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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TABLE OF CONTENTS

Domestic Commentary – Highlights of September 26-27 Survey p. 1
Domestic Summary Table – Table of consensus forecasts ofU.S. interest rates and key economic assumptionsp. 2
International Summary Table – Table of consensus forecasts ofinternational interest rates and foreign exchange valuesp. 3
International Commentary (by Andy Cates) p. 3
Individual Panel Member's U.S. Forecasts – Of interest rates and key assumptions for the next six quartersp. 4-9
Individual Panel Member's International Forecasts – Ofinternational interest rates and foreign exchange valuesp. 10-11
Viewpoints – A sampling of views on the economy and government policy excerpted from recent reports issued by our panel members p. 12-13
Special Questions – Results of special questions posed to panel members about the economy, financial markets and government policy p. 14
Databank – Monthly historical data on many key indicators ofeconomic activityp. 15
Calendar – Release dates for important upcoming economicdata, FOMC meetings, etc.p. 16
List of Contributing Economists – To Domestic and International Survey inside of back cover

Mounting Headwinds to Test U.S. Economy's Resilience

Resilience continues. The US economy continues to be stronger than the Federal Reserve, financial markets and Blue Chip Financial Forecasts (BCFF) panelists had previously expected. While the BCFF panelists were not asked for an update of their forecast for Q3 real GDP in this month's survey, they had raised their outlook markedly over the preceding four months—from -0.4% q/q saar in June to +2.4% last month. The FRB Atlanta's running estimate of Q3 GDP growth is an even stronger 4.9%, led by robust consumer spending and a rebound in inventory investment. This would be the strongest quarterly increase in GDP since Q4 2021 and a truly unexpected outcome in a world in which the fed funds rate (FFR) has been increased 525bps over the past year and a half.

Tighter for longer. This surprising resilience was also reflected in key changes to the FOMC's Summary of Economic Projections (SEP) that were released after the September 19-20 meeting. The FOMC significantly raised its outlook for GDP growth in 2023 to 2.1% from 1.0% in the June SEP, marginally lowered its outlook for core PCE inflation and meaningfully reduced its outlook for unemployment. The FOMC appears to be envisaging the elusive "soft landing" where the Fed slows economic activity sufficiently to rein in inflation without generating a contraction in the economy. The Fed has accomplished this only twice in the past 50 years. The economy's resilience also led the FOMC to alter its outlook for the FFR. Its consensus still anticipates one more 25bp increase this year. However, it now sees monetary policy remaining tighter for longer than it had previously, a move that particularly spooked financial markets. It now anticipates only two 25bp rate cuts in 2024 while previously it looked for four (totaling 100bps).

BCFF panelists mostly think that the Fed has completed its rate hikes. Of the 32 respondents to a special question, 22 expect no further rate hikes while the remaining 10 look for just one more 25bp increase. Accordingly, the quarterly average forecast for Q4 is 5.42%, essentially the same as last month and reflecting only a small chance of another FFR hike this year. The BCFF consensus also looks for the FFR to remain elevated for longer than previously expected with quarterly FFR forecasts over the forecast horizon six to 14 bps higher this month than last month. Furthermore, respondents are now looking for the first FFR cut later than they had previously. Last month, 44% had anticipated the first cut in Q1 2024; this month that percentage fell to 30% with the percentage not expecting the first cut until next year's third quarter rising to 27% in this month's survey from 19% last month.

Longer-term rates have likely peaked. The economy's resilience and associated expectations that the Fed will be tighter for longer are placing additional upward pressure on longerterm market interest rates and thereby tightening financial conditions. For example, the yield on the benchmark 10-year Treasury note has increased about 50 bps over the past month and currently stands at its highest level since 2007. Accordingly, mortgage interest rates have continued their rise, thereby inflicting even more pain on the already reeling housing market. However, the BCFF consensus thinks that the rise in longer-term market yields has mostly run its course. It looks for no further rise from current levels with longer-term yields gradually falling over the next six quarters.

Slowdown ahead. The BCFF consensus looks for a sharp slowdown in GDP growth in Q4 and a further slowdown to near-recession territory in next year's first quarter with GDP expected to advance just 0.8% q/q saar in Q4 and 0.2% in Q1. Indeed, the consensus attaches an elevated 46% probability to a recession occurring within the next 12 months, though this is down from 49% last month. However, the anticipated sharp slowdown in the economy is not expected to place much stress on the corporate credit market. The credit spread (for example, the difference between the corporate bond yield and the 10-year Treasury yield) is expected to increase only about 15 bps from its current level and to remain well below levels associated with corporate credit stress.

The FOMC and the BCFF consensus part ways a bit on the outlook for unemployment. The FOMC now looks for only a modest increase in the unemployment rate—from its current 3.8% to just 4.1% by the end of next year. By contrast and in accordance with the near-recession conditions expected, the BCFF consensus looks for more stress to be placed on the labor market with the unemployment rate increasing to 4.4% by the middle of next year.

Headwinds galore. Behind the expected, marked slowdown in the economy and rise in unemployment is a surfeit of headwinds the economy is now facing. The price of crude petroleum has increased more than 30% since the beginning of July, threatening to rekindle still-elevated inflation and deliver a blow to disposable income. The BCFF consensus looks for inflation to have backtracked in Q3 and to remain elevated in Q4. Also challenging the outlook is the resumption of student loan payments, which begin officially in October, but some restarted payments have already been detected in the daily Treasury statements. This is estimated to total around \$100 billion per year and could meaningfully reduce consumer spending. Additionally, the ongoing auto workers strike and the possibility of a shutdown of the federal government pose threats that could have macroeconomic significance.

Furthermore, the increase in the FFR has been very rapid and large. Consequently, the economy may not have yet felt the total impact of the tightening thus far, a point that Fed Chair Powell has often made. That monetary policy is historically quite tight is almost undeniable. BCFF respondents estimate that the neutral FFR (that rate that is neither restrictive nor stimulative) is 2.68%, well below the current target of 5.375% and indicative of a very tight policy. The level of the real FFR (the FFR adjusted for inflation) is another measure of the stance of monetary policy. That rate is currently 1.90%, near the highest it has been since the fall of 2007, another indicator pointing to tight policy. The BCFF consensus looks for monetary policy by this measure to become even tighter ahead with the real FFR expected to rise further over the next couple of quarters before falling to a still elevated 1.80% by the first quarter of 2025.

				Histor	у				Cons	ensus l	Forecas	sts-Qua	arterly	Avg.
	Av	erage For	Week End	ling	Ave	erage For	Month	Latest Qtr	4Q	1Q	2Q	3Q	4Q	1Q
Interest Rates	<u>Sep 22</u>	<u>Sep 15</u>	<u>Sep 8</u>	<u>Sep 1</u>	Aug	<u>Jul</u>	<u>Jun</u>	<u>3Q 2023*</u>	<u>2023</u>	<u>2024</u>	<u>2024</u>	<u>2024</u>	<u>2024</u>	<u>2025</u>
Federal Funds Rate	5.33	5.33	5.33	5.33	5.33	5.12	5.08	5.26	5.4	5.4	5.1	4.7	4.3	4.0
Prime Rate	8.50	8.50	8.50	8.50	8.50	8.29	8.25	8.43	8.5	8.5	8.2	7.8	7.4	7.0
SOFR	5.30	5.30	5.31	5.30	5.30	5.09	5.06	5.23	5.4	5.4	5.1	4.7	4.4	4.0
Commercial Paper, 1-mo.	5.31	5.30	5.29	5.30	5.30	5.16	5.10	5.26	5.5	5.4	5.1	4.7	4.3	4.0
Treasury bill, 3-mo.	5.56	5.55	5.55	5.56	5.56	5.49	5.42	5.53	5.5	5.4	5.1	4.7	4.3	3.9
Treasury bill, 6-mo.	5.51	5.51	5.51	5.51	5.54	5.53	5.42	5.53	5.5	5.3	5.0	4.6	4.3	3.9
Treasury bill, 1 yr.	5.46	5.42	5.42	5.39	5.37	5.37	5.24	5.39	5.4	5.1	4.8	4.5	4.1	3.9
Treasury note, 2 yr.	5.09	4.99	4.97	4.89	4.90	4.83	4.64	4.91	4.8	4.6	4.3	4.0	3.8	3.7
Treasury note, 5 yr.	4.53	4.41	4.40	4.29	4.31	4.14	3.95	4.30	4.3	4.2	4.0	3.9	3.8	3.6
Treasury note, 10 yr.	4.39	4.29	4.28	4.14	4.17	3.90	3.75	4.14	4.2	4.1	3.9	3.9	3.8	3.8
Treasury note, 30 yr.	4.46	4.37	4.36	4.25	4.28	3.96	3.87	4.22	4.4	4.3	4.2	4.2	4.1	4.0
Corporate Aaa bond	5.38	5.32	5.30	5.19	5.25	4.98	4.95	5.19	5.2	5.2	5.0	5.0	4.9	4.9
Corporate Baa bond	6.01	5.96	5.96	5.85	5.90	5.64	5.64	5.85	6.2	6.1	6.1	6.0	6.0	5.9
State & Local bonds	4.53	4.46	4.43	4.43	4.39	4.20	4.23	4.36	4.4	4.4	4.3	4.3	4.3	4.2
Home mortgage rate	7.19	7.18	7.12	7.18	7.07	6.84	6.71	7.02	7.1	6.9	6.7	6.5	6.3	6.2
				Histor	y				Co	onsensu	ıs Fore	casts-()uartei	rly
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
Key Assumptions	2021	2022	2022	2022	2022	2023	2023	2023**	<u>2023</u>	<u>2024</u>	<u>2024</u>	<u>2024</u>	<u>2024</u>	2025
Fed's AFE \$ Index	106.9	108.3	113.5	118.8	119.8	115.5	114.6	114.9	116.4	116.2	116.0	115.7	115.4	114.9
Real GDP	7.0	-2.0	-0.6	2.7	2.6	2.2	2.1	2.4	0.8	0.2	0.5	1.1	1.6	2.1
GDP Price Index	7.0	8.5	9.1	4.4	3.9	3.9	1.7	2.7	2.7	2.4	2.2	2.2	2.2	2.2
Consumer Price Index	8.8	9.2	9.7	5.5	4.2	3.8	2.7	3.2	3.1	2.6	2.3	2.4	2.4	2.3
PCE Price Index	6.8	7.7	7.2	4.7	4.1	4.2	2.5	2.9	2.9	2.4	2.2	2.3	2.2	2.2

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

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 3Q 2023 based on historical data through the week ended September 22. **Data for 3Q 2023 for the Fed's AFE \$ Index based on data through the week ended September 22. Figures for 3Q 2023 Real GDP, GDP Chained Price Index, Consumer Price Index, and PCE Price Index are consensus forecasts from the September 2023 survey.







		Policy	⁷ Rates ¹ -			
		-History		Cons	ensus Foi	ecasts
		Month	Year	Mon	ths From	Now:
	Latest:	Ago:	Ago:	3	6	12
U.S.	5.38	5.38	3.13	5.44	5.34	4.56
Japan	-0.10	-0.10	-0.10	-0.09	-0.09	-0.06
U.K.	5.25	5.25	2.25	5.38	5.30	4.68
Switzerland	1.75	1.75	0.50	1.82	1.79	1.63
Canada	5.00	5.00	3.25	5.02	4.94	4.37
Australia	4.10	4.10	2.35	4.20	4.16	3.73
Euro area	4.50	4.25	1.25	4.30	4.26	3.67

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

		History		Cons	ensus Foi	recasts
		Month	Year	Mon	ths From	Now:
	Latest:	Ago:	Ago:	3	6	12
U.S.	4.44	4.25	3.69	4.03	3.85	3.67
Germany	2.74	2.56	2.03	2.55	2.47	2.32
Japan	0.75	0.66	0.27	0.72	0.71	0.71
U.K.	4.29	4.50	3.97	4.32	4.24	4.09
France	3.29	3.08	2.60	3.05	2.95	2.80
Italy	4.63	4.23	4.33	4.23	4.15	4.02
Switzerland	1.06	0.98	1.22	1.09	1.24	1.29
Canada	3.91	3.71	3.07	3.61	3.55	3.36
Australia	4.33	4.15	3.92	4.15	4.10	3.63
Spain	3.78	3.50	3.04	3.53	3.46	3.38

-----Foreign Exchange Rates³-----

			0	~	_	
		-History-		Cons	ensus For	ecasts
		Month	Year	Mon	ths From	Now:
	Latest:	Ago:	Ago:	3	6	12
U.S.	117.23	116.43	123.51	114.9	113.6	112.3
Japan	148.24	146.38	143.18	142.8	139.1	135.1
U.K.	1.23	1.26	1.09	1.26	1.28	1.30
Switzerland	0.91	0.89	0.98	0.89	0.88	0.87
Canada	1.35	1.36	1.36	1.34	1.32	1.30
Australia	0.65	0.64	0.65	0.65	0.67	0.69
Euro	1.07	1.08	0.97	1.09	1.10	1.12

	Poli	isensus cy Rates US Rate		10-	nsensus Year Gov't vs. U.S. Yie	ld
	Now	In 12 Mo.		Now	In 12 Mo.	
Japan	-5.48	-4.62	Germany	-1.70	-1.35	
U.K.	-0.13	0.11	Japan	-3.69	-2.96	
Switzerland	-3.63	-2.94	U.K.	-0.15	0.43	
Canada	-0.38	-0.19	France	-1.15	-0.87	
Australia	-1.28	-0.83	Italy	0.19	0.35	
Euro area	-0.88	-0.89	Switzerland	-3.38	-2.38	
			Canada	-0.53	-0.30	
			Australia	-0.11	-0.04	
			Spain	-0.66	-0.29	

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: ¹Monetary policy rates. ²Government bonds are vields 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.

OCTOBER 2, 2023 ■ BLUE CHIP FINANCIAL FORECASTS ■ 3

International. Financial markets have been roiled further over the past few weeks largely thanks to a "tighter for longer" narrative from the Fed and a further steep climb in US Treasury yields. That narrative has been amplified by recent comments from Fed officials, by a batch of stronger-than-expected US growth data, as well as by heightened concern that firmer oil prices could re-ignite inflationary pressures. Upward pressure on US yields has generated spillovers into other major bond markets as well. And that's notwithstanding disappointing data from Europe and China, and a much more data-dependent approach from the ECB and the BoE towards their monetary policy decisions. A global trend toward higher yields may have additionally been fueled by the recent decision from the BoJ to introduce more flexibility to its Yield Curve Control (YCC) policy.

As noted, while US growth data has held up quite well, the messaging from incoming dataflow elsewhere, most notably from Europe, has been more disappointing. September's flash composite PMI balances for the euro area and UK. for example, either remained in, or fell deeper into, contraction territory with ongoing downturns in manufacturing now further magnified by a decline in services activity. This weakness stood in contrast to Japan, where those same surveys suggested that its service sector has held up quite well, in part because it exited its COVID lockdown phase later than other economies. Europe's plight, however, contrasted too with the US's, as an outright contraction has not yet been signaled, partly thanks to a more resilient services sector. Against this backdrop and in response to a special question, Blue Chip panelists are placing respective probabilities of 55% and 58% on the chances of a euro area and UK recession over the next 12 months. That contrasts with a 46% probability for the US.

As for China, latest data indicating that growth in retail sales and industrial production picked up pace in August suggest that the economy has recovered some poise in recent weeks. But accompanying data showing still-weak fixed asset investment growth, which has been weighed down in particular by ebbing property investment, has left lingering concerns. Evidence suggesting that property developers are still stressed, coupled with an absence-to-date of a compelling policy response, has certainly left our panelists questioning the durability and strength of any cyclical upturn and consequent global ramifications. For example, and in response to another special question, 80% of our panelists believe the recent weakening of China's economy poses meaningful risks to the outlook for global growth. In the meantime, 68% have been left unimpressed by recent policy initiatives.

Growth risks coupled with incoming data suggesting that domestic inflationary pressures have continued to recede have left a mark on the ECB and the BoE. For instance, although the ECB raised its policy rates by 25bps at its September 14th meeting, some tweaks to its accompanying statement suggested that it has moved much closer to, and may have already reached, the end of its tightening cycle. Similarly, the BoE's decision to pause its hiking cycle at its September 21st meeting, while not unanimous, has nevertheless encouraged some panelists to indicate that the end of the cycle is close if not already here. Our special questions on this issue specifically reveal that 67% of panelists believe the ECB has now reached the end of its tightening cycle. For the BoE, that percentage drops to 54%.

The other central bank that's worthy of focus is the BoJ, following the announcement in late July of additional flexibility in its YCC policy. Japan's 10-year JGB yields have climbed sharply of late, possibly in anticipation of a broader monetary policy normalization in the months ahead. With Japanese investors potentially now finding it more profitable to repatriate funds from other asset classes, including US Treasuries, this could have been a key driver of some broader global financial instability over the last few weeks. That being said, Blue Chip panelists are expecting the status quo on Japan's monetary policy to remain intact over the next few months and do not anticipate any meaningful further increase in long-term interest rates over the next 12 months.

Fourth Quarter 2023 Interest Rate Forecasts

						Pe	rcent F	Per Annum	ı Aver	rage F	or Quarte	er				-	Avg. For		(Q-(Q % Chang	e)
Blue Chip				Short-Ter	m				ntermed	liate-T	erm		L(ong-Term			Qtr			-(SAAR)	
Financial Forecasts	1	2	3	4	5	6	7	7 8		9	10	11	12	13	14	15	Α.	В.	C.	D.	Ε.
Panel Members	Federal	Prime	SOFR	Com.	Treas.	Treas.	Tre	as. Trea	s. T	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home	Fed's Adv		GDP	Cons.	PCE
	Funds	Bank	Rate	Paper	Bills	Bills	Bi	lls Note	es N	Votes	Notes	Bond	Corp.	Corp.	Local	Mtg.	Fgn Econ	Real	Price	Price	Price
	Rate	Rate		1 - Mo.	3-Mo.	6-Mo.	1-\	(r. 2-Y	r. !	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index	Index
Barclays	5.6 H	l na	na	na	5.7	na	n	a 4.8	3 4	4.3	4.2	4.3	na	na	na	na	na	0.5	3.3	3.0	3.2
Chan Economics	5.6 H		5.5	5.5	5.6	5.7	H 5.			4.6	4.5	4.6	5.6	6.6	5.1	7.3	117.3	1.5	2.6	2.8	2.4
Naroff Economic Advisors	5.6 H		5.6	5.7 H		5.7	H 5.			4.4	4.2	4.3	na	na	4.1	7.2	114.2	1.1	3.6	3.5	3.5
The Northern Trust Company	5.6 H		5.6	5.6	5.8 H	H 5.7	H 5.			4.4	4.3	4.5	5.3	6.3	4.8	7.3	117.0	0.9	2.6	3.2	2.4
Action Economics	5.5	8.7	5.8 H		5.6	5.5	5.			4.2	4.2	4.2	5.0	6.1	4.3	7.5	114.7	1.0	3.0	3.6	3.0
Chmura Economics & Analytics	5.5	8.6	5.4	5.6	5.6	5.7	H 5.			4.5	4.5	4.6	5.2	na	na	7.2	na	1.0	2.7	3.0	2.6
Comerica Bank	5.5	8.6	5.5	na	5.6	5.6	5.			4.7 H		4.8	H 5.3	6.3	na	7.4	na	0.8	3.1	3.3	3.5
J.P. Morgan Chase	5.5	na	na	na	na	na	n			4.2	4.1	4.3	na	na	na	na	na	1.5	2.4	3.3	2.9
S&P Global Market Intelligence Santander Capital Markets	5.5	8.6 8.7	5.5	na	5.5	5.4 5.6	5.			4.2 4.7 H	4.0	4.2	na E 4	na 6 4	na 4.2	7.0 7.5	na 110.0 U	1.4 2.1	2.7 3.2	2.3 4.0	2.3 3.5
Scotiabank Group	5.5 5.5		5.5 5.2 I	5.5	5.6 5.2		5.					4.7	5.4	6.4	4.2		118.0 H	-0.2			
Swiss Re	5.5 5.5	na	5.3 L na	na na	5.3 na	na	n			4.1 na	3.9 3.9	4.2 na	na	na	na	na na	na na	-0.2 0.8	1.5 na	L 3.7	3.4 na
TS Lombard	э.э 5.5	na 8.6	na 5.4	na 5.5	na 5.3	na 5.4	n 5.			na 4.0	3.9 4.1	na 4.2	na 5.0	na 5.8	na 4.1	na 5.9 L	na 114.0 L	0.8 -1.5	na 3.5	na 3.5	na 3.5
Daiwa Capital Markets America	5.5 5.4	o.o 8.6	5.4 5.3 L		5.6	o.4 na	o. n			+.0 4.3	4.1	4.2 4.3	5.0 na	o.o na	4.1 na	5.9 L 7.2	114.0 L 118.0 H	-1.5 1.0	3.0 3.0	3.5 3.0	3.5 2.9
DePrince & Assoc.	5.4 5.4	8.5	5.5 L	5.4	5.5	11a 5.5	5.			+.5 4.6	4.2 4.4	4.3 4.4	11a 5.2	6.2	11a 4.5	7.1	116.9	1.0	3.0 2.8	3.0	2.9
Fannie Mae	5.4 5.4	8.5	na	na	5.4	5.4	5.			+.0 4.6	4.4	4.4	na	na	na	7.5	na	1.2	2.0	2.2	2.3
Georgia State University	5.4	8.5	na	na	5.4	5.2	5.			4.3	4.1	4.1	4.8	6.0	na	6.7	na	0.2	2.8	3.4	3.3
Goldman Sachs & Co.	5.4	na	na	na	5.1 L	_ na	n			4.0	3.9	4.0	L na	na	na	na	na	0.7	3.8	H 3.9	3.2
ING	5.4	na	na	na	na	na	n			3.9	3.8	4.0	L na	na	na	na	na	0.6	na	na	na
KPMG	5.4	8.5	5.4	5.3 I		5.7	H 5.			4.4	4.1	4.2	5.1	6.0	na	7.1	na	1.0	2.4	2.3	2.3
Loomis, Sayles & Company	5.4	8.6	5.4	5.3 I		5.6	5.			4.3	4.0	4.3	5.0	6.0	4.3	6.9	117.0	-0.3	2.8	3.6	3.0
MacroFin Analytics & Rutgers Bus School	5.4	8.5	5.3 L		5.6	5.5	5.			4.6	4.6	4.7	5.5	6.2	4.5	7.6 H	117.2	1.3	2.5	2.6	2.7
MacroPolicy Perspectives	5.4	8.5	5.3 L		5.6	5.5	5.			4.5	4.4	4.5	5.1	6.0	4.5	7.2	116.9	0.7	2.2	1.9	L 1.8 L
Nomura Securities, Inc.	5.4	8.5	na	na	na	na	n	a 3.9) L 3	3.3 L	2.9 L	. na	na	na	na	na	na	-1.7	L 2.0	2.9	2.4
Oxford Economics	5.4	8.2 L	5.4	na	5.5	5.5	5.	2 4.7	, 4	4.1	4.0	4.0	L 4.6	L na	na	6.8	116.5	-1.0	1.8	3.7	3.2
The Lonski Group	5.4	8.5	5.3 L	5.6	5.5	5.4	5.	.2 4.9) 4	4.6	4.3	4.4	5.5	6.4	4.8	7.3	118.0 H	0.7	2.8	3.6	3.7
Wells Fargo	5.4	8.5	5.4	5.4	5.3	5.2	4	9 L 4.4	4	4.0	3.9	4.1	5.1	6.1	4.5	6.8	na	0.4	2.3	2.6	2.3
BMO Capital Markets	5.3 L	. 8.2 L	5.3 L	na	5.6	5.5	5.	.3 4.8	3 4	4.4	4.3	4.4	na	na	na	7.1	116.7	0.9	3.4	4.0	3.8 H
Economist Intelligence Unit	5.3 L	8.5	na	5.5	5.6	5.5	5.	.5 5.1	4	4.7 H	4.7 H	4.8	H na	na	na	7.4	na	-0.4	na	2.5	na
EY-Parthenon	5.3 L	na	na	na	5.3	na	n	a na	r	na	4.1	na	na	na	na	na	na	0.6	2.6	3.4	2.6
GLC Financial Economics	5.3 L	8.4	5.3 L		5.3	5.4	5.	.3 4.7	4	4.2	4.1	4.2	5.0	5.8	2.9 L	6.8	117.3	1.5	2.8	3.2	2.9
Moody's Analytics	5.3 L	8.5	5.3 L	5.5	5.2	5.1	L 4.	.9 L 4.7	4	4.3	4.0	4.3	5.1	6.1	4.1	6.8	na	0.5	2.9	3.3	3.1
NatWest Markets	5.3 L	8.5	na	5.4	5.6	5.7	H 5.	.8 H 4.8	3 4	4.3	4.2	4.3	6.0	H 7.0	H 5.3 H	1 7.1	na	3.0	H 2.4	3.5	3.0
PNC Financial Services Corp.	5.3 L		5.3 L		5.3	5.4	5.			4.2	4.1	4.2	na	6.3	4.4	6.8	114.0 L	1.4	2.2	1.9	L 1.9
Regions Financial Corporation		8.5	5.3 L	5.4	5.4	5.5	5.			4.6	4.5	4.7	5.8	6.7	4.9	7.4	116.9	0.4	3.0	4.5	H 3.4
Societe Generale	5.3 L	8.5	5.3 L	. na	5.5	5.3	5.			4.5	4.4	4.6	na	na	na	na	na	1.3	2.7	2.7	2.3
Via Nova Investment Mgt.	5.3 L	8.5	5.3 L	. 5.3 l	- 5.6	5.6	5.	.4 5.0) 4	4.4	4.0	4.3	5.1	5./	L 4.3	7.0	115.0	2.0	2.5	2.4	2.3
October Consensus	5.4	8.5	5.4	5.5	5.5	5.5	5.	4 4.8	3 4	1.3	4.2	4.4	5.2	6.2	4.4	7.1	116.4	0.8	2.7	3.1	2.9
	-		-										-	-							
Top 10 Avg.	5.5	8.6	5.5	5.6	5.6	5.7	5.	.6 5.1	4	4.6	4.5	4.7	5.5	6.4	4.7	7.4	117.4	1.7	3.3	3.8	3.5
Bottom 10 Avg.	5.3	8.4	5.3	5.4	5.3	5.3	5.	2 4.5	5 4	4.0	3.8	4.1	5.0	6.0	4.1	6.8	115.6	-0.4	2.2	2.3	2.2
September Consensus	5.4	8.6	5.4	5.5	5.5	5.5	5.	3 4.7	, 4	4.2	4.0	4.2	5.1	6.1	4.4	6.8	114.8	0.6	2.6	2.9	2.8
Number of Forecasts Changed From A Mon	th Ago:	_																			
Down	6	7	3	3	6	7	2	2 3		4	1	2	3	3	3	0	1	7	7	7	9
Same	28	21	21	13	19	15	ę	9 10		9	13	9	6	8	7	7	4	14	15	8	10
Up	3	2	1	3	6	5	1	7 22	2	22	23	23	12	9	7	21	12	15	12	20	15
Diffusion Index	46%	42%	46%	50%	50%	46%	77	% 779	6 7	6%	80%	81%	71%	65%	62%	88%	82%	61%	57%	69%	59%
	1070	12/0	10/0	0070	0070	1070		,,, 11,	• I	• /•	0070	0170	, i /J	0070	0270	0070	02/0	01/0	0170	5570	0070

First Quarter 2024

Interest Rate Forecasts

	-					Pero	cent Per	Annum /	Average I	For Quarte	er					Avg. For			% Change	;)
Blue Chip			{	Short-Terr	m			Inter	nediate-	Term		Lo	ong-Term			Qtr		(S	SAAR)	
Financial Forecasts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Α.	В.	C.	D.	E.
Panel Members	Federal	Prime	SOFR		Treas.	Aaa	Baa	State &	Home	Fed's Adv		GDP	Cons.	PCE						
	Funds	Bank	Rate	Paper	Bills	Bills	Bills	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.		30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index	Index
Barclays	5.6 H		na	na	5.7	na	na	4.6	4.2	4.1	4.2	na	na	na	na	na	0.0	2.8	2.5	2.7
Chan Economics	5.6 H		5.5	5.5	5.6	5.7	5.5	5.1	4.6	4.5	4.6	5.6	6.6	5.1	7.3	117.5	1.0	2.5	2.7	2.3
Chmura Economics & Analytics Comerica Bank	5.6 H 5.6 H		5.6	5.7 H		5.8	H 5.7	5.4 H	1 4.9 H			H 5.5	na c 1	na	7.3	na	-0.5 0.6	2.5 2.6	2.7	2.2 2.7
Daiwa Capital Markets America	5.6 H 5.6 H		5.6 5.6	na na	5.6 5.6	5.6 na	5.4 na	4.8 4.5	4.6 4.0	4.6 4.0	4.8 4.3	5.3 na	6.1	na	7.2 6.9	na 117.5	0.6 -1.0	2.6 2.8	2.7 2.7	2.7
Naroff Economic Advisors	5.6 H		5.6	5.7 H		5.7	5.0	4.5	4.0	4.0	4.3	na	na na	na 4.1	0.9 7.1	114.5	-1.9	2.0 3.3 H		H 3.2 H
S&P Global Market Intelligence	5.6 H		5.6	na	5.4	5.2	5.2	4.5	4.0	3.9	4.1	na	na	na	6.8	na	0.9	2.7	2.0	2.3
Santander Capital Markets	5.6 H			5.7 H		5.6	5.4	5.1	4.6	4.5	4.6	5.3	6.3	4.2	7.2	118.0	1.3	3.1	3.2	2.9
The Northern Trust Company	5.6 H	8.8 H	5.6	5.6	5.8 H	H 5.7	5.6	5.0	4.4	4.3	4.5	5.4	6.4	4.9	7.2	117.5	1.2	2.5	2.8	2.3
Action Economics	5.5	8.7	5.9 H	1 5.5	5.5	5.3	5.0	4.5	4.2	4.1	4.2	5.0	6.0	4.3	7.4	115.9	0.9	2.4	2.8	2.3
J.P. Morgan Chase	5.5	na	na	na	na	na	na	4.8	4.2	4.1	4.3	na	na	na	na	na	0.5	2.3	2.2	1.9
Scotiabank Group	5.5	na	5.3	na	5.3	na	na	4.2	3.8	3.7	3.9	na	na	na	na	na	0.0	1.7	3.4	H 3.1
Swiss Re	5.5	na	na	na	na	na	na	na	na	3.9	na	na	na	na	na	na	0.3	na	na	na
DePrince & Assoc.	5.4	8.6	5.5	5.4	5.6	5.5	5.5	5.2	4.7	4.5	4.4	5.5	6.4	4.7	7.0	116.6	0.8	2.8	3.0	2.8
GLC Financial Economics	5.4	8.6	5.4	5.4	5.5	5.3	5.2	4.6	4.6	4.4	4.6	5.1	5.9	2.8 L	6.5	116.6	0.7	2.7	2.9	2.8
Goldman Sachs & Co.	5.4	na	na	na	5.1	na	na	4.4	4.0	3.8	3.9	na	na	na	na	na	1.9	3.0	3.2	2.6
KPMG	5.4	8.5 0.5	5.4	5.1	5.4	5.5	5.3	4.8	4.1	3.9	4.1	4.8	5.9	na	6.8	na 117.0	0.5	2.7	2.0	2.3
MacroFin Analytics & Rutgers Bus School MacroPolicy Perspectives	5.4 5.4	8.5 8.5	5.3 5.3	5.5	5.6	5.5	5.4 na	4.9 4.7	4.4 4.3	4.5 4.1	4.7	5.4 4.8	6.1 5.7	4.5 L na	7.5 H 7.0	117.0 na	1.0 1.2	2.6 2.1	2.6 1.9	2.6 1.7
Oxford Economics	5.4 5.4	8.4	5.5 5.4	na na	na 5.3	na 5.2	11a 5.0	4.7	4.5 3.8	4.1 3.7	na 3.9	4.0 4.3	L na	na	6.4	115.8	-1.7	1.9	2.8	2.5
The Lonski Group	5.4	8.5	5.3	5.5	5.3	5.2	4.9	4.5	4.2	4.0	4.1	4.5 5.2	6.3	4.6	7.0	119.7 H	0.2	2.2	2.0	2.3
BMO Capital Markets	5.3	7.7 L	5.3	na	5.6	5.5	5.2	4.5	4.2	4.1	4.2	na	na	na	6.9	115.8	0.0	2.6	3.0	2.8
Economist Intelligence Unit	5.3	8.5	na	5.4	5.5	5.3	5.0	5.0	4.5	4.6	4.7	na	na	na	7.2	na	0.2	na	2.2	na
EY-Parthenon	5.3	na	na	na	5.1	na	na	na	na	3.9	na	na	na	na	na	na	0.7	2.3	2.3	2.2
Fannie Mae	5.3	8.4	na	na	5.3	5.3	5.2	4.8	4.5	4.5	4.7	na	na	na	7.3	na	-0.2	2.8	2.3	2.4
Georgia State University	5.3	8.4	na	na	5.2	4.8	4.9	4.3	3.7	3.6	3.8	4.4	5.7	L na	6.2	na	-0.2	2.5	2.2	2.3
Moody's Analytics	5.3	8.5	5.3	5.4	5.1	5.0	4.9	4.6	4.3	4.0	4.4	5.3	6.3	4.3	6.7	na	1.1	1.9	2.8	2.5
NatWest Markets	5.3	8.5	na	5.4	5.6	5.7		H 4.6	4.1	4.0	4.2			H 5.2 H		na	0.5	2.2	3.1	2.6
PNC Financial Services Corp.	5.3	8.5	5.3	na	5.1	5.1	4.6	4.5	4.1	4.1	4.3	na		H 5.2 H		115.0	0.2	1.6	1.1	L 1.1 L
Regions Financial Corporation	5.3	8.5	5.3	5.4	5.4	5.5	5.4	4.9	4.4	4.4	4.6			H 4.8	7.2	116.6	1.0	2.7	3.2	2.9
Societe Generale Via Nova Investment Mot.	5.3	8.5 0.5	5.3	na E 4	5.3	5.1	4.7	4.2	4.1	4.0	4.2	na F 2	na 5 0	na	na 70	na 112.0	0.5	1.8 1 2.2	2.2	2.3
Loomis, Sayles & Company	5.3 5.2	8.5 8.3	5.4 5.1	5.4 5.1	5.3 5.3	5.3 5.3	5.2 4.8	4.7 3.9	4.3 3.8	4.2 3.7	4.4 3.9	5.3 4.7	5.9 5.7	4.6 L 4.0	7.2 6.5	113.0 117.0	2.0 H -2.2 L	1 2.2 _ 2.5	2.1 2.0	2.0 1.8
Nomura Securities, Inc.	5.1	8.3	na	na	na	na	na	3.2 L	. 3.0 I	L 2.9 I	L na	na	na	na	na	na	-1.9	- 2.5 1.5 L	2.5	2.3
Wells Fargo	5.1	8.3	5.1	5.1	4.9	4.6		L 3.8	3.6	3.6	3.9	4.8	5.8	4.2	6.4	na	-0.8	1.7	1.9	1.7
ING	4.9	na	na	na	na	na	na	3.6	3.4	3.3	3.7	L na	na	na	na	na	-1.3	na	na	na
TS Lombard	4.8 L	7.9	4.8 L	. 4.8 l	4.3	4.4	L 4.3	4.3	3.8	4.0	4.1	4.9	5.7	L 4.0	5.8 L	112.0 L	-1.0	3.0	3.0	3.0
October Consensus	5.4	8.5	5.4	5.4	5.4	5.3	5.1	4.6	4.2	4.1	4.3	5.2	6.1	4.4	6.9	116.2	0.2	2.4	2.6	2.4
Top 10 Avg.	5.6	8.7	5.6	5.6	5.6	5.6	5.5	5.0	4.6	4.5	4.7	5.5	6.5	4.8	7.3	117.4	1.3	2.9	3.1	2.9
Bottom 10 Avg.	5.2	8.3	5.2	5.3	5.1	5.0	4.7	4.0	3.7	3.6	3.9	4.8	5.8	4.1	6.5	115.2	-1.3	1.9	1.9	1.9
September Consensus		8.4	5.4	5.3	5.3	5.2	5.0	4.4	4.0	3.9	4.1	5.0	6.0	4.3	6.6	114.5	0.1	2.4	2.5	2.4
Number of Forecasts Changed From A Mor					2.0		5.0			2.0		5.0	5.0							
Down	3	3	1	1	3	2	0	2	4	1	1	3	5	1	0	2	9	8	5	6
Same	26	18	18	13	18	15	9	14	10	13	11	7	8	6	7	3	15	12	15	13
Up	8	9	6	5	10	10	18	19	21	23	21	11	7	10	21	12	12	14	15	15
Diffusion Index	57%	60%	60%	61%	61%	65%	83%	74%	74%	80%	80%	69%	55%	76%	88%	79%	54%	59%	64%	63%
Dilusion Index	JI /0	00 /0	00 /0	0170	U170	UJ 70	03%	1 4 70	1 + 70	00 /0	00 %	0370	JJ 70	1070	00 70	1370	J+ 70	JJ /0	0470	00 70

Second Quarter 2024

Interest Rate Forecasts

						Perc	cent Per	Annum	Average F	or Quart	er					Avg. For		(Q-Q	% Change	9)
Blue Chip				Short-Terr					mediate-7				ng-Term			Qtr			SAAR)	
Financial Forecasts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Α.	В.	C.	D.	Ε.
Panel Members	Federal	Prime	SOFR		Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home	Fed's Adv		GDP	Cons.	PCE
	Funds	Bank Rate	Rate	Paper 1 Mo	Bills	Bills	Bills	Notes	Notes		Bond	Corp.	Corp.	Local	Mtg.	Fgn Econ	Real GDP	Price	Price	Price
Barclays	Rate 5.6 H	na	na	1-Mo. na	3-Mo. 5.6	6-Mo. na	1-Yr. na	2-Yr. 4.4	5-Yr. 4.1	10-Yr. 4.0	30-Yr. 4.1	Bond na	Bond	Bonds na	Rate na	\$ Index na	-0.5	Index 2.4	Index 1.8	Index 2.1
Comerica Bank	5.6 H	na 8.7	5.6	na	5.5	5.5	11a 5.2	4.4 4.6	4.1	4.0 4.4	4.1	11a 5.2	na 6.1	na	6.8	na	-0.5 0.9	2.4	2.6	2.1
Santander Capital Markets	5.6 H	8.8 H	5.6	5.7 H		5.4	5.2	4.9	4.4	4.3	4.5	5.2	6.3	4.0	7.0	117.5	1.0	2.9	2.9	2.6
The Northern Trust Company	5.6 H	8.8 H	5.6	5.7 H		5.6	5.4	4.8	4.3	4.1	4.4	5.4	6.5	4.8	6.9	118.0	1.5	2.4	2.4	2.2
Chmura Economics & Analytics	5.5	8.7	5.5	5.6	5.6	5.7 H	H 5.7	5.7	H 5.1 H	H 5.1 I	H 5.2	H 5.8 H	H na	na	7.2	na	-0.7	2.2	2.3	2.3
J.P. Morgan Chase	5.5	na	na	na	na	na	na	4.6	4.0	4.0	4.2	na	na	na	na	na	0.5	2.0	1.6	1.5
Chan Economics	5.4	8.4	5.3	5.3	5.4	5.5	5.3	4.9	4.4	4.3	4.4	5.4	6.4	4.9	7.1	117.1	0.5	2.5	2.7	2.3
Daiwa Capital Markets America	5.4	8.5	5.3	na	5.4	na	na	4.1	3.7	3.8	4.2	na	na	na	6.6	117.0	-1.7	2.7	2.6	2.5
Goldman Sachs & Co.	5.4	na	na	na	4.8	na	na	4.2	3.9	3.8	3.9	na	na	na	na	na	1.9	2.6	2.7	2.4
S&P Global Market Intelligence	5.4	8.5	5.4	na	5.2	4.8	4.7	4.2	3.7	3.7	4.0	na	na	na	6.4	na	1.0	2.8	3.0	2.7
Action Economics BMO Capital Markets	5.3 5.2	8.4 7.2	5.8 H		5.2	5.0	4.8 5.0	4.3	4.1	4.1	4.1	4.9	6.0	4.2	7.4 H	116.1 114.8	1.2	1.8 2.2	2.6	2.0 2.2
DePrince & Assoc.	5.3 5.3	7.2 8.5	5.3 5.4	na 5.3	5.6 5.5	5.5 5.4	5.0 5.4	4.1 5.2	4.0 4.7	4.0 4.5	4.1 4.5	na 5.6	na 6.6	na 4.8	6.8 6.9	114.8 116.0	0.9 1.2	2.2	2.4 2.9	2.2 2.7
Economist Intelligence Unit	5.3	8.5 8.5	na	5.5 5.4	5.3	5.4 5.0	5.4 4.8	5.2 4.8	4.7	4.5 4.5	4.5	na	na	4.0 na	0.9 7.0	na	0.8	2.0 na	2.9	na
EY-Parthenon	5.3	na	na	na	4.7	na	na	na	na	3.8	na	na	na	na	na	na	1.1	1.9	1.8	1.9
GLC Financial Economics	5.3	8.4	5.4	5.1	5.3	5.1	4.9	4.4	4.8	4.7	4.8	5.4	6.2	2.4 L	. 6.5	116.4	0.7	2.5	2.5	2.4
MacroFin Analytics & Rutgers Bus School	5.3	8.4	5.2	5.4	5.4	5.4	5.1	4.8	4.2	4.2	4.5	5.2	6.0	4.3	6.9	116.8	1.5	2.6	2.5	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	4.5	5.4	6.4	4.4	6.5	na	1.2	2.0	2.5	2.4
NatWest Markets	5.3	8.5	na	5.4	5.6	5.7 H	H 5.8	H 4.4	3.9	3.9	4.1	5.7	6.6	5.1	6.9	na	1.5	1.6	2.1	1.8
Regions Financial Corporation	5.3	8.5	5.3	5.3	5.4	5.4	5.4	4.7	4.3	4.4	4.5	5.7	6.6	4.7	7.1	116.2	0.9	2.5	2.6	2.7
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	0.0	0.9	L 3.1	H 2.8 H
Swiss Re	5.3	na	na	na	na	na	na	na	na	3.7	na	na	na	na	na	na	-0.5	na	na	na
MacroPolicy Perspectives	5.2	8.4	5.1	na	na	na	na	4.5	4.3	4.1	na	4.8	5.8	na	6.9	na	1.5	1.7	1.3	1.3
Oxford Economics	5.2	8.2	5.2	na	5.2	5.0	4.8	4.2	3.5	3.4	3.6	3.9	L na	na	5.9	114.8	0.6	2.7	2.3	2.1
Fannie Mae Naroff Economic Advisors	5.1	8.3	na F 1	na 5 0	5.3	5.2	5.0	4.7	4.5	4.5	4.6	na	na	na	7.1	na 114.0	-0.9 2.1	2.2	2.2	2.1 H 2.8 H
Societe Generale	5.1 5.1	8.1 8.3	5.1 5.1	5.2 na	5.3 4.9	5.4 4.6	4.5 4.1	4.6 3.5	4.1 3.6	4.0 3.7	4.1 4.0	na na	na na	4.0 na	6.8 na	na	-2.8	3.0 I L 1.8	H 3.1 2.2	H 2.8 H 2.2
KPMG	5.0	8.1	5.0	11a 4.7	4.9	4.0 5.0	4.1	5.5 4.4	3.8	3.7	4.0	4.6	5.8	na	6.3	na	0.8	2.7	3.0	2.2
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	5.0	5.6	4.2	6.9	111.0 L	2.5 H	H 2.1	2.1	2.1
PNC Financial Services Corp.	4.9	8.0	4.8	na	4.5	4.5	4.1	4.1	4.0	4.1	4.3	na	6.8	H 5.4 H	1 6.5	115.9	-0.5	1.3	0.9	L 1.0 L
The Lonski Group	4.9	8.1	4.9	5.1	5.0	4.9	4.6	4.2	4.0	3.8	3.9	5.0	6.0	4.4	6.8	120.0 H	0.3	2.0	2.4	2.0
Nomura Securities, Inc.	4.6	7.8	na	na	na	na	na	2.8	L 2.8 I	2.8	L na	na	na	na	na	na	0.4	0.9	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	0.4	2.6	2.6	2.6
Loomis, Sayles & Company	4.4	7.6	4.4	4.4	4.5	4.5	4.0	3.0	3.1	3.1	3.6	4.1	5.1	L 3.4	5.8	116.9	-1.1	2.3	1.9	1.8
Wells Fargo	4.4	7.5	4.4	4.4	4.1	3.8	3.5	3.5	3.4	3.4	3.8	4.6	5.6	4.0	6.2	na	-1.1	1.3	1.3	1.3
ING TO Low Low L	3.9	na	na	na	na	na	na	3.2	3.1	3.0	3.4	L na	na	na	na	na	-1.2	na	na	na
TS Lombard	3.0 L	6.1 L	3.0 L	. 3.0 L	. 3.3 L	. 3.4 1	L 3.4	L 3.5	3.6	3.8	3.9	4.7	5.5	3.8	5.6 L	114.0	2.0	2.5	2.5	2.5
October Consensus	5.1	8.2	5.1	5.1	5.1	5.0	4.8	4.3	4.0	3.9	4.2	5.0	6.1	4.3	6.7	116.0	0.5	2.2	2.3	2.2
Top 10 Avg.	5.5	8.6	5.5	5.4	5.6	5.5	5.4	4.9	4.5	4.5	4.6	5.5	6.5	4.7	7.1	117.2	1.7	2.7	2.9	2.7
Bottom 10 Avg.	4.5	7.6	4.7	4.8	4.5	4.4	4.2	3.5	3.4	3.4	3.8	4.6	5.7	3.9	6.2	114.9	-1.1	1.5	1.7	1.6
September Consensus		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
Number of Forecasts Changed From A Mon					-									-						-
Down	1	1	0	1	1	1	1	3	4	1	1	4	2	1	1	1	11	9	7	6
Same	25	18	17	12	15	17	10	18	15	15	12	7	7	7	9	3	17	17	17	18
Up	11	11	8	6	15	9	16	14	16	21	20	10	11	9	18	13	8	8	11	10
Diffusion Index	64%	67%	66%	63%	73%	65%	78%	66%	67%	77%	79%	64%	73%	74%	80%	85%	46%	49%	56%	56%

OCTOBER 2, 2023 ■ BLUE CHIP FINANCIAL FORECASTS ■ 7

Third Quarter 2024

Interest Rate Forecasts

						Perc	ent Per	Annum -	- Average I	For Quarte	er					Avg. For		(Q-Q	% Change)
Blue Chip				Short-Terr	n			Inte	ermediate-	Term		Lo	ong-Term			Qtr		((SAAR)	
Financial Forecasts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Α.	В.	C.	D.	Ε.
Panel Members	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	5.5 H	8.7 H	5.5	5.6 H	1 5.4	5.3	5.1	4.6	4.2	4.1	4.3	5.1	6.2	3.8	6.7	117.0	0.9	2.7	2.7	2.3
Barclays	5.4	na	na	na	5.1	na	na	4.2	4.0	3.9	4.0	na	na	na	na	na	-0.5	2.7	2.4	2.5
Chan Economics	5.4	8.4	5.3	5.3	5.4	5.5 H		4.9	4.4	4.3	4.4	5.4	6.4	4.9	7.1	116.9	0.3	2.3	2.5	2.1
Goldman Sachs & Co.	5.4	na	na	na	4.6	na	na	4.1	3.8	3.8	3.9	na	na	na	na	na	1.9	2.5	2.5	2.2
J.P. Morgan Chase	5.4	na	na	na	na	na	na	4.3	3.8	3.9	4.2	na	na	na	na	na	1.0	2.5	2.3	2.0
BMO Capital Markets Comerica Bank	5.3 5.3	6.7 8.5	5.3 5.3	na	5.5 H 5.3	H 5.5 H 5.2	4.8 4.8	3.8 4.2	3.8 4.0	3.8 4.1	3.9 4.4	na 5.0	na 5.9	na	6.6 6.5	113.8 na	1.4 0.9	2.2 2.5	2.4 3.5	2.3 3.2
Regions Financial Corporation	5.3	8.5	5.3	na 5.2	5.1	5.2	4.0 5.3	4.5	4.0	4.3	4.4	5.7	5.9 6.6	na 4.6	7.0	115.8	1.3	2.3	2.4	2.5
Chmura Economics & Analytics	5.2	8.3	5.2	5.3	5.2	5.5 H		H 5.5		ч.о Н 5.3 Н		H 6.0	na	na	6.9	na	2.0	2.2	2.2	2.0
DePrince & Assoc.	5.1	8.3	5.2	5.1	5.2	5.2	5.2	5.0	4.7	4.5	4.5	5.7	6.6	4.9	6.8	115.3	2.0	2.5	2.8	2.6
Economist Intelligence Unit	5.1	8.3	na	5.1	5.0	4.8	4.6	4.6	4.3	4.2	4.5	na	na	na	6.8	na	1.4	na	2.4	na
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	115.0	1.7	2.3	2.3	2.1
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	1.5	1.3	2.5	1.9
EY-Parthenon	5.0	na	na	na	4.4	na	na	na	na	3.7	na	na	na	na	na	na	1.6	2.0	2.0	2.1
GLC Financial Economics	5.0	8.1	5.1	4.9	4.9	4.7	4.5	4.1	4.4	4.4	4.6	5.1	5.9	2.2 L	. 6.0	116.2	1.0	2.3	2.3	2.2
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	1.5	1.8	2.3	2.1
Daiwa Capital Markets America	4.9	8.0	4.8	na	4.9	na	na	3.7	3.5	3.6	4.3	na	na	na	6.3	116.5	1.0	2.5	2.5	2.4
Fannie Mae	4.9	8.0	na	na	5.0	4.9	4.7	4.6	4.4	4.5	4.6	na	na	na	7.0	na	-0.4	2.2	2.4	2.1
MacroFin Analytics & Rutgers Bus School	4.9	7.8	4.8	5.0	5.0	5.0	4.8	4.7	4.0	4.0	4.2	5.1	5.9	4.1	6.7	116.6	1.6	2.5	2.3	2.4
Oxford Economics	4.9	8.0	4.9	na	4.9	4.7	4.4	3.9	3.3	3.3	3.3	L 3.6	L na	na	5.6	113.7	0.9	3.6	H 2.2	2.0
S&P Global Market Intelligence	4.9	8.0	4.9	na	4.6	4.3	4.3	3.8	3.5	3.6	3.9	na	na	na	6.1	na	1.2	2.5	3.0	2.6
Scotiabank Group Swiss Re	4.8	na	4.6	na	4.1	na	na	3.6	3.6	3.8	3.9	na	na	na	na	na	0.6	1.0	L 2.7	2.4
Via Nova Investment Mgt.	4.8 4.8	na 8.0	na 4.8	na 4.9	na 4.8	na 4.8	na 4.6	na 5.1	na 5.1	3.6 5.1	na 5.1	na 6.2	na H 6.8	na H 5.6 F	na 1 8.1 H	na 110.0 L	1.4 2.5	na 2.1	na 2.1	na 2.1
MacroPolicy Perspectives	4.0	7.8	4.6	na	na	na	na	4.0	4.2	4.1	na	4.8	5.7	na na	6.9	na na	1.8	2.1	2.1	1.9
Societe Generale	4.6	7.8	4.6	na	4.4	4.1	3.6	3.2	3.5	3.6	3.9	na	na	na	na	na	-1.2	L 1.8	2.2	2.1
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		H 2.6	2.8	2.6
The Lonski Group	4.4	7.6	4.4	4.6	4.5	4.5	4.2	3.9	3.7	3.7	3.8	4.9	5.8	4.2	6.5	119.0 H	1.4	2.0	1.9	2.3
NatWest Markets	4.3	7.5	na	4.4	4.6	4.7	4.8	3.6	3.3	3.4	3.9	5.2	6.1	4.9	6.7	na	-1.0	1.8	0.8	L 1.5
KPMG	4.2	7.3	4.2	3.8	4.1	4.0	3.9	3.6	3.4	3.6	4.0	4.6	5.7	na	6.0	na	1.3	2.4	2.9	2.5
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	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 L	na	0.9	2.2	2.9	2.3
PNC Financial Services Corp.	4.0	7.1	4.0	na	3.8	3.8	3.7	3.8	3.9	4.1	4.4	na	6.6	5.3	6.4	117.2	-1.2	L 1.6	1.4	1.4 L
Wells Fargo	3.6	6.8	3.6	3.6	3.4 l	L 3.3 I	3.3	3.3	3.3	3.3	3.7	4.5	5.5	3.9	6.0	na	1.6	1.9	2.0	1.9
ING	3.4	na	na	na	na	na	na	3.0	3.0	3.0	3.4	na	na	na	na	na	-0.3	na	na	na
Loomis, Sayles & Company TS Lombard	3.4 3.3 L	6.6 6.4 L	3.4 2.2 I	3.3 L	. 3.4 l	L 3.4 3.6	3.1 3.7	L 2.4 3.8	L 2.6 3.8	L 2.9 4.0	3.4 4.1	3.9 4.9	4.9 5.7	L 3.2 4.0	5.5 5.8	116.8 118.0	2.1 3.0	2.2 3.5	3.6 3.5	H 2.6 3.5 H
	3.3 L	0.4 L	3.3 L	. J.J L	. 3.3	3.0	3.1	3.0	3.0	4.0	4.1	4.9	3.7	4.0	J.0	110.0	3.0	3.0	3.0	3.0 П
October Consensus	4.7	7.8	4.7	4.7	4.7	4.6	4.5	4.0	3.9	3.9	4.2	5.0	6.0	4.3	6.5	115.7	1.1	2.2	2.4	2.3
Top 10 Avg.	5.3	8.4	5.3	5.2	5.3	5.3	5.1	4.8	4.5	4.5	4.7	5.5	6.4	4.8	7.1	117.1	2.2	2.8	3.0	2.7
Bottom 10 Avg.	3.9	7.0	4.1	4.2	3.9	3.9	3.8	3.2	3.2	3.3	3.7	4.5	5.6	3.8	5.9	114.6	-0.2	1.6	1.9	1.9
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
Number of Forecasts Changed From A Mor	nth Ago:	-																		
Down	2	2	1	2	3	3	1	4	2	1	1	2	3	2	1	1	14	8	10	8
Same	17	13	11	8	14	9	10	15	16	15	13	7	7	6	11	5	18	15	13	13
Up	18	15	13	9	14	15	16	14	15	19	17	12	10	9	16	11	4	11	12	13
Diffusion Index	72%	72%	7/10/	680/	680/	700/	700/	6E0/	700/	760/	760/	7/10/	600/	710/	770/	70%	360/	E /10/	E30/	57%
Diffusion index	72%	72%	74%	68%	68%	72%	78%	65%	70%	76%	76%	74%	68%	71%	77%	79%	36%	54%	53%	31%

Fourth Quarter 2024 Interest Rate Forecasts

						Perce	nt Per A	nnum A	Average Fo	r Quarter					-	Avg. For		(Q-Q	% Change)
Blue Chip				Short-Ter	m				ermediate-1			La	ng-Term			Qtr			SAAR)	,
Financial Forecasts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Α.	В.	C.	D.	E.
Panel Members	Federal	Prime	SOFR		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
Chan Economics	5.2 H	8.2	5.1	5.1	5.2	5.3 H		4.7	4.2	4.1	4.2	5.2	6.2	4.7	6.9	116.7	0.8	2.3	2.5	2.1
BMO Capital Markets	5.1	6.3	5.0	na	5.3 H	1 5.2	4.6	3.7	3.7	3.7	3.8	na	na	na	6.5	112.9	1.8	1.9	2.1	1.9
Comerica Bank Goldman Sachs & Co.	5.1 5.1	8.2	5.1	na	4.9 4.4	4.8	4.4	3.8 3.9	3.8 3.8	3.8 3.8	4.1 3.9	4.7	5.6	na	6.2	na	0.7 1.9	2.6 2.2	3.4 2.4	3.2 2.0
J.P. Morgan Chase	5.1 5.1	na na	na na	na na	4.4 na	na na	na na	o.9 na	s.o na	o.o na	o.9 na	na na	na na	na na	na na	na na	1.9	2.2	2.4	2.0
Regions Financial Corporation	5.1	8.3 H	5.1	5.2		5.1	5.2	H 4.2	4.2	4.2	4.5	5.5	6.5	4.6	6.9	115.5	1.7	2.3	2.2	2.0
Santander Capital Markets	5.1	8.3 H	5.1	5.1	5.0	4.8	4.6	4.3	4.0	3.9	4.1	4.9	6.1	3.7	6.5	116.0	1.1	2.5	2.5	2.1
Barclays	4.9	na	na	na	4.8	na	na	na	na	na	na	na	na	na	na	na	1.0	2.8	2.7	2.7
DePrince & Assoc.	4.9	8.0	4.9	4.8	4.9	4.9	5.0	4.8	4.6	4.5	4.5	5.8	6.6	4.9	6.7	114.4	2.2	2.4	2.7	2.5
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	4.8	5.9	4.1	7.3	116.5	1.7	1.7	2.5	1.8
Chmura Economics & Analytics	4.8	7.9	4.8	4.9	4.8	5.1	5.2	H 5.2	H 5.3 H	H 5.3 H	1 5.4	H 5.8	na	na	6.6	na	2.4	2.3	2.3	2.0
Economist Intelligence Unit	4.8	8.0	na	4.8	4.8	4.6	4.5	4.4	4.2	4.2	4.5	na	na	na	6.7	na	1.7	na	2.1	na
EY-Parthenon	4.8	na	na	na	4.0	na	na	na	na	3.6	na	na	na	na	na	na	1.7	2.1	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	1.5	1.9	2.2	2.1
Oxford Economics	4.7	7.8	4.7	na	4.5	4.4	4.1	3.6	3.0	3.2	3.1	L 3.5	L na	na	5.4	112.6	1.3	3.5		2.0
GLC Financial Economics	4.6	7.6	4.6	4.6	4.5	4.5	4.3	3.9	4.3	4.3	4.5	5.1	5.9	2.2 L	- 5.9	115.5	1.4	2.2	2.4	2.2
The Northern Trust Company Fannie Mae	4.6 4.5	7.8 7.6	4.6	4.7	4.8	4.7	4.5 4.5	4.1 4.5	3.9 4.4	3.8 4.4	4.1 4.6	5.1	6.2	4.6	6.3 6.8	112.0	1.8 0.6	2.2 2.4	2.2 2.7	2.1 2.4
MacroFin Analytics & Rutgers Bus School	4.5 4.5	7.0 7.3	na 4.4	na 4.6	4.7 4.5	4.6 4.6	4.5 4.4	4.5 4.5	4.4 3.8	4.4 3.9	4.0 4.1	na 5.0	na 5.8	na 3.9	0.0 6.6	na 116.4	0.6 1.6	2.4	2.7	2.4
Swiss Re	4.5	na	na	na	na	na	na	na	na	3.5 3.5	na	na	na	na	na	na	1.7	na	na	na
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	5.9	6.6	5.3 H	H 7.8 H	110.0 L	2.5	2.1	2.1	2.1
Daiwa Capital Markets America	4.4	7.5	4.3	na	4.4	na	na	3.4	3.3	3.5	4.2	na	na	na	6.1	116.0	2.0	2.5	2.4	2.3
S&P Global Market Intelligence	4.4	7.5	4.3	na	4.1	3.9	3.9	3.6	3.4	3.5	3.9	na	na	na	5.8	na	1.3	2.7	3.1	2.6
MacroPolicy Perspectives	4.2	7.4	4.2	na	na	na	na	3.5	4.0	3.9	na	4.6	5.5	na	6.7	na	2.0	2.5	2.7	2.1
Societe Generale	4.1	7.3	4.1	na	3.9	3.6	3.3	3.0	3.5	3.6	3.9	na	na	na	na	na	4.9 H	l 1.8	2.2	2.0
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	3.5	3.9	3.9	na	na	na	na	na	1.2	1.0	2.5	2.2
The Lonski Group	3.9	7.1	3.9	4.1	4.0	4.0	3.8	3.7	3.6	3.6	3.7	4.8	5.6	4.1	6.3	118.9	1.8	2.1	2.0	2.4
TS Lombard	3.8	6.9	3.8	3.8	4.0	4.1	4.5	4.8	5.0	5.2	5.3			H 5.2	7.0	120.0 H	2.5			H 3.5 H
Georgia State University Nomura Securities, Inc.	3.6 3.6	6.7	na	na	3.4	3.2	3.1	2.9 2.3	2.8	3.0 2.7 l	3.4	4.0	5.2	na	5.2 L	na	1.6 1.9	2.0 0.9	2.0	1.8 2.2
KPMG	3.0 3.5	6.8 6.6	na 3.4	na 3.1	na 3.3	na 3.3	na 3.2	2.3 3.0	L 2.7 3.1	2.7 I 3.6	na 3.9	na 4.5	na 5.7	na	na 5.7	na na	1.9	0.9 2.5	L 2.5 3.1	2.2
PNC Financial Services Corp.	3.4	6.6	3.4 3.4	na	3.3	3.3	3.2	3.5	3.8	4.1	3. 3 4.4	na	6.4	na 5.2	6.2	117.9	-0.8 L	2.J . 1.8	1.7	2.0 1.6 L
NatWest Markets	3.3	6.5	na	3.4	3.6	3.7	3.8	2.8	2.7	3.1	3.6	4.9	5.8	4.6	6.4	na	-0.5	1.6	1.3	L 1.8
Wells Fargo	3.1	6.3	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.3	3.7	4.5	5.5	3.9	5.7	na	2.3	2.3	2.5	2.3
ING	2.9	na	na	na	na	na	na	3.0	3.3	3.5	3.9	na	na	na	na	na	1.4	na	na	na
Loomis, Sayles & Company	2.8 L	6.0 L	2.8 L	. 2.7	L 2.8 l	_ 2.8 I	L 2.6	L 2.3	L 2.5 I	2.8	3.3	3.8	4.8	L 3.1	5.2 L	116.7	2.2	2.1	2.7	2.2
October Consensus	4.3	7.4	4.4	4.3	4.3	4.3	4.1	3.8	3.8	3.8	4.1	4.9	6.0	4.3	6.3	115.4	1.6	2.2	2.4	2.2
Top 10 Avg.	5.0	8.1	5.0	4.9	4.9	4.9	4.8	4.6	4.5	4.5	4.7	5.5	6.4	4.8	6.9	117.1	2.5	2.8	2.9	2.7
Bottom 10 Avg.	3.4	6.6	3.7	3.8	3.5	3.5	3.4	2.9	3.0	3.2	3.6	4.4	5.5	3.8	5.7	113.8	0.6	1.7	2.0	1.9
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
Number of Forecasts Changed From A Mon			1.12	1.2	1.4	1.4	r.v	5.1	5.1	0.1	0.0	7.0	0.0	r. £	v.1	110.7	1.0	£.£	- .7	2.2
Down	4	3	3	2	3	2	2	2	2	1	1	3	3	1	2	1	14	8	8	8
Same	15	13	10	7	12	11	10	15	17	16	14	7	7	9	11	4	18	15	13	15
Up	18	14	12	10	16	14	15	16	14	18	16	11	10	7	15	12	4	11	14	11
Diffusion Index	69%	68%	68%	71%	71%	72%	74%	71%	68%	74%	74%	69%	68%	68%	73%	82%	36%	54%	59%	54%

First Quarter 2025

Interest Rate Forecasts

Blue Chip Financial Forecasis Panel Members Ag. For Forecasis Panel Members
Financial Forecasts Panel Members 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 A. B. C. D. E. Panel Members Pime SOFR Cm. Treas. Tr
Funds Bark Rate Pape Bills Bills Bills Notes No
Rate Rate 1 Mo. 3 Mo. 6 Mo. 1 Yr. 2 Yr. 5 Yr. 10 Yr. 30 Yr. Bond Bond Bonds Rate \$ Index Index <thi< td=""></thi<>
Rate Rate 1 Mo. 3 Mo. 6 Mo. 1 Yr. 2 Yr. 5 Yr. 10 Yr. 30 Yr. Bond Bond Bonds Rate \$ hex GDP hdex index index Chan Economics 4.9 H 7.9 H 4.8 4.4 9 3.8 3.9 4.9 5.9 4.4 6.6 116.2 1.5 2.2 2.4 2.0 Goldman Sachs & Co. 4.9 H na
Goldman Sacks & Co. 49 H na n
BMO Capital Markets 46 60 46 na 48 48 42 35 35 36 38 na na na 64 1123 2.4 2.0 2.2 2.0 Comerica Bark 46 7.7 46 na 4.5 4.4 3.9 3.5 3.5 3.4 38 4.4 5.3 na 5.8 na 0.7 L 2.3 2.4 2.2 2.0 2.2 2.0 2.2 2.0 2.2 2.0 <
Comerice Bank 4.6 7.7 4.6 na 4.5 4.4 3.9 3.5 3.5 3.4 3.8 4.4 5.3 na 5.8 na 0.7 L 2.3 2.4 2.2 DePrince & Assoc. 4.6 7.7 4.6 4.5 4.6 4.7 4.7 4.6 4.5 4.6 4.6 4.6 4.4 4.3 4.3 4.1 4.0 4.4 5.8 6.6 4.9 6.6 114.0 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.6 2.4 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.4 2.6 2.4 2.3 2.4 1.15 1.8 2.3 2.3 2.3 2.3 2.3 2.3 <t< td=""></t<>
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Economist Intelligence Unit 46 7.8 na 4.6 4.6 4.4 4.3 4.3 4.1 4.0 4.4 na na na 6.5 na 1.8 na 2.1 na Regions Financial Corporation 4.6 7.8 4.5 4.7 4.6 4.8 4.9 H 3.9 4.2 4.1 4.4 5.4 6.3 4.4 6.7 115.1 1.8 2.1 2.3 2.3 Santander Capital Markets 4.6 7.8 4.6 4.5 4.4 4.2 3.9 3.7 3.6 3.9 4.7 5.9 3.5 6.1 115.0 1.4 3.1 2.4 2.1 Action Economics 4.5 7.7 5.1 H 4.6 4.5 4.3 4.0 3.9 3.9 4.0 4.8 5.8 4.0 7.2 116.6 na <td< td=""></td<>
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Swiss Re 4.3 na
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TS Lombard 3.8 6.9 3.8 3.8 4.0 4.1 4.5 4.8 5.0 H 5.2 H 5.3 H 6.1 H 6.9 H 5.2 7.0 120.0 H 2.5 3.5 H 3.5 H 3.5 Georgia State University 3.6 6.7 na na 3.3 3.2 3.3 3.2 3.1 3.3 3.7 4.4 5.5 na 5.3 na 2.0 2.1 2.8 2.4
Societe Generale 3.6 6.8 3.6 na 3.4 3.2 3.0 2.9 2.7 3.2 3.5 na na na na 6.3 H 2.0 2.2 2.0 Naroff Economic Advisors 3.5 6.5 3.6 3.4 3.5 3.6 3.7 3.8 4.0 4.2 na na 4.0 5.5 112.0 3.2 2.5 2.4 2.3
The Lonski Group 3.4 6.6 3.3 3.5 3.4 3.5 3.4 3.4 3.4 3.4 3.5 3.7 4.7 5.5 4.1 6.2 118.2 2.4 1.9 1.8 2.5
KPMG 3.2 6.3 3.2 2.8 3.0 3.1 3.1 3.0 3.1 3.5 3.8 4.4 5.6 na 5.5 na 1.6 2.1 1.5 L 1.8
Nomura Securities, Inc. 3.1 6.3 na
PNC Financial Services Corp. 3.1 6.3 3.1 na 3.0 3.0 3.1 3.4 3.7 4.1 4.4 na 6.2 5.0 6.1 118.0 1.2 1.9 1.8 1.7
Wells Fargo 3.1 6.3 3.1 3.2 3.2 3.3 3.4 3.8 4.6 5.6 4.0 5.8 na 2.2 2.2 2.4 2.2
ING 2.9 na na na na na na 3.0 3.4 3.6 4.0 na na na na na 1.6 na na na na
NatWest Markets 2.7 5.8 L na 2.8 2.9 3.0 3.1 2.5 2.5 L 3.0 3.5 4.8 5.7 4.5 6.3 na 2.6 1.4 L 2.5 2.2
Loomis, Sayles & Company 2.6 L 5.8 L 2.6 L 2.5 L 2.6 L 2.5 L 2.3 L 2.5 L 2.8 L 3.3 3.8 4.8 L 3.1 5.2 L 116.6 2.2 2.1 2.5 2.2
October Consensus 4.0 7.0 4.0 4.0 3.9 3.9 3.9 3.7 3.6 3.8 4.0 4.9 5.9 4.2 6.2 114.9 2.1 2.2 2.3 2.2
Top 10 Avg. 4.6 7.7 4.6 4.5 4.6 4.5 4.4 4.4 4.4 4.6 5.4 6.3 4.7 6.8 116.8 3.0 2.6 2.6 2.4
Bottom 10 Avg. 3.1 6.3 3.4 3.5 3.2 3.2 3.2 3.0 3.0 3.2 3.6 4.4 5.5 3.7 5.6 113.2 1.4 1.9 1.9 1.9
September Consensus na
Number of Forecasts Changed From A Month Ago:
Down na
Same na
Up na
Diffusion Index na

International Interest Rate And Foreign Exchange Rate Forecasts

E.

	Fed Fund Target Rate		
Blue Chip Forecasters	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	5.30	5.38	5.35
Northern Trust	5.63	5.63	5.13
Oxford Economics	5.38	5.38	4.88
Scotiabank	5.38	5.38	4.63
TS Lombard	5.50	4.75	3.25
Wells Fargo	5.38	5.13	3.63
October Consensus	5.44	5.34	4.56
High	5.63	5.63	5.38
Low	5.30	4.75	3.25
Last Months Avg.	5.43	5.37	4.65

	Policy-Rate Balance Rate		
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	-0.10	-0.10	0.00
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	-0.04	-0.04	-0.04
Scotiabank			
TS Lombard	-0.10	-0.10	-0.10
Wells Fargo	-0.10	-0.10	-0.10
October Consensus	-0.09	-0.09	-0.06
High	-0.04	-0.04	0.00
Low	-0.10	-0.10	-0.10
Last Months Avg.	-0.09	-0.09	-0.06

	Official Bank Rate		
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.25	5.25	4.75
BMO Capital Markets	5.25	5.25	4.75
ING Financial Markets	5.50	5.50	4.50
Moody's Analytics	5.22	5.66	5.75
Nomura Securities			
Northern Trust	5.75	5.75	5.75
Oxford Economics	5.50	5.50	5.34
Scotiabank	5.50	5.50	4.50
TS Lombard	5.20	4.00	3.00
Wells Fargo	5.25	5.25	3.75
October Consensus	5.38	5.30	4.68
High	5.75	5.75	5.75
Low	5.20	4.00	3.00
Last Months Avg.	5.47	5.43	4.92

	SNB Policy Rate		
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	1.75	1.75	1.50
ING Financial Markets	2.00	2.00	2.00
Moody's Analytics	2.00	2.00	2.00
Nomura Securities			
Northern Trust	1.75	1.75	1.75
Oxford Economics	1.75	1.75	1.63
TS Lombard	1.75	1.50	1.25
Wells Fargo	1.75	1.75	1.25
October Consensus	1.82	1.79	1.63
High	2.00	2.00	2.00
Low	1.75	1.50	1.25
Last Months Avg.	1.93	1.96	1.84

	O/N MMkt Financing Rate		
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	5.00	5.00	4.75
BMO Capital Markets	5.00	5.00	4.75
ING Financial Markets	5.00	5.00	4.25
Moody's Analytics	4.94	5.00	4.93
Nomura Securities			
Northern Trust	5.25	5.25	5.00
Oxford Economics	5.00	5.00	4.63
Scotiabank	5.00	5.00	4.25
TS Lombard	5.00	4.25	2.75
Wells Fargo	5.00	5.00	4.00
October Consensus	5.02	4.94	4.37
High	5.25	5.25	5.00
Low	4.94	4.25	2.75
Last Months Avg.	5.04	4.97	4.38

United States			
10 Yr. (10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.15	4.05	3.85	
4.20	4.05	3.75	
3.75	3.25	3.00	
4.06	4.03	3.97	
4.25	4.25	4.00	
3.98	3.73	3.32	
3.85	3.70	3.80	
4.10	4.00	4.00	
3.90	3.60	3.30	
4.03	3.85	3.67	
4.25	4.25	4.00	
3.75	3.25	3.00	
3.92	3.78	3.58	
lanan			

Japan			
10 Yr. (Gov't Bond	Yield %	
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.80	0.85	0.85	
0.80	0.80	0.80	
0.80	0.80	0.90	
0.60	0.65	0.65	
0.75	0.75	0.85	
0.64	0.60	0.53	
0.65	0.55	0.55	
0.70	0.65	0.55	
0.72	0.71	0.71	
0.80	0.85	0.90	
0.60	0.55	0.53	
0.69	0.68	0.68	

	United Kingdom			
10 \	r. Gilt Yield	ds %		
In 3 Mo.	In 6 Mo.	In 12 Mo.		
4.40	4.30	4.25		
4.30	4.15	3.85		
4.00	3.50	3.25		
4.17	4.90	5.11		
4.40	4.30	4.20		
4.40	4.39	4.38		
4.40	4.00	3.85		
4.45	4.35	3.85		
4.32	4.24	4.09		
4.45	4.90	5.11		
4.00	3.50	3.25		
4.33	4.24	4.05		

Switzerland			
10 Yr. 0	Gov't Bond	Yield %	
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.10	1.10	1.10	
1.08	1.86	2.03	
1.10	1.10	1.05	
1.20	1.30	1.30	
0.95	0.85	0.95	
1.09	1.24	1.29	
1.20	1.86	2.03	
0.95	0.85	0.95	
1.14	1.27	1.28	

(Canada			
10 Yr. (Gov't Bond	Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.		
3.70	3.60	3.35		
3.50	3.40	3.00		
3.62	3.76	4.00		
4.00	3.90	3.65		
3.49	3.46	3.35		
3.40	3.40	3.60		
3.60	3.50	2.75		
3.55	3.35	3.20		
3.61	3.55	3.36		
4.00	3.90	4.00		
3.40	3.35	2.75		
3.49	3.45	3.30		

Eo	Fed's AFE \$ Index			
In 3 Mo.				
116.4	115.5	113.5		
110.4	106.9	104.5		
117.0	118.0	112.0		
116.5	115.8	113.7		
114.0	112.0	118.0		
114.9	113.6	112.3		
117.0	118.0	118.0		
110.4	106.9	104.5		
114.0	113.4	112.1		

Yen per US\$	
In 6 Mo.	In 12 Mo.
138.0	134.0
148.0	153.0
130.0	125.0
138.0	128.6
135.0	125.0
145.0	135.0
145.2	139.7
130.0	125.0
142.5	150.1
139.1	135.1
148.0	153.0
130.0	125.0
137.1	132.6
	In 6 Mo. 138.0 138.0 138.0 135.0 135.0 145.2 130.0 142.5 139.1 148.0

US\$ per Pound Sterling							
In 3 Mo.	In 6 Mo.	In 12 Mo.					
1.24	1.25	1.26					
1.20	1.21	1.22					
1.27	1.30	1.34					
1.30	1.44	1.57					
1.22	1.25	1.31					
1.21	1.23	1.24					
1.27	1.27	1.29					
1.35	1.38	1.40					
1.25	1.20	1.10					
1.26	1.28	1.30					
1.35	1.44	1.57					
1.20	1.20	1.10					
1.28	1.29	1.31					

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

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

International Interest Rate And Foreign Exchange Rate Forecasts

	Off	cial Cash F	Rate
Blue Chip Forecasters	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	4.08	4.10	3.85
Nomura Securities			
Northern Trust	4.35	4.35	4.10
Oxford Economics	4.10	4.10	4.10
Scotiabank			
TS Lombard	4.10	3.75	2.75
Wells Fargo	4.10	4.10	3.60
October Consensus	4.20	4.16	3.73
High	4.35	4.35	4.10
Low	4.08	3.75	2.75
Last Months Avg.	4.24	4.23	3.80

10 Yr. Gov't Bone In 3 Mo. In 6 Mo. 	In 12 Mo. 					
In 3 Mo. In 6 Mo.						
	2 5 0					
4.00 3.60	3.50					
4.17 4.61	4.34					
4.40 4.30	4.05					
4.08 4.02	3.80					
4.10 3.95	2.45					
4.15 4.10	3.63					
4.40 4.61	4.34					
4.00 3.60	2.45					
4.16 4.17	3.58					
Euro area						

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

US\$ per Euro						
In 3 Mo.	In 6 Mo.	In 12 Mo.				
1.08	1.09	1.10				
1.07	1.08	1.09				
1.13	1.16	1.18				
1.10	1.10	1.17				
1.07	1.09	1.11				
1.05	1.07	1.10				
1.08	1.08	1.10				
1.12	1.15	1.18				
1.10	1.12	1.05				
1.09	1.10	1.12				
1.13	1.16	1.18				
1.05	1.07	1.05				
1.10	1.11	1.13				

Main	Refinancing	g Rate		
In 3 Mo.	In 6 Mo.	In 12 Mo.		
4.50	4.50	4.00		
4.50	4.50	4.00		
4.50	4.50	4.00		
4.18	4.50	4.45		
4.50	4.50	4.25		
4.25	4.25	3.52		
4.50	4.50	4.00		
3.80	3.05	1.55		
4.00	4.00	3.25		
4.30	4.26	3.67		
4.50	4.50	4.45		
3.80	3.05	1.55		
4.21	4.20	3.70		
	In 3 Mo. 4.50 4.50 4.50 4.50 4.50 4.50 4.25 4.50 3.80 4.00 4.30 4.50 3.80	4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.18 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50 3.80 3.05 4.50 4.50 4.30 4.26 4.50 4.50 3.80 3.05		

	10 Yr. Gov't Bond Yields %											
		Germany			France			Italy			Spain	
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.45	2.30	2.00									
BMO Capital Markets	2.70	2.60	2.35									
ING Financial Markets	2.30	2.30	2.20	2.90	2.90	2.75	4.10	4.10	4.00	3.35	3.30	3.20
Moody's Analytics	2.53	2.60	2.60	3.07	3.04	2.95	4.27	4.26	4.08	3.55	3.64	3.69
Northern Trust	2.80	2.70	2.45	3.35	3.25	3.00	4.70	4.60	4.35	3.90	3.80	3.65
Oxford Economics	2.55	2.35	2.13	3.06	2.83	2.55	4.26	4.10	3.97	3.58	3.39	3.21
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	2.55	2.50	2.40									
October Consensus	2.55	2.47	2.32	3.05	2.95	2.80	4.23	4.15	4.02	3.53	3.46	3.38
High	2.80	2.70	2.60	3.35	3.25	3.00	4.70	4.60	4.35	3.90	3.80	3.69
Low	2.30	2.30	2.00	2.85	2.75	2.55	3.80	3.70	3.70	3.25	3.15	3.15
Last Months Avg.	2.47	2.40	2.28	2.97	2.87	2.73	4.16	4.05	3.89	3.45	3.38	3.27

	Consensus Forecasts 10-year Bond Yields vs U.S. Yield						
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.			
Japan	-3.69	-3.31	-3.14	-2.96			
United Kingdom	-0.15	0.29	0.39	0.43			
Switzerland	-3.38	-2.94	-2.61	-2.38			
Canada	-0.53	-0.42	-0.30	-0.30			
Australia	-0.11 0.12 0.24 -0.04						
Germany	-1.70	-1.48	-1.38	-1.35			
France	-1.15	-0.98	-0.90	-0.87			
Italy	0.19 0.20 0.30 0.35						
Spain	-0.66	-0.50	-0.40	-0.29			

	Consensus Forecasts							
	Policy Rates vs U.S. Target Rate							
	Current	Current In 3 Mo. In 6 Mo. In 12 Mo.						
Japan	-5.48	-5.53	-5.25	-4.62				
United Kingdom	-0.13	-0.06	-0.04	0.11				
Switzerland	-3.63 -3.62 -3.55 -2.94							
Canada	-0.38	-0.42	-0.39	-0.19				
Australia	-1.28 -1.24 -1.18 -0.83							
Euro area	-0.88	-1.14	-1.08	-0.89				

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

Hawkish optimism

Our "boiling the frog" narrative incorporates a tension between near-term forces promoting resilience and the seeds being sown for an eventual end to the expansion. Central to the resilience is an expected DM central bank pause amid still elevated inflation and a continued willingness by businesses to expand in the face of slower profit growth and higher interest rates. This resilience promotes sticky inflation and a need for sustained restrictive policy stances that should, in turn, compress profit margins and erode balance sheet health. Timing the point at which building vulnerabilities spark an end to the expansion is difficult. The eventual break could take as long as 12-18 months. Our bias is that the downturn starts later, requires higher terminal rates, and proves deeper and more globally synchronized than is commonly anticipated.

Recent news presents two challenges to near-term resiliency. The first relates to the midyear slide in economic momentum in Western Europe where we now anticipate the UK and Euro area will stall this quarter. Although this week's flash PMI did not signal a turnaround, the spillovers from this regional weak link have been limited thus far. We revised up our current-quarter growth forecasts in the US and Asia in recent weeks and anticipate a trend-like 2.6% ar current-quarter global GDP gain. Looking forward, financial market developments have validated our models pointing to spillover asymmetries. US growth shocks are dominant due to their powerful transmission through financial market spillovers. The positive turn in risk appetite this quarter reinforces the message that Western European weakness is unlikely to generate large global spillovers against the backdrop of US strength.

The second resiliency challenge comes from the recent rise in energy prices. The energy CPI fell 10.3% ar in 1H23 globally providing a significant purchasing power lift that offset monetary policy tightening. But crude oil prices are up roughly 30% since midyear, driving the energy CPI 17.4% ar higher over the past three months. The impact of this price spike depends on its source and we attribute most of the rise to a negative supply shockowing to the sharp cutbacks from OPEC+-pointing to a 0.5%pt annualized drag on 2H23 global GDP growth. This shock is not large enough to threaten the expansion by itself and our forecast for crude prices to drop back to \$86/bbl suggests it will fade quickly. However, there are concerns that the supply cuts are not finished, or that they interact with a combination of other modest negative US shocks-including an escalation of the UAW strike and a looming government shutdown-or the recent rise in US long-term interest rates.

Assuming the near-term resiliency test is met, it will take time to distinguish a boiling-the-frog scenario from a sustained softlanding outcome. The recent slide in core inflation has raised hopes that a soft-landing can be achieved as it could provide central banks the opportunity for an early start to easing. The decline of DM core inflation—to a 3.1% ar over the past three months—was highlighted by DM central bankers at their September meetings. Combined with European weakness and a US growth moderation next quarter, the improving macro-mix should support a G4 pause through year-end.

The Fed's forecasts went further this week, embracing both sustained growth resiliency and disinflation in projections that present a genuine soft-landing scenario. However, the overriding message received by markets from DM central banks is that policy rates will need to remain high-for-long—a signal that aligns with our boiling-the-frog outcome. While moderating inflation and near-term growth risks allow for a pause, DM central banks remain skeptical that low inflation can be delivered against the backdrop of still tight labor markets. As a result, they uniformly maintain a hawkish bias. For the Fed's part, the median FOMC member continues to anticipate a hike before year-end and expectations for easing next year have been scaled back.

In our analysis, we have increased prospects for a more favorable soft-landing outcome while maintaining a boiling-the-frog baseline. Absent a near-term recession, we place a 60/40 split in the odds for a boiling-the-frog/soft-landing scenario unfolding next year. But without near-term early central bank easing, the emergence of positive supply side developments is key to delivering a soft-landing. In recent reports we have highlighted divergent signals on this as US supply side indicators send a positive signal relative to those in Western Europe.

DM flash PMIs disappoint again

Our conviction in near-term resilience continues to be tested by the PMI. The composite PMI point ticked lower this month and continues to point to a GDP stall this quarter; we forecast a 1.5% ar gain. Given the survey underperformance over most of the expansion, we fade this signal. Sectorally, the DM flash reading for manufacturing output ticked up less than expected and remains in contraction territory. To the extent that any sectoral gap has closed, it is from a deceleration in services. The flash DM services sector PMI ticked lower this month, continuing a slide since April.

If anything, the geographic divide is of greater concern. The US composite and Japan composites edged lower but remain at levels consistent with expansion. By contrast, Western Europe readings—for which PMI tracking has been more reliable—are stuck in the recessionary zone. In response, we have marked down 2H23 Euro area GDP growth and now see Western Europe entering a growth stall. From the perspective of our forecast for a global manufacturing recovery the dramatic divergence in the US and Euro area orders/inventory ratios makes it difficult to draw clear judgments (Figure 3). We thus await the broader signal from the September global manufacturing PMI.

Despite tech lift, Asian trade sluggish

Through the month-to-month noise, Asian trade data remain lackluster even as the tech cycle turns up. A broad concern relates to the cooling in our capex nowcaster, which may indicate soft final demand for regional products as the unwind in tech spending is over. Japan's August trade data show auto exports on an upswing, but export volumes to China and the rest of the Asia region continue to trend lower. This is echoed in the September

OCTOBER 2, 2023 ■ BLUE CHIP FINANCIAL FORECASTS ■ 13

flash PMI. Despite a solid upturn signaled in September for Korean exports, current tracking still implies a contraction of nominal exports growth this quarter after a robust 2Q23 gain. For Taiwan, the latest signs are that a gradual improvement in exports is taking hold, concentrated in tech.

JP Morgan Economic and Policy Research

Fed Policy Rates: Whether a Hallowmas Hike It's Higher for Longer

The FOMC kept the fed funds target range unchanged at 5.25%to-5.50% on September 20, as was widely expected, after lifting it by 25 bps last meeting. This repeats the first part of the skiphike sequence established three months ago. And, the Fed left the door open for a potential second-leg rate hike come next announcement on November 1. But it's uncertain whether the Committee will ultimately cross the sill.

Firstly, the policy statement recited the forward guidance of the prior two meetings. It said: "In determining the extent of additional policy firming that may be appropriate to return inflation to 2 percent over time, the Committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments." The "may be appropriate" phrase affords the Fed a lot of flexibility. This guidance foretold both July's hike and September's skip and, therefore, can accommodate either policy choice.

Secondly, in the Summary of Economic Projections (SEP), the median forecast for the fed funds target range at the end of this year remained at 5.50%-to-5.75%, implying a potential 25 bp increase on November 1 or December 13. However, despite the unchanged median projection, the Fed's rate hike conviction appeared to abate a bit. There are now seven participants forecasting a below-5.625% midpoint peak, compared to six before. This means one participant backed off their prior projection. And there are no above-5.625% forecasts this time, after three before. These changes are reflected in the slight reduction in the mean projection for 2023-end (by 3.7 bps).

Thirdly, in the press conference, Chair Powell reiterated that the SEP is not a "decision or plan" and stated that the policy decision made over the last two meetings of the year will depend on the "totality of the incoming data". In other words, the jury is waiting for further evidence. Between now and November 1, we'll be focusing on the key reports in the attached table, and we suspect the Fed's hit list isn't much different. (Of course, this presumes a government shutdown doesn't postpone any releases.)

Whether the results will be strong or hot enough to convince the Fed to hike rates, we'll just have to wait and see. Currently, our base case is for no more rate hikes this year (like those seven FOMC participants) but it's a very close call. For the record, the market is pricing the odds of a November move at 29% with December at 54% and January at 57%.

Another critical development amid this week's policy pronouncements was the Fed's emerging recognition that policy rates may have to remain higher for longer than previously anticipated. Again, in the SEP, the median forecast for the fed funds target range now shows 50 bps of easing by 2024-end to a 5.125% midpoint, down from 100 bps before. Moreover, 10 of 19 participants have an above-5% year-end call compared to six before. With 2026 projections introduced, the 2025 forecasts were probably sharpened. And, there's still 125 bps of easing during that year, but of course ending 50 bps higher at a 3.875% midpoint. The inaugural 2026 median has a further 100 bps of easing to 2.875% by year-end.

It's noteworthy that the policy rate is projected to remain above its longer-run level for yet another year (the level is 2.5% according to the median call or 0.5% in real terms). In the presser, Chair Powell said that "it's certainly plausible that the neutral rate is higher than the longer-run rate", which is also "part of the explanation for why the economy has been more resilient than expected". And the unstated corollary would be that it's also part of the explanation for stubborn underlying inflation. To address the resiliency and stubbornness, the Fed must push policy rates even further above this higher shorter-term neutral rate, particularly in real terms. With the median forecast for core PCE inflation in 2023 lowered a couple of ticks to 3.7% y/y (Q4/Q4), partly owing to a subdued June-July starting point, real rates are projected to top 1.9% by year-end. Next year's 1.1 ppt drop in projected inflation (to 2.6%) is more than the ¹/₂ ppt drop in nominal policy rates, resulting in even higher real rates, to above 2.5%. To put this in context, such real policy rates haven't been this high since just before the Great Recession, which underscore both the high intensity of resiliency/stubbornness pressures and the net risk of much weaker economic outcomes next year.

Afterwards, the median profile has nominal rates falling faster than inflation, reducing real rates to near 0.9% by end-2026. Again, it's noteworthy that despite real GDP growth, the unemployment rate and total/core PCE inflation all returning to their longer-run levels by end-2026 (1.8%, 4.0% and 2.0%, respectively), policy rates remain above their longer-run level (at 2.875% vs. 2.50%). This implies that the FOMC's median forecast for the (longer-run) neutral rate could be poised for change; it's been stuck at 2.50% since June 2019. Indeed, five participants now judge that it's above 2.75% compared to three in the prior SEP.

Meantime, we're not waiting for the Fed. Our current estimate of the longer-run neutral rate (2.625%) is already a bit above the Fed's. Given the resilient growth (we recently pulled our mild recession call) and inflation risks running through our own projection, we're lifting our neutral number to 2.875%, the midpoint of the 2.75%- to-3.00% range. (Note that in an abundant reserves monetary policy framework, a shift back to fed funds pointtargeting from range-targeting is unlikely anytime soon.) And we're not alone in thinking the root of the yield curve could be 'higher for longer'. This week, 10-year Treasury yields also hit their highest level since just before the Great Recession (October 2007), nearing 4.50%. Next week, we'll hear from Chair Powell again. We anticipate a similar messaging to the presser, one that the bond market is now hearing loud and clear.

Michael Gregory (BMO)

Special Questions:

1. What do you think will be the peak federal funds rate target (midpoint of range) in the current tightening cycle? <u>5.45%</u>

2. When will the f	irst fed funds rate cu	t occur?			
	<u>Q4 2023</u>	<u>Q1 2024</u>	<u>Q2 2024</u>	<u>Q3 2</u>	<u>2024</u> <u>Later</u>
	0%	30%	42%	27	% 0%
3. a. What is you	r estimate of the long	g-term neutral fed	funds rate?	<u>2.68%</u>	
b. Since before	e the pandemic, has i	t: <u>increased</u>	60% <u>deci</u>	reased 0%	remained the same 40%

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

	Count
The resilient US economy	28
Recent reductions in Japanese and Chinese holdings of US government debt	7
Continued elevated US core inflation	10
Expectations that fed funds rate will remain elevated longer than previously thought	24
The Fed's ongoing quantitative tightening	6
Large and increasing Federal government deficit	18
<u>Other</u>	1

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

<u>US</u>	46%
euro area	55%
<u>UK</u>	58%

6.	a. Does the weakening of China's economy pose meaningful risks t	o the ou	utlook f	for globa	l growth	n? <u>Y</u>	<u>es</u> 80%	<u>No</u>	20%
	b. Do you think recent policy measures in China will boost its grow	th rate	?	Yes	32%	<u>No</u>	68%		
7.	a. Has the European Central Bank completed its tightening cycle?		Yes	67%	<u>No</u>	33%			
	b. Has the Bank of England completed its tightening cycle?	Yes	54%	<u>No</u>	46%				

8. The Federal government budget deficit is on course to top \$1.7 trillion in the current fiscal year. What is your estimate for the deficit for the next fiscal year?

<u>Consensus</u>	\$1.7 tril
<u>Top 10</u>	\$1.8 tril
Bottom 10	\$1.5 tril

9. What is your US unemployment rate forecast for:

December 2023	3.9%
June 2024	4.4%
December 2024	4.5%

Databank:

2023 Historical Data Monthly Indicator	Icm	Feb	Me-	A	Mor	T	11	A 11-0	C	Oct	New	Dec
•	Jan 2.8	-0.7	Mar -0.9	<u>Apr</u> 0.4	<u>May</u> 0.7	Jun 0.2	Jul 0.5	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a) Auto & Light Truck Sales (b)	2.8 15.10	-0.7 14.88	-0.9 14.93	0.4 15.68	0.7 15.51	0.2 16.05	0.5 15.96	0.6 15.39				
Personal Income (a, current \$)	13.10	0.5	0.5	0.3	0.3	0.2	0.2	0.4				
Personal Consumption (a, current \$)	1.6	0.3	-0.1	0.3	0.3	0.2	0.2	0.4				
Consumer Credit (e)	5.2	2.8	4.8	3.5	0.0	3.4	2.5					
Consumer Sentiment (U. of Mich.)	64.9	67.0	62.0	63.5	59.2	64.4	71.6	69.5	68.1			
Household Employment (c)	894	177	577	139	-310	273	268	222				
Nonfarm Payroll Employment (c)	472	248	217	217	281	105	157	187				
Unemployment Rate (%)	3.4	3.6	3.5	3.4	3.7	3.6	3.5	3.8				
Average Hourly Earnings (All, cur. \$)	33.02	33.11	33.20	33.34	33.45	33.60	33.74	33.82				
Average Workweek (All, hrs.)	34.6	34.5	34.4	34.4	34.3	34.4	34.3	34.4				
Industrial Production (d)	1.5	0.9	0.2	0.3	0.0	-0.3	0.0	0.2				
Capacity Utilization (%)	79.6	79.5	79.5	79.8	79.4	79.0	79.5	79.7				
ISM Manufacturing Index (g)	47.4	47.7	46.3	47.1	46.9	46.0	46.4	47.6			••••	
ISM Nonmanufacturing Index (g)	55.2	55.1	51.2	51.9	50.3	53.9	52.7	54.5				
Housing Starts (b)	1.340	1.436	1.380	1.348	1.583	1.418	1.447	1.283				
Housing Permits (b)	1.354	1.482	1.437	1.417	1.496	1.441	1.443	1.541				
New Home Sales (1-family, c)	649	625	640	679	710	684	739	675				
Construction Expenditures (a)	2.2	0.4	0.6	0.3	2.0	0.6	0.7		••••			
Consumer Price Index (nsa, d)	6.4	6.0	5.0	4.9	4.0	3.0	3.2	3.7			••••	
CPI ex. Food and Energy (nsa, d)	5.6	5.5	5.6	5.5	5.3	4.8	4.7	4.3				
PCE Chain Price Index (d)	5.5	5.2	4.4	4.4	4.0	3.2	3.4	3.5				
Core PCE Chain Price Index (d)	4.9	4.8	4.8	4.8	4.7	4.3	4.3	3.9			••••	••••
Producer Price Index (nsa, d)	5.7	4.7	2.7	2.3	1.1	0.1	0.8	1.6			••••	••••
Durable Goods Orders (a)	-1.3	-2.7	3.3	1.2	2.0	4.3	-5.6	0.2				••••
Leading Economic Indicators (a)	-0.5	-0.5	-1.2	-0.8	-0.7	-0.6	-0.3	-0.4	••••			••••
Balance of Trade & Services (f)	-70.8	-70.6	-60.4	-73.0	-66.8	-63.7	-65.0		••••			
Federal Funds Rate (%)	4.33	4.57	4.65	4.83	5.06	5.08	5.12	5.33				
3-Mo. Treasury Bill Rate (%)	4.69	4.79	4.86	5.07	5.31	5.42	5.49	5.56	••••		••••	
10-Year Treasury Note Yield (%)	3.53	3.75	3.66	3.46	3.57	3.75	3.90	4.17	••••			
2022 Historical Data												
Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	1.4	1.4	2.1	1.3	-0.1	0.8	-0.7	0.7	0.0	1.0	-1.3	-0.7
					10.04	10.05	13.49	12 50				
Auto & Light Truck Sales (b)	14.38	13.67	13.58	14.04	12.94	13.27	15.49	13.50	13.70	14.68	14.27	13.55
Personal Income (a, current \$)	-0.3	0.6	0.4	14.04 0.3	0.4	0.4	0.8	0.5	0.4	0.5	0.1	13.55 0.2
Personal Income (a, current \$) Personal Consumption (a, current \$)	-0.3 0.5	0.6 0.7	0.4 1.2	0.3 0.6	0.4 0.4	0.4 1.0	0.8 0.0	0.5 0.8	0.4 0.6	0.5 0.6	0.1 -0.1	0.2 0.3
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e)	-0.3 0.5 4.6	0.6 0.7 8.3	0.4 1.2 10.1	0.3 0.6 7.3	0.4 0.4 6.9	0.4 1.0 8.6	0.8 0.0 6.7	0.5 0.8 6.9	0.4 0.6 6.9	0.5 0.6 8.8	0.1 -0.1 8.1	0.2 0.3 4.8
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.)	-0.3 0.5 4.6 67.2	0.6 0.7 8.3 62.8	0.4 1.2 10.1 59.4	0.3 0.6 7.3 65.2	0.4 0.4 6.9 58.4	0.4 1.0 8.6 50.0	0.8 0.0 6.7 51.5	0.5 0.8 6.9 58.2	0.4 0.6 6.9 58.6	0.5 0.6 8.8 59.9	0.1 -0.1 8.1 56.8	0.2 0.3 4.8 59.7
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c)	-0.3 0.5 4.6 67.2 1041	0.6 0.7 8.3 62.8 468	0.4 1.2 10.1 59.4 738	0.3 0.6 7.3 65.2 -346	0.4 0.4 6.9 58.4 317	0.4 1.0 8.6 50.0 -242	0.8 0.0 6.7 51.5 215	0.5 0.8 6.9 58.2 422	0.4 0.6 6.9 58.6 156	0.5 0.6 8.8 59.9 -257	0.1 -0.1 8.1 56.8 -66	0.2 0.3 4.8 59.7 717
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Nonfarm Payroll Employment (c)	-0.3 0.5 4.6 67.2 1041 364	0.6 0.7 8.3 62.8 468 904	0.4 1.2 10.1 59.4 738 414	0.3 0.6 7.3 65.2 -346 254	0.4 0.4 6.9 58.4 317 364	0.4 1.0 8.6 50.0 -242 370	0.8 0.0 6.7 51.5 215 568	0.5 0.8 6.9 58.2 422 352	0.4 0.6 6.9 58.6 156 350	0.5 0.6 8.8 59.9 -257 324	0.1 -0.1 8.1 56.8 -66 290	0.2 0.3 4.8 59.7 717 239
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Nonfarm Payroll Employment (c) Unemployment Rate (%)	-0.3 0.5 4.6 67.2 1041 364 4.0	0.6 0.7 8.3 62.8 468 904 3.8	0.4 1.2 10.1 59.4 738 414 3.6	0.3 0.6 7.3 65.2 -346 254 3.6	0.4 0.4 6.9 58.4 317 364 3.6	0.4 1.0 8.6 50.0 -242 370 3.6	0.8 0.0 6.7 51.5 215 568 3.5	0.5 0.8 6.9 58.2 422 352 3.7	0.4 0.6 6.9 58.6 156 350 3.5	0.5 0.6 8.8 59.9 -257 324 3.7	0.1 -0.1 8.1 56.8 -66 290 3.6	0.2 0.3 4.8 59.7 717 239 3.5
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Nonfarm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$)	-0.3 0.5 4.6 67.2 1041 364 4.0 31.63	0.6 0.7 8.3 62.8 468 904 3.8 31.63	0.4 1.2 10.1 59.4 738 414 3.6 31.83	0.3 0.6 7.3 65.2 -346 254 3.6 31.94	0.4 0.4 6.9 58.4 317 364 3.6 32.06	0.4 1.0 8.6 50.0 -242 370 3.6 32.18	0.8 0.0 6.7 51.5 215 568 3.5 32.33	0.5 0.8 6.9 58.2 422 352 3.7 32.43	0.4 0.6 6.9 58.6 156 350 3.5 32.53	0.5 0.6 8.8 59.9 -257 324 3.7 32.66	0.1 -0.1 8.1 56.8 -66 290 3.6 32.80	0.2 0.3 4.8 59.7 717 239 3.5 32.92
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Nonfarm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.)	-0.3 0.5 4.6 67.2 1041 364 4.0 31.63 34.6	0.6 0.7 8.3 62.8 468 904 3.8 31.63 34.7	0.4 1.2 10.1 59.4 738 414 3.6 31.83 34.7	0.3 0.6 7.3 65.2 -346 254 3.6 31.94 34.6	0.4 0.4 6.9 58.4 317 364 3.6 32.06 34.6	0.4 1.0 8.6 50.0 -242 370 3.6 32.18 34.6	0.8 0.0 6.7 51.5 215 568 3.5 32.33 34.6	0.5 0.8 6.9 58.2 422 352 3.7 32.43 34.5	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \end{array}$	0.5 0.6 8.8 59.9 -257 324 3.7 32.66 34.6	0.1 -0.1 8.1 56.8 -66 290 3.6 32.80 34.5	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Nonfarm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d)	-0.3 0.5 4.6 67.2 1041 364 4.0 31.63 34.6 2.3	0.6 0.7 8.3 62.8 468 904 3.8 31.63 34.7 6.6	0.4 1.2 10.1 59.4 738 414 3.6 31.83 34.7 4.4	0.3 0.6 7.3 65.2 -346 254 3.6 31.94 34.6 4.6	$\begin{array}{c} 0.4 \\ 0.4 \\ 6.9 \\ 58.4 \\ 317 \\ 364 \\ 3.6 \\ 32.06 \\ 34.6 \\ 3.7 \end{array}$	0.4 1.0 8.6 50.0 -242 370 3.6 32.18 34.6 3.2	0.8 0.0 6.7 51.5 215 568 3.5 32.33 34.6 3.0	0.5 0.8 6.9 58.2 422 352 3.7 32.43 34.5 3.1	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \\ 4.5 \end{array}$	0.5 0.6 8.8 59.9 -257 324 3.7 32.66 34.6 3.1	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Nonfarm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%)	-0.3 0.5 4.6 67.2 1041 364 4.0 31.63 34.6 2.3 79.4	0.6 0.7 8.3 62.8 468 904 3.8 31.63 34.7 6.6 79.9	0.4 1.2 10.1 59.4 738 414 3.6 31.83 34.7 4.4 80.5	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \end{array}$	$\begin{array}{c} 0.4 \\ 0.4 \\ 6.9 \\ 58.4 \\ 317 \\ 364 \\ 3.6 \\ 32.06 \\ 34.6 \\ 3.7 \\ 80.6 \end{array}$	0.4 1.0 8.6 50.0 -242 370 3.6 32.18 34.6 3.2 80.5	0.8 0.0 6.7 51.5 215 568 3.5 32.33 34.6 3.0 80.7	0.5 0.8 6.9 58.2 422 352 3.7 32.43 34.5 3.1 80.7	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \\ 4.5 \\ 80.8 \end{array}$	0.5 0.6 8.8 59.9 -257 324 3.7 32.66 34.6 3.1 80.6	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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)	-0.3 0.5 4.6 67.2 1041 364 4.0 31.63 34.6 2.3 79.4 57.6	0.6 0.7 8.3 62.8 468 904 3.8 31.63 34.7 6.6 79.9 58.4	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \end{array}$	$\begin{array}{c} 0.4 \\ 0.4 \\ 6.9 \\ 58.4 \\ 317 \\ 364 \\ 3.6 \\ 32.06 \\ 34.6 \\ 3.7 \\ 80.6 \\ 56.1 \end{array}$	0.4 1.0 8.6 50.0 -242 370 3.6 32.18 34.6 3.2 80.5 53.1	0.8 0.0 6.7 51.5 215 568 3.5 32.33 34.6 3.0 80.7 52.7	0.5 0.8 6.9 58.2 422 352 3.7 32.43 34.5 3.1 80.7 52.9	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \\ 4.5 \\ 80.8 \\ 51.0 \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\end{array}$	0.6 0.7 8.3 62.8 468 904 3.8 31.63 34.7 6.6 79.9 58.4 57.2	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 3.7\\ 80.6\\ 56.1\\ 56.4\end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \end{array}$	0.8 0.0 6.7 51.5 215 568 3.5 32.33 34.6 3.0 80.7 52.7 56.4	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \end{array}$	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \\ 4.5 \\ 80.8 \\ 51.0 \\ 55.9 \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\end{array}$	0.6 0.7 8.3 62.8 468 904 3.8 31.63 34.7 6.6 79.9 58.4 57.2 1.771	0.4 1.2 10.1 59.4 738 414 3.6 31.83 34.7 4.4 80.5 57.0 58.4 1.713	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 3.7\\ 80.6\\ 56.1\\ 56.4\\ 1.543\end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \end{array}$	0.8 0.0 6.7 51.5 215 568 3.5 32.33 34.6 3.0 80.7 52.7 56.4 1.371	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \end{array}$	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \\ 4.5 \\ 80.8 \\ 51.0 \\ 55.9 \\ 1.463 \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2 1.357
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) Housing Starts (b) Housing Permits (b)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\end{array}$	$\begin{array}{c} 0.6 \\ 0.7 \\ 8.3 \\ 62.8 \\ 468 \\ 904 \\ 3.8 \\ 31.63 \\ 34.7 \\ 6.6 \\ 79.9 \\ 58.4 \\ 57.2 \\ 1.771 \\ 1.817 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 3.7\\ 80.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \end{array}$	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \\ 4.5 \\ 80.8 \\ 51.0 \\ 55.9 \\ 1.463 \\ 1.588 \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2 1.357 1.409
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\end{array}$	$\begin{array}{c} 0.6 \\ 0.7 \\ 8.3 \\ 62.8 \\ 468 \\ 904 \\ 3.8 \\ 31.63 \\ 34.7 \\ 6.6 \\ 79.9 \\ 58.4 \\ 57.2 \\ 1.771 \\ 1.817 \\ 773 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 3.7\\ 80.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543 \end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \\ 638 \end{array}$	$\begin{array}{c} 0.4 \\ 0.6 \\ 6.9 \\ 58.6 \\ 156 \\ 350 \\ 3.5 \\ 32.53 \\ 34.6 \\ 4.5 \\ 80.8 \\ 51.0 \\ 55.9 \\ 1.463 \\ 1.588 \\ 567 \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2 1.357 1.409 636
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\end{array}$	$\begin{array}{c} 0.6 \\ 0.7 \\ 8.3 \\ 62.8 \\ 468 \\ 904 \\ 3.8 \\ 31.63 \\ 34.7 \\ 6.6 \\ 79.9 \\ 58.4 \\ 57.2 \\ 1.771 \\ 1.817 \\ 773 \\ 1.5 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \\ 1.8 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2 \end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \\ 638 \\ -1.2 \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2 1.357 1.409 636 -0.1
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (nsa, d)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\end{array}$	$\begin{array}{c} 0.6 \\ 0.7 \\ 8.3 \\ 62.8 \\ 468 \\ 904 \\ 3.8 \\ 31.63 \\ 34.7 \\ 6.6 \\ 79.9 \\ 58.4 \\ 57.2 \\ 1.771 \\ 1.817 \\ 773 \\ 1.5 \\ 7.9 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \\ 1.8 \\ 8.3 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5 \end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \\ 638 \\ -1.2 \\ 8.3 \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2 \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2 1.357 1.409 636 -0.1 6.5
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ \end{array}$	$\begin{array}{c} 0.6\\ 0.7\\ 8.3\\ 62.8\\ 468\\ 904\\ 3.8\\ 31.63\\ 34.7\\ 6.6\\ 79.9\\ 58.4\\ 57.2\\ 1.771\\ 1.817\\ 773\\ 1.5\\ 7.9\\ 6.4 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \\ 1.8 \\ 8.3 \\ 6.2 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\\ 6.0\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \\ 638 \\ -1.2 \\ 8.3 \\ 6.3 \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2 1.357 1.409 636 -0.1 6.5 5.7
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ 6.3\end{array}$	$\begin{array}{c} 0.6 \\ 0.7 \\ 8.3 \\ 62.8 \\ 468 \\ 904 \\ 3.8 \\ 31.63 \\ 34.7 \\ 6.6 \\ 79.9 \\ 58.4 \\ 57.2 \\ 1.771 \\ 1.817 \\ 773 \\ 1.5 \\ 7.9 \\ 6.4 \\ 6.5 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \\ 6.9 \\ \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \\ 1.8 \\ 8.3 \\ 6.2 \\ 6.6 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\\ 6.0\\ 6.7\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \\ 7.1 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\\ 6.6\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \\ 638 \\ -1.2 \\ 8.3 \\ 6.3 \\ 6.5 \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\\ 6.6\end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ 6.3 \\ \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \\ 5.9 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.5 32.92 34.4 0.6 78.9 48.4 49.2 1.357 1.409 636 -0.1 6.5 5.7
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ 6.3\\ 5.4\end{array}$	$\begin{array}{c} 0.6\\ 0.7\\ 8.3\\ 62.8\\ 468\\ 904\\ 3.8\\ 31.63\\ 34.7\\ 6.6\\ 79.9\\ 58.4\\ 57.2\\ 1.771\\ 1.817\\ 773\\ 1.5\\ 7.9\\ 6.4\\ 6.5\\ 5.6\end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \\ 6.9 \\ 5.5 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \\ 1.8 \\ 8.3 \\ 6.2 \\ 6.6 \\ 5.3 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\\ 6.0\\ 6.7\\ 5.1\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \\ 7.1 \\ 5.2 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\\ 6.6\\ 5.0\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \\ 638 \\ -1.2 \\ 8.3 \\ 6.3 \\ 6.5 \\ 5.2 \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\\ 6.6\\ 5.5\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ 6.3 \\ 5.3 \\ \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \\ 5.9 \\ 5.1 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.2 32.92 34.4 0.0 78.9 48.4 49.2 1.357 1.409 630 -0.1 6.2 5.2 4.5
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ 6.3\\ 5.4\\ 10.1\end{array}$	$\begin{array}{c} 0.6\\ 0.7\\ 8.3\\ 62.8\\ 468\\ 904\\ 3.8\\ 31.63\\ 34.7\\ 6.6\\ 79.9\\ 58.4\\ 57.2\\ 1.771\\ 1.817\\ 773\\ 1.5\\ 7.9\\ 6.4\\ 6.5\\ 5.6\\ 10.4 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \\ 6.9 \\ 5.5 \\ 11.7 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \\ 1.8 \\ 8.3 \\ 6.2 \\ 6.6 \\ 5.3 \\ 11.2 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\\ 6.0\\ 6.7\\ 5.1\\ 11.1\end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \\ 7.1 \\ 5.2 \\ 11.2 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\\ 6.6\\ 5.0\\ 9.7\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.8 \\ 6.9 \\ 58.2 \\ 422 \\ 352 \\ 3.7 \\ 32.43 \\ 34.5 \\ 3.1 \\ 80.7 \\ 52.9 \\ 56.1 \\ 1.505 \\ 1.586 \\ 638 \\ -1.2 \\ 8.3 \\ 6.3 \\ 6.3 \\ 6.5 \\ 5.2 \\ 8.7 \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\\ 6.6\\ 5.5\\ 8.5\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ 6.3 \\ 5.3 \\ 8.2 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \\ 5.9 \\ 5.1 \\ 7.4 \end{array}$	0.2 0.3 4.8 59.7 717 239 3.2 32.92 34.4 0.0 78.9 48.4 49.2 1.357 1.409 630 -0.1 6.5 5.4 4.9 6.4
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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) Producer Price Index (nsa, d) Durable Goods Orders (a)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ 6.3\\ 5.4\\ 10.1\\ 2.0\end{array}$	$\begin{array}{c} 0.6\\ 0.7\\ 8.3\\ 62.8\\ 468\\ 904\\ 3.8\\ 31.63\\ 34.7\\ 6.6\\ 79.9\\ 58.4\\ 57.2\\ 1.771\\ 1.817\\ 773\\ 1.5\\ 7.9\\ 6.4\\ 6.5\\ 5.6\\ 10.4\\ -1.4 \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \\ 6.9 \\ 5.5 \\ 11.7 \\ -0.1 \end{array}$	$\begin{array}{c} 0.3 \\ 0.6 \\ 7.3 \\ 65.2 \\ -346 \\ 254 \\ 3.6 \\ 31.94 \\ 34.6 \\ 4.6 \\ 80.7 \\ 55.9 \\ 57.5 \\ 1.803 \\ 1.795 \\ 611 \\ 1.8 \\ 8.3 \\ 6.2 \\ 6.6 \\ 5.3 \\ 11.2 \\ 1.0 \end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\\ 6.0\\ 6.7\\ 5.1\\ 11.1\\ 0.7\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \\ 7.1 \\ 5.2 \\ 11.2 \\ 1.6 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\\ 6.6\\ 5.0\\ 9.7\\ -0.8 \end{array}$	$\begin{array}{c} 0.5\\ 0.8\\ 6.9\\ 58.2\\ 422\\ 352\\ 3.7\\ 32.43\\ 34.5\\ 3.1\\ 80.7\\ 52.9\\ 56.1\\ 1.505\\ 1.586\\ 638\\ -1.2\\ 8.3\\ 6.3\\ 6.5\\ 5.2\\ 8.7\\ -0.1\\ \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\\ 6.6\\ 5.5\\ 8.5\\ 0.3\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ 6.3 \\ 5.3 \\ 8.2 \\ 1.0 \\ \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \\ 5.9 \\ 5.1 \\ 7.4 \\ -3.1 \end{array}$	$\begin{array}{c} 0.2\\ 0.3\\ 4.8\\ 59.7\\ 7117\\ 239\\ 3.5\\ 32.92\\ 34.4\\ 0.6\\ 78.9\\ 48.4\\ 49.2\\ 1.357\\ 1.409\\ 636\\ -0.1\\ 6.5\\ 5.7\\ 5.4\\ 4.9\\ 6.4\\ 4.5\end{array}$
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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) Producer Price Index (nsa, d) Durable Goods Orders (a) Leading Economic Indicators (a)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ 6.3\\ 5.4\\ 10.1\\ 2.0\\ -0.5\end{array}$	$\begin{array}{c} 0.6\\ 0.7\\ 8.3\\ 62.8\\ 468\\ 904\\ 3.8\\ 31.63\\ 34.7\\ 6.6\\ 79.9\\ 58.4\\ 57.2\\ 1.771\\ 1.817\\ 773\\ 1.5\\ 7.9\\ 6.4\\ 6.5\\ 5.6\\ 10.4\\ -1.4\\ 0.3\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \\ 6.9 \\ 5.5 \\ 11.7 \\ -0.1 \\ 0.0 \\ \end{array}$	$\begin{array}{c} 0.3\\ 0.6\\ 7.3\\ 65.2\\ -346\\ 254\\ 3.6\\ 31.94\\ 34.6\\ 4.6\\ 80.7\\ 55.9\\ 57.5\\ 1.803\\ 1.795\\ 611\\ 1.8\\ 8.3\\ 6.2\\ 6.6\\ 5.3\\ 11.2\\ 1.0\\ -0.6\end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\\ 6.0\\ 6.7\\ 5.1\\ 11.1\\ 0.7\\ -0.9\end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \\ 7.1 \\ 5.2 \\ 11.2 \\ 1.6 \\ -0.7 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\\ 6.6\\ 5.0\\ 9.7\\ -0.8\\ -0.6\end{array}$	$\begin{array}{c} 0.5\\ 0.8\\ 6.9\\ 58.2\\ 422\\ 352\\ 3.7\\ 32.43\\ 34.5\\ 3.1\\ 80.7\\ 52.9\\ 56.1\\ 1.505\\ 1.586\\ 638\\ -1.2\\ 8.3\\ 6.3\\ 6.5\\ 5.2\\ 8.7\\ -0.1\\ -0.3\\ \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\\ 6.6\\ 5.5\\ 8.5\\ 0.3\\ -0.5\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ 6.3 \\ 5.3 \\ 8.2 \\ 1.0 \\ -0.9 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \\ 5.9 \\ 5.1 \\ 7.4 \\ -3.1 \\ -0.9 \end{array}$	$\begin{array}{c} 0.2\\ 0.3\\ 4.8\\ 59.7\\ 717\\ 239\\ 3.5\\ 32.92\\ 34.4\\ 0.6\\ 78.9\\ 48.4\\ 49.2\\ 1.357\\ 1.409\\ 636\\ -0.1\\ 6.5\\ 5.7\\ 5.4\\ 4.9\\ 6.4\\ 4.5\\ -0.7\end{array}$
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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) Producer Price Index (nsa, d) Curable Goods Orders (a) Leading Economic Indicators (a) Balance of Trade & Services (f)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ 6.3\\ 5.4\\ 10.1\\ 2.0\\ -0.5\\ -86.5\end{array}$	$\begin{array}{c} 0.6\\ 0.7\\ 8.3\\ 62.8\\ 468\\ 904\\ 3.8\\ 31.63\\ 34.7\\ 6.6\\ 79.9\\ 58.4\\ 57.2\\ 1.771\\ 1.817\\ 773\\ 1.5\\ 7.9\\ 6.4\\ 6.5\\ 5.6\\ 10.4\\ -1.4\\ 0.3\\ -87.0\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \\ 6.9 \\ 5.5 \\ 11.7 \\ -0.1 \\ 0.0 \\ -102.5 \end{array}$	$\begin{array}{c} 0.3\\ 0.6\\ 7.3\\ 65.2\\ -346\\ 254\\ 3.6\\ 31.94\\ 34.6\\ 4.6\\ 80.7\\ 55.9\\ 57.5\\ 1.803\\ 1.795\\ 611\\ 1.8\\ 8.3\\ 6.2\\ 6.6\\ 5.3\\ 11.2\\ 1.0\\ -0.6\\ -86.0\\ \end{array}$	0.4 0.4 6.9 58.4 317 364 3.6 32.06 34.6 3.7 80.6 56.1 56.4 1.543 1.708 636 -0.1 8.6 6.0 6.7 5.1 11.1 0.7 -0.9 -84.1	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \\ 7.1 \\ 5.2 \\ 11.2 \\ 1.6 \\ -0.7 \\ -80.9 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\\ 6.6\\ 5.0\\ 9.7\\ -0.8\\ -0.6\\ -71.7\\ \end{array}$	$\begin{array}{c} 0.5\\ 0.8\\ 6.9\\ 58.2\\ 422\\ 352\\ 3.7\\ 32.43\\ 34.5\\ 3.1\\ 80.7\\ 52.9\\ 56.1\\ 1.505\\ 1.586\\ 638\\ -1.2\\ 8.3\\ 6.3\\ 6.5\\ 5.2\\ 8.7\\ -0.1\\ -0.3\\ -67.3\\ \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\\ 6.6\\ 5.5\\ 8.5\\ 0.3\\ -0.5\\ -71.7\end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ 6.3 \\ 5.3 \\ 8.2 \\ 1.0 \\ -0.9 \\ -78.3 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \\ 5.9 \\ 5.1 \\ 7.4 \\ -3.1 \\ -0.9 \\ -63.8 \end{array}$	$\begin{array}{c} 0.2\\ 0.3\\ 4.8\\ 59.7\\ 717\\ 239\\ 3.5\\ 32.92\\ 34.4\\ 0.6\\ 78.9\\ 48.4\\ 49.2\\ 1.357\\ 1.409\\ 636\\ -0.1\\ 6.5\\ 5.7\\ 5.4\\ 4.9\\ 6.4\\ 4.5\\ -0.7\\ -71.4\end{array}$
Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) 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) 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) Producer Price Index (nsa, d) Durable Goods Orders (a) Leading Economic Indicators (a)	$\begin{array}{c} -0.3\\ 0.5\\ 4.6\\ 67.2\\ 1041\\ 364\\ 4.0\\ 31.63\\ 34.6\\ 2.3\\ 79.4\\ 57.6\\ 60.4\\ 1.669\\ 1.898\\ 810\\ 2.4\\ 7.5\\ 6.0\\ 6.3\\ 5.4\\ 10.1\\ 2.0\\ -0.5\end{array}$	$\begin{array}{c} 0.6\\ 0.7\\ 8.3\\ 62.8\\ 468\\ 904\\ 3.8\\ 31.63\\ 34.7\\ 6.6\\ 79.9\\ 58.4\\ 57.2\\ 1.771\\ 1.817\\ 773\\ 1.5\\ 7.9\\ 6.4\\ 6.5\\ 5.6\\ 10.4\\ -1.4\\ 0.3\\ \end{array}$	$\begin{array}{c} 0.4 \\ 1.2 \\ 10.1 \\ 59.4 \\ 738 \\ 414 \\ 3.6 \\ 31.83 \\ 34.7 \\ 4.4 \\ 80.5 \\ 57.0 \\ 58.4 \\ 1.713 \\ 1.877 \\ 707 \\ 1.4 \\ 8.5 \\ 6.5 \\ 6.9 \\ 5.5 \\ 11.7 \\ -0.1 \\ 0.0 \\ \end{array}$	$\begin{array}{c} 0.3\\ 0.6\\ 7.3\\ 65.2\\ -346\\ 254\\ 3.6\\ 31.94\\ 34.6\\ 4.6\\ 80.7\\ 55.9\\ 57.5\\ 1.803\\ 1.795\\ 611\\ 1.8\\ 8.3\\ 6.2\\ 6.6\\ 5.3\\ 11.2\\ 1.0\\ -0.6\end{array}$	$\begin{array}{c} 0.4\\ 0.4\\ 6.9\\ 58.4\\ 317\\ 364\\ 3.6\\ 32.06\\ 34.6\\ 34.6\\ 34.6\\ 56.1\\ 56.4\\ 1.543\\ 1.708\\ 636\\ -0.1\\ 8.6\\ 6.0\\ 6.7\\ 5.1\\ 11.1\\ 0.7\\ -0.9\end{array}$	$\begin{array}{c} 0.4 \\ 1.0 \\ 8.6 \\ 50.0 \\ -242 \\ 370 \\ 3.6 \\ 32.18 \\ 34.6 \\ 3.2 \\ 80.5 \\ 53.1 \\ 56.0 \\ 1.561 \\ 1.701 \\ 563 \\ -0.4 \\ 9.1 \\ 5.9 \\ 7.1 \\ 5.2 \\ 11.2 \\ 1.6 \\ -0.7 \end{array}$	$\begin{array}{c} 0.8\\ 0.0\\ 6.7\\ 51.5\\ 215\\ 568\\ 3.5\\ 32.33\\ 34.6\\ 3.0\\ 80.7\\ 52.7\\ 56.4\\ 1.371\\ 1.658\\ 543\\ -0.2\\ 8.5\\ 5.9\\ 6.6\\ 5.0\\ 9.7\\ -0.8\\ -0.6\end{array}$	$\begin{array}{c} 0.5\\ 0.8\\ 6.9\\ 58.2\\ 422\\ 352\\ 3.7\\ 32.43\\ 34.5\\ 3.1\\ 80.7\\ 52.9\\ 56.1\\ 1.505\\ 1.586\\ 638\\ -1.2\\ 8.3\\ 6.3\\ 6.5\\ 5.2\\ 8.7\\ -0.1\\ -0.3\\ \end{array}$	$\begin{array}{c} 0.4\\ 0.6\\ 6.9\\ 58.6\\ 156\\ 350\\ 3.5\\ 32.53\\ 34.6\\ 4.5\\ 80.8\\ 51.0\\ 55.9\\ 1.463\\ 1.588\\ 567\\ -0.6\\ 8.2\\ 6.6\\ 6.6\\ 5.5\\ 8.5\\ 0.3\\ -0.5\\ \end{array}$	$\begin{array}{c} 0.5 \\ 0.6 \\ 8.8 \\ 59.9 \\ -257 \\ 324 \\ 3.7 \\ 32.66 \\ 34.6 \\ 3.1 \\ 80.6 \\ 50.0 \\ 54.5 \\ 1.432 \\ 1.555 \\ 577 \\ -0.4 \\ 7.7 \\ 6.3 \\ 6.3 \\ 5.3 \\ 8.2 \\ 1.0 \\ -0.9 \end{array}$	$\begin{array}{c} 0.1 \\ -0.1 \\ 8.1 \\ 56.8 \\ -66 \\ 290 \\ 3.6 \\ 32.80 \\ 34.5 \\ 1.9 \\ 80.3 \\ 49.0 \\ 55.5 \\ 1.427 \\ 1.402 \\ 582 \\ 0.6 \\ 7.1 \\ 6.0 \\ 5.9 \\ 5.1 \\ 7.4 \\ -3.1 \\ -0.9 \end{array}$	$\begin{array}{c} 0.2\\ 0.3\\ 4.8\\ 59.7\\ 717\\ 239\\ 3.5\\ 32.92\\ 34.4\\ 0.6\\ 78.9\\ 48.4\\ 49.2\\ 1.357\\ 1.409\\ 636\\ -0.1\\ 6.5\\ 5.7\\ 5.4\\ 4.9\\ 6.4\\ 4.5\\ -0.7\end{array}$

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

BLUE CHIP FORECASTERS

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