Applications	8 Wholesale Trade (Dec) CEO Confidence Survey (Q1) Weekly Jobless Claims	9 Survey of Professional Forecasters (Q1)

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The following files are not convertible:

WP AEB-1 (Proxy 10-K data).xlsx
WP AEB-12 (Cost of Debt).xlsx
WP AEB-14 (Figure AEB-3).xlsx
WP AEB-15 (Figure AEB-4).xlsx
WP AEB-16 (Figure AEB-5).xlsx
WP AEB-17 (Figure AEB-6).xlsx
WP AEB-19 (Figure AEB-11).xlsx

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

Contact centralrecords@puc.texas.gov if you have any questions.

PUC DOCKET NO. 56211

APPLICATION OF CENTERPOINT	§	PUBLIC UTILITY COMMISSION
ENERGY HOUSTON ELECTRIC, LLC	§	
FOR AUTHORITY TO CHANGE RATES	§	OF TEXAS

DIRECT TESTIMONY

OF

JACQUELINE M. RICHERT

ON BEHALF OF

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

MARCH 2024

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LIST OF EXHIBITS

Exhibit:	Description:
Exhibit JRichert-1(CONF)	Moody's Investors Service, <i>CenterPoint Energy Houston Electric, LLC; Update following downgrade to Baa1</i> (Mar. 6, 2020) (Confidential)
Exhibit JRichert-2	Moody's Investors Service, <i>Regulated Electric and Gas Utilities; Rating Methodology</i> (Jun. 23, 2017)
Exhibit JRichert-3(CONF)	S&P Global Ratings Research, <i>Taxes Under The Inflation Reduction Act May Increase The Amount Non-Financial Corporates Pay, With Limited Credit Impact</i> (Aug. 30 2022) (Confidential)
Exhibit JRichert-4(CONF)	Moody's Investors Service, <i>Inflation Reduction Act will build economic resilience, but its costs and benefits vary by sector</i> (Aug. 10, 2022) (Confidential)
Exhibit JRichert-5(CONF)	Moody's Investors Service, <i>Rating Action: Moody's downgrades CenterPoint Energy Houston Electric to Baa1 from A3; outlook is stable</i> (Mar. 4, 2020) (Confidential)
Exhibit JRichert-6(CONF)	Moody's Investors Service, <i>CenterPoint Energy Houston Electric, LLC; Update to credit analysis</i> (Jan. 11, 2024) (Confidential)

GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym:	Definition:
AEP Texas	AEP Texas Inc.
CAMT	Corporate Alternative Minimum Tax
CEHE	CenterPoint Energy Houston Electric, LLC
CenterPoint Houston	CenterPoint Energy Houston Electric, LLC
CFO/Debt	Ratio of funds from operations or cash from operations to debt
CFO/Interest	Ratio of funds from operations or cash from operations to interest
CNP	CenterPoint Energy, Inc.
Commission	Public Utility Commission of Texas
Company	CenterPoint Energy Houston Electric, LLC
Debt/EBITDA	The ratio of debt to earnings before interest, taxes, depreciation, and amortization
Departments	Treasury and Investor Relations Departments
Entergy Texas	Entergy Texas, Inc.
FFO	Funds from operations
FFO/Debt	The ratio of funds from operations or cash from operations to debt
FFO/Interest	The ratio of funds from operations or cash from operations to interest
Fitch	Fitch Ratings
Moody's	Moody's Investors Service
ROE	Rate of Return on Equity
S&P	Standard & Poor's

Acronym:**Definition:**

Service Company

CenterPoint Energy Service Company, LLC

SWEPCO

Southwestern Electric Power Company

Total Debt/Total Capital

The capital structure ratio of total debt to total capital

WACC

Weighted Average Cost of Capital

EXECUTIVE SUMMARY OF JACQUELINE M. RICHERT

1 The Public Utility Commission of Texas (the “Commission”) should approve an
2
3 overall rate of return of 7.03% for CenterPoint Energy Houston Electric, LLC
4 (“CenterPoint Houston” or the “Company”). That rate of return is based on the actual
5 capital structure of the Company, composed of 55.10% debt and 44.90% equity, a 10.4%
6 return on equity, and the 4.29% cost of debt that I support in this testimony. While
7 Company witness Ann E. Bulkley’s analysis supports a 10.6% cost of equity, the Company
8 is requesting a 10.4% return on equity after taking into consideration the affordability for
9 customers of the overall return requirement, as discussed in the Direct Testimony of Jason
10 M. Ryan. The proposed 55.10%/44.90% capital structure is conservative and should be
11 adopted by the Commission because it:

- 12 • reasonably reflects the business and regulatory risk of CenterPoint Houston;
- 13 • supports a single-A bond credit rating, which better enables CenterPoint Houston
14 to maintain continuous access to the capital markets so that it can finance its
15 business needs in nearly all economic climates and issue debt at a cost most
16 favorable to our customers; and
- 17 • establishes a level of equity that is within the range of adopted transmission and
18 distribution utilities across the proxy group, as supported within the Direct
19 Testimony of Company witness Ann E. Bulkley.

20 The proposed 4.29% cost of debt is reasonable based on CenterPoint Houston’s debt
21 outstanding at December 31, 2023, and it supports an overall cost of capital that reflects
22 the required return based on CenterPoint Houston’s business and financial risk that will
23 most efficiently allow it to invest capital to further resiliency, hardening, and growth across
24 the system.

1 The Inflation Reduction Act of 2022 imposes a new 15% Corporate Alternative
 2 Minimum Tax (“CAMT”) based upon adjusted financial statement income.¹ The
 3 Company expects that CenterPoint Energy, Inc. (“CNP”) will be subject to the 15% CAMT
 4 beginning in tax year 2024. The cash outlay associated with the CAMT will likely impair
 5 CenterPoint Houston’s credit metrics if the Company is unable to recover the impact of the
 6 tax through rates.

7 The Company has complied with the ring-fencing provisions adopted in the
 8 Company’s last rate case, Docket No. 49421.² However, the Commission should reduce
 9 the required number of credit ratings for CenterPoint Houston from three to two, which is
 10 consistent with requirements of our peers’ provisions including AEP Texas Inc. (“AEP
 11 Texas”) in Docket 49494,³ Southwestern Electric Power Company (“SWEPCO”) in
 12 Docket 51415,⁴ and Entergy Texas, Inc. (“Entergy Texas”) in Docket 53719,⁵ and should
 13 reduce the associated costs borne by our customers which was approximately \$990
 14 thousand dollars in 2023.

15 The Company seeks recovery through rates of the Treasury and Investor Relations
 16 Departments (“Departments”) related costs billed to CenterPoint Houston during the test

¹ Inflation Reduction Act of 2022, Pub. L. No. 117-169, title I, § 10101, 136 Stat. 1818.

² *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates*, Docket No. 49421, Findings of Fact Nos. 71–87, Ordering Paragraphs Nos. 26–39 (Mar. 9, 2020).

³ *Application of AEP Texas Inc. for Authority to Change Rates*, Docket No. 49494, Finding of Fact No. 38, Ordering Paragraph No. 113 (Apr. 3, 2020) (“AEP Texas must work to ensure that its credit ratings at S&P and Moody’s remain at or above AEP Texas’s current credit ratings.”).

⁴ *Application of Southwestern Electric Power Company for Authority to Change Rates*, Docket No. 51415, Finding of Fact No. 108 (Jan. 14, 2022) (“SWEPCO will work to ensure that its credit ratings at Standard and Poor’s and Moody’s remain at or above SWEPCO’s current credit ratings.”).

⁵ *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 53719, Finding of Fact No. 118, Ordering Paragraph No. 12 (“Entergy Texas Credit Ratings. Entergy Texas must work to ensure that its credit ratings at S&P and Moody’s remain at or above Entergy Texas’s current credit ratings.”).

1 year. The Commission should approve recovery of the costs allocated to CenterPoint
2 Houston by the Treasury and Investor Relations Departments because:

- 3 • they are vital corporate support services, such as investor relations and treasury
4 operations;
- 5 • the Departments have in place reasonable and effective cost control processes;
- 6 • the Departments' costs are appropriately assigned to CenterPoint Houston; and
- 7 • the Departments' cost assignment to CenterPoint Houston complies with the
8 requirements for affiliate cost recovery.

DIRECT TESTIMONY OF JACQUELINE M. RICHERT

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is Jacqueline M. Richert. I am employed by CenterPoint Energy Service Company, LLC (“Service Company”) as Vice President of Corporate Planning, Investor Relations and Treasurer.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of CenterPoint Houston.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PREVIOUS WORK EXPERIENCE.

A. I have a Bachelor of Science in Business Administration, majoring in Finance, from the University of Tennessee. I have been employed by Service Company since 2021 and have held various positions within the CNP organization. From 2021 to 2022, I was a director in the investor relations group responsible for managing external communication with investors and research analysts. In 2022, I was promoted to Vice President of Investor Relations and Treasurer and as of 2023, my responsibilities expanded to also include oversight of CNP’s corporate planning activities, including long-term forecasting. Prior to joining Service Company, I spent nearly 13 years in the midstream energy industry in various roles of increasing responsibility.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN OTHER REGULATORY PROCEEDINGS?

A. Yes. I have filed testimony with the Railroad Commission of Texas in Docket No. 00015513.

II. SCOPE AND PURPOSE OF TESTIMONY

Q. PLEASE DISCUSS THE PURPOSE OF YOUR DIRECT TESTIMONY.

A. My Direct Testimony has several purposes. In addition to providing the background information necessary to illuminate the capital structure issues that I discuss, my Direct Testimony will also:

- explain that a capital structure composed of 55.10% long-term debt and 44.90% equity: (1) is necessary for CenterPoint Houston to improve its current credit metrics; (2) will relatively improve the cost to fund capital investments to support our customers; (3) will help mitigate the impact that the allocated CAMT will have on CenterPoint Houston's cash flow; and (4) is more in line with the rate case capitalization structure for CenterPoint Houston prior to the 2019 rate case;
- support CenterPoint Houston's proposed 4.29% cost of long-term debt;
- support a 7.03% weighted average cost of capital ("WACC"), which is calculated using a capital structure composed of 55.10% long-term debt and 44.90% equity, the 10.4% rate of return on equity ("ROE") requested by the Company, and the 4.29% cost of long-term debt that I support in this testimony; and
- support the costs of the Treasury and Investor Relations Departments that are assigned to CenterPoint Houston by explaining that the services provided and the costs incurred by the Departments are reasonable and necessary.

Q. DO YOU SPONSOR ANY EXHIBITS OR SCHEDULES INCLUDED IN THE RATE FILING PACKAGE?

A. Yes. I sponsor Exhibits JRichert-1(CONF) through JRichert-6(CONF) and either sponsor or co-sponsor the following schedules:

II-C-2.2: Weighted Average Cost of Preferred Stock

II-C-2.2a: Adjusted Cost of Preferred Stock

II-C-2.3: Weighted Average Cost of Preferred Trust Securities

II-C-2.3a: Adjusted Cost of Preferred Trust Securities

1 II-C-2.4: Weighted Average Cost of Long-Term Debt

2 II-C-2.4a: Adjusted Cost of Long-Term Debt

3 II-C-2.5: Weighted Average Cost of Short-Term Debt

4 II-C-2.5a: Weighted Average Cost of Short-Term Debt-Daily

5 II-C-2.6: Security Issuance Restrictions

6 II-C-2.10: Rating Agency Reports

7 **Q. WAS YOUR TESTIMONY, INCLUDING ASSOCIATED SCHEDULES,**
8 **WORKPAPERS, AND EXHIBITS, PREPARED BY YOU OR UNDER**
9 **YOUR DIRECT SUPERVISION AND CONTROL?**

10 A. Yes.

11 **Q. IS YOUR TESTIMONY RELATED TO THE TESTIMONY OF OTHER**
12 **COMPANY WITNESSES IN THIS PROCEEDING?**

13 A. Yes. My testimony regarding CenterPoint Houston's WACC is related to the Direct
14 Testimony of Ann E. Bulkley, who supports CenterPoint Houston's cost of equity
15 analysis. My testimony on the CAMT complements the Direct Testimony of
16 Jennifer K. Story. Finally, the parts of my testimony that relate to the planning,
17 budgeting and assignment of affiliate costs to CenterPoint Houston are related to
18 the Direct Testimony of L. Darren Storey, who testifies on the overall planning and
19 budgeting process and the assignment of affiliate costs, and the Direct Testimony
20 of Kristie L. Colvin, who testifies on the functionalization of affiliate costs, among
21 other topics.

1 **III. FINANCIAL INTEGRITY AND CREDIT RATINGS**

2 **Q. WHAT TOPICS DO YOU DISCUSS IN THIS SECTION OF YOUR DIRECT**
3 **TESTIMONY?**

4 A. In this part of my testimony, I explain the criteria and methodologies the rating
5 agencies use to evaluate utilities' financial strength and stability, which are
6 reflected in the rating agencies' credit ratings and outlooks for those utilities for
7 context on how our credit rating is derived. I then explain the importance of having
8 a capital structure that will sufficiently preserve or perhaps improve the quality of
9 the Company's credit ratings and financial integrity. This includes generating
10 adequate cash flows to fund interest expense payments in service of the Company's
11 debt while also funding incremental investments which can directly influence credit
12 metrics. I will also describe how such credit ratings are important to maintain
13 access to capital on reasonable terms in all market conditions to finance system
14 safety, reliability and resiliency, and growth. Finally, I discuss the rating agencies'
15 current and historic views of CenterPoint Houston's financial strength.

16 **A. Rating Agency Criteria and Methodologies**

17 **Q. WHAT RESOURCES DO INVESTORS RELY ON FOR EVALUATING**
18 **INVESTMENT QUALITY?**

19 A. Investors use a variety of resources, but typically credit investors (also known as
20 fixed income or debt investors), rely on company-specific credit ratings published
21 by the major credit rating agencies—Moody's Investors Service ("Moody's"),
22 Standard & Poor's ("S&P"), and Fitch Ratings ("Fitch")—as an indication of a
23 company's financial strength. Credit ratings are assigned based on the rating

1 agencies' comprehensive quantitative and qualitative analysis of a company and
2 the business environment in which it operates.

3 **Q. PLEASE EXPLAIN THE RATING AGENCY SCALES.**

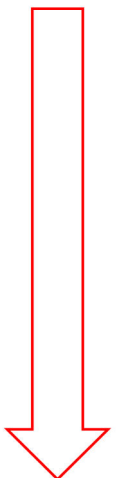
4 A. The rating agencies issue ratings for both the business entity as a whole and for the
5 various debt issuances of the entity. For example, Moody's assigns a long-term
6 "issuer rating" that reflects the general credit risk of the business enterprise and
7 Moody's opinion of the debt issuer's overall capacity to pay its scheduled financial
8 obligations.⁶ The issuer rating is the core rating of the business enterprise. In
9 contrast, ratings on individual debt securities are given at time of issuance and they
10 reflect the likelihood that principal and interest on those specific securities will be
11 paid in a timely manner and take into account the recovery prospects in the event
12 of default.

13 As shown below in Table JRichert-1, the general ratings scale of the three
14 rating agencies are similar, but not identical. CenterPoint Houston's current ratings
15 fall within the highlighted row in the table:

⁶ S&P refers to its rating for the credit risk of the enterprise as a "corporate credit rating," whereas Fitch refers to its rating for the credit risk of the enterprise as an "issuer default rating." For the sake of brevity, I will use the term "issuer rating" in this testimony to refer to the credit risk of the business enterprise.

1

Table JRichert-1. Bond Ratings

Moody's	S&P	Fitch		
Aaa	AAA	AAA	Classification	
Aa1	AA+	AA+	High grade	
Aa2	AA	AA		
Aa3	AA-	AA-		
A1	A+	A+		
A2	A	A	Upper medium grade	
A3	A-	A-		
Baa1	BBB+	BBB+		
Baa2	BBB	BBB	Lower medium grade	
Baa3	BBB-	BBB-		
Ba1	BB+	BB+	Non-investment grade speculative	<div>"Junk"</div> 
Ba2	BB	BB		
Ba3	BB-	BB-		
B1	B+	B+	Highly speculative	
B2	B	B		
B3	B-	B-		
Caa1	CCC+	CCC	Substantial risk	
Caa2	CCC		Extremely speculative	
Caa3	CCC-		Default imminent with little prospect for recovery	
Ca	CC	CC		
	C	C		
C	D	D	In default	
/				
/				

2 The ratings are further delineated through the use of pluses or minuses by S&P and
3 Fitch to show a company's relative standing within the categories (e.g., A- or
4 BBB+) and through the use of numbers by Moody's (e.g., A3 or Baa1). As
5 illustrated, ratings that fall within the high-grade and medium-grade categories are
6 generally described as being "investment grade" ratings, whereas ratings that fall
7 below BBB- (or Baa3 for Moody's) are sometimes described as "junk bond" or
8 "non-investment grade" ratings.

9 In addition, each rating agency assigns an "outlook" to signal the potential
10 direction of a rating over the intermediate term, which is typically six months to

two years. A “positive” outlook indicates that the rating may be raised; a “negative” outlook indicates that the rating may be lowered; and a “stable” outlook indicates that the rating is not likely to change.

Table JRichert-2. CenterPoint Houston’s Issuer Ratings History

	Time Period	Moody’s	S&P	Fitch
Issuer Rating	2020	A3	BBB+	A-
	2023	Baa1 ↓	BBB+	BBB+ ↓
Outlook	Current	Stable	Stable	Stable

Q. WHAT IS CENTERPOINT HOUSTON’S CURRENT RATING AND HAS IT ALWAYS HAD THE ISSUER RATINGS IT HAS TODAY?

A. As shown in Table JRichert-2 above, CenterPoint Houston currently has an issuer rating of Baa1 at Moody’s, BBB+ at S&P, and BBB+ at Fitch. Its outlook is “Stable” from all three rating agencies. Also shown in Table JRichert-2, CenterPoint Houston’s issuer ratings were higher in 2020 at Moody’s and Fitch. During or shortly after the conclusion of CenterPoint Houston’s last rate case in Docket No. 49421, Moody’s lowered CenterPoint Houston’s issuer rating from A3 to Baa1 on March 4, 2020, and Fitch lowered the Company’s rating from A- to BBB+ on February 19, 2020. Both issuer ratings and individual debt ratings were impacted. In the issuer comment letter from Moody’s following the downgrade, Moody’s noted that credit challenges included “expected final rate order including a lowered ROE and a higher debt capitalization will negatively impact leverage measures” (Exhibit JMR-1(CONF)). This resulting impact will be discussed in more detail in later sections of my testimony.

1 **Q. WHAT ARE THE PRIMARY FINANCIAL RATIOS THAT CREDIT**
2 **RATING AGENCIES ANALYZE?**

3 A. The primary financial metrics evaluated by the major credit rating agencies include
4 some version of the following: (1) the ratio of funds from operations or cash from
5 operations to debt (“FFO/Debt” or “CFO/Debt”); (2) the ratio of funds from
6 operations or cash from operations to interest (“FFO/Interest” or “CFO/Interest”);
7 (3) the ratio of debt to earnings before interest, taxes, depreciation, and amortization
8 (“Debt/EBITDA”), which is less commonly referenced in the utility industry; and
9 (4) the capital structure ratio of total debt to total capital (“Total Debt/Total
10 Capital”). These financial metrics are measures of a company’s ability to meet its
11 financial obligations.

12 **Q. WHAT DOES THE PHRASE “CAPITAL STRUCTURE” MEAN IN THE**
13 **CONTEXT OF UTILITY RATEMAKING?**

14 A. “Capital structure” refers to the percentages of debt and equity used to finance the
15 utility’s assets and perform the operations necessary to provide service to
16 customers. As noted in the Direct Testimony of Jason M. Ryan, the Company’s
17 customer rates do not produce enough revenues each year to fully fund the
18 investments needed annually to meet the capital requirements of the Company’s
19 customer growth and resiliency needs. Since incremental investments require
20 funding upfront but revenues are recovered over time once long-term assets are
21 used and useful, the Company is reliant on other funding sources for such
22 investments. The primary sources of capital to finance long-term assets of the
23 Company are long-term debt and common equity issuances.

Capital structure is typically expressed in terms of the ratio of a particular type of capital to total capital. For example, a utility with a total capitalization of \$1 billion, long-term debt of \$550 million, and common equity of \$450 million would have a capital structure composed of 55% long-term debt and 45% common equity.

Q. ARE THE RATINGS AND OUTLOOKS ASSIGNED BY THE RATING AGENCIES BASED SOLELY ON THOSE FINANCIAL RATIOS?

A. No. The ratings are based on a combination of quantitative and qualitative factors that the rating agencies consider important. For example, Moody's bases its ratings on the following weighted factors:

Table JRichert-3. Key Rating Factors

Factor	Weighting
Regulatory Framework	25%
Ability to Recover Costs and Earn Returns	25%
Diversification	10%
Financial Strength	40%
Total	100%

As this table shows, the consistency and predictability of the regulatory framework and the utility's ability to recover its costs timely are collectively weighted more heavily than the financial ratios when establishing issuer ratings. Thus, there is an inherent measure of subjectivity in the ratings. Please refer to Exhibit JRichert-2 for a Moody's report on its rating methodology for regulated electric and gas utilities.

1 **Q. HOW DOES A UTILITY’S ISSUER RATING AFFECT ITS COST OF AND**
2 **ACCESS TO DEBT MARKETS?**

3 A. When a utility issues bonds, the interest rate is generally based on a credit spread
4 that is added to the reference benchmark United States Treasury bond yield having
5 a similar maturity as the new bond that the company is issuing (*i.e.*, New Issue
6 Spread + Treasury Yield = Resulting Bond Coupon, or Yield). Companies with
7 lower credit ratings typically face wider credit spreads and a resulting higher debt
8 coupon because they are deemed riskier than companies with higher credit ratings.
9 Additionally, those companies with lower credit ratings may also find it more
10 difficult to access capital in times of market volatility, as experienced during the
11 COVID-19 pandemic in 2020 and bank market stress in 2023, the latter of which
12 impacted a CenterPoint Houston bond issuance in March 2023.

13 **Q. CAN YOU PROVIDE A SPECIFIC EXAMPLE OF HOW ACCESS TO**
14 **CAPITAL VARIES RELATIVE TO CREDIT RATINGS?**

15 A. Yes. As an example, in March 2023, there were six days with zero new debt
16 issuances due to market stress related to the collapse of multiple small to mid-size
17 banks, which meant the market was closed for issuers to raise funds from investors.
18 During that window, CenterPoint Houston had to delay a bond issuance over
19 multiple days due to the volatile economic backdrop and banking sector
20 uncertainty. When the Company is unable to access the capital markets, it is reliant
21 upon capital provided by the parent company, CNP. This capital can be in the form
22 of equity capital contributions or intercompany borrowings via the CNP money
23 pool. During this period in March, CenterPoint Houston relied on the parent for

1 financing ongoing capital investments; CNP borrowed a term loan to ensure capital
2 and liquidity was available for CenterPoint Houston. Ultimately, the Company was
3 able to successfully issue its bond by delaying its launch until the sixth day
4 following the turmoil. Only one other A-rated utility also issued debt on the same
5 day as CenterPoint Houston. No high-yield bond issuers were able to access the
6 market on that day. They had to continue to delay issuances until the market
7 stabilized further.

8 **Q. PLEASE PROVIDE A SPECIFIC EXAMPLE OF HOW THE CREDIT**
9 **SPREAD VARIES RELATED TO CREDIT RATING.**

10 A. Using the March 2023 bond issuance as an example, CenterPoint Houston issued
11 \$600 million of 10-year bonds at a new issue spread that was 0.28% less favorable
12 (or “wider”) than Public Service Electric & Gas Co.’s secured bond issuance three
13 business days later whose senior secured credit rating by Moody’s is one notch
14 higher quality than the current individual secured bond rating of CenterPoint
15 Houston. See the comparison in Table JRichert-4 below and the highlighted
16 spreads. Public Service Electric & Gas Co’s individual bond credit rating is the
17 same as CenterPoint Houston’s prior to the Moody’s downgrade in 2019. If that
18 1.22%, A1 rated, credit spread were applied to the CenterPoint Houston \$600
19 million issuance, that relative interest savings would be nearly \$17 million over the
20 10-year life of that bond alone.

Table JRichert-4. Peer Comparison of CenterPoint Houston's March 2023 Bond Issuance

					A +	B =	C
	Bond Rating (Moody's / S&P)	Amount (\$ in Millions)	Duration	Issuance date	Treasury Benchmark	New Issue Spread	Yield
CenterPoint Houston	A2/A	\$600	10 yr	20-Mar-23	3.48%	1.50%	4.98%
Public Service Electric & Gas Co. (G)	A1/A	\$500	10 yr	23-Mar-23	3.44%	1.22%	4.662%
<i>CenterPoint Houston's issuer rating is Baa1 at Moody's, while the senior secured rating is A2 and the senior unsecured rating is Baa1.</i>							

Q. DOES A UTILITY'S CREDIT RATING ALSO AFFECT ITS COST OF EQUITY?

A. Yes. Since debt is senior in ranking to equity, bondholders get paid before other security holders. A common equity security is seen as the most junior ranking security on a company's capital structure and an equity investor's return is residual, meaning that equity investors receive their return after the bond investors. A lower credit rating, as previously described, results in greater risk, which translates to a higher cost of debt. That increased relative cost of debt impacts both the bond and equity investors, and those equity investors require higher returns to be compensated for the additional risk.

Q. WHY IS IT IMPORTANT FOR CENTERPOINT HOUSTON TO MAINTAIN OR IMPROVE ITS CREDITWORTHINESS GOING FORWARD?

A. It is very important for CenterPoint Houston to maintain its financial integrity because the Company plans to spend nearly \$13 billion over the next five years in

1 capital expenditures during the 2024–2028 five-year period.⁷ This capital is being
2 invested to ensure that CenterPoint Houston’s transmission and distribution system
3 can meet customer demands, including load growth in our service territory as well
4 as further investments in safety, resiliency and reliability. CenterPoint Houston
5 will require both internal and external funds to finance these expenditures, and
6 maintaining its financial health will enable it to continue to access capital markets
7 on favorable terms relative to market conditions. These sources of funding include
8 internally generated cash flows, equity infusions from our parent company, and
9 externally issued debt within the intended capital structure. Having timely access
10 to all three sources is essential.

11 **Q. WHAT WOULD THE IMPACT OF A LOWER CREDIT RATING BE TO**
12 **CUSTOMERS OVER THE FIVE-YEAR INVESTMENT HORIZON?**

13 A. Having a high quality secure debt rating is important for CenterPoint Houston and
14 its customers. As illustrated in the prior Table JRichert-4, an A2 rating can result
15 in a higher cost than an A1 rating. The impact of an even lower credit rating would
16 be incrementally more expensive for our customers. For example (see Table
17 JRichert-5 below), when comparing the A-rated versus BBB corporate index
18 effective yields over a 12 month period (as reported from the Federal Reserve
19 Economic data), the yields for BBB ratings averaged 0.46% higher than the A rated
20 yields over that period.

⁷ See CenterPoint Energy, Inc., 2023 Annual Report (Form 10-K) (Feb. 20, 2024).

Table JRichert-5. Federal Reserve Economic Data for US Corporate Index Effective Yield

	BBB	A	BBB to A Difference
Average Corporate Effective Yield (12-month history)	5.83%	5.37%	0.46%

For illustration (Table JRichert-6 below), if you apply that incremental 0.46% cost to the 55% debt funding needed to invest the nearly \$13 billion estimated over a five-year period, the result would be an incremental \$92 million in cumulative interest expense to our customers over that five year period.

Table JRichert-6. Illustrative Incremental Five-Year Cost of BBB
(in Millions)

	2024	2025	2026	2027	2028
Capex estimates	\$1,895	\$2,598	\$2,663	\$2,822	\$2,816
Cumulative	\$1,895	\$4,493	\$7,156	\$9,978	\$12,794
Debt funded at 55%	\$1,042	\$2,471	\$3,936	\$5,488	\$7,037
Incremental interest expense (+0.46%)	\$5	\$11	\$18	\$25	\$32
Total five-year incremental interest expense					\$92

Q. SHOULD A UTILITY REGULATOR BE CONCERNED ABOUT A UTILITY'S CREDIT RATINGS AND ITS CAPITAL STRUCTURE WHEN ESTABLISHING RATES?

A. Yes. The ability to attract capital at a reasonable cost in all market conditions is critical for a utility if it is to satisfy its obligation to provide safe and reliable utility service and fund the capital investments necessary to meet its customers' demands.

As stated in Commission Substantive Rule 25.231(c)(1)(A) and (C):

(A) The return should be reasonably sufficient to assure confidence in the financial soundness of the electric utility and should be adequate . . . to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

. . .

1 (C) The [C]ommission may, in addition, consider inflation,
 2 deflation, the growth rate of the service area and the need for the
 3 electric utility to attract new capital.⁸

4 **Q. CAN A PROCEEDING SUCH AS THIS ONE AFFECT CENTERPOINT**
 5 **HOUSTON’S FINANCIAL INTEGRITY?**

6 A. Yes. Achieving a balanced or constructive outcome in a rate proceeding is an
 7 important factor considered by the rating agencies in assessing a utility’s credit
 8 quality. Although CenterPoint Houston has successfully strengthened its balance
 9 sheet since 2010 when the Company was rated Baa3 by Moody’s, continued
 10 diligence is necessary to ensure that the Company retains access to capital markets
 11 on favorable terms relative to the current market conditions.

12 This has been observed in a recent Oncor Electric Delivery Company LLC
 13 (“Oncor”) rate case outcome as well in 2023. As described in detail in the Direct
 14 Testimony of Ann E. Bulkley, after the Commission issued its final decision in
 15 Oncor’s rate case, Moody’s found that while the utility continues to benefit from a
 16 credit supportive relationship with the Commission as evidenced by the “mostly
 17 credit supportive” outcome of the rate proceeding, this was offset by Oncor’s weak
 18 authorized ROE and equity ratio that will contribute to deteriorating credit metrics
 19 when the utility is facing elevated investments.⁹

⁸ 16 Tex. Admin. Code § 25.231(c)(1)(A), (C).

⁹ Moody’s Invs. Serv., *Oncor Electric Delivery Company LLC: Administrative Law Judge’s proposed decision on a pending rate case would be credit negative if implemented* (Jan. 6, 2023).

1 **Q. HOW DO DECISIONS REGARDING CENTERPOINT HOUSTON’S COST**
 2 **OF DEBT, CAPITAL STRUCTURE, AND ROE AFFECT THE**
 3 **COMPANY’S FINANCIAL INTEGRITY?**

4 A. Decisions regarding these key financial factors affect CenterPoint Houston’s
 5 financial strength and investment strategy in three ways.

- 6 • First, the authorized ROE and equity ratio affect CenterPoint Houston’s
 7 earnings and directly affect its ability to fund capital investment with
 8 internally-generated funds. Both debt and equity investors expect a utility to be
 9 able to internally generate a substantial portion of its investment funding.
- 10 • Second, the capital structure and authorized returns directly affect all of the
 11 Company’s key credit metrics, whether it impacts (1) the allowable amount of
 12 debt compared to the Company’s total capitalization in the
 13 Debt-to-Capitalization ratio, or (2) the resulting internally generated cash flows
 14 that drive the Funds from Operations (“FFO”) numerator in the FFO-to-Debt
 15 ratio. Both ratios, as previously stated, are primary credit metrics that rating
 16 agencies analyze.
- 17 • Third, debt and equity investors expect CenterPoint Houston to be able to
 18 recover its costs in a timely manner and to have an opportunity to earn its
 19 authorized ROE.

20 **IV. REASONABLENESS OF 44.90% EQUITY RATIO OR GREATER**

21 **Q. WHY IS A CAPITAL STRUCTURE WITH 44.90% EQUITY AND 55.10%**
 22 **DEBT RECOMMENDED FOR CENTERPOINT HOUSTON?**

23 A. In addition to the reasons Ms. Bulkley describes in her Direct Testimony, the
 24 conservative capital structure containing 55.10% debt and 44.90% equity should be
 25 adopted by the Commission for CenterPoint Houston for several reasons:

- 26 • A 44.90% equity ratio is consistent with the equity ratio with which CenterPoint
 27 Houston has been operating;
- 28 • CenterPoint Houston is exposed to business and regulatory risks that justify a
 29 capital structure with at least 44.90% equity; and
- 30 • A 44.90% equity ratio will help CenterPoint Houston pursue its objective of
 31 improving the Moody’s issuer rating to A3, which will help ensure that the

1 Company has continuous access to the capital markets at satisfactory rates to
2 finance its business needs through most economic climates; and may have a
3 relative cost of debt improvement for our customers.

4 I will discuss these reasons in more detail in the following subsections of my
5 testimony.

6 **A. Business and Regulatory Risks**

7 **Q. IS IT IMPORTANT TO CONSIDER BUSINESS AND REGULATORY**
8 **RISK WHEN ESTABLISHING AN APPROPRIATE CAPITAL**
9 **STRUCTURE FOR CENTERPOINT HOUSTON?**

10 A. Yes. To achieve a targeted credit rating, a utility with greater business and
11 regulatory risk requires a greater amount of equity, all else being equal, than a
12 utility with lower business and regulatory risk.

13 **Q. WHAT BUSINESS AND REGULATORY RISKS DO YOU BELIEVE ARE**
14 **IMPORTANT TO CONSIDER WHEN ESTABLISHING AN**
15 **APPROPRIATE CAPITAL STRUCTURE FOR CENTERPOINT**
16 **HOUSTON?**

17 A. In addition to risks listed in our Form 10-K filed with the U.S. Securities and
18 Exchange Commission, I believe the following business and regulatory risks
19 specifically justify for CenterPoint Houston to have at least the 44.90% equity ratio
20 that I am supporting in this testimony.

- 21 • **Hurricane risk**: Houston is uniquely exposed to the impacts of hurricanes,
22 either dealing with wind damage (*e.g.*, Ike) or flooding (*e.g.*, Harvey).
23 CenterPoint Houston needs to respond to these emergency situations more
24 frequently than other Texas transmission and distribution utilities due to our
25 geography and concentrated population. Securitization works well, but is a