

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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BLUE CHIP FINANCIAL FORECASTS®

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U.S. Economy Keeps Humming, But Slowdown May Be Near

Solid growth now. The resilience of the US economy thus far in 2023 continues to concern financial markets and to surprise the Blue Chip Financial Forecasts (BCFF) panelists. Notwithstanding 525 basis points of fed funds rate (FFR) increases over the past 18 months, the US economy has confounded expectations this year. While real GDP growth in Q2 was revised down slightly from 2.4% q/q saar to 2.1%, this was still above mainstream estimates of the economy's potential growth rate. Moreover, the downward revision was mostly due to a liquidation of inventories (an event that rarely occurs outside of a recession) and a widening of the trade deficit, not weaker demand. Final domestic demand growth was unrevised at a solid 2.3%.

With inventories having declined in Q2 and barely advanced in Q1, the stage would seem to be set for some rebuilding in the near term that would support further GDP growth. Moreover, consumer spending (revised up slightly in Q2) ended Q2 on a strong note and was even stronger at the beginning of Q3. This has been reflected in the BCFF consensus. In this month's survey the consensus has significantly raised its outlook for GDP growth in the current quarter—to 2.4% from 0.8% in last month's survey.

Monetary policy is tight. Given the current elevated level of the FFR, the balance of risks appears to have shifted. The question now is not has the Fed tightened too little, but rather has it tightened too much. It is possible that the economy has yet to feel the full, lagged impact of the monetary tightening thus far. The BCFF consensus, with some shades of grey, seems to think that the Fed has almost over-tightened. Consequently, it doesn't look for any further rate hikes. Of the 32 respondents to a special question, 23 (72%) think that the Fed will not raise the FFR any further in this cycle while the remaining nine look for one more 25 basis points increase before the end of this year.

Moreover, the BCFF consensus implicitly considers the current stance of monetary policy to be restrictive. In answering another special question, the consensus estimate of the neutral FFR rate (the rate that is neither restrictive nor stimulative) was 2.74%, which is 264 basis points below the current FFR target and indicates that monetary policy is very tight. From another perspective, as Chair Powell has noted, when inflation falls, monetary policy becomes incrementally tighter even without changes in the nominal FFR. Specifically, this is reflected in a rising real (or inflation-adjusted) FFR. The BCFF consensus looks for the real FFR, which has risen significantly since the middle of last year, to continue to rise through the first quarter of next year, reaching 2.93%, the highest level since 2007 and a sign of tight policy.

Resilient economy has pushed up yields. Longer-term market interest rates have risen markedly over the past few months. The yield on the benchmark 10-year Treasury note reached 4.34% in mid-August, the highest daily close since November 2007, before receding somewhat over the past couple of weeks on the release of more inflation-friendly economic data. While the BCFF consensus does not expect much fur-

ther rise in longer-term market rates, it has reflected the recent increases in its forecasts. For example, the 10-year Treasury yield is expected to be about 15-20 basis points higher across the forecast horizon in the most recent survey relative to last month's. When asked in a special question as to what were the most important factors driving the recent increase in longer-term yields, 27 of 31 respondents named the resilient US economy. Twenty-one listed expectations that the FFR would remain elevated longer than previously expected, which also likely reflected the impact of the economy's resilience on the calibration of monetary policy.

The BCFF consensus now looks for the Fed to remain on hold longer than it had previously expected. While a plurality of respondents in this survey thought the first FFR cut would be in the first quarter of next year, this was slightly smaller than in the previous month's survey. Moreover, the consensus expected the quarterly average FFR in Q1 2024 to be eight basis points higher than last month with expected rates in Q2 and Q3 10-16 basis points higher.

Sharp slowdown expected. As for the economy, the BCFF consensus expects it to slow sharply with GDP edging up just 0.6% in Q4, 0.1% in next year's first quarter and 0.5% in Q2 2024. Indeed, the BCFF consensus still places a 49% probability on a recession occurring within the next 12 months, up slightly from 48% last month. This view continues to be supported by two historically dependable harbingers of recession (the 10-year/3-month and the 10-year/2-year yield curves), which remain decidedly inverted. The consensus expects these two curves to remain inverted until at least the end of 2024, underscoring the subpar growth that is anticipated over this period. In conjunction with its outlook for a sharp and protracted economic slowdown, the BCFF consensus looks for inflation to decline sufficiently close to the Fed's 2% target by the middle of next year for the Fed to be satisfied that inflation is no longer inappropriately elevated.

Historically tight labor market conditions continue to be a major source of concern for the Federal Reserve. It doubts that it can rein in inflation without labor markets softening materially, thereby reducing the upward pressure that labor-market tightness might place on wages and subsequently prices. On that front, even though the unemployment rate remains around a 50-year low, there have been signs of incipient softening over the past few months. Payroll growth has slowed; job openings are on a clear downtrend and declined much more than expected in July with a significant downward revision to June; weekly unemployment claims have recently taken a step up; the average workweek has declined to the lower end of its pre-pandemic range and hours worked have been flat over the first half of 2023. The BCFF consensus expects further significant slowing in labor-market conditions, especially over the next year with the unemployment rate increasing by 0.8%-point by the middle of 2024. An increase of this magnitude and pace has occurred in the past only during periods of recession.

Sandy Batten (Haver Analytics, New York, NY)

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	3Q 2023	4Q 2023	1Q 2024	2Q 2024	3Q 2024	4Q 2024
	Aug 25	Aug 18	Aug 11	Aug 4	Jul	Jun	May	2Q 2023	2023	2023	2024	2024	2024	2024	
Federal Funds Rate	5.33	5.33	5.33	5.33	5.12	5.08	5.06	4.99	5.3	5.4	5.3	5.0	4.6	4.2	
Prime Rate	8.50	8.50	8.50	8.50	8.29	8.25	8.23	8.16	8.4	8.6	8.4	8.1	7.6	7.3	
SOFR	5.30	5.30	5.30	5.30	5.09	5.06	5.02	4.96	5.3	5.4	5.4	5.1	4.6	4.2	
Commercial Paper, 1-mo.	5.27	5.31	5.31	5.30	5.16	5.10	5.06	4.99	5.4	5.5	5.3	4.9	4.6	4.2	
Treasury bill, 3-mo.	5.58	5.56	5.55	5.54	5.49	5.42	5.31	5.27	5.5	5.5	5.3	4.9	4.5	4.2	
Treasury bill, 6-mo.	5.58	5.54	5.53	5.52	5.53	5.42	5.27	5.23	5.5	5.5	5.2	4.9	4.5	4.2	
Treasury bill, 1 yr.	5.39	5.36	5.34	5.36	5.37	5.24	4.91	4.94	5.4	5.3	5.0	4.6	4.3	4.0	
Treasury note, 2 yr.	4.99	4.94	4.80	4.87	4.83	4.64	4.13	4.26	4.8	4.7	4.4	4.1	3.9	3.7	
Treasury note, 5 yr.	4.43	4.39	4.18	4.22	4.14	3.95	3.59	3.69	4.2	4.2	4.0	3.8	3.8	3.7	
Treasury note, 10 yr.	4.27	4.25	4.07	4.07	3.90	3.75	3.57	3.59	4.0	4.0	3.9	3.8	3.7	3.7	
Treasury note, 30 yr.	4.35	4.36	4.23	4.17	3.96	3.87	3.86	3.80	4.1	4.2	4.1	4.0	4.0	3.9	
Corporate Aaa bond	5.31	5.33	5.21	5.14	4.98	4.95	4.95	4.88	5.0	5.1	5.0	4.9	4.9	4.8	
Corporate Baa bond	5.98	5.99	5.86	5.78	5.64	5.64	5.66	5.58	6.0	6.1	6.0	5.9	5.8	5.8	
State & Local bonds	4.46	4.37	4.35	4.32	4.20	4.23	4.21	4.17	4.3	4.4	4.3	4.2	4.2	4.2	
Home mortgage rate	7.23	7.09	6.96	6.90	6.84	6.71	6.43	6.49	6.9	6.8	6.6	6.4	6.3	6.1	

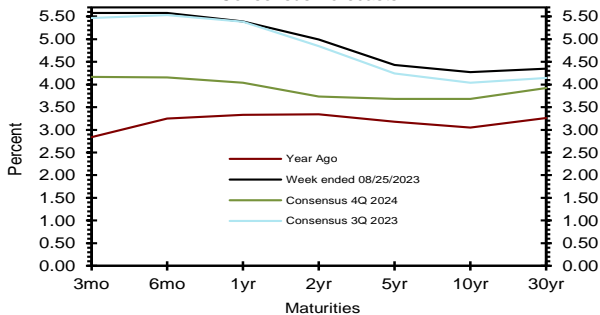
Key Assumptions	History								Consensus Forecasts-Quarterly					
	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023	4Q 2023	1Q 2024	2Q 2024	3Q 2024	4Q 2024
	2021	2021	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024	2024	2024
Fed's AFE \$ Index	104.9	106.9	108.3	113.5	118.8	119.8	115.5	114.6	115.1	114.8	114.5	114.2	114.0	113.7
Real GDP	2.7	7.0	-1.6	-0.6	3.2	2.6	2.0	2.1	2.4	0.6	0.1	0.5	1.3	1.8
GDP Price Index	6.2	6.8	8.3	9.0	4.4	3.9	4.1	2.0	2.7	2.6	2.4	2.3	2.2	2.2
Consumer Price Index	6.6	8.8	9.2	9.7	5.5	4.2	3.8	2.7	3.2	2.9	2.5	2.3	2.4	2.4
PCE Price Index	5.6	6.2	7.5	7.3	4.3	3.7	4.1	2.5	2.9	2.8	2.4	2.2	2.2	2.2

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economics 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

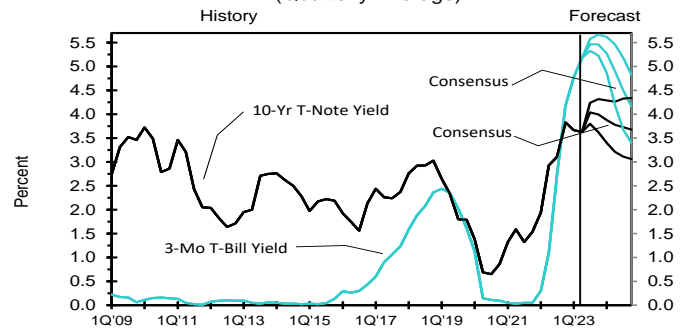
Week ended Aug 25, 2023 & Year Ago vs.

3Q 2023 & 4Q 2024
Consensus Forecasts



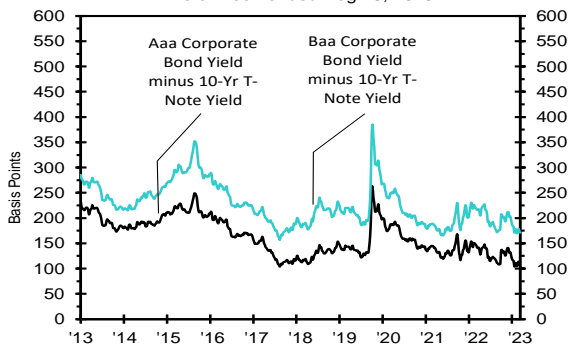
US 3-Mo T-Bills & 10-Yr T-Note Yield

(Quarterly Average)



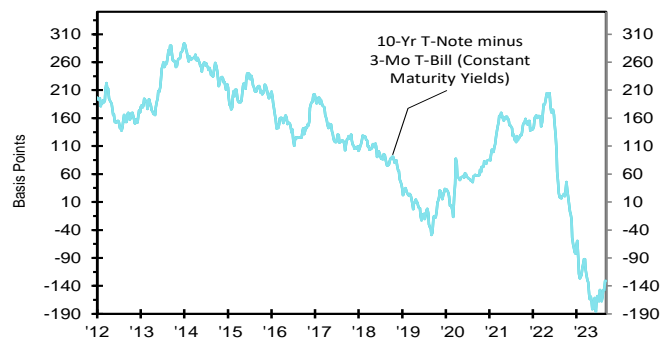
Corporate Bond Spreads

As of week ended Aug 25, 2023



US Treasury Yield Curve

As of week ended Aug 25, 2023



-----Policy Rates¹-----

	History			Consensus Forecasts		
	Latest:	Month Ago:	Year Ago:	Months From Now:		
				3	6	12
U.S.	5.38	5.38	2.38	5.43	5.37	4.65
Japan	-0.10	-0.10	-0.10	-0.09	-0.09	-0.06
U.K.	5.25	5.00	1.75	5.47	5.43	4.92
Switzerland	1.75	1.75	-0.25	1.93	1.96	1.84
Canada	5.00	5.00	2.50	5.04	4.97	4.38
Australia	4.10	4.10	1.85	4.24	4.23	3.80
Euro area	4.25	4.00	0.50	4.21	4.20	3.70

-----10-Yr. Government Bond Yields²-----

	History			Consensus Forecasts		
	Latest:	Month Ago:	Year Ago:	Months From Now:		
				3	6	12
U.S.	4.25	3.96	3.04	3.92	3.78	3.58
Germany	2.56	2.47	1.40	2.47	2.40	2.28
Japan	0.66	0.55	0.23	0.69	0.68	0.68
U.K.	4.50	4.34	2.79	4.33	4.24	4.05
France	3.08	3.03	2.01	2.97	2.87	2.73
Italy	4.23	4.13	3.74	4.16	4.05	3.89
Switzerland	0.98	0.97	0.79	1.14	1.27	1.28
Canada	3.71	3.52	3.02	3.49	3.45	3.30
Australia	4.15	4.06	3.59	4.16	4.17	3.58
Spain	3.50	3.51	2.48	3.45	3.38	3.27

-----Foreign Exchange Rates³-----

	History			Consensus Forecasts		
	Latest:	Month Ago:	Year Ago:	Months From Now:		
				3	6	12
U.S.	116.43	113.27	118.75	114.0	113.4	112.1
Japan	146.38	140.72	137.07	140.5	137.1	132.6
U.K.	1.26	1.29	1.18	1.28	1.29	1.31
Switzerland	0.89	0.87	0.96	0.88	0.88	0.87
Canada	1.36	1.32	1.30	1.33	1.32	1.29
Australia	0.64	0.67	0.69	0.67	0.68	0.70
Euro	1.08	1.10	1.00	1.10	1.11	1.13

Consensus Policy Rates vs. US Rate

	Now	In 12 Mo.
Japan	-5.48	-4.72
U.K.	-0.13	0.26
Switzerland	-3.63	-2.81
Canada	-0.38	-0.28
Australia	-1.28	-0.85
Euro area	-1.13	-0.96

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

	Now	In 12 Mo.
Germany	-1.69	-1.31
Japan	-3.59	-2.91
U.K.	0.25	0.47
France	-1.17	-0.85
Italy	-0.02	0.31
Switzerland	-3.27	-2.30
Canada	-0.55	-0.29
Australia	-0.10	-0.01
Spain	-0.75	-0.31

International. The mood in financial markets has soured a little over the past few weeks and investors are no longer actively embracing the soft landing consensus for the world economy that had previously held sway. Growing evidence of economic instability in China has magnified these concerns. But they have been amplified by a break higher in government bond yields over the last few weeks. A soft landing narrative for the US economy has helped to mitigate this negativity. Recent evidence suggesting the labor market is re-balancing even as the economy more generally has remained resilient has certainly left investors hopeful that a US recession could be avoided in the period ahead.

On the China front, domestic growth concerns, and their global implications, are deep-seated. In a special question this month, 96% of panelists who responded believe the recent weakness of China's economy threatens the prospects for global growth. Incoming data show the property market is heavily saddled with excess capacity. Real estate investment, for example, fell by 8.5%/y in July while existing house prices in China's largest 69 cities fell by 2.5%/y. Additional data for July point to flagging consumer spending growth, sagging exports, and intensifying deflation. Policymakers have admittedly sought to counter these negatives by cutting lending rates and unveiling some targeted fiscal policy initiatives. But the breadth and magnitude of these measures have, so far, failed to impress.

On the broader global economic front, incoming data have additionally underwhelmed. Early PMI survey data for August, for example, showed the major developed economies collectively slipping into contraction territory for the first time since January. The euro area led that downturn by registering an output decline for a third consecutive month. But output additionally fell in the UK at the fastest rate since January 2021. In the meantime, even though much of the incoming data suggest the US economy has registered greater resilience, this specific survey hinted at more fragility. Against this backdrop, Blue Chip panelists remain concerned about global recession risk in the year ahead. In response to our special question on that issue, probabilities of 53% and 56% were placed on the respective chances of a recession in the euro area and the UK over the next 12 months. That contrasts with the US, where the probability was 49%.

As noted, a trend toward higher government bond yields has posed an additional threat to global financial stability in recent weeks. Responses to another special question this month suggest that most of our panelists believe that higher yields in the US can be traced to the resilience of the economy and the implications of this for the calibration of Fed policy. The stance of fiscal policy and, presumably with a nod to the Fed, lingering inflationary pressures were also cited as important. But with a nod too to the global nature of this trend, the economic outlook and its monetary policy implications in other major economies may have played an important role as well.

The state of play in Japan's economy and the policy response is a case in point. For example, while Europe's, and to a lesser extent the US, flash PMIs in July exhibited fragility, Japan's composite PMI indicated strengthening economic momentum. In the meantime, the BoJ unexpectedly made a tweak to its yield curve control policy at its end-July policy meeting that has allowed JGB yields to move more freely. And that tweak subsequently generated a big sell-off in the JGB market. By incentivizing domestic savers to withdraw from overseas government bond markets, this could have been a factor that's driven yields higher in other markets, including the US, as well.

Notwithstanding those issues concerning Japan, there remains a broad consensus that central banks either already have completed, or are very close to completing, their monetary policy tightening campaigns. This month's survey equally suggests that easing cycles are still expected to commence within the next 12 months in most major economies as well. This is presumably why this month's forecasts additionally suggest little scope for a further sharp climb in 10-year bond yields from here.

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.

Third Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	-----Percent Per Annum -- Average For Quarter-----															Avg. For --Qtr.-- A. Fed's Adv Fgn Econ \$ Index	----- (Q-Q % Change) -----										
	-----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		Fed's Adv Fgn Econ \$ Index	Real GDP	GDP Price Index	Cons. Price Index	PCE Price Index						
Bank of the West	5.5	H	8.6	H	5.4	5.4	5.6	H	5.6	5.4	5.0	4.3	4.1	4.2	5.0	6.1	4.6	7.0	114.2	3.1	2.5	2.6	2.5				
Scotiabank Group	5.5	H	na		5.3	na	5.3	na	na	4.6	4.0	3.7	3.9	na	na	na	na	na	na	-0.7	L	1.1	3.8	1.7	L		
TS Lombard	5.5	H	8.6	H	5.4	5.5	H	5.4	5.5	5.3	5.0	4.4	4.1	4.2	5.0	5.8	4.1	5.9	L	118.0	H	3.5	4.0	H	4.0	4.0	H
Bank of America	5.4	na	na	na	na	na	na	na	na	5.0	4.4	4.1	4.3	na	na	na	na	na	na	na	2.0	3.7	3.1	3.1			
Barclays	5.4	na	na	na	na	na	na	na	na	5.0	4.5	4.3	H	4.4	H	na	na	na	na	na	3.0	3.2	3.4	3.2			
Chan Economics	5.4	8.4	L	5.3	5.4	5.6	H	5.6	5.2	5.0	4.5	4.2	4.3	5.3	6.3	4.8	H	7.0	116.0	4.5	H	2.9	3.1	2.7			
Economist Intelligence Unit	5.4	8.4	L	na	5.3	5.5	5.6	5.5	5.0	4.5	4.3	H	4.3	na	na	na	7.3	na	na	0.7	na	1.9	L	na			
GLC Financial Economics	5.4	8.5	5.2	L	5.3	5.5	5.4	L	5.1	L	4.6	4.2	4.2	4.3	5.0	6.1	4.2	6.8	114.8	1.6	2.8	2.8	2.8				
Goldman Sachs & Co.	5.4	na	na	na	5.1	L	na	na	4.4	3.9	3.9	4.0	na	na	na	na	na	na	na	2.6	2.5	2.4	2.3				
ING	5.4	na	na	na	na	na	na	na	5.0	4.3	4.3	H	4.0	na	na	na	na	na	na	3.2	na	na	na				
MacroFin Analytics & Rutgers Bus School	5.4	8.5	5.3	5.5	H	5.6	H	5.6	5.5	5.0	4.5	4.3	H	4.4	H	5.4	6.2	4.4	7.3	116.5	2.6	3.0	2.7	2.8			
Naroff Economic Advisors	5.4	8.4	L	5.4	5.5	H	5.4	5.5	5.4	4.8	4.4	4.2	4.3	na	na	4.1	6.7	114.0	2.0	3.9	4.1	4.0	H				
NatWest Markets	5.4	8.5	na	na	5.5	H	5.6	H	5.7	H	5.8	H	4.0	L	3.5	L	3.7	L	5.3	6.3	4.7	6.5	na	3.7	2.4	3.3	3.0
Nomura Securities, Inc.	5.4	8.5	na	na	na	na	na	na	4.7	4.0	3.5	L	na	na	na	na	na	na	na	na	2.4	2.5	3.2	2.8			
The Lonski Group	5.4	8.5	5.3	5.5	H	5.5	5.5	5.2	4.9	4.2	4.0	4.1	5.2	5.8	4.5	7.0	115.5	2.0	2.8	3.2	3.5						
Wells Fargo	5.4	8.5	5.3	5.4	5.4	5.4	L	5.3	4.6	4.0	3.9	4.0	5.1	6.1	4.5	6.8	na	na	3.1	2.7	2.8	2.7					
Action Economics	5.3	8.4	L	5.5	H	5.4	5.5	5.5	5.3	4.9	4.3	4.2	4.2	4.9	6.0	4.3	7.4	H	114.6	2.4	2.1	3.0	2.7				
BMO Capital Markets	5.3	8.5	5.2	L	na	5.6	H	5.6	5.4	4.9	4.3	4.1	4.2	na	na	na	6.9	114.3	2.5	2.6	3.2	3.1					
Chmura Economics & Analytics	5.3	8.4	L	5.3	5.4	5.5	5.6	5.4	4.9	4.3	4.1	4.2	4.9	na	na	6.9	na	na	0.9	3.1	3.3	2.5					
Comerica Bank	5.3	8.4	L	5.3	na	5.6	H	5.6	5.4	4.9	4.2	4.0	4.1	4.8	5.9	na	7.0	na	na	1.5	2.6	3.8	3.5				
DePrince & Assoc.	5.3	8.4	L	5.2	L	5.3	5.5	5.5	5.4	4.9	4.3	4.1	4.2	4.9	6.0	4.1	7.0	116.6	1.5	3.2	3.3	3.1					
EY-Parthenon	5.3	na	na	na	na	5.2	na	na	na	na	na	4.0	na	na	na	na	na	na	na	2.4	1.7	3.3	2.9				
Fannie Mae	5.3	8.4	L	na	na	5.5	5.5	5.4	4.9	4.3	4.1	4.2	na	na	na	7.0	na	na	2.2	2.4	3.4	3.0					
Georgia State University	5.3	8.4	L	na	na	5.5	5.5	5.8	H	5.1	H	4.6	H	4.3	H	4.2	5.0	6.2	na	7.0	na	2.3	2.4	2.8	2.5		
J.P. Morgan Chase	5.3	na	na	na	na	na	na	na	4.5	4.0	3.8	4.0	na	na	na	na	na	na	na	2.5	2.8	3.2	2.8				
KPMG	5.3	8.4	L	5.3	5.3	5.5	5.6	5.4	4.9	4.2	4.0	3.9	4.9	5.9	na	7.1	na	na	2.3	2.3	3.3	2.8					
Loomis, Sayles & Company	5.3	8.5	5.3	5.3	5.5	5.5	5.3	4.8	4.1	4.1	4.2	5.0	6.0	4.4	7.0	115.3	1.7	2.2	3.2	2.9							
Moody's Analytics	5.3	8.4	L	5.2	L	5.3	5.3	5.4	L	5.4	5.0	4.3	3.9	4.1	4.8	5.8	3.7	L	6.8	na	1.6	2.6	3.1	2.5			
Oxford Economics	5.3	8.4	L	5.3	na	5.4	5.4	L	5.3	4.9	4.1	3.8	3.9	4.3	L	na	na	6.8	115.0	1.4	1.0	L	3.0	2.6			
PNC Financial Services Corp.	5.3	8.4	L	5.2	L	na	5.4	5.5	5.3	4.8	4.1	4.0	4.1	na	6.0	3.8	6.9	113.8	2.7	3.4	3.3	3.0					
RDQ Economics	5.3	8.4	L	5.3	5.3	5.4	5.5	5.2	4.9	4.4	4.0	4.1	5.1	6.0	4.5	6.9	114.5	2.6	3.7	3.6	3.3						
Regions Financial Corporation	5.3	8.4	L	5.3	5.3	5.5	5.6	5.4	4.9	4.3	4.1	4.2	5.6	H	6.5	H	4.8	H	7.1	114.6	3.0	2.8	4.3	H	3.0		
S&P Global Market Intelligence	5.3	8.4	L	5.2	L	na	5.4	5.4	L	5.4	4.9	4.2	4.0	4.0	na	na	na	7.0	na	2.2	2.2	3.1	2.8				
Santander Capital Markets	5.3	8.4	L	5.2	L	5.3	5.5	5.6	5.4	4.9	4.3	4.1	4.2	4.9	6.0	3.8	7.1	114.8	3.7	3.3	3.3	3.2					
Societe Generale	5.3	8.4	L	5.2	L	5.3	5.5	5.5	5.4	4.9	4.3	4.1	4.2	na	na	na	6.8	na	na	3.6	2.3	3.3	3.0				
The Northern Trust Company	5.3	8.5	5.3	5.3	5.6	H	5.6	5.4	5.0	4.4	4.1	4.3	5.0	6.0	4.5	7.1	116.0	1.0	3.1	3.0	2.8						
Via Nova Investment Mgt.	5.2	L	8.4	L	5.2	L	5.2	L	5.6	H	5.6	5.4	4.9	4.2	4.0	4.1	4.7	5.4	L	3.9	6.3	113.0	L	4.0	3.0	2.9	2.5
September Consensus	5.3	8.4	5.3	5.4	5.5	5.5	5.4	4.8	4.2	4.0	4.1	5.0	6.0	4.3	6.9	115.1	2.4	2.7	3.2	2.9							
Top 10 Avg.	5.4	8.5	5.4	5.5	5.6	5.6	5.5	5.0	4.5	4.2	4.3	5.2	6.2	4.6	7.1	115.9	3.5	3.5	3.7	3.4							
Bottom 10 Avg.	5.3	8.4	5.2	5.3	5.3	5.5	5.3	4.6	4.0	3.8	4.0	4.8	5.9	4.0	6.6	114.3	1.1	2.0	2.7	2.5							
August Consensus	5.4	8.5	5.3	5.4	5.5	5.5	5.3	4.7	4.1	3.9	4.0	4.9	6.0	4.2	6.7	114.4	0.8	2.7	2.9	2.7							
Number of Forecasts Changed From A Month Ago:																											
Down	9	7	4	9	8	6	7	2	3	1	3	4	5	4	1	3	0	13	9	8							
Same	24	20	21	8	13	13	11	16	10	8	6	4	4	5	4	4	2	10	5	9							
Up	4	3	1	4	11	10	11	18	23	28	26	14	12	10	23	11	35	12	22	18							
Diffusion Index	43%	43%	44%	38%	55%	57%	57%	72%	78%	86%	83%	73%	67%	66%	89%	72%	97%	49%	68%	64%							

Fourth Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For --Qtr.-- A.	(Q-Q % Change)													
	Short-Term					Intermediate-Term					Long-Term						B.	C.	D.	E.										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15															
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate															
Chan Economics	5.7	H	8.7	5.6	5.7	H	5.9	H	5.9	H	5.5	5.3	H	4.8	H	4.5	4.6	5.6	H	6.6	5.1	H	7.3	115.8	1.0	2.6	2.8	2.4		
Bank of America	5.6		na	na	na	na	na	na	4.8	4.3	4.0	4.2	na	na	na	na	na	na	na	na	na	na	na	na	1.5	3.9	H	3.4	3.3	
Bank of the West	5.6	8.8	H	5.5	5.6	5.6	5.6	5.5	5.0	4.5	4.3	4.4	5.2	6.3	4.8	7.1	115.0	1.1	2.6	2.5	2.4	na	na	na	1.1	2.6	2.5	2.4		
Barclays	5.6	na	na	na	na	na	na	na	4.8	4.4	4.2	4.3	na	na	na	na	na	na	na	na	na	na	na	na	0.5	2.8	2.3	2.6		
Chmura Economics & Analytics	5.6	8.7	5.6	5.7	H	5.8	5.8	5.6	H	5.2	4.8	H	4.6	H	4.7	H	5.4	na	na	na	7.1	na	na	na	1.0	2.7	3.0	2.6		
Naroff Economic Advisors	5.6	8.6	5.6	5.7	H	5.6	5.7	5.4	4.8	4.4	4.2	4.3	na	na	4.1	7.2	114.2	1.1	3.6	3.5	3.5	na	na	na	1.1	3.6	3.5	3.5		
The Northern Trust Company	5.6	8.8	H	5.6	5.6	5.8	5.7	5.6	H	5.0	4.4	4.3	4.5	5.3	6.3	4.8	7.3	117.0	0.8	2.8	2.8	2.6	na	na	na	0.8	2.8	2.8	2.6	
Action Economics	5.5	8.7	5.8	H	5.6	5.6	5.5	5.3	4.8	4.2	4.2	4.2	5.0	6.1	4.3	7.5	H	114.7	1.2	2.7	3.1	2.6	na	na	na	1.2	2.7	3.1	2.6	
Comerica Bank	5.5	8.6	5.5	na	5.6	5.6	5.4	4.7	4.3	4.1	4.3	5.0	6.1	na	7.0	na	na	1.0	2.3	2.1	2.3	na	na	na	1.0	2.3	2.1	2.3		
DePrince & Assoc.	5.5	8.6	5.4	5.4	5.6	5.6	5.5	5.0	4.5	4.3	4.3	5.3	6.2	4.5	6.9	117.5	H	1.2	2.8	2.9	2.7	na	na	na	1.2	2.8	2.9	2.7		
S&P Global Market Intelligence	5.5	8.6	5.5	na	5.5	5.4	5.4	4.9	4.2	4.0	4.0	na	na	na	6.9	na	na	1.6	2.7	2.8	2.6	na	na	na	1.6	2.7	2.8	2.6		
Santander Capital Markets	5.5	8.7	5.5	5.6	5.6	5.6	5.3	5.1	4.5	4.3	4.5	5.2	6.3	4.0	L	7.3	115.3	2.1	H	3.2	3.9	3.5	na	na	na	2.1	H	3.2	3.9	3.5
Scotiabank Group	5.5	na	5.3	L	na	5.3	na	na	4.4	3.9	3.6	3.9	na	na	na	na	na	-0.3	1.4	3.9	3.7	H	na	na	na	-0.3	1.4	3.9	3.7	H
TS Lombard	5.5	8.6	5.4	5.5	5.3	5.4	5.1	4.8	4.0	4.1	4.2	5.0	5.8	4.1	5.9	114.0	na	-1.5	3.5	3.5	3.5	na	na	na	-1.5	3.5	3.5	3.5		
Economist Intelligence Unit	5.4	8.4	na	5.4	5.4	5.5	5.2	5.0	4.4	4.2	4.2	na	na	na	7.2	na	na	-0.6	na	1.8	na	na	na	na	-0.6	na	1.8	na		
Fannie Mae	5.4	8.5	na	na	5.5	5.5	5.3	4.8	4.3	4.2	4.3	na	na	na	7.0	na	na	1.1	2.6	2.8	2.6	na	na	na	1.1	2.6	2.8	2.6		
Georgia State University	5.4	8.5	na	na	5.4	5.2	5.4	4.8	4.3	4.1	4.1	4.8	6.0	na	6.7	na	na	0.2	2.8	3.4	3.3	na	na	na	0.2	2.8	3.4	3.3		
GLC Financial Economics	5.4	8.6	5.4	5.2	5.4	5.2	5.0	4.6	4.3	4.1	4.4	5.1	6.1	4.2	6.5	114.6	na	0.3	2.7	2.8	2.8	na	na	na	0.3	2.7	2.8	2.8		
Goldman Sachs & Co.	5.4	na	na	na	5.1	L	na	na	4.5	4.0	3.9	4.0	na	na	na	na	na	1.3	3.2	3.0	2.7	na	na	na	1.3	3.2	3.0	2.7		
ING	5.4	na	na	na	na	na	na	4.3	3.8	3.8	3.7	L	na	na	na	na	na	0.6	na	na	na	na	na	na	0.6	na	na	na		
J.P. Morgan Chase	5.4	na	na	na	na	na	na	4.6	4.1	3.9	4.1	na	na	na	na	na	na	1.5	2.4	3.0	2.6	na	na	na	1.5	2.4	3.0	2.6		
KPMG	5.4	8.5	5.4	5.3	5.5	5.5	5.3	4.8	4.1	3.9	4.0	4.9	5.9	na	7.0	na	na	1.5	2.6	3.2	2.7	na	na	na	1.5	2.6	3.2	2.7		
Loomis, Sayles & Company	5.4	8.6	5.4	5.3	5.6	5.6	5.0	3.9	L	3.7	3.7	3.9	4.7	5.7	L	4.0	L	115.0	-1.6	1.9	1.1	L	1.3	L	-1.6	1.9	1.1	L	1.3	L
MacroFin Analytics & Rutgers Bus School	5.4	8.5	5.3	L	5.5	5.6	5.6	5.4	5.0	4.5	4.3	4.4	5.4	6.2	4.4	7.3	116.4	1.3	2.9	2.6	2.7	na	na	na	1.3	2.9	2.6	2.7		
Nomura Securities, Inc.	5.4	8.5	na	na	na	na	na	3.9	L	3.3	L	2.9	L	na	na	na	na	-1.7	L	2.0	2.6	2.3	na	na	na	-1.7	L	2.0	2.6	2.3
Oxford Economics	5.4	8.5	5.4	na	5.3	5.2	5.1	4.6	3.8	3.6	3.7	L	4.2	L	na	na	6.3	114.9	-1.6	-0.6	L	3.2	2.7	na	-1.6	-0.6	L	3.2	2.7	
RDQ Economics	5.4	8.5	5.4	5.5	5.4	5.4	5.2	4.9	4.4	4.0	4.0	5.5	6.2	4.4	6.7	112.7	na	0.8	3.6	3.8	3.5	na	na	na	0.8	3.6	3.8	3.5		
The Lonski Group	5.4	8.5	5.3	L	5.6	5.4	5.4	5.0	4.7	4.0	3.8	3.9	5.0	5.8	4.3	6.7	116.4	0.7	2.4	3.0	3.1	na	na	na	0.7	2.4	3.0	3.1		
Wells Fargo	5.4	8.5	5.4	5.4	5.3	5.3	4.8	L	4.2	3.7	3.7	3.9	4.9	5.9	4.3	6.6	na	0.4	2.5	2.8	2.5	na	na	na	0.4	2.5	2.8	2.5		
BMO Capital Markets	5.3	8.5	5.3	L	na	5.6	5.6	5.2	4.6	4.1	4.0	4.1	na	na	na	6.8	113.0	1.0	3.0	3.5	3.3	na	na	na	1.0	3.0	3.5	3.3		
EY-Parthenon	5.3	na	na	na	5.1	L	na	na	na	na	3.9	na	na	na	na	na	na	0.4	2.6	2.9	2.6	na	na	na	0.4	2.6	2.9	2.6		
Moody's Analytics	5.3	8.5	5.3	L	5.5	5.2	5.1	L	4.9	4.7	4.3	4.0	4.3	5.1	6.1	4.1	6.8	na	0.3	2.9	3.2	3.1	na	na	na	0.3	2.9	3.2	3.1	
PNC Financial Services Corp.	5.3	8.5	5.3	L	na	5.3	5.3	4.9	4.4	4.0	3.9	4.1	na	6.9	H	4.9	6.7	113.4	0.7	2.6	2.2	2.0	na	na	na	0.7	2.6	2.2	2.0	
Regions Financial Corporation	5.3	8.5	5.3	L	5.4	5.5	5.5	5.4	4.7	4.2	4.0	4.2	5.5	6.4	4.7	6.9	115.1	0.3	3.3	4.2	H	3.3	na	na	0.3	3.3	4.2	H	3.3	
Societe Generale	5.3	8.5	5.3	L	5.3	5.3	5.3	5.1	4.6	4.2	4.1	4.2	na	na	na	5.6	L	na	0.8	2.7	2.9	2.5	na	na	na	0.8	2.7	2.9	2.5	
Via Nova Investment Mgt.	5.3	8.5	5.3	L	5.3	5.6	5.6	5.5	4.8	4.1	3.8	4.1	5.0	5.8	4.4	6.8	112.0	L	2.0	2.5	2.4	2.3	na	na	na	2.0	2.5	2.4	2.3	
NatWest Markets	4.9	L	8.0	L	na	5.0	L	5.1	L	5.2	5.3	3.9	L	3.4	3.4	3.7	L	5.2	6.1	4.7	6.5	na	na	na	na	-1.0	2.2	2.6	2.5	
September Consensus	5.4	8.6	5.4	5.5	5.5	5.5	5.3	4.7	4.2	4.0	4.2	5.1	6.1	4.4	6.8	114.8	0.6	2.6	2.9	2.8	na	na	na	0.6	2.6	2.9	2.8			
Top 10 Avg.	5.6	8.7	5.6	5.6	5.7	5.7	5.5	5.0	4.5	4.3	4.4	5.4	6.4	4.7	7.2	115.8	na	1.5	3.3	3.6	3.4	na	na	na	1.5	3.3	3.6	3.4		
Bottom 10 Avg.	5.3	8.4	5.3	5.3	5.2	5.3	5.0	4.3	3.8	3.6	3.9	4.9	5.9	4.2	6.4	113.9	na	-0.8	1.9	2.2	2.3	na	na	na	-0.8	1.9	2.2	2.3		
August Consensus	5.4	8.5	5.4	5.4	5.4	5.4	5.1	4.5	4.0	3.8	3.9	4.9	6.0	4.2	6.6	114.1	na	0.0	2.6	2.8	2.7	na	na	na	0.0	2.6	2.8	2.7		
Number of Forecasts Changed From A Month Ago:																														
Down	4	3	2	4	4	3	6	2	3	1	2	3	4	2	0	3	7	14	13	13	na	na	na	7	14	13	13			
Same	26	20	21	13	18	16	11	13	9	10	9	5	4	6	5	4	6	12	8	9	na	na	na	6	12	8	9			
Up	7	7	3	4	10	10	12	21	24	26	24	14	13	11	23	11	24	9	15	13	na	na	na	24	9	15	13			
Diffusion Index	54%	57%	52%	50%	59%	62%	60%	76%	79%	84%	81%	75%	71%	74%	91%	72%	73%	43%	53%	50%	na	na	na	73%	43%	53%	50%			

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)										
	Short-Term					Intermediate-Term					Long-Term						B. Real GDP	C. Price Index	D. Cons. Price Index	E. PCE Price Index							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15												
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate												
Barclays	5.6	H	na	na	na	na	na	4.4	4.2	4.0	4.1	na	na	na	na	na	na	na	-0.5	2.4	1.9	2.2					
Santander Capital Markets	5.6	H	8.8	H	5.6	5.7	H	5.5	5.4	5.1	4.8	4.3	4.2	4.4	5.3	6.5	4.0	7.0	114.5	1.0	2.9	2.9	2.6				
The Northern Trust Company	5.6	H	8.8	H	5.6	5.7	H	5.8	H	5.6	5.4	4.8	4.3	4.1	4.4	5.4	6.5	4.8	6.9	115.0	1.1	2.5	2.4	2.4			
Bank of the West	5.5	8.6	5.4	5.4	5.4	5.5	5.3	4.8	4.4	4.2	4.3	5.3	6.4	4.9	H	7.1	na	na	114.4	0.9	2.3	2.3	2.2				
Chmura Economics & Analytics	5.5	8.6	5.4	5.6	5.6	5.7	H	5.6	H	5.5	H	5.4	H	5.3	H	6.0	H	na	na	na	7.1	na	-0.7	2.2	2.3	2.3	
J.P. Morgan Chase	5.5	na	na	na	na	na	na	4.4	3.9	3.8	4.0	na	na	na	na	na	na	na	na	na	na	0.5	2.0	1.7	1.5		
Bank of America	5.4	na	na	na	na	na	na	4.4	4.1	3.8	4.0	na	na	na	na	na	na	na	na	na	na	0.5	3.5	2.7	2.5		
Chan Economics	5.4	8.4	5.3	5.4	5.6	5.6	5.2	5.0	4.5	4.2	4.3	5.3	6.3	4.8	7.0	na	na	na	115.5	-0.2	2.3	2.5	2.1				
Economist Intelligence Unit	5.4	8.4	na	5.3	5.2	5.0	4.8	4.8	4.0	3.8	3.9	na	na	na	6.8	na	na	na	na	na	1.1	na	2.4	na			
S&P Global Market Intelligence	5.4	8.5	5.4	na	5.2	4.8	4.7	4.2	3.7	3.7	3.9	na	na	na	6.3	na	na	na	na	na	1.0	2.7	2.8	2.6			
Action Economics	5.3	8.4	5.8	H	5.3	5.2	5.0	4.8	4.3	4.1	4.1	4.1	4.9	6.0	4.2	7.4	H	na	116.1	1.0	1.8	2.5	2.0				
BMO Capital Markets	5.3	8.4	5.3	na	5.5	5.5	4.8	3.9	3.8	3.6	3.7	na	na	na	6.4	na	na	na	111.1	1.0	2.2	2.4	2.2				
Comerica Bank	5.3	8.5	5.3	na	5.3	5.2	4.8	4.0	3.9	3.8	4.0	4.8	5.8	na	6.4	na	na	na	na	na	0.9	2.1	2.2	2.0			
DePrince & Assoc.	5.3	8.4	5.2	5.2	5.4	5.4	5.3	4.9	4.5	4.4	4.3	5.6	6.4	4.7	6.7	na	na	na	117.1	1.5	2.6	2.8	2.5				
Moody's Analytics	5.3	8.5	5.3	5.3	5.0	4.9	4.8	4.5	4.2	4.0	4.4	5.4	6.4	4.4	6.5	na	na	na	na	na	1.5	2.1	2.4	2.4			
RDQ Economics	5.3	8.4	5.4	5.4	5.2	5.1	4.8	4.5	4.1	3.9	3.9	5.7	6.6	H	4.3	6.3	na	na	109.4	L	-1.8	3.2	3.4	3.2	H		
Regions Financial Corporation	5.3	8.5	5.3	5.3	5.2	5.3	5.2	4.3	4.0	3.9	4.1	5.4	6.3	4.5	6.6	na	na	na	114.2	na	0.5	2.4	2.3	2.6			
Scotiabank Group	5.3	na	5.2	na	4.8	na	na	3.8	3.8	3.8	3.9	na	na	na	na	na	na	na	na	na	0.6	4.0	H	1.0	1.8		
Goldman Sachs & Co.	5.1	na	na	na	4.8	na	na	4.2	3.9	3.8	3.9	na	na	na	na	na	na	na	na	na	1.9	2.7	2.7	2.5			
Naroff Economic Advisors	5.1	8.1	5.1	5.2	5.3	5.4	4.5	4.6	4.1	4.0	4.1	na	na	na	4.0	6.8	na	na	114.0	na	2.1	3.0	3.1	2.8			
Societe Generale	5.1	8.3	5.1	5.0	4.9	4.6	4.1	3.5	3.6	3.7	4.0	na	na	na	5.2	L	na	na	na	na	-2.3	L	1.8	2.2	2.0		
EY-Parthenon	5.0	na	na	na	4.6	na	na	na	na	3.7	na	na	na	na	na	na	na	na	na	na	1.1	1.9	1.7	1.9			
Fannie Mae	5.0	8.1	na	na	5.2	5.1	4.8	4.4	4.1	4.1	4.2	na	na	na	6.7	na	na	na	na	na	-0.9	2.8	2.9	2.7			
GLC Financial Economics	5.0	8.1	5.0	4.9	4.9	4.5	4.5	4.0	4.0	3.9	4.2	4.8	5.8	4.1	5.8	na	na	na	113.9	na	1.5	2.4	2.5	2.5			
KPMG	5.0	8.1	5.0	4.7	4.9	5.0	4.9	4.5	3.8	3.6	3.8	4.5	5.7	na	6.5	na	na	na	na	na	1.1	2.4	1.9	2.1			
Oxford Economics	5.0	7.8	5.0	na	4.5	4.5	4.3	3.8	3.2	3.2	3.4	3.5	na	na	5.4	na	na	na	113.6	na	1.2	1.5	2.4	2.1			
Via Nova Investment Mgt.	5.0	8.3	5.1	5.1	5.0	5.0	4.9	4.4	4.0	3.9	4.2	5.1	5.9	4.2	6.9	na	na	na	110.0	na	2.5	H	2.1	2.1			
PNC Financial Services Corp.	4.7	7.8	4.7	na	4.2	4.2	3.8	3.8	3.7	3.7	4.0	na	6.5	4.8	6.1	na	na	na	112.6	na	-1.5	1.2	0.9	0.7	L		
The Lonski Group	4.7	7.8	4.7	5.0	4.6	4.7	4.4	4.2	3.7	3.5	3.7	4.8	5.6	4.1	6.5	na	na	na	118.9	H	0.2	2.2	2.4	2.0			
Nomura Securities, Inc.	4.6	7.8	na	na	na	na	na	2.8	2.8	2.8	L	na	na	na	na	na	na	na	na	na	0.4	1.0	L	1.9	1.8		
Georgia State University	4.5	7.6	na	na	4.3	3.9	3.8	3.4	3.1	3.3	3.5	4.1	5.4	na	5.8	na	na	na	na	na	0.4	2.6	2.6	2.6			
Loomis, Sayles & Company	4.4	7.6	4.4	4.4	4.5	4.5	3.7	2.1	L	2.4	L	2.9	3.4	3.9	4.9	3.2	L	5.6	114.8	na	1.5	2.6	3.8	H	2.8		
MacroFin Analytics & Rutgers Bus School	4.4	7.8	4.3	4.5	4.9	4.9	5.0	4.8	3.9	4.0	4.1	5.2	6.0	4.1	6.8	na	na	na	116.0	na	1.5	2.6	2.5	2.5			
Wells Fargo	4.4	7.5	4.4	4.4	4.0	3.8	3.2	L	3.2	3.1	3.2	3.6	4.4	5.4	3.8	6.0	na	na	na	na	-1.2	1.3	1.4	1.3			
ING	3.9	na	na	na	na	na	na	3.2	3.1	3.0	3.4	na	na	na	na	na	na	na	na	na	-1.2	na	na	na			
TS Lombard	3.0	6.1	3.0	L	3.0	L	3.3	3.4	3.5	3.6	3.8	3.9	4.7	5.5	3.8	5.6	na	na	114.0	na	2.0	2.5	2.5	2.5			
NatWest Markets	2.9	L	6.0	L	na	3.0	L	3.1	L	3.3	2.7	2.8	3.0	3.2	L	2.9	L	3.1	L	3.3	6.0	na	0.0	1.8	0.7	L	1.2
September Consensus	5.0	8.1	5.1	4.9	4.9	4.9	4.6	4.1	3.8	3.8	4.0	4.9	5.9	4.2	6.4	114.2	0.5	2.3	2.3	2.2							
Top 10 Avg.	5.5	8.6	5.5	5.4	5.5	5.5	5.2	4.9	4.4	4.3	4.4	5.5	6.4	4.6	7.0	115.7	1.7	3.0	3.0	2.7							
Bottom 10 Avg.	4.2	7.4	4.6	4.4	4.2	4.1	3.9	3.2	3.1	3.2	3.6	4.2	5.3	3.9	5.8	112.7	-1.0	1.6	1.5	1.6							
August Consensus	4.9	8.0	4.9	4.9	4.7	4.7	4.5	4.0	3.7	3.6	3.9	4.9	6.0	4.1	6.2	113.1	0.8	2.3	2.4	2.3							
Number of Forecasts Changed From A Month Ago:																											
Down	1	1	1	1	2	1	6	2	4	4	4	4	4	3	3	3	16	9	11	13							
Same	23	18	16	11	14	14	13	19	16	15	15	9	9	8	8	4	16	18	15	13							
Up	13	11	9	9	16	14	10	15	16	18	16	9	8	8	17	11	5	8	10	9							
Diffusion Index	66%	67%	65%	69%	72%	72%	57%	68%	67%	69%	67%	61%	60%	63%	75%	72%	35%	49%	49%	44%							

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)											
	Short-Term					Intermediate-Term					Long-Term						B.	C.	D.	E.								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15						Fed's Adv	GDP	Cons.	PCE				
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate						Fed's Adv Fgn Econ \$ Index	Real GDP	Price Index	Price Index	Price Index			
Barclays	5.4	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	-0.5	2.8	2.6	2.6							
J.P. Morgan Chase	5.4	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.0	2.5	2.4	2.1							
Santander Capital Markets	5.4	H	8.6	H	5.4	5.4	H	5.3	5.2	5.0	4.6	4.2	4.0	4.2	5.1	6.3	3.9	6.7	114.0	0.9	2.7	2.7	2.3					
Chan Economics	5.2		8.2		5.1	5.2		5.4	H	5.4	H	5.0	4.8	4.3	4.0	4.1	5.1	6.1	4.6	6.8	115.8	0.8	2.3	2.5	2.1			
Bank of America	5.1		na		na		na		na		4.2	4.0	3.7	3.9	na	na	na	na	na	na	na	0.5	3.3	2.5	2.3			
BMO Capital Markets	5.1		8.2		5.0	na	5.3	5.3	4.6	3.7	3.6	3.5	3.6	na	na	na	na	6.3	110.4	1.5	2.0	2.2	2.0					
Comerica Bank	5.1		8.2		5.1	na	5.1	4.9	4.5	3.7	3.6	3.6	3.8	4.6	5.6	na	6.1	na	na	na	0.9	2.0	1.9	1.9				
Economist Intelligence Unit	5.1		8.1		na	5.1	5.0	4.9	4.6	4.5	3.8	3.5	3.7	na	na	na	6.3	na	na	na	1.9	na	2.0	na				
Regions Financial Corporation	5.1		8.3		5.0	5.2	4.8	5.0	5.0	4.1	3.9	3.8	4.0	5.3	6.2	4.4	6.6	113.8	0.8	2.3	2.1	2.4						
The Northern Trust Company	5.1		8.3		5.1	5.2	5.3	5.3	5.2	4.4	4.1	4.0	4.3	5.3	6.4	4.8	6.5	112.0	1.9	2.4	2.3	2.2						
Action Economics	5.0		8.2		5.6	H	5.1	5.0	4.8	4.5	4.2	4.1	4.0	4.1	4.9	5.9	4.2	7.3	116.3	1.6	1.4	2.4	1.9					
Bank of the West	5.0		8.2		4.9	5.0	5.0	4.9	4.5	4.5	4.4	4.2	4.3	5.3	6.4	5.0	7.0	114.6	1.3	2.2	2.2	2.2						
Chmura Economics & Analytics	5.0		8.2		5.0	5.1	5.3	5.3	5.4	H	5.4	H	5.6	H	5.7	H	5.9	na	na	na	6.8	na	2.0	2.2	2.2	2.1		
DePrince & Assoc.	5.0		8.1		5.0	5.0	5.1	5.1	4.7	4.5	4.4	4.3	4.3	5.6	6.4	4.7	6.6	116.3	2.1	2.4	2.5	2.3						
Moody's Analytics	5.0		8.2		5.0	5.0	4.7	4.7	4.6	4.4	4.1	3.9	4.4	5.4	6.4	4.4	6.3	na	na	na	1.8	1.9	2.1	2.1				
Goldman Sachs & Co.	4.9		na		na	na	4.6	na	na	4.1	3.8	3.8	3.9	na	na	na	na	na	na	na	1.9	2.2	2.2	2.0				
RDQ Economics	4.9		8.0		4.9	5.0	4.8	4.7	4.5	4.3	4.0	3.8	3.7	5.6	6.8	4.1	6.1	109.1	L	1.0	3.0	3.2	3.1					
S&P Global Market Intelligence	4.9		8.0		4.9	na	4.6	4.3	4.3	3.9	3.5	3.6	3.9	na	na	na	6.0	na	na	na	1.1	2.4	2.6	2.4				
EY-Parthenon	4.8		na		na	na	4.4	na	na	na	na	3.6	na	na	na	na	na	na	na	na	1.6	2.0	2.2	2.1				
Scotiabank Group	4.8		na		4.6	na	4.1	na	na	3.6	3.7	3.8	3.9	na	na	na	na	na	na	na	1.1	0.0	L	3.5	H	1.4		
Via Nova Investment Mgt.	4.8		8.0		4.8	4.9	4.8	4.8	4.6	5.1	5.1	5.1	5.1	6.3	H	7.1	H	5.6	H	8.1	H	110.0	2.5	2.1	2.1	2.1		
Fannie Mae	4.7		7.8		na	na	4.9	4.8	4.5	4.3	4.1	4.0	4.2	na	na	na	6.5	na	na	na	-0.4	2.5	2.8	2.5				
GLC Financial Economics	4.6		7.7		4.5	4.6	4.5	4.5	4.2	3.8	3.8	3.8	4.1	4.8	5.9	4.0	5.9	113.5	1.3	2.3	2.5	2.4						
Oxford Economics	4.6		7.1		4.6	na	4.2	4.3	3.8	3.3	3.0	3.0	3.2	L	3.5	na	na	5.0	L	112.6	1.6	3.5	H	2.2	2.1			
Societe Generale	4.6		7.8		4.6	4.5	4.4	4.1	3.6	3.2	3.5	3.6	3.9	na	na	na	5.1	na	na	na	-0.7	1.8	2.2	1.9				
Naroff Economic Advisors	4.5		7.5		4.5	4.6	4.5	4.5	4.5	4.5	4.0	4.0	4.2	na	na	4.0	6.5	113.5	3.6	H	2.6	2.8	2.6					
KPMG	4.4		7.5		4.4	4.1	4.3	4.4	4.2	3.9	3.4	3.4	3.7	4.4	5.6	na	6.3	na	na	na	1.2	2.3	2.3	2.2				
The Lonski Group	4.2		7.3		4.2	4.4	4.1	4.2	4.1	4.0	3.5	3.4	3.6	4.6	5.5	4.0	6.3	119.0	H	1.4	2.1	2.2	1.9					
Nomura Securities, Inc.	4.1		7.3		na	na	na	na	na	2.5	2.7	2.8	L	na	na	na	na	na	na	na	1.3	1.1	2.5	2.2				
Georgia State University	4.0		7.1		na	na	3.8	3.5	3.4	3.1	2.9	3.1	3.4	4.0	5.3	na	5.4	na	na	na	0.9	2.2	2.9	2.3				
MacroFin Analytics & Rutgers Bus School	3.9		7.3		3.8	4.0	4.1	4.3	4.7	4.7	3.9	3.9	4.0	5.1	5.9	4.0	6.7	115.8	1.6	2.5	2.3	2.4						
PNC Financial Services Corp.	3.8		6.9		3.8	na	3.5	3.6	3.3	3.4	3.6	3.7	4.0	na	6.1	4.6	5.8	112.4	-1.0	L	1.1	0.7	L	0.5	L			
Loomis, Sayles & Company	3.5		6.6		3.4	3.4	3.5	3.5	3.0	L	2.0	L	2.4	L	2.8	L	5.4	114.7	2.0	2.1	2.8	2.2						
ING	3.4		na		na	na	na	na	na	3.0	3.0	3.0	3.4	na	na	na	na	na	na	na	-0.3	na	na	na				
Wells Fargo	3.4		6.5		3.4	3.4	3.0	3.0	L	3.0	L	3.1	3.1	3.2	3.6	4.4	5.4	3.8	5.8	na	1.6	2.4	2.8	2.4				
TS Lombard	3.3		6.4		3.3	L	3.3	3.5	3.6	3.7	3.8	3.8	4.0	4.1	4.9	5.7	4.0	5.8	118.0	3.0	3.5	H	3.5	H	3.5	H		
NatWest Markets	2.6	L	5.8	L	na	2.7	L	2.9	L	3.0	L	3.1	2.6	2.7	2.9	3.2	L	2.8	L	3.0	L	3.3	6.0	na	1.5	1.6	1.2	1.3
September Consensus	4.6	7.6	4.6	4.6	4.5	4.5	4.3	3.9	3.8	3.7	4.0	4.9	5.8	4.2	6.3	114.0	1.3	2.2	2.4	2.2								
Top 10 Avg.	5.2	8.3	5.1	5.1	5.2	5.1	5.0	4.7	4.4	4.3	4.5	5.5	6.4	4.6	6.9	115.8	2.3	2.9	3.0	2.6								
Bottom 10 Avg.	3.6	6.8	4.0	3.9	3.7	3.7	3.5	3.0	3.0	3.1	3.5	4.2	5.3	3.8	5.6	112.1	0.1	1.5	1.9	1.7								
August Consensus	4.4	7.5	4.4	4.4	4.3	4.2	4.2	3.8	3.6	3.6	3.9	4.8	5.9	4.0	6.1	112.7	1.6	2.3	2.4	2.2								
Number of Forecasts Changed From A Month Ago:																												
Down	0	0	0	0	1	0	5	4	5	4	4	4	4	3	2	3	3	19	8	7	12							
Same	23	20	15	12	16	15	14	16	14	14	12	7	5	7	8	4	14	19	20	17								
Up	14	10	11	9	15	14	10	14	15	17	17	11	13	10	17	11	4	8	9	6								
Diffusion Index	69%	67%	71%	71%	72%	74%	59%	65%	65%	69%	70%	66%	74%	71%	75%	72%	30%	50%	53%	41%								

Fourth 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-----						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 & Local Bonds	Home Mtg. Rate										
J.P. Morgan Chase	5.3	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.0	2.3	2.4	2.1				
Bank of America	4.9	na	na	na	na	na	na	na	4.0	3.8	3.5	3.7	na	na	na	na	na	1.0	3.3	2.0	2.3				
Barclays	4.9	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.0	2.7	2.5	2.5				
Chan Economics	4.9	7.9	4.8	4.9	H	5.1	H	5.1	H	4.7	4.5	4.0	3.7	3.8	4.8	5.8	4.3	6.5	115.5	1.5	2.2	2.4	2.0		
Santander Capital Markets	4.9	8.1	H	4.9	4.9	H	4.8	4.7	4.6	4.2	4.0	3.8	4.1	5.0	6.2	3.7	6.4	113.0	1.1	2.5	2.5	2.1			
Action Economics	4.8	7.9	5.3	H	4.8	4.7	4.5	4.3	4.0	4.0	4.0	4.0	4.0	4.8	5.9	4.1	7.3	116.5	1.8	1.8	2.4	1.9			
Bank of the West	4.8	7.9	4.7	4.8	4.8	4.8	4.6	4.3	4.3	4.1	4.2	5.3	6.3	5.0	6.8			114.7	1.5	2.2	2.2	2.1			
BMO Capital Markets	4.8	7.9	4.8	na	5.0	5.0	4.4	3.5	3.5	3.4	3.6	na	na	na	6.2			109.8	2.0	1.9	2.1	1.9			
Comerica Bank	4.8	8.0	4.8	na	4.7	4.5	4.0	3.3	3.3	3.4	3.6	4.4	5.4	na	5.8			na	1.0	2.0	2.1	2.0			
Moody's Analytics	4.8	7.9	4.7	4.7	4.5	4.4	4.4	4.2	4.0	3.9	4.4	5.3	6.3	4.3	6.1			na	1.9	2.0	2.0	2.1			
Chmura Economics & Analytics	4.7	7.8	4.7	4.8	5.0	5.1	H	5.1	H	5.1	H	5.2	H	5.3	H	5.4	H	5.7	na	2.4	2.3	2.3	2.0		
Economist Intelligence Unit	4.7	7.7	na	4.8	4.7	4.5	4.3	4.3	3.5	3.3	3.5	na	na	na	5.9			na	2.1	na	2.3	na			
DePrince & Assoc.	4.6	7.8	4.6	4.6	4.7	4.8	4.7	4.5	4.3	4.3	4.3	5.6	6.4	4.7	6.5			115.4	2.2	2.4	2.5	2.3			
Goldman Sachs & Co.	4.6	na	na	na	4.4	na	na	3.9	3.8	3.8	3.9	na	na	na	na			na	1.9	2.9	3.4	2.6			
Regions Financial Corporation	4.6	7.8	4.5	4.6	4.4	4.6	4.7	3.8	3.9	3.8	4.0	5.3	6.2	4.4	6.4			113.4	1.0	2.1	2.1	2.2			
The Northern Trust Company	4.6	7.8	4.6	4.7	4.8	4.7	4.5	4.1	3.9	3.8	4.1	5.1	6.2	4.6	6.3			111.0	1.9	2.3	2.1	2.1			
RDQ Economics	4.5	7.6	4.5	4.6	4.4	4.4	4.3	4.2	4.0	3.8	3.7	5.4	6.4	4.1	6.0			108.5	L	1.2	2.9	3.0	3.0		
Via Nova Investment Mgt.	4.5	7.8	4.6	4.6	4.5	4.5	4.4	4.8	4.8	4.8	4.8	6.0	6.8	5.3	H	7.8	H	110.0	2.5	2.1	2.1	2.1			
Fannie Mae	4.4	7.5	na	na	4.6	4.5	4.3	4.2	4.1	4.0	4.2	na	na	na	6.3			na	0.6	L	2.4	3.0	2.5		
S&P Global Market Intelligence	4.4	7.5	4.3	na	4.1	3.9	3.9	3.6	3.4	3.5	3.8	na	na	na	5.8			na	1.3	2.3	2.0	2.0			
EY-Parthenon	4.3	na	na	na	4.0	na	na	na	na	3.5	na	na	na	na	na			na	1.7	2.1	2.1	2.0			
GLC Financial Economics	4.2	7.3	4.1	4.2	4.2	4.0	4.0	3.6	3.7	3.7	4.0	4.7	5.7	4.0	5.6			113.3	1.3	2.3	2.2	2.2			
KPMG	4.1	7.3	4.1	3.7	4.0	4.0	3.9	3.6	3.1	3.2	3.6	4.2	5.4	na	6.0			na	1.6	2.1	1.9	1.9			
Oxford Economics	4.1	6.5	4.1	na	3.8	3.8	3.5	3.0	2.9	2.9	3.1	L	3.4	na	4.7	L		111.7	1.8	3.5	H	2.2	2.0		
Societe Generale	4.1	7.3	4.1	4.0	3.9	3.6	3.3	3.0	3.5	3.6	3.9	na	na	na	5.1			na	4.9	H	1.8	2.2	1.9		
Naroff Economic Advisors	4.0	7.0	4.0	4.1	3.9	3.9	3.9	3.9	3.9	3.9	4.2	na	na	4.1	5.9			113.0	2.2	2.5	2.5	2.3			
Scotiabank Group	4.0	na	3.9	na	3.7	na	na	3.5	3.7	3.9	3.9	na	na	na	na			na	1.6	0.4	L	3.3	3.1		
TS Lombard	3.8	6.9	3.8	3.8	4.0	4.1	4.5	4.8	5.0	5.2	5.3	6.1	H	6.9	H	5.2	7.0	120.0	H	2.5	3.5	H	3.5	3.5	H
The Lonski Group	3.7	6.8	3.6	3.9	3.7	3.8	3.6	3.5	3.3	3.2	3.4	4.5	5.3	3.8	6.0			117.8	1.7	2.1	1.8	2.0			
Georgia State University	3.6	6.7	na	na	3.4	3.2	3.1	2.9	2.8	3.0	3.4	4.0	5.2	na	5.2			na	1.6	2.0	2.0	1.8			
Nomura Securities, Inc.	3.6	6.8	na	na	na	na	na	2.3	2.7	2.7	L	na	na	na	na			na	1.9	1.0	2.6	2.2			
PNC Financial Services Corp.	3.5	6.6	3.5	na	3.2	3.3	3.1	3.2	3.4	3.6	4.0	na	5.7	4.4	5.6			112.8	1.3	1.0	0.9	L	0.8	L	
MacroFin Analytics & Rutgers Bus School	3.4	6.8	3.3	3.5	3.6	4.0	4.3	4.5	3.8	3.8	4.0	5.0	5.8	3.9	6.6			115.6	1.8	2.2	2.1	2.2			
ING	2.9	na	na	na	na	na	na	3.0	3.3	3.5	3.4	na	na	na	na			na	1.7	na	na	na			
Loomis, Sayles & Company	2.9	6.1	2.9	L	2.8	2.9	L	2.9	L	2.7	L	2.1	L	2.5	L	2.8			114.6	2.2	1.9	2.3	2.0		
Wells Fargo	2.9	6.0	2.9	L	2.9	2.9	L	2.9	L	3.0	3.0	3.1	3.2	3.6	4.4	5.4	3.8	5.6	na	2.3	3.0	3.7	H	3.0	
NatWest Markets	2.6	L	5.8	L	na	2.7	L	2.9	L	3.0	3.1	2.5	2.6	2.9	3.2	2.7	L	3.0	L	3.3	6.0				
September Consensus	4.2	7.3	4.2	4.2	4.2	4.2	4.0	3.7	3.7	3.7	3.9	4.8	5.8	4.2	6.1			113.7	1.8	2.2	2.4	2.2			
Top 10 Avg.	4.9	7.9	4.8	4.8	4.8	4.8	4.6	4.5	4.4	4.3	4.5	5.5	6.4	4.6	6.8			115.7	2.6	2.9	3.0	2.7			
Bottom 10 Avg.	3.3	6.5	3.6	3.6	3.4	3.4	3.3	2.8	3.0	3.1	3.4	4.1	5.2	3.8	5.5			111.7	1.1	1.5	1.9	1.8			
August Consensus	4.0	7.1	4.0	4.1	4.0	3.9	3.9	3.5	3.5	3.5	3.8	4.7	5.7	4.0	5.9			112.4	1.8	2.3	2.3	2.2			
Number of Forecasts Changed From A Month Ago:																									
Down	1	1	1	2	2	1	3	2	3	5	4	3	3	2	4			2	13	7	3	3			
Same	21	17	15	11	16	13	16	17	14	12	12	9	8	7	9			5	18	21	20	19			
Up	15	12	10	8	14	15	10	15	17	18	17	10	10	10	15			11	5	6	12	12			
Diffusion Index	69%	68%	67%	64%	69%	74%	62%	69%	71%	69%	70%	66%	67%	71%	70%			75%	39%	49%	63%	63%			

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	Fed Fund Target Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.63	5.63	5.38
BMO Capital Markets	5.38	5.38	5.13
ING Financial Markets	5.38	5.38	3.68
Moody's Analytics	5.31	5.38	5.35
Northern Trust	5.63	5.63	5.13
Oxford Economics	5.31	5.38	4.96
S&P Global Market Intelligence	--	--	--
Scotiabank	5.38	5.38	4.63
TS Lombard	5.50	4.75	3.25
Wells Fargo	5.38	5.38	4.38
September Consensus	5.43	5.37	4.65
High	5.63	5.63	5.38
Low	5.31	4.75	3.25
Last Months Avg.	5.42	5.44	4.92

Blue Chip Forecasters	Policy-Rate Balance Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	-0.10	-0.10	--
BMO Capital Markets	-0.10	-0.10	-0.10
ING Financial Markets	-0.10	-0.10	0.00
Moody's Analytics	-0.10	-0.10	-0.10
Nomura Securities	--	--	--
Northern Trust	-0.10	-0.10	0.00
Oxford Economics	-0.03	-0.04	-0.04
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	-0.10	-0.10	-0.10
Wells Fargo	-0.10	-0.10	-0.10
September Consensus	-0.09	-0.09	-0.06
High	-0.03	-0.04	0.00
Low	-0.10	-0.10	-0.10
Last Months Avg.	-0.08	-0.08	-0.06

Blue Chip Forecasters	Official Bank Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.50	5.50	5.00
BMO Capital Markets	5.50	5.50	5.25
ING Financial Markets	5.50	5.50	4.50
Moody's Analytics	5.19	5.66	5.75
Nomura Securities	--	--	--
Northern Trust	5.75	5.75	5.75
Oxford Economics	5.35	5.75	5.75
S&P Global Market Intelligence	--	--	--
Scotiabank	5.50	5.50	4.50
TS Lombard	5.20	4.00	3.00
Wells Fargo	5.75	5.75	4.75
September Consensus	5.47	5.43	4.92
High	5.75	5.75	5.75
Low	5.19	4.00	3.00
Last Months Avg.	5.59	5.69	5.41

Blue Chip Forecasters	SNB Policy Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.00	2.25	2.25
ING Financial Markets	2.00	2.00	2.00
Moody's Analytics	2.00	2.00	2.00
Nomura Securities	--	--	--
Northern Trust	2.00	2.00	1.75
Oxford Economics	1.77	2.00	1.88
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	1.75	1.50	1.25
Wells Fargo	2.00	2.00	1.75
September Consensus	1.93	1.96	1.84
High	2.00	2.25	2.25
Low	1.75	1.50	1.25
Last Months Avg.	1.96	2.04	1.94

Blue Chip Forecasters	O/N MMkt Financing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.00	5.00	4.25
BMO Capital Markets	5.00	5.00	4.50
ING Financial Markets	5.00	5.00	4.25
Moody's Analytics	5.19	5.25	5.25
Nomura Securities	--	--	--
Northern Trust	5.25	5.25	4.75
Oxford Economics	4.88	5.00	4.88
S&P Global Market Intelligence	--	--	--
Scotiabank	5.00	5.00	4.25
TS Lombard	5.00	4.25	2.75
Wells Fargo	5.00	5.00	4.50
September Consensus	5.04	4.97	4.38
High	5.25	5.25	5.25
Low	4.88	4.25	2.75
Last Months Avg.	4.98	5.00	4.64

United States			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.15	4.05	--	
4.00	3.80	3.50	
3.75	3.25	3.00	
3.89	3.99	3.96	
4.25	4.25	4.00	
3.80	3.64	3.16	
3.95	3.80	3.61	
3.60	3.70	3.80	
4.10	4.00	4.00	
3.70	3.35	3.20	
3.92	3.78	3.58	
4.25	4.25	4.00	
3.60	3.25	3.00	
3.82	3.68	3.47	

Japan			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.80	0.80	--	
0.75	0.80	0.80	
0.80	0.80	0.90	
0.60	0.60	0.60	
--	--	--	
0.70	0.75	0.75	
0.45	0.46	0.48	
--	--	--	
--	--	--	
0.65	0.55	0.55	
0.75	0.70	0.65	
0.69	0.68	0.68	
0.80	0.80	0.90	
0.45	0.46	0.48	
0.48	0.58	0.61	

United Kingdom			
10 Yr. Gilt Yields %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.50	4.40	--	
4.00	3.90	3.60	
4.40	3.80	3.25	
4.17	4.90	5.11	
--	--	--	
4.50	4.45	4.40	
4.33	4.28	4.18	
--	--	--	
--	--	--	
4.40	4.00	3.85	
4.35	4.20	3.95	
4.33	4.24	4.05	
4.50	4.90	5.11	
4.00	3.80	3.25	
4.30	4.23	4.03	

Switzerland			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
1.15	1.15	1.10	
1.40	1.90	2.03	
--	--	--	
1.10	1.10	1.00	
1.09	1.37	1.34	
--	--	--	
0.95	0.85	0.95	
--	--	--	
1.14	1.27	1.28	
1.40	1.90	2.03	
0.95	0.85	0.95	
1.29	1.41	1.37	

Canada			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
3.50	3.30	3.10	
3.50	3.40	3.00	
3.59	3.79	4.04	
--	--	--	
3.65	3.60	3.35	
3.44	3.48	3.42	
--	--	--	
3.20	3.30	3.55	
3.60	3.50	2.75	
3.45	3.25	3.15	
3.49	3.45	3.30	
3.65	3.79	4.04	
3.20	3.25	2.75	
3.46	3.41	3.32	

Fed's AFE \$ Index			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
113.0	111.8	110.4	
112.1	110.2	106.4	
--	--	--	
116.0	118.0	112.0	
115.0	114.9	113.6	
--	--	--	
--	--	--	
114.0	112.0	118.0	
--	--	--	
114.0	113.4	112.1	
116.0	118.0	118.0	
112.1	110.2	106.4	
112.8	112.4	110.2	

Yen per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
135.0	132.0	--	
141.0	139.0	137.0	
135.0	130.0	120.0	
140.0	135.0	124.8	
140.0	135.0	125.0	
145.0	140.0	135.0	
144.6	144.9	139.6	
143.9	142.8	136.8	
135.0	130.0	125.0	
145.0	142.5	150.1	
--	--	--	
140.5	137.1	132.6	
145.0	144.9	150.1	
135.0	130.0	120.0	
138.3	135.8	129.9	

US\$ per Pound Sterling			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.29	1.29	--	
1.27	1.27	1.28	
1.29	1.31	1.31	
1.35	1.44	1.56	
1.22	1.25	1.31	
1.25	1.22	1.28	
1.27	1.27	1.28	
1.26	1.26	1.27	
1.35	1.38	1.40	
1.25	1.20	1.10	
--	--	--	
1.28	1.29	1.31	
1.35	1.44	1.56	
1.22	1.20	1.10	
1.30	1.30	1.34	

CHF per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.88	0.87	--	
0.86	0.84	0.85	
0.88	0.87	0.81	
0.88	0.87	0.88	
0.88	0.90	0.85	
0.90	0.91	0.90	
0.89	0.89	0.87	
0.88	0.87	0.86	
0.90	0.90	0.90	
--	--	--	
0.88	0.88	0.87	
0.90	0.91	0.90	
0.86	0.84	0.81	
0.89	0.89	0.87	

C\$ per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.32	1.31	--	
1.32	1.30	1.29	
1.29	1.27	1.25	
1.36	1.31	1.26	
1.35	1.34	1.32	
1.36	1.35	1.28	
1.32	1.32	1.31	
1.33	1.34	1.31	
1.30	1.27	1.25	
1.35	1.35	1.35	
--	--	--	
1.33	1.32	1.29	
1.36	1.35	1.35	
1.29	1.27	1.25	
1.32	1.32	1.29	

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	3.60
ING Financial Markets	4.35	4.35	4.10
Moody's Analytics	4.10	4.10	3.85
Nomura Securities	--	--	--
Northern Trust	4.35	4.35	3.85
Oxford Economics	4.35	4.60	4.60
S&P Global Market Intelligence	--	--	--
Scotiabank	--	--	--
TS Lombard	4.10	3.75	2.75
Wells Fargo	4.10	4.10	3.85
September Consensus	4.24	4.23	3.80
High	4.35	4.60	4.60
Low	4.10	3.75	2.75
Last Months Avg.	4.36	4.35	4.10

Australia		
10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.
--	--	--
4.35	4.35	3.60
4.38	4.66	4.40
--	--	--
4.10	4.00	3.75
3.88	3.89	3.68
--	--	--
4.10	3.95	2.45
--	--	--
4.16	4.17	3.58
4.38	4.66	4.40
3.88	3.89	2.45
4.03	3.96	3.77

US\$ per A\$		
In 3 Mo.	In 6 Mo.	In 12 Mo.
0.68	0.69	--
0.68	0.70	0.73
0.67	0.68	0.72
0.69	0.69	0.71
0.64	0.64	0.69
0.66	0.67	0.68
0.68	0.70	0.72
0.69	0.70	0.72
0.65	0.65	0.65
--	--	--
0.67	0.68	0.70
0.69	0.70	0.73
0.64	0.64	0.65
0.68	0.68	0.71

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	4.25	4.25	3.75
BMO Capital Markets	4.25	4.25	4.00
ING Financial Markets	4.50	4.50	4.00
Moody's Analytics	4.16	4.50	4.45
Nomura Securities	--	--	--
Northern Trust	4.50	4.50	4.25
Oxford Economics	4.22	4.50	4.04
S&P Global Market Intelligence	--	--	--
Scotiabank	4.50	4.50	4.00
TS Lombard	3.80	3.05	1.55
Wells Fargo	3.75	3.75	3.25
September Consensus	4.21	4.20	3.70
High	4.50	4.50	4.45
Low	3.75	3.05	1.55
Last Months Avg.	4.27	4.34	4.12

Euro area

US\$ per Euro		
In 3 Mo.	In 6 Mo.	In 12 Mo.
1.10	1.11	--
1.12	1.13	1.14
1.12	1.13	1.17
1.09	1.10	1.16
1.07	1.09	1.11
1.07	1.05	1.12
1.09	1.09	1.10
1.09	1.10	1.13
1.12	1.15	1.18
1.10	1.12	1.05
--	--	--
1.10	1.11	1.13
1.12	1.15	1.18
1.07	1.05	1.05
1.10	1.11	1.14

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	2.50	2.45	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	2.40	2.30	2.10	--	--	--	--	--	--	--	--	--
ING Financial Markets	2.40	2.30	2.20	2.90	2.75	2.65	4.30	4.10	3.90	3.40	3.25	3.10
Moody's Analytics	2.53	2.60	2.60	3.01	3.03	2.95	4.25	4.23	4.04	3.53	3.63	3.69
Northern Trust	2.50	2.40	2.15	3.10	3.00	2.75	4.25	4.15	3.90	3.65	3.55	3.30
Oxford Economics	2.42	2.30	2.08	2.97	2.82	2.54	4.18	4.07	3.91	3.44	3.32	3.13
TS Lombard	2.50	2.40	2.40	2.85	2.75	2.75	3.80	3.70	3.70	3.25	3.15	3.15
Wells Fargo	2.50	2.45	2.40	--	--	--	--	--	--	--	--	--
September Consensus	2.47	2.40	2.28	2.97	2.87	2.73	4.16	4.05	3.89	3.45	3.38	3.27
High	2.53	2.60	2.60	3.10	3.03	2.95	4.30	4.23	4.04	3.65	3.63	3.69
Low	2.40	2.30	2.08	2.85	2.75	2.54	3.80	3.70	3.70	3.25	3.15	3.10
Last Months Avg.	2.44	2.40	2.27	2.95	2.89	2.74	4.21	4.10	3.89	3.51	3.46	3.32

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.59	-3.23	-3.10	-2.91
United Kingdom	0.25	0.41	0.46	0.47
Switzerland	-3.27	-2.78	-2.51	-2.30
Canada	-0.55	-0.43	-0.33	-0.29
Australia	-0.10	0.24	0.39	-0.01
Germany	-1.69	-1.45	-1.38	-1.31
France	-1.17	-0.95	-0.91	-0.85
Italy	-0.02	0.24	0.27	0.31
Spain	-0.75	-0.47	-0.40	-0.31

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-5.48	-5.52	-5.27	-4.72
United Kingdom	-0.13	0.04	0.07	0.26
Switzerland	-3.63	-3.50	-3.40	-2.81
Canada	-0.38	-0.40	-0.39	-0.28
Australia	-1.28	-1.19	-1.14	-0.85
Euro area	-1.13	-1.22	-1.17	-0.96

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

House Prices Rose in June With Listings Sparse; New Home Sales Are Growing Again, But Existing Sales Are Depressed

- House prices rose in June, and were down just slightly from their level a year earlier by most measures.
- Sparse listings of existing homes are a big support to house prices, offsetting headwinds from high interest rates.
- New home sales rose from a year earlier in mid-2023, while existing home sales fell by double digits.
- Mortgage rates are rising again as financial markets price in additional tightening by the Fed and the discount of long-term interest rates relative to short-term rates shrinks.
- The stabilization of house prices means shelter prices will contribute less to inflation in 2024, but also that the risk of a recession near-term is smaller than it seemed in early 2023.

This month's data releases tell mixed messages about the housing market, with new home sales rising, while existing home sales are still depressed relative to last year's levels. House prices are rising in monthly terms, but still slightly lower than a year earlier by most measures as the Fed keeps the brakes on the industry.

New home sales rose to 714,000 units at a seasonally-adjusted annual pace in July from 684,000 in June (revised from 697,000 previously). New home sales averaged a 689,000 annualized rate in the second quarter. New home sales in July were up 31% from July 2022. The median price of a new home sold fell 9% from a year earlier, but was up on the month to \$436,700 from \$416,700 in June. The year-over-year decline in the average sale price is a bit of an apples-and-oranges comparison; homebuilders have shrunk the average size of new units to offset the drag of high interest rates on affordability.

It's a very different story in the existing segment. Existing home sales fell 2.2% in July to 4.07 million annualized units from 4.16 million in June, and were down 17% from a year earlier. The average sale price of an existing home rose 1.9% from a year earlier in July, to \$406,700. Existing home prices were flat in year-over-year terms in February and fell between March and June, but are now back in positive territory.

The S&P CoreLogic Case-Shiller 20-City House Price Index ("Case-Shiller HPI") rose 0.9% on the month in June, and fell 1.2% from a year earlier. It has fallen in year-over-year terms since March, reflecting month-over-month declines between last July and February. But since it has risen in monthly terms since then, the index will likely be up modestly in year-over-year terms by the fourth quarter of this year. The FHFA Purchase-Only House Price Index rose 3.1% year-over-year in June. The FHFA Index tracks only the prices of houses that were sold or refinanced, while the Case-Shiller incorporates statistical techniques to measure the prices of all houses.

House price indexes registered big monthly increases in the spring and summer, but this is unlikely to last: The 30-year fixed mortgage rate rose back above 7% in mid-August according to Freddie Mae's weekly survey, as financial markets price in re-

duced risk of a recession beginning near-term as well as increased expectations of the Fed raising interest rates another quarter percent by the end of 2023. Also, a big wave of multi-family construction is on track to come to market in 2024, which will increase housing supply and likely spur landlords to offer incentives on new leases.

The housing market was a big driver of the surge in inflation in 2021, 2022 and early 2023, but house price increases are likely to be much slower in 2024, and rents for new leases will likely be down modestly. These shelter costs carry big weights in the core CPI and PCE price baskets, and will contribute to lower core inflation next year. Comerica forecasts for this to set the stage for the Fed to end the current rate hike cycle in the second half of 2023, and pivot to gradual rate cuts in the first half of 2024.

At the same time, tight supplies of existing homes mean further price declines are unlikely. That bolsters household balance sheets, consumer confidence, and consumer spending. In early 2023, Comerica's forecasts projected for house prices to continue to decline through the end of this year, but that was apparently too pessimistic. The earlier-than-expected stabilization of house prices is a big reason why the risk of a recession seems smaller now than it did at the start of 2023.

Bill Adams & Waran Bhahirethan (Comerica Bank)

July Existing Home Sales: There's A Bottom Down There . . . Somewhere

Total existing home sales fell to an annualized rate of 4.070 million units in July, just a bit short of our below-consensus forecast of 4.090 million units. On a not seasonally adjusted basis, there were 372,000 existing homes sold in July, below the 382,000 sales our forecast anticipated. Keep in mind that existing homes are booked at closing, so July closings would mostly reflect sales contracts signed from late-May through June. In other words, the July data on existing home sales reflect some, but by no means all, of the recent run-up in mortgage interest rates, effects that will be felt more fully in the August data. In addition to higher mortgage interest rates, lack of inventory also weighed on July sales, and while this is an old story, literally years old, it has been given a new twist by higher mortgage interest rates making current owners less inclined to trade up into a mortgage interest rate significantly higher than their existing rate. Turnover of the existing housing stock has for years been abnormally low, mainly reflecting demographic shifts, and is now even lower thanks to higher mortgage interest rates. This has helped steer prospective buyers to the market for new homes, but that there is still considerable pent-up demand for home purchases is evidenced by already low times on market being pushed lower while prices are once again being pushed higher, with the median existing home sales price up 1.9 percent year-on-year, ending a run of five straight months of over-the-year declines. At July's sales rate, inventories of existing homes for sale were equivalent to 3.3 months of sales, far short of the 5.5-to-6.0 months indicative of a balanced market.

As noted above, there were 372,000 existing homes sold in July on a not seasonally adjusted basis, down 14.1 percent from June. While July is a month in which unadjusted sales typically decline, this year's July decline is far larger than is typical for the month. On an over-the-year basis, unadjusted sales were down 18.1 percent in July, marking the twentieth straight month in which sales were down on an over-the-year basis. This is reflected in the ongoing decline in the running twelve-month sum of not seasonally adjusted sales which, as of July, stands at 4.334 million units, the lowest such total since March 2012. On a year-to-date basis through July, sales are down 22.3 percent nationally, with declines of 27.2 percent in the West region, 25.2 percent in the Northeast, 21.1 percent in the Midwest, and 20.1 percent in the South. Recall that the Northeast and West are the regions in which prices are the highest and in which inventory constraints have been more pressing.

Inventories of existing homes for sale rose to 1.110 million units in July, up 3.7 percent from June, and while that is larger than the typical July increase (the NAR inventory data are not seasonally adjusted), it comes after an atypical decline in June and nonetheless leaves inventories down 14.6 percent year-on-year. While the months supply metric has ticked higher over the past few months after having slipped to 2.6 months during the first quarter of 2023, this recent move higher is more a reflection of the declining sales rate than of any meaningful improvement in physical supplies.

That there is still pent-up demand for home purchases is seen in how little time homes are spending on the market once listed. NAR reports that seventy-four percent of homes sold in July were on the market less than a month before going under contract. While the median days on market metric rose to twenty days in July from eighteen days in June, that still leaves it well below pre-pandemic norms. Mounting frustrations over limited inventories have steered increasing numbers of prospective buyers to the market for new homes, where many builders have been able to use rate buydowns as a means of facilitating sales. Whether, or to what extent, that practice continues with mortgage rates now back over seven percent remains to be seen. Higher mortgage rates are no impediment to all-cash buyers, many but not all of whom are investors. All-cash sales accounted for twenty-six percent of all existing home sales in July and thus far in 2023 have accounted for twenty-seven percent of all sales, up from 25.5 percent of all sales in 2022. Though many have been surprised that house prices have not fallen sharply as higher mortgage rates have risen, we've maintained that limited inventories coupled with pent-up demand would mitigate downward pressures on prices. While that of course could change, it is unlikely to change any time soon.

Richard F. Moody (Regions Financial Corporation)

Germany: Leader to Laggard

The eurozone economy bounced back from a winter recession in the second quarter, with real gross domestic product (GDP) growing 0.3% quarter over quarter. But the headline number masks weakness in major economies, particularly in Germany.

After a decade of robust economic performance, Germany entered the pandemic with poor momentum and has struggled to regain its stride. The German economy was among the last in Europe to return to pre-COVID output levels. Germany is the only nation among the world's seven most advanced economies (G7) that slipped into recession at the start of the year. Going by the Bundesbank's estimates, the picture isn't going to change in the third quarter. In fact, the International Monetary Fund predicts Germany will be the only G7 economy to contract in 2023.

The current economic stagnation is drawing comparisons with the troubles of the late 1990s, when the nation was dubbed "the sick man of Europe." Deutschland may be falling ill again, but its challenges are very different today. Stubborn unemployment was one the major problems facing the economy in the aftermath of unification. Today, jobs are plentiful, with companies facing labor shortages. The German jobless rate stands at 3.0%, well below the eurozone's 6.4%.

Germany is struggling because its industries are faltering. The local Purchasing Managers' Index for manufacturing is languishing below 40 (any reading under 50 indicates contraction). Production in energy-intensive factories is down 17% since the start of last year. Automobiles have been Germany's main export for some time, but even that sector is struggling amid stiff competition from China. All of this does not bode well for an economy where manufacturing contributes about one-fifth of GDP, almost double the percentage seen in the U.S., the U.K. and France.

The disruption caused by the Ukraine war, higher interest rates and supply chain realignment are all hampering German industries. The country's export-oriented growth model is facing challenges not just from rising geopolitical strife, but also from a slowdown in its largest trading partner, China.

Energy prices are not in crisis anymore, but elevated gas and electricity costs are still a factor. Germany is one of the most energy-efficient countries in the continent but the Energiewende (or green transition) could prove to be painful for an economy which uses nearly twice as much energy as the second largest consumer in Europe.

The German state and industries not only appear to be ill-prepared for the energy challenge, but some misguided policies are in place. With inexpensive Russian gas no longer an option, sunseting nuclear power could prove to be a costly decision. Power grids are suffering from a lack of investment that could make them more efficient.

Hopes that services will underpin the economy are vanishing, with the sector set to join the recession in manufacturing. Higher inflation remains a source of pain for consumers. Rising interest rates are weighing on activities like construction, which rely heavily on borrowing.

Not so long ago, Germany was the prime mover of the eurozone economy, accounting for almost 30% of the currency union's output. The former juggernaut is now dragging the entire bloc down.

Vaibhav Tandon (Northern Trust)

Special Questions:

1. What do you think will be the peak federal funds rate target (midpoint of range) in the current tightening cycle? 5.44%

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

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

3. a. What is your estimate of the long-term neutral fed funds rate? 2.74%

b. Since before the pandemic, has it: increased 69% decreased 0% remained the same 31%

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

<u>The resilient US economy</u>	Count
<u>Expectations that fed funds rate will remain elevated longer than previously thought</u>	27
<u>Large and increasing Federal government deficit</u>	21
<u>Continued elevated US core inflation</u>	16
<u>The Fed's ongoing quantitative tightening</u>	12
<u>Recent reductions in Japanese and Chinese holdings of US government debt</u>	6
<u>Other</u>	5
	2

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

<u>US</u>	49%
<u>euro area</u>	53%
<u>UK</u>	56%

6. Does the weakening of China's economy pose meaningful risks to the outlook for global growth? Yes 90% No 10%

7. While the headline US PCE price index has slowed markedly, core inflation, which excludes food and energy prices, has slowed much less. What do you expect the core inflation rate to be for:

<u>Dec 2022/Dec 2023</u>	3.5%	<u>Dec 2023/Dec 2024</u>	2.4%
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8. What is your US unemployment rate forecast for:

December 2023	3.8%
June 2024	4.3%
December 2024	4.5%

9. What do you think has been the major factor behind the decline in US inflation over the past year?

<u>Mending supply chains</u>	48%
<u>Falling energy prices</u>	35%
<u>Tighter monetary policy</u>	16%

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	0.3	0.7	....	....	....	....	....
Auto & Light Truck Sales (b)	15.95	14.92	14.92	16.05	15.05	15.66	15.74	....	....	....	....	....
Personal Income (a, current \$)	0.7	0.4	0.4	0.3	0.4	0.3	0.2	....	....	....	....	....
Personal Consumption (a, current \$)	1.9	0.3	0.1	0.6	0.2	0.6	0.8	....	....	....	....	....
Consumer Credit (e)	5.2	2.8	4.8	5.4	2.3	4.3	....	....	....	....	....	....
Consumer Sentiment (U. of Mich.)	64.9	67.0	62.0	63.5	59.2	64.4	71.6	69.5	....	....	....	....
Household Employment (c)	894	177	577	139	-310	273	268	....	....	....	....	....
Nonfarm Payroll Employment (c)	472	248	217	217	281	185	187	....	....	....	....	....
Unemployment Rate (%)	3.4	3.6	3.5	3.4	3.7	3.6	3.5	....	....	....	....	....
Average Hourly Earnings (All, cur. \$)	33.0	33.1	33.2	33.3	33.5	33.6	33.7	....	....	....	....	....
Average Workweek (All, hrs.)	34.6	34.5	34.4	34.4	34.3	34.4	34.3	....	....	....	....	....
Industrial Production (d)	1.5	0.9	0.2	0.3	0.0	-0.8	-0.2	....	....	....	....	....
Capacity Utilization (%)	79.6	79.5	79.5	79.8	79.4	78.6	79.3	....	....	....	....	....
ISM Manufacturing Index (g)	47.4	47.7	46.3	47.1	46.9	46.0	46.4	....	....	....	....	....
ISM Nonmanufacturing Index (g)	55.2	55.1	51.2	51.9	50.3	53.9	52.7	....	....	....	....	....
Housing Starts (b)	1.340	1.436	1.380	1.348	1.583	1.398	1.452	....	....	....	....	....
Housing Permits (b)	1.354	1.482	1.437	1.417	1.496	1.441	1.443	....	....	....	....	....
New Home Sales (1-family, c)	649	625	640	679	704	684	714	....	....	....	....	....
Construction Expenditures (a)	2.2	0.4	0.6	0.3	1.1	0.5	....	....	....	....	....	....
Consumer Price Index (nsa, d)	6.4	6.0	5.0	4.9	4.0	3.0	3.2	....	....	....	....	....
CPI ex. Food and Energy (nsa, d)	5.6	5.5	5.6	5.5	5.3	4.8	4.7	....	....	....	....	....
PCE Chain Price Index (d)	5.4	5.0	4.2	4.3	3.8	3.0	3.3	....	....	....	....	....
Core PCE Chain Price Index (d)	4.7	4.7	4.6	4.6	4.5	4.1	4.2	....	....	....	....	....
Producer Price Index (nsa, d)	5.7	4.7	2.7	2.2	1.1	0.2	0.8	....	....	....	....	....
Durable Goods Orders (a)	-1.3	-2.7	3.3	1.2	2.0	4.4	-5.2	....	....	....	....	....
Leading Economic Indicators (a)	-0.5	-0.5	-1.2	-0.6	-0.7	-0.7	-0.4	....	....	....	....	....
Balance of Trade & Services (f)	-70.2	-70.2	-60.6	-74.4	-68.3	-65.5	....	....	....	....	....	....
Federal Funds Rate (%)	4.33	4.57	4.65	4.83	5.06	5.08	5.12	....	....	....	....	....
3-Mo. Treasury Bill Rate (%)	4.69	4.79	4.86	5.07	5.31	5.42	5.49	....	....	....	....	....
10-Year Treasury Note Yield (%)	3.53	3.75	3.66	3.46	3.57	3.75	3.90	....	....	....	....	....

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	-0.8	0.8	0.0	1.0	-1.3	-0.7
Auto & Light Truck Sales (b)	15.11	13.71	13.56	14.28	12.58	13.05	13.31	13.23	13.64	15.28	14.34	13.37
Personal Income (a, current \$)	-0.1	0.5	0.5	0.2	0.5	0.5	0.8	0.6	0.5	0.6	0.2	0.2
Personal Consumption (a, current \$)	1.2	0.7	1.2	0.4	0.7	1.2	-0.1	0.7	0.6	0.7	-0.2	0.0
Consumer Credit (e)	4.7	8.4	10.1	7.4	6.9	8.6	6.8	7.0	6.9	8.8	8.1	4.8
Consumer Sentiment (U. of Mich.)	67.2	62.8	59.4	65.2	58.4	50.0	51.5	58.2	58.6	59.9	56.8	59.7
Household Employment (c)	1041	468	738	-346	317	-242	215	422	156	-257	-66	717
Nonfarm Payroll Employment (c)	364	904	414	254	364	370	568	352	350	324	290	239
Unemployment Rate (%)	4.0	3.8	3.6	3.6	3.6	3.6	3.5	3.7	3.5	3.7	3.6	3.5
Average Hourly Earnings (All, cur. \$)	31.6	31.6	31.8	31.9	32.1	32.2	32.3	32.4	32.5	32.7	32.8	32.9
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)	6.1	6.4	6.8	6.4	6.5	7.0	6.4	6.3	6.3	6.1	5.7	5.3
Core PCE Chain Price Index (d)	5.2	5.4	5.4	5.0	4.9	5.0	4.7	4.9	5.2	5.1	4.8	4.6
Producer Price Index (nsa, d)	10.1	10.4	11.7	11.2	11.1	11.2	9.7	8.7	8.5	8.2	7.4	6.4
Durable Goods Orders (a)	2.0	-1.4	-0.1	1.0	0.7	1.6	-0.8	-0.1	0.3	1.0	-3.1	4.5
Leading Economic Indicators (a)	-0.5	0.3	0.0	-0.6	-0.9	-0.7	-0.6	-0.3	-0.5	-0.9	-0.9	-0.7
Balance of Trade & Services (f)	-86.5	-87.0	-102.5	-86.0	-84.1	-80.9	-71.7	-67.3	-71.7	-78.3	-63.8	-71.4
Federal Funds Rate (%)	0.08	0.08	0.20	0.33	0.77	1.21	1.68	2.33	2.56	3.08	3.78	4.10
3-Mo. Treasury Bill Rate (%)	0.15	0.31	0.45	0.76	0.99	1.54	2.30	2.72	3.22	3.87	4.32	4.36
10-Year Treasury Note Yield (%)	1.76	1.93	2.13	2.75	2.90	3.14	2.90	2.90	3.52	3.98	3.89	3.62

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

Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
September 4 LABOR DAY ALL MARKETS CLOSED	5 Manufacturers' Shipments, Inventories & Orders (Jul) BEA Auto & Truck Sales (Aug)	6 International Trade (Jul) ISM Services PMI (Aug) S&P Global Services PMI (Aug) QFR (Q2) Kansas City Fed Labor Market Conditions Indicators (Aug) Mortgage Applications	7 Productivity & Costs (Q2) QSS (Q2) Public Debt (Aug) Interest Expense on the Public Debt (Aug) EIA Crude Oil Stocks Weekly Jobless Claims	8 Wholesale Trade (Jul) Treasury Auction Allotments (Aug) Consumer Credit (Jul) Financial Accounts (Q2) Housing Affordability (Jul)
11	12 ECEC (Q2) Manpower Survey (Q4) NFIB (Aug) Kansas City Financial Stress Index (Aug) OPEC Crude Oil Spot Prices (Aug)	13 CPI & Real Earnings (Aug) Cleveland Fed Median CPI (Aug) Monthly Treasury Statement (Aug) EIA Crude Oil Stocks Mortgage Applications	14 Advance Retail Sales (Aug) Producer Prices (Aug) MTIS (Jul) Transportation Services Index (Jul) Weekly Jobless Claims	15 Import & Export Prices (Aug) IP & Capacity Utilization (Aug) Consumer Sentiment (Sep, Preliminary) Empire State Mfg Survey (Sep)
18 Business Leaders Survey (Sep) Home Builders (Sep) TIC Data (Jul)	19 New Residential Construction (Aug) FOMC Meeting	20 EIA Crude Oil Stocks Mortgage Applications FOMC Meeting	21 International Transactions (Q2) Existing Home Sales (Aug) Philadelphia Fed Mfg Business Outlook Survey (Sep) Composite Indexes (Aug) Weekly Jobless Claims	22 Treasury Auction Allotments FRB Philadelphia Coincident Economic Activity Index (Aug) S&P Global Flash PMIs (Sep)
25 Chicago Fed National Activity Index (Aug) Texas Manufacturing Outlook Survey (Sep)	26 FHFA & Case-Shiller HPI (Jul) New Residential Sales (Aug) Consumer Confidence (Sep) H.6 Money Stock (Aug) Final Building Permits (Aug) Philly Fed Nonmfg (Sep) Richmond Fed Mfg and Service Sector (Sep) Texas Service Sector (Sep) Steel Imports (Aug)	27 Advance Durable Goods (Aug) International Investment Position (Q2) EIA Crude Oil Stocks Mortgage Applications	28 GDP (Q2, 3rd Estimate & Rev) Kansas City Fed Manufacturing Survey (Sep) Pending Home Sales (Aug) Weekly Jobless Claims	29 Dallas Fed TrimMean PCE(Aug) Adv Trade & Inventories (Aug) Personal Income (Aug & Rev) Underlying NIPA Tables (Q2, 3 rd Est & Rev) Agricultural Prices (Aug) Strike Report (Sep) Chicago PMI (Sep) Consumer Sentiment(Sep, Final)
October 2 Construction (Aug) ISM Manufacturing (Sep) S&P Global Mfg PMI (Sep) Dallas Fed Banking Conditions Survey (Aug)	3 JOLTS (Aug)	4 ADP Employment Report (Sep) Manufacturers' Shipments, Inventories & Orders (Aug) ISM Services PMI (Sep) S&P Global Services PMI (Sep) BEA Auto & Truck Sales (Sep) EIA Crude Oil Stocks Mortgage Applications	5 International Trade (Aug) Public Debt (Sep) Challenger Employment Report (Sep) Weekly Jobless Claims	6 Employment Situation (Sep) Consumer Credit (Aug) Baker Hughes International Rig Count (Sep)
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