

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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Wolters Kluwer

BLUE CHIP FINANCIAL FORECASTS®

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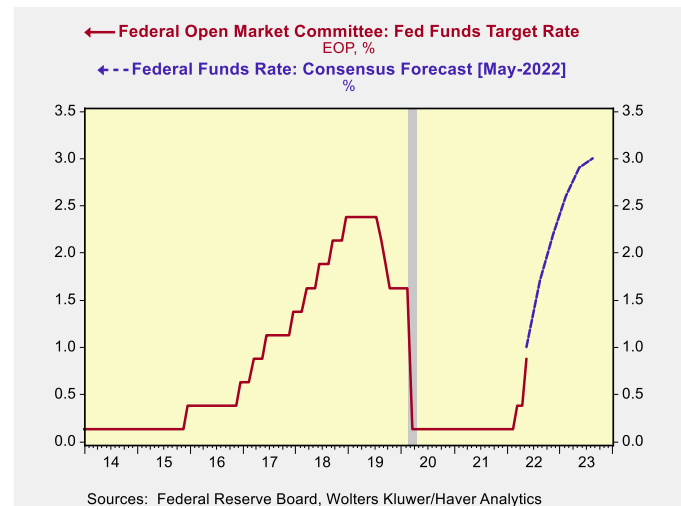
More Fed Tightening To Fight Inflation

Inflation Can Moderate without Recession. Inflation continues to be the main issue facing policymakers, investor and traders, to say nothing of consumers and business managers. To combat rising inflation, the Federal Reserve is tightening monetary policy with both interest rate and balance sheet tools. Against this backdrop, the Blue Chip Financial Forecast panelists generally believe that inflation can be slowed without the economy entering a recession. Indeed, in response to a specific Special Question, 72% of panelists believe this is the likely outcome. Indeed, another Special Question's results show that the panel believes the probability of recession this year is just 25%, although it is expected to rise to 38% during 2023. This latter expectation is still noticeably below 50%.

The Blue Chip Financial Forecasts inflation prospects are slightly higher this month than last month. The personal consumption expenditure price index rose at a 7.0% annual rate in Q1 2022, unrevised from the initial report; the Blue Chip panel's estimate for Q2 is 5.8%, the same as last month. For Q3, the panel currently looks for 4.3%, up from the May forecast of 3.9%. While these forecasts are modestly higher, both are well above the Federal Reserve's target pace of 2%.

Fed Expected To Invoke Larger Increases in Rates. Thus, there is clearly considerable work to be done to reduce inflation. In a speech on Monday, May 30, Fed Governor Christopher Waller emphasized the Fed's shift to 50-basis-point increases in the federal funds rate, and he expects at least a couple more of them after the one at the May 3-4 FOMC meeting. This view does correspond to the Blue Chip panel's forecast the rate rising to 2.4% for the fourth quarter of this year. In addition, as Waller pointed out, the Fed's purchases of Treasury securities and mortgage-backed bonds ceased in March and beginning today, June 1, the Fed will reduce its balance sheet holdings by replacing only a portion of those securities that mature. This may well contribute to increases in long-term interest rates.

Long-Term Rates, Already Up, Expected To Rise Moderately More. Longer-term interest rates are already reflecting some response to higher inflation and the Fed's shifting portfolio strategy. Ten-year Treasury yields averaged 1.94% in Q1 this year but then reached 3.01% in the first week of May. On May 31, they were trading at 2.86%. The Blue Chip panel expects them to settle above 3% for the rest of this year and at 3.4% for much of 2023. With the tightening of monetary policy and still higher inflation, the greater financial risk would generate somewhat wider credit spreads even in high-quality securities. The spreads to Treasuries for high-rated corporate bonds would also be somewhat wider; Aaa corporate bond yields are seen by the panel to rise to 4.7% by Q4 this year, 130 basis points over 30-year Treasuries, and to maintain that spread through 2023. For comparison, this spread averaged 80 basis points last year and 116 basis points during 2020.



Mortgage rates pierced 5% during April, according to Freddie Mac data; this is the first time they have been that high since 2011. The Blue Chip panel projects them to increase to 5.5% by Q4 2022 and to stay there during 2023.

Semi-Annual Long-Term Financial Outlook

The Blue Chip surveys check out longer-term prospects twice a year. The last check on a longer-term view of financial markets was in December. The pace of inflation and the overall level of interest rates are considerably higher now than they were back then. In particular, the 7.0% inflation rate for the PCE price index in Q1 and the current Blue Chip 5.8% estimate for Q2 compare to 2.9% and 2.5%, respectively, in the December forecasts. The 2022 inflation forecast is noticeably higher than it was the last time longer-run estimates were collected. The earlier projection put 2022 inflation at 3.9% over 2021 while the current estimate is 5.8%. By 2025, the Blue Chip panel projects that PCE inflation will slow to 2.3%, just marginally higher than the 2.1% in the December survey. This suggests longer-term interest rates at 3.4% for 10-year Treasuries in 2025 would be somewhat higher than the 3.1% expected back in December. And the 3.4% level indicates that the current rate range would be sustained over the long haul.

This is the first longer-term look at SOFR, the secured overnight financing rate that we began to cover late in 2021 as the key measure of short-term private sector borrowing cost. It is currently at 0.78% and estimated for this year to average 1.3%. Going forward, that is for 2025, the Blue Chip Financial Forecasts panel projects it at 2.5% and at levels very similar to the fed funds rate.

Carol Stone, CBE (Haver Analytics, New York, NY)

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

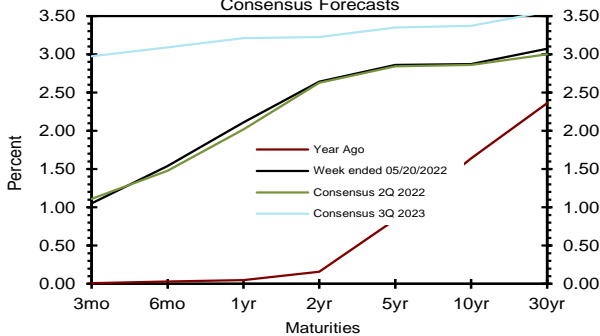
Interest Rates	History								Consensus Forecasts-Quarterly Avg.						
	Average For Week Ending				Average For Month				Latest Qtr	2Q 2022	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023
	May 20	May 13	May 6	Apr 29	Apr	Mar	Feb	1Q 2022	2022	2022	2022	2023	2023	2023	
Federal Funds Rate	0.83	0.83	0.33	0.33	0.33	0.20	0.08	0.12	1.0	1.9	2.4	2.8	3.0	3.1	
Prime Rate	4.00	4.00	3.50	3.50	3.50	3.37	3.25	3.29	4.0	5.0	5.5	5.9	6.1	6.2	
SOFR	0.79	0.78	0.49	0.28	0.29	0.16	0.05	0.09	0.9	1.8	2.3	2.7	2.9	3.0	
Commercial Paper, 1-mo.	0.83	0.82	0.71	0.55	0.44	0.32	0.16	0.18	0.9	1.8	2.4	2.8	3.0	3.0	
Treasury bill, 3-mo.	1.05	0.94	0.88	0.85	0.76	0.45	0.31	0.30	1.1	1.9	2.4	2.7	2.9	3.0	
Treasury bill, 6-mo.	1.54	1.44	1.43	1.40	1.26	0.86	0.64	0.61	1.5	2.2	2.6	2.9	3.1	3.1	
Treasury bill, 1 yr.	2.11	2.00	2.10	2.03	1.89	1.34	1.00	0.96	2.0	2.6	2.9	3.1	3.2	3.2	
Treasury note, 2 yr.	2.64	2.61	2.72	2.62	2.54	1.91	1.44	1.44	2.6	2.9	3.1	3.2	3.3	3.2	
Treasury note, 5 yr.	2.86	2.89	3.00	2.84	2.78	2.11	1.81	1.82	2.8	3.1	3.2	3.3	3.4	3.4	
Treasury note, 10 yr.	2.87	2.94	3.01	2.83	2.75	2.13	1.93	1.94	2.9	3.1	3.2	3.3	3.4	3.4	
Treasury note, 30 yr.	3.07	3.09	3.10	2.91	2.81	2.41	2.25	2.25	3.0	3.3	3.4	3.5	3.6	3.6	
Corporate Aaa bond	4.43	4.42	4.40	4.19	4.01	3.63	3.36	3.35	4.1	4.5	4.7	4.8	4.9	4.9	
Corporate Baa bond	5.13	5.10	5.06	4.84	4.63	4.23	3.92	3.90	5.0	5.4	5.6	5.7	5.8	5.8	
State & Local bonds	4.09	4.03	3.93	3.84	3.70	3.30	3.01	3.02	3.5	3.8	4.0	4.1	4.2	4.2	
Home mortgage rate	5.25	5.30	5.27	5.10	4.98	4.17	3.76	3.79	5.1	5.3	5.5	5.6	5.6	5.5	

Key Assumptions	History								Consensus Forecasts-Quarterly					
	2Q		3Q		4Q		1Q		2Q	3Q	4Q	1Q	2Q	3Q
	2020	2020	2020	2021	2021	2021	2021	2022	2022	2022	2023	2023	2023	2023
Fed's AFE \$ Index	112.4	107.2	105.1	103.4	102.9	105.0	107.0	108.4	112.7	113.9	114.1	114.0	113.6	112.9
Real GDP	-31.2	33.8	4.5	6.3	6.7	2.3	6.9	-1.5	2.9	2.5	2.2	1.8	1.6	1.6
GDP Price Index	-1.5	3.6	2.2	4.3	6.1	6.0	7.1	8.1	5.9	4.6	3.5	3.1	2.8	2.7
Consumer Price Index	-3.4	4.8	2.2	4.1	8.2	6.7	7.9	9.2	7.6	4.8	3.4	3.0	2.6	2.6
PCE Price Index	-1.6	3.7	1.5	3.8	6.5	5.3	6.4	7.0	5.8	4.3	3.2	2.8	2.6	2.5

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, PCE Price Index and Consumer 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; LIBOR quotes from Intercontinental Exchange. All interest rate data are sourced from Haver Analytics. Historical data for Fed's Major Currency Index are from FRSR H.10. Historical data for Real GDP, GDP Price Index and PCE Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index history is from the Department of Labor's Bureau of Labor Statistics (BLS).

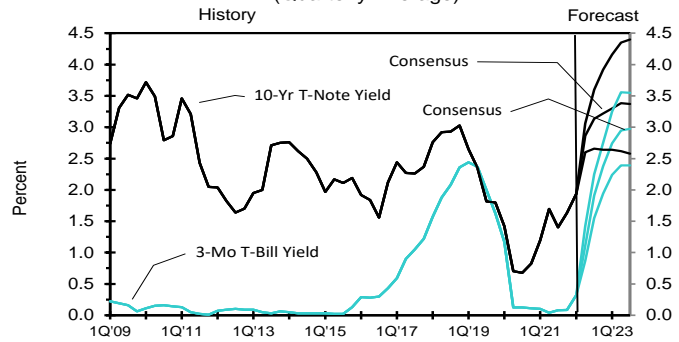
U.S. Treasury Yield Curve

Week ended May 20, 2022 & Year Ago vs. 2Q 2022 & 3Q 2023 Consensus Forecasts



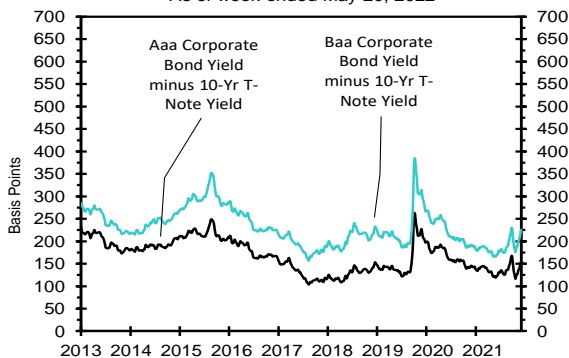
US 3-Mo T-Bills & 10-Yr T-Note Yield

(Quarterly Average)



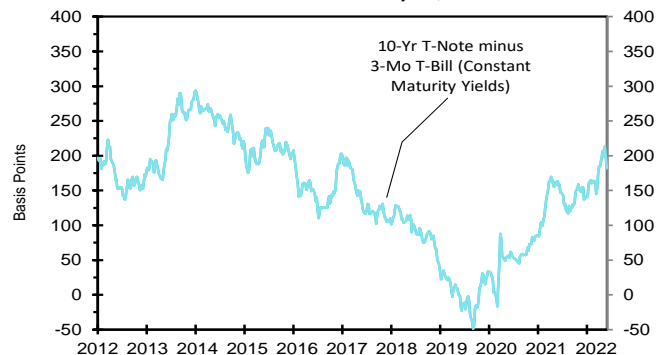
Corporate Bond Spreads

As of week ended May 20, 2022



U.S. Treasury Yield Curve

As of week ended May 20, 2022



-----Policy Rates¹-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	0.88	0.38	0.13	1.88	2.45	3.19
Japan	-0.10	-0.10	-0.10	-0.09	-0.06	-0.03
U.K.	1.00	0.75	0.10	1.26	1.45	1.84
Switzerland	-0.75	-0.75	-0.75	-0.69	-0.56	-0.18
Canada	1.00	1.00	0.25	2.00	2.46	3.07
Australia	0.35	0.10	0.10	0.82	1.13	1.65
Euro area	0.00	0.00	0.00	0.06	0.21	0.48

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

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	2.78	2.90	1.63	3.08	3.12	3.19
Germany	0.94	0.97	-0.13	1.15	1.23	1.35
Japan	0.24	0.25	0.09	0.26	0.26	0.25
U.K.	1.90	1.98	0.92	1.91	2.19	2.35
France	1.47	1.43	0.25	1.68	1.72	1.81
Italy	2.99	2.69	1.03	3.00	3.01	2.98
Switzerland	0.69	0.91	-0.14	0.86	1.01	1.15
Canada	2.83	2.87	1.54	3.12	3.21	3.28
Australia	3.31	3.13	1.63	3.27	3.53	3.66
Spain	2.02	1.83	0.58	2.11	2.21	2.35

-----Foreign Exchange Rates³-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	114.22	112.44	101.68	114.0	113.4	112.4
Japan	127.86	128.78	108.94	126.9	125.1	122.7
U.K.	1.25	1.28	1.42	1.26	1.27	1.29
Switzerland	0.97	0.96	0.90	0.96	0.94	0.93
Canada	1.28	1.27	1.21	1.25	1.24	1.24
Australia	0.70	0.73	0.77	0.72	0.72	0.71
Euro	1.06	1.08	1.22	1.07	1.07	1.11

Consensus
Policy Rates
vs. US Rate

	Now	In 12 Mo.
	Japan	-0.98	-3.22
U.K.	0.13	-1.35
Switzerland	-1.63	-3.36
Canada	0.13	-0.12
Australia	-0.53	-1.54
Euro area	-0.88	-2.71

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

	Now	In 12 Mo.
	Germany	-1.84	-1.84
Japan	-2.54	-2.94
U.K.	-0.88	-0.83
France	-1.31	-1.38
Italy	0.21	-0.20
Switzerland	-2.09	-2.04
Canada	0.05	0.09
Australia	0.53	0.47
Spain	-0.76	-0.84

International. The global economic recovery from the pandemic, which has been rather resilient, is beginning to show signs of cracking under the strain of the ongoing fallout from the Russia-Ukraine conflict, lingering supply-chain problems exacerbated by COVID lockdowns in China, a further rise in food and energy prices, and a broadening bevy of central banks attempting to corral inflation with higher domestic policy interest rates. Real GDP in the first quarter declined in several major economies—e.g., the US, Japan, France and Italy. And while UK GDP posted a solid increase in Q1, the pace of activity slowed during the quarter with monthly GDP declining in March. Looking into Q2, flash Purchasing Managers' Indexes generally pointed to a further slowing in activity in May, notably in China. By contrast and despite inflation delivering a big blow to purchasing power, consumer spending was comparatively solid in Q1 across most developed economies.

At the center of the rising global recession risk is the move to less accommodative monetary policy all across the globe to combat decades-high inflation rates. In May, there were 34 policy interest rate increases with the vast majority made by emerging market central banks in an attempt to stem the fall in their currencies. For developed economies, the increased intensity of policy rate hikes has been led by the US Fed, the Bank of England and the Reserve Bank of New Zealand with each increasing their policy interest rates in May. The Fed raised its federal funds rate target by 50bps, the first increase of this size in more than 20 years. Moreover, subsequent comments from myriad Fed officials have led financial markets to expect additional 50bp increases in the near term (see lead commentary). The Bank of England raised its base interest rate for the fourth time in as many meetings. The increase was 25 bps with three members of the committee voting for a 50bp hike, although the committee's rhetoric concerning likely future rate increases was softened a bit. The RBNZ raised its policy interest rate, also for the fourth time in as many meetings, by 50 bps, the second consecutive 50bp increase and raising the rate to 2.00%, above where it was just prior to the pandemic.

A major policy reversal came from the Reserve Bank of Australia. It completely surprised financial market expectations and retreated markedly from previous guidance by raising its policy rate 25 bps at its early May meeting, the first increase in more than a decade. With inflation having accelerated markedly in recent months and the Bank having raised its inflation outlook meaningfully, financial markets are now looking for a series of further policy rate increases ahead.

The European Central Bank came in a close second for policy U-turns. In a blog on the Bank's website, President Lagarde provided a very detailed argument as to why the pre-pandemic and the ensuing emergency pandemic policy settings are no longer appropriate. She argued that the inflation outlook has shifted upwards relative to prior to the pandemic. And so policy interest rates should also be adjusted up. Leaving policy rates unchanged in such an environment, she noted, would be an implicit easing of monetary policy, which would not be warranted. She expects asset purchases to end early in the third quarter, which "would allow us a rate lift-off at our meeting in July...and be in a position to exit negative interest rates by the end of the third quarter." Market rate expectations have been adjusted up accordingly.

The central banks of Japan and China continue to be the outliers in the global shift to less accommodative monetary policies. In the face of a sharply slowing domestic economy owing in large part to extremely onerous COVID lockdowns, the People's Bank of China unexpectedly eased policy on May 20 with a 15bp cut in its benchmark rate on loans of five years or more to 4.45%, the largest single reduction since the rate took on policy significance in 2019. The Bank of Japan left its extremely accommodative policy unchanged at its late April meeting.

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

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Fourth Quarter 2022

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For --Qtr.-- A. Fed's Adv Fgn Econ \$ Index	------(Q-Q % Change)----- ------(SAAR)-----															
	-----Short-Term-----					--Intermediate-Term--					-----Long-Term-----						B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																	
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate																	
Scotiabank Group	3.0	H	6.0	H	2.8	na	2.8	na	2.9	3.0	3.1	3.1	na	na	na	na	na	na	na	3.5	3.9	4.1	2.9									
BNP Paribas Americas	2.9	na	na	na	na	na	na	na	2.8	na	2.7	2.8	na	na	na	na	na	na	na	2.2	na	2.8	na									
Nomura Securities, Inc.	2.9	6.0	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.8	2.9	4.0	3.4									
Wells Fargo	2.8	5.8	2.6	2.8	H	2.8	3.0	3.2	3.3	3.2	3.3	3.5	4.8	5.7	4.1	5.5	na	na	na	2.1	3.6	3.9	3.6									
ING	2.7	na	3.0	H	na	na	na	na	3.0	3.0	3.0	3.1	na	na	na	na	na	na	na	2.1	na	na	na									
Bank of America	2.6	na	2.8	na	na	na	na	na	3.5	3.4	3.3	3.3	na	na	na	na	na	na	na	1.8	5.0	3.3	3.1									
Barclays	2.6	5.8	na	na	na	na	na	na	3.0	3.0	2.8	3.0	na	na	na	na	na	na	na	2.5	2.4	1.8	2.2									
Goldman Sachs & Co.	2.6	na	na	na	2.5	na	na	na	3.2	3.3	3.3	3.4	na	na	na	na	na	na	na	1.5	4.0	2.7	3.3									
Loomis, Sayles & Company	2.6	5.8	2.6	2.6	2.9	H	3.2	H	3.2	3.2	3.3	3.4	3.5	4.7	5.6	4.6	5.4	na	114.6	2.3	3.5	4.0	3.9									
NatWest Markets	2.6	5.6	na	2.7	2.9	H	3.0	3.1	2.8	2.6	2.5	2.5	4.3	5.2	3.5	4.3	L	na	na	2.0	4.5	2.0	3.1									
TS Lombard	2.6	5.7	2.6	2.6	2.9	H	2.9	3.1	3.2	3.9	3.5	3.6	4.4	5.2	3.5	5.3	na	118.0	H	3.0	4.0	4.0	4.0									
ACIMA Private Wealth	2.5	4.5	L	2.5	2.6	2.6	2.5	2.4	2.3	2.3	L	2.0	L	2.1	L	3.7	L	5.3	1.0	L	4.5	na	2.0									
BMO Capital Markets	2.5	5.6	2.4	na	2.4	2.7	2.8	2.9	3.1	3.1	3.1	3.3	na	na	na	na	na	na	113.8	1.9	3.6	3.7	3.5									
Chan Economics	2.5	5.5	2.5	2.5	2.7	3.2	H	3.7	4.3	4.4	4.5	4.6	5.4	6.2	5.3	6.7	na	115.0	3.0	4.0	4.5	4.4										
J.P. Morgan Chase	2.5	na	na	na	na	na	na	na	2.8	2.9	2.8	2.8	na	na	na	na	na	na	na	2.0	2.1	2.5	2.2									
MacroFin Analytics & Rutgers Bus School	2.5	5.4	2.4	2.6	2.6	2.8	3.3	3.9	4.1	4.2	4.5	5.7	6.5	5.1	6.2	na	na	na	115.8	2.5	2.7	3.2	2.9									
Swiss Re	2.5	5.6	na	2.5	2.4	2.5	2.6	2.8	2.8	2.8	3.0	4.4	5.1	na	5.1	na	na	na	113.7	2.8	4.8	2.3	2.6									
Via Nova Investment Mgt.	2.5	5.8	2.5	2.6	2.7	3.2	H	3.9	H	4.4	H	4.6	H	4.7	H	4.8	H	6.1	H	6.7	H	5.7	H	7.1	H	115.0	2.7	3.5	3.3	3.0		
Action Economics	2.4	5.5	2.0	2.4	2.4	2.4	2.5	2.7	3.0	3.1	3.2	4.1	5.1	3.0	5.6	na	na	na	115.7	3.4	3.3	2.5	2.3									
Bank of the West	2.4	5.5	2.2	2.4	2.3	2.6	2.9	3.3	3.4	3.3	3.3	4.6	5.5	4.5	5.6	na	na	na	115.9	1.8	3.5	4.7	4.2									
Chmura Economics & Analytics	2.4	5.5	2.4	2.4	2.4	2.7	3.1	3.5	3.4	3.6	3.8	4.8	na	na	5.8	na	na	na	109.7	1.4	6.4	H	7.1	H	5.1	na	na	na	na			
Daiwa Capital Markets America	2.4	5.6	1.9	2.0	2.6	3.0	3.4	3.9	4.0	4.1	4.2	5.7	6.7	H	na	6.6	na	na	115.0	1.3	3.9	4.0	3.8									
DePrince & Assoc.	2.4	5.5	2.2	2.5	2.5	2.8	3.3	3.6	3.5	3.5	3.5	4.9	5.7	4.1	5.6	na	na	na	113.3	2.6	3.6	3.7	3.4									
Economist Intelligence Unit	2.4	5.5	na	2.3	2.5	3.0	3.6	4.0	4.0	4.0	4.2	na	na	na	5.5	na	na	na	na	1.4	na	3.7	na									
Oxford Economics	2.4	5.5	2.3	na	2.5	2.6	3.0	3.3	3.3	3.2	3.3	3.8	na	na	5.8	na	na	na	111.8	1.8	1.7	1.4	1.5									
Amherst Pierpont Securities	2.3	5.5	2.3	2.4	2.5	2.8	3.1	3.2	3.5	3.5	3.7	4.8	5.9	3.9	5.8	na	na	na	115.0	3.7	H	4.5	3.8	3.4	na	na	na	na	na			
Comerica Bank	2.3	5.4	na	na	2.4	2.6	2.8	3.0	3.1	3.1	3.3	4.3	5.3	na	5.4	na	na	na	na	2.4	3.8	5.6	5.3	H	na	na	na	na	na			
Fannie Mae	2.3	5.5	na	na	2.3	2.5	2.7	2.9	2.9	2.8	3.0	na	na	na	4.9	na	na	na	na	2.0	3.1	3.2	3.2									
PNC Financial Services Corp.	2.3	5.5	2.3	na	2.3	2.5	2.7	2.9	3.0	3.0	3.1	na	5.0	3.4	5.2	na	na	na	109.3	L	1.8	3.7	3.0	3.1								
S&P Global Market Intelligence	2.3	5.5	2.3	na	2.0	2.2	2.7	3.0	3.1	3.0	3.1	na	na	na	5.3	na	na	na	na	2.4	2.9	3.0	2.8									
The Northern Trust Company	2.3	5.5	2.3	2.4	2.4	2.7	3.0	3.3	3.4	3.4	3.9	4.9	5.8	4.9	5.3	na	na	na	110.5	2.5	3.6	3.1	3.1									
GLC Financial Economics	2.2	5.3	2.0	2.0	2.1	2.2	2.6	3.1	3.1	3.1	3.3	4.4	5.5	3.8	5.2	na	na	na	111.5	2.4	3.7	2.5	2.6									
Societe Generale	2.2	5.4	2.2	na	2.4	2.5	2.5	2.6	2.7	2.8	3.1	na	na	na	na	na	na	na	na	1.3	3.2	4.1	3.8									
Thru the Cycle	2.2	5.3	2.1	2.3	2.2	2.5	2.4	2.4	2.7	2.7	2.9	4.1	4.8	L	3.8	4.8	na	na	115.6	2.1	3.4	5.3	4.9									
Grant Thornton/Diane Swonk	2.1	5.3	2.1	1.1	L	1.1	L	2.2	2.3	2.6	2.9	3.2	3.4	4.4	5.3	na	6.1	na	na	1.2	2.6	1.4	2.1									
Moodys Analytics	2.1	5.2	2.0	2.1	2.0	2.1	2.6	2.8	3.1	3.2	3.4	4.7	5.7	3.7	5.2	na	na	na	na	2.7	3.5	2.6	2.6									
Regions Financial Corporation	2.1	5.2	1.8	2.0	2.0	2.2	2.3	2.9	3.0	3.0	3.1	4.5	5.4	3.9	5.4	na	na	na	114.8	2.5	3.8	4.5	4.1									
Georgia State University	2.0	5.2	na	na	1.9	2.0	2.7	3.3	3.6	3.6	3.7	5.0	6.0	na	5.5	na	na	na	na	1.4	3.4	4.0	2.6									
Mizuho Research Institute	1.9	na	na	na	na	na	na	na	na	na	2.9	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na		
S&P Global Ratings	1.5	L	4.6	1.5	L	na	1.5	1.5	L	1.6	L	1.9	L	2.3	L	2.5	2.7	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
June Consensus	2.4	5.5	2.3	2.4	2.4	2.6	2.9	3.1	3.2	3.2	3.4	4.7	5.6	4.0	5.5	114.1	2.2	3.5	3.4	3.2												
Top 10 Avg.	2.7	5.8	2.6	2.6	2.8	3.0	3.4	3.8	3.9	3.9	4.1	5.2	6.1	4.6	6.1	115.9	3.0	4.5	4.8	4.4												
Bottom 10 Avg.	2.1	5.1	2.0	2.1	1.9	2.2	2.4	2.6	2.7	2.6	2.8	4.2	5.2	3.4	4.9	112.3	1.4	2.4	2.0	2.1												
May Consensus	2.2	5.2	2.1	2.1	2.2	2.4	2.7	3.0	3.1	3.1	3.2	4.4	5.3	3.8	5.2	111.7	2.4	3.4	3.4	3.2												
Number of Forecasts Changed From A Month Ago:																																
Down	1	3	2	1	4	3	3	5	5	5	4	2	2	1	3	2	21	4	9	9												
Same	12	8	7	6	9	9	8	12	9	12	9	4	5	5	5	1	9	10	11	9												
Up	27	23	19	15	20	19	21	21	23	22	24	18	16	12	22	16	9	22	18	18												
Diffusion Index	83%	79%	80%	82%	74%	76%	78%	71%	74%	72%	77%	83%	80%	81%	82%	87%	35%	75%	62%	63%												

First Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr-- A.	----(Q-Q % Change)---- -----(SAAR)-----																		
	-----Short-Term-----					---Intermediate-Term---					-----Long-Term-----						Fed's Adv Fgn Econ \$ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																				
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate																				
TS Lombard	4.3	H	7.4	H	4.2	H	4.2	H	4.3	H	4.3	H	4.0	4.5	3.8	3.9	4.7	5.5	3.8	5.6	120.0	H	2.5	3.8	3.8	3.8									
Nomura Securities, Inc.	3.4		6.5		na		na		na		na		na	na	na	na	na	na	na	na	na		1.0	2.5	3.6	2.8									
Wells Fargo	3.3		6.3		3.0		3.2		3.3		3.4		3.5	3.4	3.3	3.4	3.6	4.9	5.8	4.2	5.5	na	2.3	3.7	2.2	2.7									
Bank of America	3.1		na		3.0		na		na		na		na	3.3	3.1	3.1	3.1	na	na	na	na	na	1.5	4.7	2.9	2.7									
BNP Paribas Americas	3.1		na		na		na		na		na		na	2.8	na	2.7	2.8	na	na	na	na	na	1.6	na	2.6	na									
ING	3.1		na		3.2		na		na		na		na	3.0	2.9	2.8	3.0	na	na	na	na	na	1.6	na	na	na									
Loomis, Sayles & Company	3.1		6.3		3.1		3.2		3.5		3.7		3.5	3.2	3.3	3.3	3.4	4.6	5.5	4.5	5.3	114.6	2.2	3.6	3.6	3.5									
Economist Intelligence Unit	3.0		6.1		na		2.9		3.1		3.6		4.2	H	4.5	4.4	4.4	4.5	na	na	na	5.5	na	1.3	na	3.6	na								
J.P. Morgan Chase	3.0		na		na		na		na		na		na	3.0	3.0	2.9	2.9	na	na	na	na	na	1.8	2.2	2.9	2.5									
MacroFin Analytics & Rutgers Bus School	3.0		5.9		2.9		3.2		3.1		3.3		3.8	4.4	4.7	4.8	5.2	H	6.4	H	7.2	H	5.7	H	6.8	116.0	2.0	2.3	2.2	2.2					
Scotiabank Group	3.0		6.0		2.8		na		2.8		na		3.0	3.1	3.1	3.2	na	na	na	na	na	na	3.1	H	3.9	3.9	3.0								
Barclays	2.9		6.0		na		na		na		na		3.0	2.9	2.8	3.0	na	na	na	na	na	na	2.0	2.3	2.1	2.0									
Chan Economics	2.9		5.9		2.9		2.9		3.1		3.6		4.1	4.7	H	4.8	H	4.9	H	5.0	5.8	6.6	5.7	H	7.1	H	114.9	2.5	3.7	4.4	4.1				
Daiwa Capital Markets America	2.9		6.1		2.2		2.3		3.1		3.4		3.8	4.3	4.3	4.3	4.4	6.1	7.2	H	na	na	6.9	116.0	1.1	3.5	3.5	3.3							
Goldman Sachs & Co.	2.9		na		na		na		na		na		3.3	3.2	3.2	3.3	na	na	na	na	na	na	1.3	3.6	3.0	3.0									
NatWest Markets	2.9		5.9		na		3.0		3.1		3.2		3.3	2.8	2.6	2.5	2.4	4.3	5.3	3.4	4.2	L	na	1.8	4.0	2.3	3.3								
Amherst Pierpont Securities	2.8		6.0		2.8		2.9		3.0		3.2		3.5	3.5	3.7	3.8	4.0	5.0	6.0	4.1	6.0	115.5	2.9	4.1	3.4	3.1									
Bank of the West	2.8		5.9		2.7		2.8		2.7		3.0		3.1	3.7	3.7	3.6	3.7	5.0	5.9	4.8	5.8	115.3	1.6	2.9	3.4	3.2									
Chmura Economics & Analytics	2.8		5.9		2.8		2.9		2.8		3.0		3.2	3.6	3.5	3.6	4.1	4.8	na	na	5.8	109.3	2.3	5.6	H	6.5	H	4.9	H						
DePrince & Assoc.	2.8		5.9		2.6		2.8		2.9		3.1		3.5	3.8	3.6	3.6	3.7	5.0	5.8	4.2	5.7	113.8	2.3	3.3	3.4	3.2									
Fannie Mae	2.8		6.0		na		na		2.6		2.7		2.9	2.9	2.9	2.8	3.0	na	na	na	4.9	na	1.0	3.0	2.7	2.6									
Oxford Economics	2.8		5.9		2.8		na		2.9		3.0		3.1	3.3	3.3	3.3	3.3	3.9	na	na	5.7	110.5	1.7	1.8	1.2	1.2	L								
PNC Financial Services Corp.	2.8		6.0		2.8		na		2.7		2.8		2.9	3.0	3.0	3.0	3.2	na	5.0	3.4	5.2	108.9	L	1.6	3.2	2.5	2.6								
S&P Global Market Intelligence	2.8		6.0		2.8		na		2.4		2.5		3.0	3.2	3.1	3.1	3.2	na	na	na	5.2	na	2.2	2.8	2.7	2.5									
The Northern Trust Company	2.8		6.0		2.8		2.9		2.8		3.0		3.2	3.4	3.5	3.5	4.1	5.0	5.9	5.1	5.4	110.0	2.1	3.2	2.7	2.8									
Via Nova Investment Mgt.	2.8		6.1		2.8		2.9		2.9		3.2		4.0	4.5	4.7	4.7	4.8	6.1	6.7	5.7	H	7.0	114.0	2.5	3.0	3.0	2.7								
BMO Capital Markets	2.7		5.8		2.7		na		2.7		2.8		2.9	3.0	3.1	3.2	3.4	na	na	na	5.6	113.3	1.4	3.1	3.4	3.2									
Comerica Bank	2.7		5.8		na		na		2.8		2.8		2.9	3.0	3.0	2.9	3.2	4.2	5.1	na	5.3	na	1.4	3.5	3.6	3.9									
Action Economics	2.6		5.8		2.5		2.7		2.5		2.5		2.6	2.7	3.0	3.1	3.2	4.1	5.1	3.0	5.6	115.8	2.8	2.2	2.5	2.2									
Grant Thornton/Diane Swonk	2.6		5.8		2.6		1.3	L	1.3	L	2.4		2.4	2.6	2.9	3.3	3.5	4.5	5.4	na	6.3	na	0.7	3.0	3.1	2.6									
Swiss Re	2.6		5.8		na		2.7		2.5		2.6		2.6	2.7	2.7	2.8	3.0	4.4	5.1	na	5.0	112.9	0.5	3.8	2.2	2.3									
ACIMA Private Wealth	2.5		4.5	L	2.5		2.6		2.6		2.5		2.3	2.0	L	2.0	L	1.8	L	1.9	L	3.5	L	5.0	0.8	L	4.3	117.0	-2.0	L	1.0	L	0.8	L	1.8
Moody's Analytics	2.5		5.7		2.5		2.5		2.3		2.4		2.7	2.9	3.1	3.2	3.5	4.7	5.8	3.9	5.2	na	2.8	2.6	2.2	2.2									
Regions Financial Corporation	2.5		5.7		2.0	L	2.4		2.2		2.5		2.5	3.0	3.1	3.1	3.2	4.7	5.5	4.0	5.5	114.8	2.2	3.1	3.6	3.4									
Societe Generale	2.5		5.7		2.5		na		2.5		2.5		2.4	2.6	2.7	2.8	3.1	na	na	na	na	na	1.3	3.0	3.5	3.2									
Georgia State University	2.4		5.5		na		na		2.3		2.3		3.0	3.2	3.7	3.7	3.8	5.1	6.1	na	5.6	na	1.6	3.3	3.5	2.5									
GLC Financial Economics	2.4		5.5		2.2		2.3		2.4		2.4		2.6	3.2	3.4	3.4	3.4	4.6	5.7	3.9	5.4	111.6	2.9	2.9	2.9	2.2									
Mizuho Research Institute	2.4		na		na		na		na		na		na	na	na	2.9	na	na	na	na	na	na	na	na	na	na	na								
Thru the Cycle	2.4		5.5		2.3		2.5		2.4		2.6		2.5	2.4	2.6	2.7	2.9	4.1	4.8	L	3.8	4.7	116.4	1.9	3.0	3.2	3.2								
S&P Global Ratings	2.1	L	5.2		2.1		na		2.1	L	2.2	L	2.3	2.6	2.7	2.7	2.9	na	na	na	4.7	na	2.1	1.5	1.8	1.6									
June Consensus	2.8		5.9		2.7		2.8		2.7		2.9		3.1	3.2	3.3	3.3	3.5	4.8	5.7	4.1	5.6	114.0	1.8	3.1	3.0	2.8									
Top 10 Avg.	3.2		6.3		3.1		3.1		3.3		3.5		3.8	4.1	4.2	4.2	4.4	5.4	6.3	4.8	6.3	116.2	2.7	4.1	4.0	3.7									
Bottom 10 Avg.	2.4		5.5		2.3		2.4		2.2		2.4		2.5	2.6	2.7	2.6	2.8	4.2	5.2	3.4	4.9	111.9	0.8	2.1	2.0	2.0									
May Consensus	2.6		5.6		2.5		2.6		2.6		2.8		3.0	3.2	3.3	3.3	3.4	4.6	5.5	4.0	5.3	111.5	2.3	3.0	3.0	2.8									
Number of Forecasts Changed From A Month Ago:																																			
Down	2		3		3		2		4		5		3	5	6	6	5	2	3	2	5	2	27	6	10	11									
Same	12		9		7		7		9		7		8	11	8	12	8	6	4	4	5	1	7	13	15	12									
Up	26		22		17		13		20		19		21	22	20	23	23	16	16	12	20	16	5	17	13	13									
Diffusion Index	80%		78%		76%		75%		74%		73%		78%	72%	72%	68%	75%	79%	78%	78%	75%	87%	22%	65%	54%	53%									

8 ■ BLUE CHIP FINANCIAL FORECASTS ■ JUNE 1, 2022

Second Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr.-- A. Fed's Adv Fgn Econ \$ Index	------(Q-Q % Change)----- ------(SAAR)-----																			
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----						B. Real GDP	C. Price GDP Index	D. Price Cons. Index	E. Price PCE Index																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																					
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate																					
TS Lombard	4.5	H	7.6	H	4.4	H	4.5	H	4.5	H	4.4	4.3	4.7	3.8	3.9	4.7	5.5	3.8	5.6	120.0	H	-0.5	3.5	3.5	3.5											
Nomura Securities, Inc.	3.9		7.0		na		na		na		na		na		na		na		na	na		0.6	2.1	2.7	2.1											
Wells Fargo	3.6		6.6		3.5		3.6		3.6		3.6		3.6		3.4		3.3		3.3	3.5		4.8	5.6	4.1	5.3											
Loomis, Sayles & Company	3.5		6.7		3.5		3.5		3.8		3.9		3.7		3.1		3.3		3.3	3.4		4.6	5.5	4.5	5.3											
Bank of America	3.4		na		na		na		na		na		na		na		na		na	na		na	na	na	na											
Chan Economics	3.4		6.4		3.4		3.4		3.6		4.1		4.6	H	5.2	H	5.3	H	5.4	H		6.3	7.1	6.2	H	7.6	H									
Daiwa Capital Markets America	3.4		6.6		2.6		2.7		3.6		3.8		4.2		4.6		4.5		4.5	4.5		6.4	7.5	H	na	7.1										
Amherst Pierpont Securities	3.3		6.5		3.3		3.4		3.4		3.6		3.7		3.7		3.9		4.0	4.2		5.2	6.2	4.3	6.2											
J.P. Morgan Chase	3.3		na		na		na		na		na		na		na		na		na	na		na	na	na	na	na										
Fannie Mae	3.2		6.3		na		na		2.8		2.9		3.0		3.0		2.9		2.9	3.0		na	na	na	4.8											
PNC Financial Services Corp.	3.2		6.3		3.1		na		3.0		3.0		3.0		3.0		3.1		3.1	3.2		na	5.1	3.5	5.2											
BNP Paribas Americas	3.1		na		na		na		na		na		2.7		na		2.7		2.8	2.8		na	na	na	na	na										
Chmura Economics & Analytics	3.1		6.3		3.2		3.2		3.2		3.2		3.7		3.6		3.8		4.2	4.2		4.9	na	na	na	5.8										
Economist Intelligence Unit	3.1		6.3		na		3.0		3.2		3.7		4.3		4.6		4.5		4.5	4.6		na	na	na	5.6											
Goldman Sachs & Co.	3.1		na		na		3.0		na		na		3.3		3.2		3.2		3.3	3.3		na	na	na	na	na										
Grant Thornton/Diane Swonk	3.1		6.2		3.0		1.5	L	1.5	L	2.8		2.7		2.8		3.1		3.5	3.8		4.7	5.4	na	6.2											
ING	3.1		na		3.2		na		na		na		2.8		2.7		2.5		2.8	2.8		na	na	na	na	na										
MacroFin Analytics & Rutgers Bus School	3.1		6.0		3.1		3.3		3.3		3.5		4.0		4.6		4.8		5.0	5.4		6.7	H	7.4	5.8	6.9										
NatWest Markets	3.1		6.1		na		3.2		3.4		3.5		3.6		2.8		2.6		2.5	2.4		4.3	5.3	3.4	4.2	na										
Oxford Economics	3.1		6.2		3.0		na		3.1		3.2		3.2		3.2		3.3		3.2	3.3		3.9	na	na	na	5.6										
S&P Global Market Intelligence	3.1		6.3		3.1		na		2.6		2.7		3.1		3.2		3.1		3.1	3.2		na	na	na	5.2	na										
Bank of the West	3.0		6.1		2.8		2.9		2.9		3.1		3.3		3.8		3.8		3.7	3.8		5.1	6.0	4.9	5.9	115.5										
Scotiabank Group	3.0		6.0		2.8		na		2.8		na		3.0		3.1		3.1		3.2	na		na	na	na	na	na										
Via Nova Investment Mgt.	3.0		6.3		3.0		3.1		3.1		3.4		4.1		4.7		4.9		4.9	5.0		6.3	6.9	5.9	7.2	112.0										
Barclays	2.9		6.0		na		na		na		na		na		na		na		na	na		na	na	na	na	na										
BMO Capital Markets	2.9		6.0		2.9		na		2.8		2.9		2.9		3.0		3.1		3.2	3.4		na	na	na	5.5	112.9										
Comerica Bank	2.9		6.0		na		na		2.9		2.9		2.9		2.9		2.9		2.7	3.0		4.0	5.0	na	5.0	na										
DePrince & Assoc.	2.9		6.1		2.8		3.0		3.1		3.2		3.5		3.7		3.6		3.7	3.9		5.1	5.8	4.3	5.7	114.9										
Mizuho Research Institute	2.9		na		na		na		na		na		na		na		na		3.0	na		na	na	na	na	na										
Swiss Re	2.9		6.0		na		2.9		2.7		2.7		2.7		2.7		2.7		2.8	3.1		4.5	5.2	na	4.9	111.8										
The Northern Trust Company	2.9		6.0		2.8		3.0		2.9		3.0		3.2		3.4		3.5		3.5	4.1		5.0	5.9	5.1	5.4	109.0										
GLC Financial Economics	2.7		5.8		2.5		2.6		2.7		2.8		2.9		3.2		3.4		3.4	3.7		4.9	6.0	4.0	5.5	111.0										
Moody's Analytics	2.7		5.9		2.7		2.7		2.5		2.6		2.8		2.9		3.1		3.2	3.6		4.7	5.8	3.9	5.2	na										
Action Economics	2.6		5.8		2.7		2.7		2.5		2.5		2.6		2.7		3.0		3.1	3.3		4.1	5.1	3.0	5.6	115.8										
Regions Financial Corporation	2.6		5.8		2.2	L	2.5		2.4		2.6		2.6		3.0		3.2		3.1	3.3		4.8	5.6	4.1	5.4	114.3										
ACIMA Private Wealth	2.5		4.5	L	2.5		2.6		2.6		2.1	L	2.0	L	2.0	L	1.9	L	1.9	2.0	L	3.2	L	4.7	L	0.9	L	4.1	L	115.0						
Georgia State University	2.5		5.7		na		na		2.4		2.4		3.1		3.2		3.7		3.9	4.0		5.2	6.3	na	5.7	na										
Societe Generale	2.5		5.7		2.5		na		2.5		2.5		2.4		2.6		2.7		2.7	3.0		na	na	na	na	na										
S&P Global Ratings	2.4	L	5.6		2.4		na		2.5		2.5		2.5		2.6		2.7		2.8	3.0		na	na	na	4.9	na										
Thru the Cycle	2.4	L	5.5		2.3		2.5		2.4		2.5		2.5		2.4		2.5		2.7	2.9		4.1	4.8	3.8	4.7	116.5										
June Consensus	3.0		6.1		2.9		3.0		2.9		3.1		3.2		3.3		3.4		3.4	3.6		4.9	5.8	4.2	5.6	113.6		1.6		2.8		2.6		2.6		
Top 10 Avg.	3.6		6.6		3.4		3.4		3.6		3.8		4.0		4.3		4.4		4.4	4.5		5.6	6.5	4.9	6.4	116.0		2.5		3.8		3.7		3.3		
Bottom 10 Avg.	2.6		5.6		2.5		2.6		2.4		2.5		2.6		2.6		2.7		2.6	2.8		4.2	5.2	3.5	4.8	111.2		0.4		1.8		1.4		1.8		
May Consensus	2.9		5.9		2.7		2.8		2.8		3.0		3.1		3.2		3.3		3.3	3.5		4.7	5.6	4.1	5.4	111.2		2.1		2.8		2.7		2.6		
Number of Forecasts Changed From A Month Ago:																																				
Down	3		3		5		3		5		5		5		6		5		5	5		1	2	2	6	2		24		7		11		8		
Same	14		9		6		6		9		8		8		10		9		12	8		8	6	5	5	1		9		13		14		17		
Up	23		22		16		13		19		18		19		19		20		19	21		15	15	11	19	16		6		16		13		11		
Diffusion Index	75%		78%		70%		73%		71%		71%		72%		69%		72%		69%	74%		79%	78%	75%	72%	87%		27%		63%		53%		54%		

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	Official Cash Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	1.50	1.75	--
ING Financial Markets	1.10	1.60	2.50
Moody's Analytics	0.43	0.75	1.50
Nomura Securities	--	--	--
Northern Trust	1.25	1.50	2.00
Oxford Economics	0.85	1.23	1.73
S&P Global Market Intelligence	--	--	--
Scotiabank	0.50	0.75	1.50
TS Lombard	0.10	0.35	0.65
June Consensus	0.82	1.13	1.65
High	1.50	1.75	2.50
Low	0.10	0.35	0.65
Last Months Avg.	0.18	0.52	1.03

Australia		
10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.
--	--	--
3.80	4.00	3.80
2.99	2.93	3.39
--	--	--
3.35	3.45	3.55
3.38	3.41	3.39
--	--	--
--	--	--
2.84	3.85	4.15
3.27	3.53	3.66
3.80	4.00	4.15
2.84	2.93	3.39
2.86	3.11	3.30

US\$ per A\$		
In 3 Mo.	In 6 Mo.	In 12 Mo.
0.74	0.76	--
0.70	0.72	0.74
0.72	0.71	0.72
0.73	0.74	0.75
0.71	0.70	0.69
0.73	0.73	0.75
0.71	0.71	0.66
0.72	0.74	0.74
0.75	0.70	0.65
0.72	0.72	0.71
0.75	0.76	0.75
0.70	0.70	0.65
0.74	0.74	0.73

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.25	0.50	--
BMO Capital Markets	0.00	0.25	0.75
ING Financial Markets	0.25	0.50	0.75
Mizuho Research Institute	0.00	0.00	0.00
Moody's Analytics	0.00	0.06	0.56
Nomura Securities	--	--	--
Northern Trust	0.25	0.25	0.25
Oxford Economics	0.06	0.31	0.50
S&P Global Market Intelligence	--	--	--
Scotiabank	0.00	0.00	0.50
TS Lombard	0.00	0.25	0.50
Wells Fargo	-0.25	0.00	0.50
June Consensus	0.06	0.21	0.48
High	0.25	0.50	0.75
Low	-0.25	0.00	0.00
Last Months Avg.	-0.06	0.01	0.27

US\$ per Euro		
In 3 Mo.	In 6 Mo.	In 12 Mo.
1.12	1.15	--
1.06	1.06	1.08
1.05	1.08	1.12
1.08	1.10	1.10
1.07	1.08	1.17
1.10	1.14	1.20
1.08	1.09	1.10
1.07	1.09	1.12
1.06	1.07	1.08
1.08	1.10	1.10
1.00	0.85	1.00
--	--	--
1.07	1.07	1.11
1.12	1.15	1.20
1.00	0.85	1.00
1.08	1.07	1.11

Blue Chip Forecasters	10 Yr. Gov't Bond Yields %											
	Germany			France			Italy			Spain		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	1.25	1.30	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	1.15	1.30	1.45	--	--	--	--	--	--	--	--	--
ING Financial Markets	1.20	1.20	1.10	1.65	1.60	1.40	2.95	2.70	2.10	1.80	1.80	1.70
Mizuho Research Institute	0.73	0.78	0.78	--	--	--	--	--	--	--	--	--
Moody's Analytics	1.02	1.20	1.51	1.52	1.65	1.86	2.88	3.04	3.04	1.93	2.24	2.48
Northern Trust	1.00	1.10	1.20	1.55	1.65	1.75	3.00	3.10	3.20	2.20	2.30	2.40
Oxford Economics	1.03	1.09	1.21	1.51	1.54	1.59	3.08	3.12	3.18	2.09	2.17	2.30
TS Lombard	1.80	1.80	2.10	2.15	2.15	2.45	3.10	3.10	3.40	2.55	2.55	2.85
Wells Fargo	1.20	1.30	1.45	--	--	--	--	--	--	--	--	--
June Consensus	1.15	1.23	1.35	1.68	1.72	1.81	3.00	3.01	2.98	2.11	2.21	2.35
High	1.80	1.80	2.10	2.15	2.15	2.45	3.10	3.12	3.40	2.55	2.55	2.85
Low	0.73	0.78	0.78	1.51	1.54	1.40	2.88	2.70	2.10	1.80	1.80	1.70
Last Months Avg.	0.77	0.90	1.07	1.21	1.30	1.45	2.30	2.36	2.47	1.65	1.74	1.92

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-2.54	-2.83	-2.86	-2.94
United Kingdom	-0.88	-1.17	-0.93	-0.83
Switzerland	-2.09	-2.23	-2.10	-2.04
Canada	0.05	0.03	0.09	0.09
Australia	0.53	0.19	0.41	0.47
Germany	-1.84	-1.93	-1.89	-1.84
France	-1.31	-1.41	-1.40	-1.38
Italy	0.21	-0.08	-0.11	-0.20
Spain	-0.76	-0.97	-0.91	-0.84

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-0.98	-1.98	-2.39	-3.22
United Kingdom	0.13	-0.62	-1.00	-1.35
Switzerland	-1.63	-2.57	-3.02	-3.36
Canada	0.13	0.12	0.00	-0.12
Australia	-0.53	-1.06	-1.32	-1.54
Euro area	-0.88	-1.83	-2.24	-2.71

Special Questions:

1. How much do you expect the FFR to be increased in total:

in 2022 (incl the 75bps increase so far)?	<u>244 bps</u>
in 2023?	<u>55 bps</u>

2. a. What do you think is the neutral (long-run) Fed funds rate? 2.45%

b. When do you think the neutral FFR will be achieved?

<u>by the end 2022</u>	<u>by the end 2023</u>	<u>by the end 2024</u>	<u>by the end 2025</u>	<u>Later</u>
62%	24%	14%	0%	0%

3. a. Do you think that by removing monetary accommodation the US Fed will be successful in slowing inflation without precipitating a recession?

<u>Yes</u>	<u>No</u>
72%	28%

b. What probability do you attach to a US recession beginning in 2022? In 2023?

	<u>2022</u>	<u>2023</u>
Consensus	25%	38%
Top 10	40%	57%
Bot 10	11%	23%

4. In your view, which of the following factors poses the biggest risk to global financial stability at present:

A much more aggressive response from Central Banks to persistently high levels of inflation	44%
A further escalation of the conflict in Ukraine accompanied by even higher energy and food prices	19%
The discovery of another dangerous mutation of the COVID virus that is both more transmissible and more immune to existing vaccines	6%
More intense financial instability in emerging economies triggered by e.g. a sovereign debt default in Russia	3%
Growing alarm on outlook for global growth triggered by eg higher food+energy prices/ebbing purch power/tighter global fiscal policies	28%

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

Beauty walks a razor's edge

The global economy continues to display impressive resilience in the face of large drags. This week's data releases from the US suggest that surging inflation is not derailing consumers, whose spending is expanding at a faster than 3%ar pace in the first two quarters of the year in response to boomy labor income gains and falling saving rates. In Europe, a modest rebound in activity is underway despite surging energy prices and concerns around the Russian war in Ukraine. On balance, the DM looks to be sustaining solid growth into May according to this week's flash PMIs. Together, DM demand gains are promoting resiliency across Asia in the face of a sharp downturn in China.

Although the global economy (outside China) is passing its 1H22 resilience test with flying colors, the anticipated reward for this achievement (a return to above-potential growth in 2H22) can no longer be forecasted confidently. The headwinds holding back growth are not fading as anticipated. Although April inflation delivered a much-needed moderation from the spike in March, global consumer prices still posted a large 0.6% gain last month. Moreover, near-term moderation looks less likely as energy prices have jumped over the past six weeks amid supply concerns related to a European embargo on Russian oil, the souring of chances for a deal with Iran, and the lack of a supply response from OPEC and US producers. At the same time, refining bottlenecks are boosting gasoline and diesel margins. In the US, the risk of \$6/gallon gasoline poses yet another potential body-blow to the US consumer.

Alongside the continued purchasing power squeeze, China's COVID drag is proving to be deeper and more persistent. We revised down current-quarter GDP growth dramatically this week to -5.4%ar and look for only a partial rebound in 2H22 given the government's continued adherence to its zero-COVID policy. The risks of a meaningful negative spillover to growth elsewhere are increasing. We estimate that the China shock could shave 0.6% off the level of GDP outside China. Finally, the additional tightening in US financial conditions over the past month has been a surprise, and there are now clear signs that this will produce a contraction in residential investment.

Recession risks remain low as a result of the health of the private sector that has delivered 1H22 resiliency. Next week's US labor market report should support this point; we expect jobs to rise 375k. But this week's US data also highlight the cost of this resiliency to the underlying fundamentals. Corporate profits are reported to have contracted last quarter as pricing power did not keep pace with surging labor costs and a tumble in productivity.

Meanwhile, 1H22 headwinds have driven the US saving rate to 4.4% in April (nearly 3%-pts below its pre-pandemic level). Saving rates are falling elsewhere across the DM. Excess saving remains considerable—as much as 10%-12% of household income. However, with saving rates now below pre-pandemic norms and wealth declining in response to equity and housing market cooling, it is unclear how much further households will be willing to reduce saving rates if inflation does not moderate as much as we anticipate. These risks are underscored by the sharp

drop in confidence of late suggesting household patience is running thin.

Policy tensions and offsets. In addition to the tension between resiliency and drags, there is a building tension in macro policy setting. Fiscal authorities are responding to high inflation with additional stimulus. This week, the UK announced new measures to support growth. Combining this with actions expected in China, we have added 0.7% to our global fiscal thrust estimate in recent months. However, rising fiscal supports contrast with the sharp tightening forecasted for central banks. This week's minutes from the recent Fed meeting reinforced the message of continued 50bp hikes at the coming meetings. Next week, we expect the BoC to follow with a 50bp hike for the second meeting in a row and we expect a third 50bp increase in July. Deputy Governor Gravelle noted recently “we are taking actions to normalize our policy rate quickly and are prepared to be as forceful as needed.” Similarly, we added a 50bp rate hike to our Riksbank forecast reflecting signals of higher and more broad-based underlying price pressure as well as elevated inflation expectations. Overall, our global policy rate forecast for end 2022 is up nearly 100bp since the start of the year.

However, it is important to note that central banks are not immune to growth risks. Although they are on the march, a part of our call for global resilience incorporates a judgment that DM central banks stay committed to sustaining the expansion. We see them being sensitive to signs of slowing growth—underscored by our forecast that the Fed returns to a 25bp tightening pace as US growth slows to 2%ar by 4Q22. A counterpoint to this call for sensitivity, however, came this week from a hawkish RBNZ that boosted its terminal rate forecast to nearly 4% (well above neutral) despite already-weaker activity and housing data.

Risks to rebound from China slump. A deeper slowdown in April activity has led us to revise down forecasts of current-quarter growth in China to -5.4%q/q, saar (1.5%oya and full-year growth to 3.7%yoy). Despite the downgrade, our GDP Nowcaster is tracking a contraction of 10.1%ar this quarter. New COVID infections are moderating and this should set up a strong bounce back starting in May and June as the economy reopens. The high-frequency indicators show modest improvement in passenger and freight flows in May, though economic activity was still weak. The PMI readings to be released next week will provide the first signal of whether the Omicron drag has started to fade. We expect May activity will be only marginally better than April's, and a more meaningful recovery will take place in June. Hence, we look for next week's NBS manufacturing PMI to improve to 48.5, compared to 47.4 in May. However, risks are skewed to the downside as improvement could be short-circuited by a resurgence in cases as the economy reopens. Importantly, policy continues to ramp up. This week, the State Council announced policy measures to support growth, adding as much as another 1.5%-pts to annual fiscal thrust. However, the actual impact could be more muted given the countervailing policies around zero-COVID.

Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2023 through 2028 and averages for the five-year periods 2024-2028 and 2029-2033. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		----- Average For The Year -----					Five-Year Averages		
		2023	2024	2025	2026	2027	2028	2024-2028	2029-2033
1. Federal Funds Rate	CONSENSUS	3.0	2.7	2.5	2.5	2.5	2.5	2.6	2.5
	Top 10 Average	3.5	3.3	3.0	2.8	2.8	2.8	3.0	2.8
	Bottom 10 Average	2.6	2.1	2.0	2.2	2.2	2.2	2.2	2.1
2. Prime Rate	CONSENSUS	6.1	5.9	5.7	5.6	5.6	5.6	5.7	5.6
	Top 10 Average	6.6	6.4	6.1	6.0	6.0	6.0	6.1	5.9
	Bottom 10 Average	5.6	5.3	5.2	5.3	5.3	5.3	5.3	5.2
3. SOFR	CONSENSUS	3.0	2.8	2.5	2.5	2.5	2.5	2.6	2.5
	Top 10 Average	3.4	3.3	3.0	2.9	2.8	2.8	3.0	2.8
	Bottom 10 Average	2.7	2.2	2.0	2.2	2.2	2.2	2.2	2.1
4. Commercial Paper, 1-Mo	CONSENSUS	3.2	2.9	2.6	2.6	2.6	2.6	2.7	2.6
	Top 10 Average	3.5	3.4	3.1	2.9	2.9	2.9	3.0	2.9
	Bottom 10 Average	2.8	2.5	2.3	2.4	2.4	2.3	2.3	2.3
5. Treasury Bill Yield, 3-Mo	CONSENSUS	3.0	2.8	2.6	2.6	2.6	2.5	2.6	2.5
	Top 10 Average	3.6	3.4	3.1	3.1	3.0	2.9	3.1	2.9
	Bottom 10 Average	2.5	2.2	2.0	2.1	2.2	2.2	2.1	2.2
6. Treasury Bill Yield, 6-Mo	CONSENSUS	3.2	2.9	2.7	2.7	2.7	2.6	2.7	2.6
	Top 10 Average	3.8	3.6	3.2	3.2	3.1	3.0	3.2	3.0
	Bottom 10 Average	2.6	2.2	2.1	2.2	2.3	2.3	2.2	2.3
7. Treasury Bill Yield, 1-Yr	CONSENSUS	3.2	3.0	2.9	2.9	2.8	2.8	2.9	2.8
	Top 10 Average	3.9	3.8	3.5	3.4	3.3	3.2	3.4	3.2
	Bottom 10 Average	2.6	2.4	2.2	2.4	2.4	2.4	2.3	2.4
8. Treasury Note Yield, 2-Yr	CONSENSUS	3.4	3.2	3.1	3.1	3.0	3.0	3.1	3.0
	Top 10 Average	4.3	4.1	3.8	3.6	3.5	3.5	3.7	3.5
	Bottom 10 Average	2.7	2.4	2.3	2.5	2.6	2.5	2.4	2.5
9. Treasury Note Yield, 5-Yr	CONSENSUS	3.5	3.4	3.3	3.3	3.3	3.2	3.3	3.3
	Top 10 Average	4.3	4.2	4.1	3.9	3.8	3.8	3.9	3.8
	Bottom 10 Average	2.8	2.6	2.5	2.7	2.7	2.7	2.6	2.8
10. Treasury Note Yield, 10-Yr	CONSENSUS	3.5	3.5	3.4	3.5	3.5	3.4	3.5	3.5
	Top 10 Average	4.4	4.4	4.2	4.2	4.1	4.1	4.2	4.1
	Bottom 10 Average	2.8	2.5	2.6	2.9	2.9	2.8	2.7	2.8
11. Treasury Bond Yield, 30-Yr	CONSENSUS	3.8	3.8	3.8	3.9	3.8	3.8	3.8	3.9
	Top 10 Average	4.6	4.7	4.5	4.5	4.4	4.5	4.5	4.5
	Bottom 10 Average	3.0	2.9	3.0	3.3	3.2	3.2	3.1	3.2
12. Corporate Aaa Bond Yield	CONSENSUS	5.0	5.0	4.9	5.0	5.0	4.9	4.9	5.0
	Top 10 Average	5.7	5.7	5.6	5.5	5.5	5.5	5.5	5.6
	Bottom 10 Average	4.4	4.2	4.3	4.4	4.4	4.4	4.3	4.4
13. Corporate Baa Bond Yield	CONSENSUS	6.0	5.9	5.8	5.9	5.9	5.9	5.9	5.9
	Top 10 Average	6.6	6.6	6.4	6.3	6.3	6.3	6.4	6.4
	Bottom 10 Average	5.4	5.3	5.2	5.4	5.4	5.4	5.3	5.4
14. State & Local Bonds Yield	CONSENSUS	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.3
	Top 10 Average	5.0	5.0	4.8	4.8	4.7	4.7	4.8	4.8
	Bottom 10 Average	3.7	3.7	3.7	3.9	3.9	3.9	3.8	3.9
15. Home Mortgage Rate	CONSENSUS	5.7	5.5	5.4	5.4	5.4	5.4	5.4	5.4
	Top 10 Average	6.4	6.4	6.1	6.0	6.0	6.0	6.1	6.0
	Bottom 10 Average	4.9	4.7	4.6	4.8	4.8	4.8	4.7	4.8
A. Fed's AFE Nominal \$ Index	CONSENSUS	113.8	112.8	111.9	111.0	110.6	110.4	111.3	109.8
	Top 10 Average	115.6	114.7	114.0	113.4	113.1	112.8	113.6	112.7
	Bottom 10 Average	112.2	111.0	109.9	108.8	108.2	107.9	109.2	107.4
		----- Year-Over-Year, % Change -----					Five-Year Averages		
		2023	2024	2025	2026	2027	2028	2024-2028	2029-2033
B. Real GDP	CONSENSUS	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0
	Top 10 Average	2.6	2.4	2.4	2.4	2.4	2.4	2.4	2.3
	Bottom 10 Average	1.5	1.5	1.8	1.8	1.8	1.8	1.7	1.8
C. GDP Chained Price Index	CONSENSUS	3.0	2.4	2.3	2.3	2.2	2.2	2.3	2.2
	Top 10 Average	3.7	2.8	2.7	2.6	2.6	2.6	2.7	2.6
	Bottom 10 Average	2.3	2.0	1.9	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	3.2	2.4	2.4	2.4	2.3	2.3	2.4	2.3
	Top 10 Average	4.1	3.0	2.9	2.8	2.7	2.7	2.8	2.7
	Bottom 10 Average	2.3	1.8	2.0	2.0	1.9	1.9	1.9	1.9
E. PCE Price Index	CONSENSUS	3.0	2.3	2.3	2.3	2.3	2.2	2.3	2.3
	Top 10 Average	3.8	2.8	2.8	2.7	2.7	2.6	2.7	2.7
	Bottom 10 Average	2.2	1.8	1.9	1.9	1.9	1.8	1.9	1.9

Databank:

2022 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	2.7	1.7	1.4	0.9	....	....	....	....	....	....	....	....
Auto & Light Truck Sales (b)	15.05	13.98	13.41	14.28	....	....	....	....	....	....	....	....
Personal Income (a, current \$)	0.1	0.6	0.5	0.4	....	....	....	....	....	....	....	....
Personal Consumption (a, current \$)	2.1	0.6	1.4	0.9	....	....	....	....	....	....	....	....
Consumer Credit (e)	4.6	10.2	14.0	....	....	....	....	....	....	....	....	....
Consumer Sentiment (U. of Mich.)	67.2	62.8	59.4	65.2	58.4	....	....	....	....	....	....	....
Household Employment (c)	1199	548	736	-353	....	....	....	....	....	....	....	....
Nonfarm Payroll Employment (c)	504	714	428	428	....	....	....	....	....	....	....	....
Unemployment Rate (%)	4.0	3.8	3.6	3.6	....	....	....	....	....	....	....	....
Average Hourly Earnings (All, cur. \$)	31.56	31.60	31.75	31.85	....	....	....	....	....	....	....	....
Average Workweek (All, hrs.)	34.6	34.7	34.6	34.6	....	....	....	....	....	....	....	....
Industrial Production (d)	3.2	7.5	5.4	6.4	....	....	....	....	....	....	....	....
Capacity Utilization (%)	76.9	77.6	78.2	79.0	....	....	....	....	....	....	....	....
ISM Manufacturing Index (g)	57.6	58.6	57.1	55.4	....	....	....	....	....	....	....	....
ISM Nonmanufacturing Index (g)	59.9	56.5	58.3	57.1	....	....	....	....	....	....	....	....
Housing Starts (b)	1.666	1.777	1.728	1.724	....	....	....	....	....	....	....	....
Housing Permits (b)	1.841	1.857	1.879	1.823	....	....	....	....	....	....	....	....
New Home Sales (1-family, c)	831	792	709	591	....	....	....	....	....	....	....	....
Construction Expenditures (a)	3.0	0.5	0.1	....	....	....	....	....	....	....	....	....
Consumer Price Index (nsa, d)	7.5	7.9	8.5	8.3	....	....	....	....	....	....	....	....
CPI ex. Food and Energy (nsa, d)	6.0	6.4	6.5	6.2	....	....	....	....	....	....	....	....
PCE Chain Price Index (d)	6.0	6.3	6.6	6.3	....	....	....	....	....	....	....	....
Core PCE Chain Price Index (d)	5.1	5.3	5.2	4.9	....	....	....	....	....	....	....	....
Producer Price Index (nsa, d)	10.1	10.4	11.5	11.0	....	....	....	....	....	....	....	....
Durable Goods Orders (a)	3.1	-0.7	0.6	0.4	....	....	....	....	....	....	....	....
Leading Economic Indicators (a)	-0.6	0.7	0.1	-0.3	....	....	....	....	....	....	....	....
Balance of Trade & Services (f)	-89.2	-89.8	-109.8	....	....	....	....	....	....	....	....	....
Federal Funds Rate (%)	0.08	0.08	0.20	0.33	....	....	....	....	....	....	....	....
3-Mo. Treasury Bill Rate (%)	0.15	0.31	0.45	0.76	....	....	....	....	....	....	....	....
10-Year Treasury Note Yield (%)	1.76	1.93	2.13	2.75	....	....	....	....	....	....	....	....

2021 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	5.5	-1.8	11.2	0.1	-1.0	1.1	-1.0	0.7	1.0	1.6	0.6	-1.6
Auto & Light Truck Sales (b)	16.78	15.93	17.64	18.30	16.89	15.47	14.66	13.09	12.29	13.05	13.04	12.54
Personal Income (a, current \$)	9.9	-7.2	21.0	-13.3	-2.0	0.3	1.3	0.4	-0.9	0.8	0.7	0.5
Personal Consumption (a, current \$)	3.3	-1.1	5.2	1.0	0.0	1.1	0.1	1.1	0.6	1.4	0.5	-0.9
Consumer Credit (e)	2.4	5.4	4.6	5.4	7.6	6.6	4.5	5.1	6.6	5.8	8.8	6.3
Consumer Sentiment (U. of Mich.)	79.0	76.8	84.9	88.3	82.9	85.5	81.2	70.3	72.8	71.7	67.4	70.6
Household Employment (c)	121	363	573	319	291	62	1092	463	639	428	1090	651
Nonfarm Payroll Employment (c)	520	710	704	263	447	557	689	517	424	677	647	588
Unemployment Rate (%)	6.4	6.2	6.0	6.0	5.8	5.9	5.4	5.2	4.7	4.6	4.2	3.9
Average Hourly Earnings (All, cur. \$)	29.93	30.04	30.06	30.20	30.36	30.52	30.67	30.76	30.92	31.11	31.23	31.38
Average Workweek (All, hrs.)	35.0	34.6	34.9	34.9	34.9	34.8	34.8	34.7	34.8	34.8	34.8	34.8
Industrial Production (d)	-1.7	-4.9	1.8	17.9	16.4	10.2	6.6	5.4	4.5	4.8	5.0	3.5
Capacity Utilization (%)	75.0	72.7	74.8	74.8	75.3	75.7	76.2	76.1	75.1	76.1	76.6	76.4
ISM Manufacturing Index (g)	59.4	60.9	63.7	60.6	61.6	60.9	59.9	59.7	60.5	60.8	60.6	58.8
ISM Nonmanufacturing Index (g)	58.5	55.9	62.2	62.7	63.2	60.7	64.1	62.2	62.6	66.7	68.4	62.3
Housing Starts (b)	1.602	1.430	1.711	1.505	1.605	1.664	1.573	1.576	1.559	1.563	1.706	1.768
Housing Permits (b)	1.843	1.743	1.773	1.765	1.691	1.661	1.655	1.772	1.615	1.698	1.729	1.896
New Home Sales (1-family, c)	911	768	881	809	740	714	726	686	732	671	756	839
Construction Expenditures (a)	3.0	-1.1	1.0	0.3	0.7	1.0	0.1	1.0	1.0	0.9	1.0	1.6
Consumer Price Index (nsa, d)	1.4	1.7	2.6	4.2	5.0	5.4	5.4	5.3	5.4	6.2	6.8	7.0
CPI ex. Food and Energy (nsa, d)	1.4	1.3	1.6	3.0	3.8	4.5	4.3	4.0	4.0	4.6	4.9	5.5
PCE Chain Price Index (d)	1.4	1.6	2.5	3.6	4.0	4.0	4.2	4.2	4.4	5.1	5.6	5.8
Core PCE Chain Price Index (d)	1.5	1.5	2.0	3.1	3.5	3.6	3.6	3.6	3.7	4.2	4.7	4.9
Producer Price Index (nsa, d)	1.6	3.0	4.1	6.5	7.0	7.6	8.0	8.7	8.8	8.9	9.9	10.0
Durable Goods Orders (a)	2.5	0.1	1.6	-2.0	2.1	1.8	0.4	1.6	-1.5	1.5	1.4	0.9
Leading Economic Indicators (a)	0.6	-0.1	1.1	1.1	0.9	0.6	1.0	0.7	0.2	0.4	0.6	0.4
Balance of Trade & Services (f)	-65.1	-67.5	-71.4	-65.4	-67.3	-72.2	-69.7	-72.5	-81.2	-66.9	-80.1	-82.0
Federal Funds Rate (%)	0.09	0.08	0.07	0.07	0.06	0.08	0.10	0.09	0.08	0.08	0.08	0.08
3-Mo. Treasury Bill Rate (%)	0.08	0.04	0.03	0.02	0.02	0.04	0.05	0.05	0.04	0.05	0.05	0.06
10-Year Treasury Note Yield (%)	1.08	1.26	1.61	1.64	1.62	1.52	1.32	1.28	1.37	1.58	1.56	1.47

(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
30 Memorial Day All Markets Closed	31 FHFA HPI (Mar & Q1) Case-Shiller HPI (Mar) Chicago PMI (May) Texas Manufacturing Outlook Survey (May) Consumer Confidence (May) Agricultural Prices (May) Retail E-Commerce Sales (Q1)	June 1 Construction (Apr) ISM Manufacturing (May) S&P Global Mfg PMI (May) JOLTS (Apr) Texas Service Sector Outlook Survey (May) Mortgage Applications	2 Productivity & Costs (Q1) MSIO (Apr) Challenger Employment Report (May) BEA Auto Sales (May) BEA Truck Sales (May) ADP Employment Report (May) EIA Crude Oil Stocks Weekly Jobless Claims	3 Employment Situation (May) ISM Services PMI (May) S&P Global Services PMI (May)
6 Public Debt (May) Interest on the Public Debt (Jun)	7 Intl Trade (Apr & Revisions) QFR (Q1) Consumer Credit (Apr) Treasury Auction Allotments (May) Kansas City Fed Labor Market Conditions Indicators (May)	8 Wholesale Trade (Apr) EIA Crude Oil Stocks Mortgage Applications	9 Financial Accounts (Q1) Kansas City Financial Stress Index (May) Weekly Jobless Claims	10 CPI (May) Real Earnings (May) Housing Affordability (Apr) Consumer Sentiment (Jun, Preliminary) QSS (Q1) Cleveland Fed Median CPI (May) Monthly Treasury (May)
13	14 Producer Prices (May) Manpower Survey (Q3) NFIB (May) OPEC Crude Oil Spot Prices (May) FOMC Meeting	15 Import & Export Prices (May) Advance Retail Sales (May) MTIS (Apr) Transportation Services (Apr) Empire State Mfg Survey (Jun) Home Builders (Jun) TIC Data (Apr) FOMC Meeting EIA Crude Oil Stocks Mortgage Applications	16 New Residential Construction (May) ECEC (Q1) Business Leaders Survey (Jun) Philadelphia Fed Mfg Business Outlook Survey (Jun) Weekly Jobless Claims	17 IP & Capacity Utilization (May) Livingston Survey (Jun) Composite Indexes (May)
20 Juneteenth Observed All Markets Closed	21 Existing Home Sales (May) Chicago Fed National Activity Index (May) Philadelphia Fed Nonmfg Business Outlook Survey (Jun)	22 Treasury Auction Allotments (Jun) Mortgage Applications	23 International Transactions (Q1 & Revisions) Kansas City Fed Manufacturing Survey (Jun) S&P Global Flash PMIs (Jun) EIA Crude Oil Stocks Weekly Jobless Claims	24 New Residential Sales (May) Final Building Permits (May) Consumer Sentiment (Jun, Final) Steel Imports for Consumption (May)
27 Advance Durable Goods (May) Texas Manufacturing Outlook Survey (Jun) Pending Home Sales (May)	28 IIP (Q1 & Revision) Adv Trade & Inventories(May) FHFA HPI (Apr) Case-Shiller HPI (Apr) H.6 Money Stock (Apr) IP Revisions Consumer Confidence (Jun) Richmond Fed Mfg & Service Sector Srvy (Jun) Texas Service Sector (Jun)	29 GDP (Q1, 3rd Estimate) EIA Crude Oil Stocks Mortgage Applications	30 Personal Income (May) Dallas Fed Trimmed-Mean PCE (May) Chicago PMI (Jun) Agricultural Prices (May) Weekly Jobless Claims	July 1 Construction (May) ISM Manufacturing (Jun) S&P Global Mfg PMI (Jun)
4 Independence Day All Markets Closed	5 Manufacturers' Shipments, Inventories & Orders (May) BEA Auto Sales (Jun) BEA Truck Sales (Jun)	6 ISM Services PMI (Jun) S&P Global Services PMI (Jun) JOLTS (May) Mortgage Applications	7 ADP Employment Report (Jun) International Trade (May) Public Debt (Jun) Interest on the Public Debt (Jul) Challenger Employment Report (Jun) EIA Crude Oil Stocks Weekly Jobless Claims	8 Employment Situation (Jun) Wholesale Trade (May) Consumer Credit (May)

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And The Factors That Influence Them**

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No Pain, No Gain from the Fed

Fed to be more aggressive. The Federal Reserve roiled financial markets even further after its September 20-21 FOMC meeting with a “no pain, no gain” message about the future course of monetary policy and its fight against inflation. It increased the target for the federal funds rate (FFR) by 75bps to 3.00%-3.25%, as had been widely expected, especially following the larger-than-expected CPI inflation reading released on September 13. This was the third consecutive 75bp increase in the FFR in as many meetings, raising the rate to its highest level since December 2007 and arguably into restrictive territory. Both the FOMC and the Blue Chip forecasters estimate the neutral FFR (the rate at which monetary policy is neither accommodative nor restrictive) to be around 2.50%. So, by this estimate, the September rate hike implies that policy has now become restrictive.

What disturbed financial market the most were remarks Chair Powell made in the press conference following the meeting and the FOMC’s FFR projections in the Summary of Economic Projections (SEP), its quarterly projections of GDP growth, inflation, the unemployment rate and the FFR out several years. In his statement opening the press conference, Chair Powell essentially promised further rate increases that will likely linger for a while, stating that the FOMC anticipates “ongoing increases in the target range” in order to rein in inflation and that “the historical record cautions strongly against prematurely loosening policy.”

FFR projected to rise much more. The SEP was similarly much more hawkish as it revealed a much tighter monetary policy going forward than either the Fed or financial markets had previously expected. The median FFR projection for the end of 2022 was increased by 100bps to 4.4% from 3.4% in the June SEP. This implies another 125bp of FFR hikes this year on top of the 300bps already delivered. The FOMC meets only twice more this year. The fed funds futures market is now pricing in a 60% probability of a 75bp hike at the early November meeting (40% of a 50bp increase) and a 60% probability of a 50bp increase in December.

The Blue Chip Financial Forecasts (BCFF) consensus accordingly upped its near-term FFR forecasts in this month’s survey. It now expects 403 basis points of total rate hikes this year, up from 346bps last month, to a peak of 4.50% versus 3.74% last month. The majority of respondents now expect the peak to be reached during Q1 2023 versus the end of 2022 in last month’s survey. Blue Chip forecasters also raised their Q4 outlook for the FFR with the consensus increased 40bps to 3.8%. This forecast is for the quarterly average for Q4 and implies roughly 125bps of additional rate hikes over the rest of 2022.

Looking further ahead, the FOMC’s end-2023 FFR projection was raised by 80bps to 4.6% and the end-2024 projection was increased 50bps to 3.9%. Furthermore, in the first look at 2025, the median projection is for the FFR to fall to 2.9%. As all of these projections exceed the Fed’s estimate of the neutral FFR, they indicate that the Fed is prepared to maintain a restrictive monetary policy until at least the end of 2025. In the BCFF’s six-quarter horizon, the consensus forecast for 2023

Q1 was raised 70bps to 4.3%, for 2023 Q2 80bps to 4.4%, for 2023 Q3 and Q4 80bps to 4.3% and 4.2% respectively.

No pain, no gain. In answering his very first press conference question, Powell stated explicitly that the Fed expects the economy to experience some pain from the Fed’s projected aggressive policy tightening course. He said that for the Fed to achieve its overarching goal of “getting inflation back down to 2%,” the FOMC will need to see a period of below-trend real GDP growth and also some softening in labor-market conditions that will foster a better balance of demand and supply. While Powell admitted that the current and expected course for policy will likely be painful for the economy, he said that this pain would be less than the pain inflicted by persistent, elevated inflation.

Inflation has subsided somewhat over the past couple of months, due mostly to falling energy prices (which have generally continued to decline), but its pace remains well above the Fed’s 2% target. In the most recent SEP, the FOMC projects that PCE price index inflation will remain elevated in 2023, though it is expected to slow markedly from 2022. The BCFF consensus sees a similar path for inflation. It expects the PCE inflation rate to fall to 2.7% for the four quarters of next year (up from 2.6% last month), slightly lower than the Fed’s projection of 2.8%.

Weaker outlook from Fed. The FOMC reflected its “no pain, no gain” policy message in its updated economic projections. It now looks for even slower GDP growth than it did in June along with a meaningful rise in the unemployment rate. The unemployment rate is now expected to increase 0.7%-pt over the coming year from its current level. Increases of this magnitude in the past have been almost uniformly associated with recessions. Indeed, Powell implied that the Fed would countenance a recession if that is what it takes to rein in inflation.

Similarly, BCFF forecasters in this month’s survey look for softer growth than they had anticipated last month. But still, there are no quarterly declines in real GDP in the consensus projections over the six-quarter forecast horizon though real GDP is expected to edge up only 0.1% in each of the first two quarters of 2023 (that is, flirting with recession). Also, the consensus continues to expect a slowing of inflation over the forecast horizon but with inflation rates that are slightly higher than last month.

Turning to how the economy is expected to respond to tighter monetary policy, most BCFF forecasters expect that the Fed will not be able to engineer a so-called “soft landing,” that is, reduce inflation without precipitating a recession. This month, 33% expect a soft landing, down from 42% last month and 50% two months ago. However, for those respondents who think the Fed will precipitate a recession, 95% anticipate it to be mild. More generally, as the end of 2022 approaches, fewer respondents expect a recession to start this year (36% versus 42% last month), while 55% look for one next year, up slightly from 53% last month.

Sandy Batten (Haver Analytics, New York, NY)

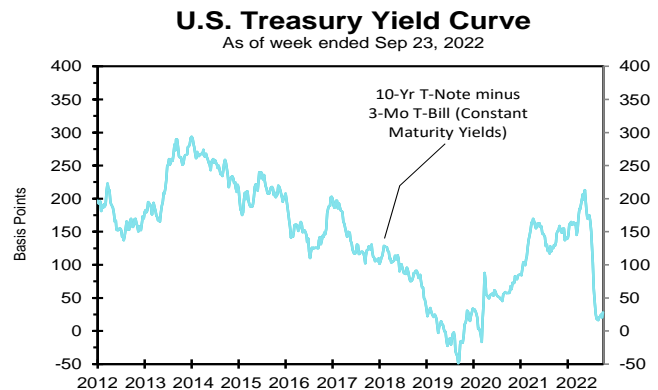
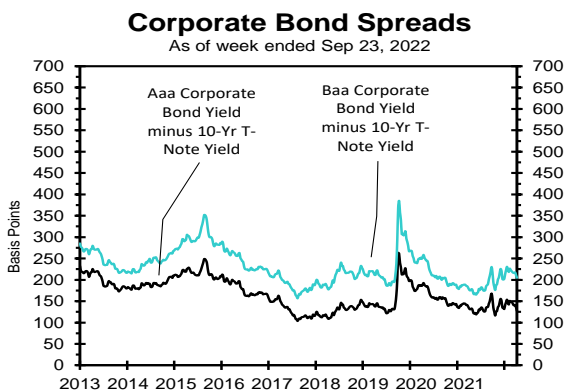
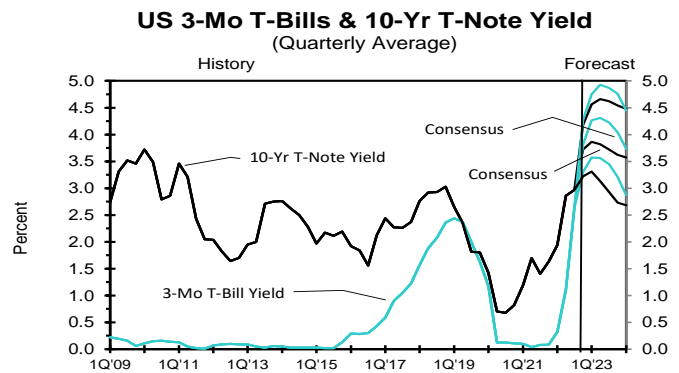
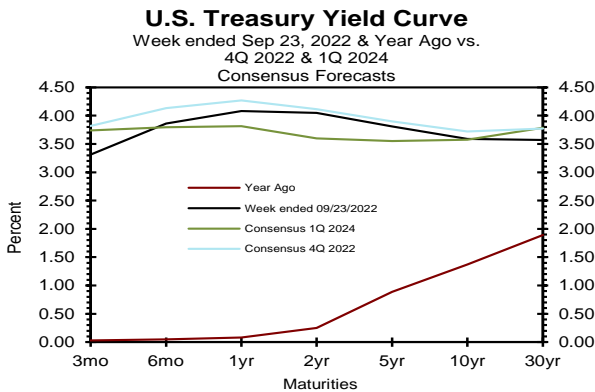
2 ■ BLUE CHIP FINANCIAL FORECASTS ■ SEPTEMBER 30, 2022

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

Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			Latest Qtr	4Q 2022	1Q 2023	2Q 2023	3Q 2023	4Q 2023	1Q 2024
	Sep 23	Sep 16	Sep 9	Sep 2	Aug	Jul	Jun	3Q 2022*	2022	2023	2023	2023	2023	2024
Federal Funds Rate	2.33	2.33	2.33	2.33	2.33	1.68	1.21	2.12	3.8	4.3	4.4	4.3	4.2	3.9
Prime Rate	5.50	5.50	5.50	5.50	5.50	4.85	4.38	5.29	6.9	7.4	7.5	7.4	7.3	6.9
SOFR	2.55	2.28	2.28	2.29	2.28	1.60	1.11	2.09	3.6	4.2	4.3	4.3	4.1	3.7
Commercial Paper, 1-mo.	3.04	2.64	2.54	2.39	2.33	1.90	1.35	2.26	3.8	4.4	4.5	4.4	4.3	3.9
Treasury bill, 3-mo.	3.31	3.22	3.06	2.96	2.72	2.30	1.54	2.71	3.8	4.3	4.3	4.2	4.0	3.7
Treasury bill, 6-mo.	3.86	3.72	3.45	3.32	3.15	2.87	2.17	3.20	4.1	4.5	4.5	4.3	4.1	3.8
Treasury bill, 1 yr.	4.08	3.91	3.62	3.48	3.28	3.02	2.65	3.35	4.3	4.5	4.5	4.3	4.1	3.8
Treasury note, 2 yr.	4.05	3.77	3.50	3.45	3.25	3.04	3.00	3.33	4.1	4.3	4.2	4.0	3.8	3.6
Treasury note, 5 yr.	3.81	3.59	3.41	3.31	3.03	2.96	3.19	3.17	3.9	4.1	4.0	3.8	3.7	3.6
Treasury note, 10 yr.	3.59	3.42	3.31	3.17	2.90	2.90	3.14	3.05	3.7	3.9	3.8	3.7	3.6	3.6
Treasury note, 30 yr.	3.57	3.50	3.46	3.29	3.13	3.10	3.25	3.23	3.8	3.9	4.0	3.9	3.8	3.8
Corporate Aaa bond	4.86	4.77	4.73	4.57	4.35	4.39	4.52	4.49	5.0	5.4	5.4	5.4	5.2	5.1
Corporate Baa bond	5.64	5.53	5.48	5.33	5.08	5.15	5.22	5.24	6.0	6.4	6.5	6.4	6.3	6.1
State & Local bonds	4.35	4.21	4.16	4.08	3.84	3.82	3.94	3.95	4.4	4.6	4.7	4.6	4.5	4.4
Home mortgage rate	6.29	6.02	5.89	5.66	5.22	5.41	5.52	5.53	6.3	6.4	6.3	6.2	6.1	5.9

Key Assumptions	History								Consensus Forecasts-Quarterly					
	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022**	4Q 2022	1Q 2023	2Q 2023	3Q 2023	4Q 2023	1Q 2024
	2020	2021	2021	2021	2021	2022	2022	2022**	2022	2023	2023	2023	2023	2024
Fed's AFE \$ Index	105.1	103.4	102.9	105.0	107.0	108.4	113.7	118.5	121.4	121.5	120.4	118.8	117.6	117.0
Real GDP	3.9	6.3	7.0	2.7	7.0	-1.6	-0.6	1.4	0.7	0.1	0.1	0.9	1.3	1.6
GDP Price Index	2.5	5.2	6.3	6.2	6.8	8.3	9.0	4.9	4.3	3.5	3.0	2.8	2.7	2.5
Consumer Price Index	2.2	4.1	8.2	6.7	7.9	9.2	10.5	5.3	3.9	3.4	3.0	2.6	2.5	2.4
PCE Price Index	1.6	4.5	6.4	5.6	6.2	7.5	7.3	4.5	3.7	3.2	2.7	2.5	2.4	2.3

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economics Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. *Interest rate data for 3Q 2022 based on historical data through the week ended Sep 23. **Data for 3Q 2022 for the Fed's AFE \$ Index based on data through the week ended September 23. Figures for 3Q 2022 Real GDP, GDP Chained Price Index, Consumer Price Index, and PCE Price Index are consensus forecasts from the September 2022 survey.



-----Policy Rates¹-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	3.13	2.38	0.13	3.81	4.23	4.18
Japan	-0.10	-0.10	-0.10	-0.09	-0.09	-0.09
U.K.	2.25	1.75	0.10	2.72	3.05	3.33
Switzerland	0.50	-0.25	-0.75	0.56	0.95	1.13
Canada	3.25	2.50	0.25	3.55	3.78	3.79
Australia	2.35	1.85	0.10	2.63	3.02	3.08
Euro area	1.25	0.50	0.00	1.68	2.11	2.25

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

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	3.69	3.04	1.47	3.55	3.49	3.31
Germany	2.03	1.40	-0.22	1.67	1.83	1.90
Japan	0.27	0.23	0.06	0.23	0.22	0.22
U.K.	3.97	2.79	0.92	3.31	3.24	3.08
France	2.60	2.01	0.11	2.13	2.51	2.74
Italy	4.33	3.74	0.78	3.75	4.13	4.30
Switzerland	1.22	0.79	-0.17	1.13	1.40	1.55
Canada	3.07	3.02	1.38	3.27	3.27	3.21
Australia	3.93	3.58	1.41	3.73	3.68	3.55
Spain	3.04	2.48	0.36	2.71	3.09	3.37

-----Foreign Exchange Rates³-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	123.69	118.91	105.63	120.1	119.9	115.8
Japan	143.18	137.07	110.72	139.9	138.1	132.8
U.K.	1.09	1.18	1.37	1.13	1.14	1.18
Switzerland	0.98	0.96	0.92	1.01	1.02	1.00
Canada	1.36	1.30	1.27	1.31	1.31	1.28
Australia	0.65	0.69	0.73	0.67	0.68	0.70
Euro	0.97	1.00	1.17	0.97	0.98	1.03

Consensus
Policy Rates
vs. US Rate

	Now	In 12 Mo.
	Japan	-3.23	-4.27
U.K.	-0.88	-0.84
Switzerland	-2.63	-3.05
Canada	0.13	-0.39
Australia	-0.78	-1.10
Euro area	-1.88	-1.93

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

	Now	In 12 Mo.
	Germany	-1.66	-1.41
Japan	-3.42	-3.09
U.K.	0.28	-0.23
France	-1.09	-0.57
Italy	0.64	0.99
Switzerland	-2.47	-1.76
Canada	-0.62	-0.10
Australia	0.24	0.24
Spain	-0.65	0.06

International. More hawkish rhetoric and policy activism from central banks, combined with some uncomfortable US data have unsettled financial markets in recent weeks. Global equity markets, for example, have slumped to new lows for this year while US bond yields have spiked to new highs. The latter, together with heightened risk aversion, has also caused the US dollar to soar, adding to inflation stress and financial instability in many emerging, and even one or two developed, economies.

An additional factor that has weighed on market sentiment is flagging growth. Composite flash PMI surveys for the US, Euro Area and the UK, for instance, suggest that output in all three economies contracted in September. Compared with August, the pace of that contraction deepened in the Euro Area, particularly in Germany, but eased a little in the US. On a more encouraging note, latest PMI surveys for China and Japan suggest both economies have recently enjoyed a post-lockdown bounce. Nevertheless, as that bounce fades, growth arguably still looks vulnerable.

To be sure, ebbing global demand, alongside further evidence that suggests supply-chain bottlenecks have been easing, ought to be good news for inflation. And the prices of many commodities, most notably crude oil, have indeed declined sharply in recent weeks. Insofar as there are close links with energy prices, gauges of inflation expectations have also remained very well-behaved. Still, incoming data for US CPI inflation in August rose more strongly than market participants had anticipated, a particularly disappointing outcome following the big retreat in oil prices. And this, combined with more hawkish messaging from the US Fed and as we discuss below from other policymakers too, have been key drivers of financial market instability.

Aside from the Fed, a more hawkish take on economic matters has emerged from European central banks. Although the Bank of England (BoE) enacted "only" a 50bp hike in its Bank rate on September 22, a little less than expected, the value of the British pound has depreciated sharply while UK bond yields have spiked higher since then. The initial trigger for these moves was a larger-than-expected fiscal stimulus package on September 23 and the signaling of "intent" for further fiscal policy easing ahead. But while that was the trigger it was the potential implications of this for the UK's debt arithmetic and for inflation that have magnified financial instability since. In order to fend off this instability the BoE has re-established a bond-buying program in the UK gilt market. Even so, financial markets are still discounting more aggressive monetary tightening from the BoE in the coming weeks. BCFP panelists in the meantime believe a UK recession is a near-inevitability in the coming months.

A similar message emerges from our panelists about the likelihood of a recession in the Euro Area. One source of those concerns is the ECB, which has been communicating that monetary policy is not yet as restrictive as it needs to be. Following a 50bp hike in all of its three policy rates in July, rates were further lifted by 75bps in September. And hawkish rhetoric from policymakers has followed since. A further source of concern is enduring geopolitical turbulence in Russia and Ukraine, which is keeping European energy prices high. Another layer of uncertainty is the election in Italy of Giorgia Meloni, leader of the right-wing Brothers of Italy party. This increases the chance of greater fiscal policy activism and the risk of heightened fragmentation in the Euro Area, not least given Italy's already high public debt burden.

Elsewhere, an uneasy combination of high inflation, a strong US dollar and tighter monetary policy in the US has been hastening a policy normalization process in many emerging economies. A noteworthy exception is China. The PBoC cut the medium-term lending facility rate (policy rate) in August by 10bps (to 2.75%) and has guided market interest rates and loan prime rates lower since then. However, whether additional policy rate cuts will be forthcoming is now open to some question given the policy divergence with the US and renminbi weakness acting as bigger constraints.

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

4 ■ BLUE CHIP FINANCIAL FORECASTS ■ SEPTEMBER 30, 2022

Fourth Quarter 2022

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr.-- A. Fed's Adv Fgn Econ \$ Index	------(Q-Q % Change)----- ------(SAAR)----- B. C. D. E. GDP Price Cons. Price Real Price Price Price GDP Index Index Index Index															
	-----Short-Term-----					--Intermediate-Term--					-----Long-Term-----						B.	C.	D.	E.												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																	
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate																	
Nomura Securities, Inc.	4.6	H	7.8	H	na	na	na	na	4.5	4.3	3.8	na	na	na	na	na	na	na	na	na	-1.4	L	4.7	2.7	2.5							
BNP Paribas Americas	4.5	na	na	na	na	na	na	na	4.2	na	3.6	3.6	na	na	na	na	na	na	na	na	1.6	na	5.5	H	na							
Barclays	4.4	7.5	na	na	na	na	na	na	3.7	3.5	3.3	3.4	na	na	na	na	na	na	na	na	0.0	2.5	1.6	2.3	2.3							
Goldman Sachs & Co.	4.4	na	na	na	2.5	L	na	na	4.0	3.9	3.8	3.9	na	na	na	na	na	na	na	na	1.0	4.4	3.0	2.9	2.9							
ING	4.4	na	na	na	na	na	na	na	4.5	4.2	4.0	3.9	na	na	na	na	na	na	na	na	0.5	na	na	na	na							
Mizuho Research Institute	4.4	na	na	na	na	na	na	na	na	na	3.7	na	na	na	na	na	na	na	na	na	na	na	na	na	na							
NatWest Markets	4.4	7.5	3.1	L	4.5	H	4.6	H	4.7	H	4.8	H	4.2	4.0	3.6	3.6	5.0	5.9	4.0	4.8	L	na	-1.0	5.0	2.8	4.7						
Wells Fargo	4.4	7.5	4.3	H	4.4	4.5	4.7	H	4.7	4.6	4.4	4.1	3.9	5.3	6.3	4.7	6.7	na	na	na	na	na	0.4	3.0	2.7	3.4						
Swiss Re	4.1	na	na	na	na	na	na	na	na	na	3.3	na	na	na	na	na	na	na	na	na	na	na	na	na	na							
ACIMA Private Wealth	4.0	7.0	4.0	4.1	4.1	4.0	4.0	4.1	4.1	4.0	3.9	5.0	6.5	3.0	L	6.8	120.0	1.5	5.0	4.5	5.0	5.0	4.5	5.0	5.0							
Chan Economics	4.0	7.0	3.9	4.0	4.1	4.4	4.5	4.5	4.4	4.5	H	4.6	H	5.8	6.8	H	5.0	6.9	123.8	0.3	3.9	4.3	3.7	3.7	3.7							
Action Economics	3.9	7.0	na	3.9	4.5	4.7	H	4.8	H	4.3	4.1	4.0	4.0	5.1	6.1	3.3	6.9	na	na	na	na	na	1.0	3.5	2.2	1.8						
Fannie Mae	3.9	7.0	na	na	4.2	4.3	4.4	4.4	4.2	3.9	3.7	na	na	na	na	6.9	na	na	na	na	na	na	0.7	5.9	4.0	4.0						
KPMG	3.9	7.1	3.9	4.0	4.1	4.1	4.0	4.0	3.8	3.7	3.8	4.9	5.9	na	6.0	6.0	na	na	na	na	na	na	0.3	6.3	H	5.2	4.8					
MacroFin Analytics & Rutgers Bus School	3.9	7.0	3.8	4.1	4.1	4.3	4.8	H	4.9	H	4.6	H	4.4	4.5	5.7	6.5	5.2	6.5	124.4	1.3	5.0	4.2	4.2	4.2	4.2	4.2						
Via Nova Investment Mgt.	3.9	7.2	4.0	4.1	4.2	4.3	4.4	4.6	4.4	4.4	4.6	H	6.1	H	6.4	5.4	H	6.8	120.0	0.5	4.0	3.7	3.5	3.5	3.5	3.5						
Bank of the West	3.8	6.9	3.6	3.5	3.6	3.9	4.1	4.2	4.0	3.8	3.7	5.0	6.1	4.7	6.3	6.3	121.2	0.4	4.0	4.0	3.5	3.5	4.0	4.0	3.5							
BMO Capital Markets	3.8	6.9	3.6	na	3.9	4.2	4.1	4.0	3.9	3.8	3.9	na	na	na	6.5	6.5	123.1	0.5	3.5	4.6	4.4	4.4	4.0	4.0	4.4							
Amherst Pierpont Securities	3.7	6.8	3.6	3.9	4.1	4.5	4.7	4.5	4.3	4.1	4.0	5.0	6.2	4.5	6.7	6.7	124.0	2.6	4.5	3.6	3.2	3.2	4.0	4.0	3.2							
Daiwa Capital Markets America	3.7	6.8	3.7	3.6	3.9	4.4	4.5	4.5	3.5	4.1	3.8	4.1	5.1	L	na	6.7	122.0	0.0	4.5	4.8	4.6	4.6	4.0	4.0	4.6							
Regions Financial Corporation	3.7	6.6	3.2	3.5	3.6	4.2	4.4	4.7	4.3	3.9	3.8	5.1	5.9	4.7	6.6	6.6	122.4	0.9	4.8	4.9	5.0	5.0	4.0	4.0	5.0							
Societe Generale	3.7	6.8	3.7	na	4.2	4.4	4.5	4.2	3.7	3.4	3.7	na	na	na	na	na	na	na	na	na	na	2.8	H	3.7	3.8	3.2						
The Northern Trust Company	3.7	6.8	3.6	3.8	4.2	4.6	4.7	4.5	4.3	4.0	4.4	5.4	6.4	5.2	6.5	6.5	124.3	1.3	3.2	3.2	3.1	3.1	4.0	4.0	3.1							
Thru the Cycle	3.7	6.8	3.6	3.7	3.9	4.5	4.4	4.3	4.2	4.0	3.8	5.1	6.0	4.5	6.5	6.5	124.7	H	0.8	4.1	3.8	5.1	H	4.0	4.0	5.1	H					
DePrince & Assoc.	3.6	6.8	3.6	3.7	3.9	4.2	4.8	H	4.2	3.5	3.2	3.3	4.5	5.4	3.8	5.4	119.8	0.9	4.8	4.6	4.3	4.3	4.0	4.0	4.3							
Georgia State University	3.6	6.5	na	na	3.6	3.6	4.1	3.8	3.5	3.4	3.5	4.9	5.9	na	5.5	na	na	na	na	na	na	-0.8	3.9	4.6	3.5	3.5						
GLC Financial Economics	3.6	6.8	3.4	3.5	3.2	3.3	L	3.7	3.9	3.7	3.7	4.0	5.2	6.2	4.6	6.1	118.4	1.0	5.2	3.6	4.1	4.1	4.0	4.0	4.1							
Economist Intelligence Unit	3.5	6.5	na	3.5	3.7	4.2	4.4	4.5	4.5	4.2	4.0	na	na	na	6.5	6.5	na	na	na	na	na	-0.2	na	3.3	na	na						
Moody's Analytics	3.5	6.6	3.4	3.5	3.3	3.4	3.5	L	3.4	3.3	3.1	3.5	4.6	5.6	3.7	5.3	na	na	na	na	na	0.6	3.5	4.1	3.7	3.7						
Oxford Economics	3.5	6.6	3.5	na	3.7	3.7	3.7	3.6	3.5	3.3	3.2	3.9	L	na	na	6.0	119.5	0.3	2.3	3.3	2.7	2.7	4.0	4.0	2.7							
Scotiabank Group	3.5	6.5	na	na	3.3	na	na	3.7	3.6	3.4	3.5	na	na	na	na	na	na	na	na	na	na	0.2	5.5	4.4	4.0	4.0						
Chmura Economics & Analytics	3.4	6.5	3.4	3.4	3.6	4.1	4.2	4.2	4.0	3.8	3.8	4.8	na	na	6.2	6.2	na	na	na	na	na	0.4	4.7	4.9	4.6	4.6						
Loomis, Sayles & Company	3.4	6.6	3.4	3.6	4.0	4.3	4.0	3.4	3.4	3.3	3.7	4.4	5.5	4.2	5.8	5.8	120.6	0.9	6.0	5.1	4.5	4.5	4.0	4.0	4.5							
PNC Financial Services Corp.	3.3	6.5	3.3	na	3.3	3.4	3.5	L	3.4	3.4	3.4	3.5	na	5.7	3.9	5.8	114.7	L	1.3	3.3	3.1	2.7	2.7	4.0	4.0							
S&P Global Market Intelligence	3.2	6.4	3.2	na	3.3	3.4	3.5	L	3.5	3.3	3.2	3.3	na	na	na	5.6	na	na	na	na	na	1.0	5.9	5.1	4.7	4.7						
Bank of America	3.1	L	na	3.5	na	na	na	na	3.2	L	3.0	L	2.9	L	3.1	L	na	na	na	na	na	na	1.0	5.8	5.4	3.8						
J.P. Morgan Chase	3.1	L	na	na	na	na	na	na	3.5	3.4	3.2	3.3	na	na	na	na	na	na	na	na	na	na	1.5	1.7	L	1.2	L	0.9	L			
MacroPolicy Perspectives	3.1	L	6.3	L	3.1	L	3.3	L	3.3	3.9	na	4.3	4.2	4.0	na	na	na	na	na	na	na	na	0.5	3.9	5.5	H	3.9					
October Consensus	3.8	6.9	3.6	3.8	3.8	4.1	4.3	4.1	3.9	3.7	3.8	5.0	6.0	4.4	6.3	121.4	0.7	4.3	3.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7			
Top 10 Avg.	4.4	7.3	3.9	4.1	4.3	4.5	4.7	4.6	4.4	4.2	4.2	5.4	6.4	4.9	6.8	123.1	1.6	5.6	5.1	4.7	4.7	4.7	1.6	5.6	5.1	4.7	4.7	4.7	4.7	4.7		
Bottom 10 Avg.	3.3	6.5	3.3	3.5	3.3	3.7	3.8	3.5	3.4	3.2	3.4	4.6	5.7	4.0	5.6	119.9	-0.2	3.0	2.6	2.5	2.5	2.5	-0.2	3.0	2.6	2.5	2.5	2.5	2.5	2.5		
September Consensus	3.4	6.5	3.3	3.4	3.4	3.6	3.6	3.5	3.2	3.2	3.4	4.7	5.7	4.0	5.6	118.2	0.8	4.1	3.7	3.5	3.5	3.5	0.8	4.1	3.7	3.5	3.5	3.5	3.5	3.5		
Number of Forecasts Changed From A Month Ago:																																
Down	2	1	2	1	1	0	0	0	2	1	1	3	2	0	3	0	20	8	14	12	12	12	0	20	8	14	12	12	12	12	12	
Same	3	4	2	3	2	2	1	2	2	4	2	3	4	2	2	1	10	9	6	5	5	5	1	10	9	6	5	5	5	5	5	
Up	33	26	20	17	27	26	26	34	31	33	31	15	14	14	22	15	6	16	15	16	16	16	15	6	16	15	16	16	16	16	16	
Diffusion Index	91%	90%	88%	88%	93%	96%	98%	97%	91%	92%	94%	79%	80%	94%	85%	97%	31%	62%	51%	56%	56%	56%	97%	31%	62%	51%	56%	56%	56%	56%	56%	

First Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For --Qtr-- A. Fed's Adv Fgn Econ \$ Index	------(Q-Q % Change)----- ------(SAAR)-----											
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----						B. Real GDP	C. Price Index	D. Cons. Price Index	E. PCE Price Index								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15													
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate													
Nomura Securities, Inc.	5.4	H	8.5	H	na	na	na	na	4.8	4.2	3.3	na	na	na	na	na	na	na	na	-1.6	4.8	3.4	2.6					
Action Economics	5.1		8.3		na	5.2	H	5.1	H	5.0	4.8	4.1	4.0	4.0	5.1	6.1	3.4	6.9	na	0.4	3.0	2.9	2.5					
Wells Fargo	4.9		8.0		4.9	4.9		4.9		4.8	4.6	4.4	4.1	3.9	5.3	6.3	4.7	6.6	na	-0.7	2.9	3.2	3.0					
Barclays	4.6		7.8		na	na	na	na	3.6	3.4	3.2	L	3.4	na	na	na	na	na	na	-0.5	2.5	2.5	2.2					
Daiwa Capital Markets America	4.6		7.7		4.6	4.4	4.6	5.0	5.1	4.8	4.5	4.3	4.0	5.5	6.6	na	6.9	123.0	-0.4	4.0	4.0	3.8						
Goldman Sachs & Co.	4.6		na		na	2.8	L	na	na	4.2	4.0	3.9	4.0	na	na	na	na	na	na	0.8	3.9	3.6	2.9					
Mizuho Research Institute	4.6		na		na	na	na	na	na	na	na	3.6	na	na	na	na	na	na	na	na	na	na	na					
NatWest Markets	4.6		7.7		3.1	L	4.7	4.9	5.0	5.1	4.3	4.1	3.7	3.6	5.0	6.0	4.0	4.8	L	na	-2.5	4.0	4.0	4.9				
Amherst Pierpont Securities	4.5		7.7		4.5	4.7	4.7	4.9	5.1	4.8	4.5	4.2	4.3	5.4	6.7	4.6	6.8	125.0	2.2	H	4.1	4.2	4.0					
Bank of the West	4.5		7.7		4.4	4.4	4.4	4.6	4.5	4.5	4.3	4.1	4.1	5.4	6.4	5.1	6.5	122.3	-0.3	3.5	3.9	3.2						
BMO Capital Markets	4.5		7.7		4.5	na	4.5	4.6	4.5	4.3	4.1	3.9	4.0	na	na	na	6.6	122.9	-1.0	3.9	5.2	5.0						
BNP Paribas Americas	4.5		na		na	na	na	na	4.1	na	3.5	3.6	na	na	na	na	na	na	na	1.4	na	3.2	na					
Chan Economics	4.5		7.5		4.4	4.5	4.6	4.9	5.0	5.0	4.9	5.0	5.1	6.3	7.3	5.5	7.4	124.0	-0.5	3.7	3.6	3.3						
DePrince & Assoc.	4.5		7.6		4.4	4.5	4.7	4.8	5.5	H	4.8	3.9	3.5	3.5	4.8	5.6	L	4.0	5.6	118.2	0.7	3.8	3.6	3.4				
Fannie Mae	4.5		7.6		na	na	4.4	4.4	4.4	4.4	4.1	3.9	3.7	na	na	na	6.9	na	-0.4	3.6	2.5	2.7						
Societe Generale	4.5		7.7		4.5	na	4.6	4.6	4.6	4.0	3.5	3.3	3.6	na	na	na	na	na	na	1.7	3.4	3.9	3.5					
Thru the Cycle	4.5		7.7		4.4	4.5	4.7	5.2	H	4.7	4.1	4.0	3.9	3.7	5.0	6.0	4.4	6.5	126.3	H	0.6	3.4	3.7	4.1				
Via Nova Investment Mgt.	4.5		7.8		4.6	4.6	4.7	4.8	4.9	5.1	5.0	5.0	5.1	6.7	H	7.0	6.0	7.3	117.0	0.5	3.5	3.3	3.0					
Bank of America	4.4		na		5.0	H	na	na	na	na	4.4	4.0	3.7	3.6	na	na	na	na	na	0.5	5.3	H	3.0	2.8				
Chmura Economics & Analytics	4.4		7.5		4.4	4.5	4.4	4.8	4.8	4.8	4.6	4.6	4.6	5.5	na	na	6.4	na	-1.1	4.5	4.6	4.5						
ING	4.4		na		na	na	na	na	4.3	3.8	3.3	3.0	L	na	na	na	na	na	na	-2.8	L	na	na	na				
KPMG	4.4		7.5		4.3	4.3	4.4	4.3	4.3	4.2	4.1	4.0	4.0	5.1	6.1	na	6.2	na	-0.2	4.0	3.0	2.9						
MacroFin Analytics & Rutgers Bus School	4.4		7.5		4.3	4.6	4.6	4.8	5.3	5.4	H	5.4	H	5.3	H	5.5	H	6.7	H	7.5	H	7.5	H	124.7	1.1	3.0	3.2	3.5
MacroPolicy Perspectives	4.4		7.5		4.4	4.5	4.6	4.6	na	4.3	4.2	4.0	na	na	na	na	7.5	H	na	1.1	2.5	2.6	2.5					
The Northern Trust Company	4.4		7.5		4.3	4.5	4.5	4.6	4.7	4.4	4.2	4.0	4.5	5.4	6.4	5.3	6.4	126.0	1.2	2.9	2.9	2.8						
Regions Financial Corporation	4.3		7.3		3.9	3.9	4.3	4.4	4.6	4.6	4.3	4.1	4.0	5.4	6.3	5.0	6.7	122.0	0.7	4.4	5.7	H	5.1	H				
J.P. Morgan Chase	4.1		na		na	na	na	na	na	4.2	3.9	3.6	3.6	na	na	na	na	na	na	1.0	2.2	3.1	2.8					
Loomis, Sayles & Company	4.1		7.3		4.1	4.3	4.6	4.8	4.3	3.4	L	3.6	3.5	3.8	4.6	5.7	4.4	6.0	120.6	0.8	4.0	4.0	3.8					
Swiss Re	4.1		na		na	na	na	na	na	na	na	3.3	na	na	na	na	na	na	na	na	na	na	na	na				
ACIMA Private Wealth	4.0		7.0		4.0	4.1	4.1	3.8	3.9	4.1	4.1	4.0	3.9	5.8	7.8	H	3.0	L	7.0	120.0	-2.0	1.0	L	0.8	L	1.0	L	
GLC Financial Economics	4.0		7.1		3.8	3.9	3.5	3.6	4.0	4.5	4.6	4.8	4.8	5.6	6.4	4.9	6.4	118.3	1.6	3.9	2.9	3.2						
Oxford Economics	3.9		7.0		3.9	na	3.9	3.9	3.9	3.8	3.5	3.4	3.3	4.0	L	na	na	6.2	118.6	-0.9	3.1	3.5	3.0					
Economist Intelligence Unit	3.8		6.8		na	3.8	3.9	4.2	4.5	4.5	4.5	4.2	4.0	na	na	na	6.5	na	-0.3	na	3.4	na	na					
PNC Financial Services Corp.	3.8		6.9		3.8	na	3.4	3.4	L	3.4	L	3.4	L	3.5	3.4	3.6	na	5.8	114.4	L	1.3	2.8	2.9	2.5				
Georgia State University	3.6		6.8		na	na	3.7	3.6	4.0	3.7	3.4	3.4	3.6	4.9	6.1	na	5.6	na	-0.7	3.8	3.7	3.0						
Moody's Analytics	3.6		6.8		3.5	3.6	L	3.5	3.5	3.5	3.5	3.4	3.4	3.8	4.9	6.0	4.0	5.3	na	1.3	3.0	3.1	2.9					
S&P Global Market Intelligence	3.6		6.8		3.6	na	3.6	3.6	3.6	3.5	3.3	L	3.2	L	3.4	na	na	5.5	na	0.9	3.6	3.3	2.9					
Scotiabank Group	3.5	L	6.5	L	na	na	3.3	na	na	3.6	3.4	3.3	3.4	na	na	na	na	na	na	0.3	4.0	3.9	2.2					
October Consensus	4.3		7.4		4.2	4.4	4.3	4.5	4.5	4.3	4.1	3.9	3.9	5.4	6.4	4.6	6.4	121.5	0.1	3.5	3.4	3.2						
Top 10 Avg.	4.7		7.9		4.6	4.7	4.8	4.9	5.0	4.9	4.7	4.6	4.6	5.8	6.8	5.2	7.1	123.7	1.4	4.3	4.3	4.2						
Bottom 10 Avg.	3.8		6.9		3.8	4.1	3.6	3.8	3.9	3.7	3.5	3.3	3.4	4.9	6.0	4.1	5.7	119.4	-1.4	2.6	2.6	2.4						
September Consensus	3.6		6.8		3.6	3.7	3.6	3.7	3.7	3.5	3.3	3.3	3.5	4.8	5.9	4.2	5.7	118.2	0.6	3.3	3.3	3.0						
Number of Forecasts Changed From A Month Ago:																												
Down	0		0		0	0	0	0	0	0	0	1	3	2	2	0	0	0	26	4	11	8						
Same	4		4		3	2	3	1	1	0	3	3	3	1	1	2	2	1	5	13	8	7						
Up	34		27		21	19	27	27	26	36	32	34	28	18	17	14	25	15	5	16	16	18						
Diffusion Index	95%		94%		94%	95%	95%	98%	98%	100%	96%	93%	87%	88%	88%	94%	96%	97%	21%	68%	57%	65%						

Third Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For --Qtr-- A. Fed's Adv Fgn Econ \$ Index	(Q-Q % Change)													
	Short-Term					Intermediate-Term					Long-Term						B. Real GDP	C. Price Index	D. Cons. Price Index	E. PCE Price Index										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15															
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate															
Amherst Pierpont Securities	5.1	H	8.3	H	5.1	H	5.2	H	5.1	H	5.2	H	5.2	5.1	4.7	4.5	4.8	5.9	7.1	5.0	6.9	125.0	2.0	3.4	3.4	3.2				
Nomura Securities, Inc.	5.1	H	8.3	H	na	na	na	na	na	na	2.9	3.0	2.4	na	na	na	na	na	na	na	na	na	-1.1	3.9	2.5	1.7				
Action Economics	5.0		8.2		na	5.2	H	4.9	4.7	4.4	3.9	3.9	4.0	4.0	5.0	6.1	na	3.3	6.8	na	na	na	1.5	2.5	2.6	2.2				
Bank of America	4.9		na		5.0		na		na	na	4.0	3.6	3.3	3.4	na	na	na	na	na	na	na	na	-1.5	5.6	H	3.5	2.8			
Daiwa Capital Markets America	4.9		8.0		4.8		4.7		4.8	5.0	5.1	4.3	4.3	4.2	4.1	5.6	6.7	na	6.7	na	6.7	122.0	-0.9	3.5	3.2	3.0				
NatWest Markets	4.9		8.0		3.1		5.0	5.1	H	5.2	H	5.3	3.9	3.7	3.5	3.4	4.9	5.9	3.9	4.7	L	na	0.5	3.2	1.9	4.4	H			
Wells Fargo	4.9		8.0		4.9		4.9		4.8	4.7	4.5	4.2	4.0	3.8	3.6	5.0	6.0	4.4	6.2	na	na	na	-1.9	L	2.1	2.2	1.9			
Via Nova Investment Mgt.	4.8		8.0		4.8		4.9		4.9	5.0	5.1	5.3	H	5.3	H	5.3	6.8	H	7.3	6.3	H	7.5	113.0	2.0	2.5	2.3	2.2			
Chan Economics	4.7		7.7		4.6		4.7		4.8	5.1	5.2	5.2	5.1	5.2	5.3	6.5	7.5	H	5.7	7.6	H	124.0	0.9	3.0	3.2	2.7				
DePrince & Assoc.	4.7		7.8		4.6		4.7		4.9	4.9	5.5	H	4.9	3.9	3.7	3.7	5.0	5.8	4.2	5.7	na	117.5	0.9	3.0	2.9	2.7				
Bank of the West	4.6		7.8		4.5		4.5		4.6	4.7	4.6	4.6	4.5	4.3	4.3	5.7	6.6	5.4	6.6	na	na	121.3	0.1	2.5	3.0	2.6				
BMO Capital Markets	4.6		7.8		4.6		na		4.6	4.6	4.2	3.8	3.8	3.8	3.8	na	na	na	6.4	na	na	119.4	0.7	2.9	3.4	3.3				
Goldman Sachs & Co.	4.6		na		na		na		3.2	na	na	4.3	4.1	4.0	4.1	na	na	na	na	na	na	na	1.3	2.9	2.0	2.4				
MacroPolicy Perspectives	4.6		7.8		4.6		4.8		4.4	4.4	na	4.0	4.0	4.0	na	na	na	na	6.5	na	na	na	1.2	2.3	1.8	2.3				
Mizuho Research Institute	4.6		na		na		na		na	na	na	na	na	3.5	na	na	na	na	na	na	na	na	na	na	na	na	na			
Societe Generale	4.6		7.8		4.6		na		4.6	4.5	4.2	3.4	3.1	3.2	3.5	na	na	na	na	na	na	na	2.0	3.3	3.1	2.7				
BNP Paribas Americas	4.5		na		na		na		na	na	na	3.9	na	3.4	3.5	na	na	na	na	na	na	na	0.9	na	3.7	na				
J.P. Morgan Chase	4.5		na		na		na		na	na	na	4.3	3.9	3.6	3.6	na	na	na	na	na	na	na	0.8	2.3	3.0	2.7				
Thru the Cycle	4.5		7.7		4.5		4.6		4.5	4.7	4.2	3.7	3.6	3.5	3.3	4.7	5.8	4.1	6.1	na	na	120.4	1.1	2.5	2.4	2.5				
Barclays	4.4		7.5		na		na		na	na	na	3.3	3.2	3.0	3.3	na	na	na	na	na	na	na	0.0	2.3	2.7	2.1				
Chmura Economics & Analytics	4.4		7.5		4.4		4.5		4.3	4.5	4.5	4.6	4.6	4.6	4.7	5.5	na	na	6.1	na	na	na	1.5	3.7	3.9	H	3.9			
KPMG	4.4		7.5		4.3		4.1		4.2	4.2	4.1	4.0	3.9	4.0	4.1	5.2	6.3	na	6.0	na	na	na	-0.1	2.8	2.4	2.0				
Loomis, Sayles & Company	4.4		7.5		4.3		4.6		4.8	4.8	4.3	3.2	3.5	3.5	3.8	4.6	5.7	L	4.4	5.9	na	120.0	1.0	3.0	3.1	2.8				
The Northern Trust Company	4.4		7.5		4.3		4.5		4.5	4.5	4.4	4.2	4.0	3.8	4.3	5.2	6.2	5.1	6.1	na	na	118.0	1.2	2.7	2.7	2.6				
GLC Financial Economics	4.3		7.4		4.1		4.2		3.7	3.8	4.0	4.6	4.7	4.9	5.1	5.9	6.7	5.0	6.7	na	na	117.5	2.2	2.8	3.2	2.8				
Regions Financial Corporation	4.3		7.3		4.3		4.2		4.2	4.3	4.4	4.2	4.2	3.8	3.9	5.5	6.4	4.7	6.5	na	na	121.0	1.3	2.4	2.9	2.8				
Fannie Mae	4.2		7.3		na		na		4.2	4.2	4.4	4.5	4.1	3.8	3.7	na	na	na	6.8	na	na	na	-0.7	2.2	1.2	L	1.4			
Swiss Re	4.1		na		na		na		na	na	na	na	na	3.1	na	na	na	na	na	na	na	na	na	na	na	na	na			
ING	3.9		na		na		na		na	na	na	3.4	2.5	2.0	L	2.4	L	na	na	na	na	na	na	1.7	na	na	na			
Oxford Economics	3.9		7.0		3.9		na		3.9	3.9	3.7	3.6	3.3	3.1	3.0	3.9	L	na	na	5.7	na	116.7	0.7	2.8	2.5	2.2				
PNC Financial Services Corp.	3.9		7.0		3.9		na		3.4	3.2	3.2	3.3	3.3	3.4	3.6	na	na	5.9	4.2	5.6	na	114.0	0.6	2.1	2.7	2.2				
Economist Intelligence Unit	3.8		6.8		na		3.9		4.0	4.0	4.2	4.3	4.2	4.1	4.0	na	na	na	6.0	na	na	na	2.1	na	2.0	na				
MacroFin Analytics & Rutgers Bus School	3.8		6.9		3.7		3.9		3.9	4.1	4.6	4.8	4.9	5.1	5.4	H	6.7	7.5	H	6.0	7.1	125.3	H	1.2	2.3	2.2	2.2			
Georgia State University	3.6		6.8		na		na		3.5	3.6	4.0	3.4	3.2	3.2	3.5	5.0	6.3	na	5.5	na	na	na	-0.1	3.5	2.4	2.5				
Moody's Analytics	3.6		6.8		3.5		3.6		3.6	3.5	3.5	3.5	3.5	3.5	4.0	5.0	6.0	4.1	5.3	na	na	na	2.5	2.6	2.1	2.1				
S&P Global Market Intelligence	3.6		6.8		3.6		na		3.4	3.5	3.5	3.4	3.2	3.2	3.4	na	na	na	5.4	na	na	na	1.0	2.5	2.6	2.2				
Scotiabank Group	3.5		6.5		na		na		3.3	na	na	3.4	3.2	3.1	3.2	na	na	na	na	na	na	na	1.6	1.0	L	2.4	3.0			
ACIMA Private Wealth	2.5	L	5.5	L	2.5	L	2.6	L	2.6	L	2.0	L	2.4	L	2.6	L	2.1	L	3.0	3.7	5.0	6.5	2.0	L	5.5	H	1.9	1.5	0.8	L
October Consensus	4.3		7.4		4.3		4.4		4.2	4.3	4.3	4.0	3.8	3.7	3.9	5.4	6.4	4.6	6.2	118.8	0.9	2.8	2.6	2.5						
Top 10 Avg.	4.9		8.0		4.8		4.9		4.9	4.9	5.0	4.8	4.7	4.6	4.7	5.9	6.9	5.2	6.9	na	na	121.6	2.3	3.6	3.4	3.2				
Bottom 10 Avg.	3.6		6.7		3.7		4.0		3.5	3.6	3.7	3.2	3.0	2.9	3.2	4.8	6.0	3.9	5.5	na	na	116.2	-0.6	2.1	1.9	1.9				
September Consensus	3.5		6.6		3.5		3.6		3.5	3.6	3.6	3.3	3.3	3.3	3.6	4.8	6.0	4.3	5.6	na	na	116.5	1.4	2.7	2.5	2.4				
Number of Forecasts Changed From A Month Ago:																														
Down	0		0		0		0		1	0	0	1	1	3	3	3	3	1	1	1	1	1	1	25	10	7	9			
Same	4		4		2		2		2	3	1	2	2	3	2	2	2	1	3	1	1	1	8	11	12	10				
Up	34		27		21		19		27	25	26	32	31	31	28	16	15	14	23	14	14	14	3	12	16	14				
Diffusion Index	95%		94%		96%		95%		93%	95%	98%	94%	94%	88%	88%	81%	80%	91%	91%	91%	91%	91%	19%	53%	63%	58%				

Fourth Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--																	Avg. For --Qtr.-- Fed's Adv Fgn Econ \$ Index	------(Q-Q % Change)----- ------(SAAR)-----									
	Short-Term-----					--Intermediate-Term--					Long-Term-----								A. B. C. D. E.	Real GDP Price Index	Cons. Price Index	PCE Price Index						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Fed's Adv	B.						C.	D.	E.			
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate	Fed's Adv Fgn Econ \$ Index	B. Real GDP						C. Price Index	D. Cons. Price Index	E. PCE Price Index			
Amherst Pierpont Securities	5.1	H	8.3	H	5.1	H	5.1	H	5.1	H	5.2	H	5.2	5.1	4.7	4.5	4.8	5.9	7.1	5.0	6.8	124.0	1.8	3.3	3.3	3.0		
Bank of America	4.9	na	na	na	na	na	na	na	3.7	3.4	3.1	3.3	na	na	na	na	na	na	na	na	na	na	-1.5	L	5.1	H	2.6	2.2
Daiwa Capital Markets America	4.9	8.0	4.8	4.7	4.7	4.9	5.0	4.1	4.1	4.1	4.0	5.7	6.7	na	6.6	120.0	0.1	3.2	2.8	2.6	2.6							
NatWest Markets	4.9	8.0	3.1	5.0	5.1	H	5.2	H	5.3	H	3.4	3.3	3.3	3.1	4.9	5.8	3.9	4.7	na	1.0	3.0	1.4	L	4.0	H			
Via Nova Investment Mgt.	4.8	8.0	4.8	4.9	4.9	5.0	5.1	5.3	H	5.3	H	5.3	H	6.8	H	7.3	6.3	H	7.4	110.0	2.5	2.3	2.1	2.0				
Chan Economics	4.7	7.7	4.6	4.7	4.8	5.1	5.2	5.2	5.1	5.2	5.3	H	6.5	H	7.5	H	5.7	7.6	H	123.3	1.0	2.8	2.8	2.6				
Action Economics	4.6	7.8	na	4.8	4.5	4.3	4.1	3.8	3.9	3.9	3.9	5.0	6.0	3.3	6.8	na	1.9	2.6	2.5	2.1								
Bank of the West	4.6	7.8	4.5	4.6	4.6	4.6	4.6	4.6	4.5	4.3	4.3	5.7	6.7	5.4	6.6	121.1	0.5	2.3	2.5	2.5								
BMO Capital Markets	4.6	7.8	4.6	na	4.6	4.6	4.1	3.6	3.6	3.7	3.7	na	na	na	6.3	117.7	1.2	2.6	3.0	2.8								
Goldman Sachs & Co.	4.6	na	na	na	3.2	na	na	4.3	4.1	4.0	4.1	na	na	na	na	na	1.3	3.2	2.7	2.7								
Mizuho Research Institute	4.6	na	na	na	na	na	na	na	na	3.5	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na			
Nomura Securities, Inc.	4.6	7.8	na	na	na	na	na	2.3	2.3	2.4	na	na	na	na	na	na	na	-0.5	3.8	2.1	1.5							
Societe Generale	4.6	7.8	4.6	na	4.5	4.3	3.8	3.1	3.0	2.6	2.9	na	na	na	na	na	na	1.8	3.4	3.2	2.8							
BNP Paribas Americas	4.5	na	na	na	na	na	na	3.8	na	3.3	3.4	na	na	na	na	na	na	0.6	na	4.4	H	na						
DePrince & Assoc.	4.5	7.7	4.4	4.6	4.7	4.7	5.3	H	4.7	3.9	3.8	3.8	5.1	5.9	4.3	5.7	117.6	1.3	2.9	2.8	2.6							
J.P. Morgan Chase	4.5	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	0.8	2.3	2.7	2.4							
Chimura Economics & Analytics	4.4	7.5	4.4	4.5	4.2	4.4	4.4	4.4	4.4	4.5	4.5	5.4	na	na	5.9	na	1.4	3.5	3.8	3.4								
Loomis, Sayles & Company	4.4	7.5	4.3	4.4	4.6	4.6	4.1	3.2	3.5	3.5	3.7	4.5	5.6	4.4	5.9	119.7	1.1	2.6	3.1	2.6								
MacroPolicy Perspectives	4.4	7.5	4.4	4.5	4.1	4.0	na	3.8	3.9	4.0	na	na	na	na	6.5	na	1.5	2.6	1.9	2.6								
The Northern Trust Company	4.4	7.5	4.3	4.5	4.4	4.4	4.3	4.0	3.8	3.7	4.2	5.1	6.1	5.0	6.0	116.0	1.4	2.5	2.5	2.4								
Wells Fargo	4.4	7.5	4.4	4.4	4.2	4.0	3.6	3.3	3.3	3.3	3.4	4.5	5.5	L	3.9	5.6	na	2.9	2.2	2.5	2.1							
GLC Financial Economics	4.3	7.4	4.1	4.2	3.7	3.8	4.0	4.4	4.6	4.8	5.0	5.7	6.9	5.2	6.8	117.1	2.2	3.0	3.2	3.0								
Regions Financial Corporation	4.3	7.3	4.1	4.2	4.1	4.2	4.2	3.9	4.0	3.7	3.8	5.4	6.3	4.7	6.3	119.7	1.1	2.0	2.3	2.3								
Fannie Mae	4.2	7.3	na	na	4.2	4.3	4.4	4.5	4.1	3.8	3.6	na	na	na	6.7	na	0.7	1.9	1.6	1.4	L							
KPMG	4.2	7.4	4.2	3.9	4.0	4.1	4.1	4.0	3.9	4.0	4.2	5.2	6.4	na	6.0	na	-0.2	2.5	2.9	2.1								
Barclays	4.1	7.3	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	0.5	2.7	2.6	2.5							
Swiss Re	4.1	na	na	na	na	na	na	na	na	3.0	na	na	na	na	na	na	na	na	na	na	na							
Thru the Cycle	4.0	7.2	4.0	4.1	4.0	4.0	3.7	3.4	3.3	3.2	3.1	4.5	5.7	3.9	5.8	120.8	0.8	2.3	2.1	2.2								
Economist Intelligence Unit	3.8	6.8	na	3.9	3.9	4.0	4.2	4.3	4.2	4.0	3.9	na	na	na	6.0	na	2.2	na	1.8	na								
PNC Financial Services Corp.	3.8	7.0	3.8	na	3.3	3.2	3.1	3.1	3.2	3.4	3.5	na	5.7	4.1	5.5	113.8	0.8	1.9	2.5	2.0								
Oxford Economics	3.7	6.8	3.7	na	3.7	3.8	3.5	3.5	3.1	2.9	2.8	3.6	L	na	5.5	115.3	1.5	2.7	2.3	2.1								
Moody's Analytics	3.6	6.8	3.5	3.6	3.5	3.5	3.5	3.5	3.5	3.5	4.0	5.0	6.0	4.1	5.3	na	2.6	2.2	1.9	2.1								
S&P Global Market Intelligence	3.6	6.7	3.6	na	3.4	3.4	3.5	3.3	3.1	3.1	3.4	na	na	na	5.3	na	1.1	2.3	2.8	2.3								
Scotiabank Group	3.5	6.5	na	na	3.3	na	na	3.3	3.2	3.0	3.1	na	na	na	na	na	na	2.1	1.4	L	1.5	1.9						
ING	3.4	na	na	na	na	na	na	2.8	2.1	2.0	L	2.4	L	na	na	na	na	2.3	na	na	na							
MacroFin Analytics & Rutgers Bus School	3.4	6.5	3.3	3.6	3.6	3.8	4.3	4.5	4.6	4.7	5.0	6.5	7.2	5.6	6.7	125.6	H	1.2	2.2	2.0	2.1							
Georgia State University	3.1	6.3	na	na	3.3	3.3	3.6	3.3	3.2	3.2	3.5	4.8	6.2	na	5.4	na	0.9	3.0	2.1	2.2								
ACIMA Private Wealth	1.0	L	4.0	L	1.0	L	1.1	L	1.0	L	1.3	L	1.0	L	2.0	L	3.3	4.0	5.5	L	1.0	L	4.3	L				
October Consensus	4.2	7.3	4.1	4.3	4.0	4.1	4.1	3.8	3.7	3.6	3.8	5.2	6.3	4.5	6.1	117.6	1.3	2.7	2.5	2.4								
Top 10 Avg.	4.8	7.9	4.6	4.7	4.8	4.8	4.9	4.7	4.6	4.5	4.7	5.9	6.8	5.2	6.9	121.0	2.5	3.5	3.3	3.0								
Bottom 10 Avg.	3.3	6.5	3.4	3.7	3.2	3.4	3.3	2.9	2.8	2.7	3.1	4.6	5.8	3.8	5.3	114.7	0.2	2.0	1.8	1.9								
September Consensus	3.4	6.5	3.3	3.4	3.3	3.4	3.4	3.2	3.2	3.2	3.6	4.8	6.0	4.3	5.5	115.9	1.6	2.5	2.5	2.3								
Number of Forecasts Changed From A Month Ago:																												
Down	1	1	1	0	1	1	1	2	3	3	4	4	4	2	2	1	21	7	8	6								
Same	4	4	2	3	4	2	1	3	3	6	4	1	3	2	3	2	10	14	12	10								
Up	33	26	20	18	25	25	25	29	27	27	24	16	13	12	22	13	4	11	14	16								
Diffusion Index	92%	90%	91%	93%	90%	93%	94%	90%	86%	83%	81%	79%	73%	81%	87%	88%	26%	56%	59%	66%								

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	Official Cash Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	3.10	3.35	--
ING Financial Markets	--	--	--
Moody's Analytics	1.85	2.85	3.10
Nomura Securities	--	--	--
Northern Trust	3.10	3.10	3.10
Oxford Economics	1.85	2.73	3.10
S&P Global Market Intelligence	--	--	--
Scotiabank	3.00	3.00	3.00
Wells Fargo	2.85	3.10	3.10
October Consensus	2.63	3.02	3.08
High	3.10	3.35	3.10
Low	1.85	2.73	3.00
Last Months Avg.	2.59	2.96	2.99

Australia		
10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.
--	--	--
3.80	3.30	2.65
3.47	3.76	3.90
--	--	--
3.95	4.00	4.05
3.68	3.66	3.59
--	--	--
--	--	--
--	--	--
3.73	3.68	3.55
3.95	4.00	4.05
3.47	3.30	2.65
3.56	3.52	3.46

US\$ per A\$		
In 3 Mo.	In 6 Mo.	In 12 Mo.
0.68	0.69	--
0.69	0.70	0.74
0.69	0.71	0.73
0.66	0.67	0.70
0.65	0.63	0.68
0.69	0.69	0.69
0.68	0.66	0.65
0.65	0.66	0.68
--	--	--
0.67	0.68	0.70
0.69	0.71	0.74
0.65	0.63	0.65
0.69	0.69	0.69

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.50	2.50	--
BMO Capital Markets	2.50	3.00	3.00
ING Financial Markets	--	--	--
Mizuho Research Institute	1.50	1.50	1.50
Moody's Analytics	0.58	1.65	2.50
Nomura Securities	--	--	--
Northern Trust	2.00	2.25	2.25
Oxford Economics	0.57	1.71	2.25
S&P Global Market Intelligence	--	--	--
Scotiabank	2.25	2.75	2.75
Wells Fargo	1.50	1.50	1.50
October Consensus	1.68	2.11	2.25
High	2.50	3.00	3.00
Low	0.57	1.50	1.50
Last Months Avg.	1.07	1.43	1.62

US\$ per Euro		
In 3 Mo.	In 6 Mo.	In 12 Mo.
0.98	0.98	--
0.98	0.99	1.02
1.00	1.05	1.08
0.95	0.96	1.00
1.01	0.99	1.07
0.90	0.90	0.95
0.96	0.94	1.02
1.02	1.01	1.05
0.99	0.97	1.02
0.95	1.00	1.05
--	--	--
0.97	0.98	1.03
1.02	1.05	1.08
0.90	0.90	0.95
0.99	1.00	1.02

Blue Chip Forecasters	10 Yr. Gov't Bond Yields %											
	Germany			France			Italy			Spain		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	1.90	2.00	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	2.50	2.39	2.16	--	--	--	--	--	--	--	--	--
Mizuho Research Institute	1.40	1.30	1.40	--	--	--	--	--	--	--	--	--
Moody's Analytics	1.34	1.76	2.51	1.84	2.23	2.87	3.34	3.76	4.16	2.49	2.96	3.61
Northern Trust	2.00	2.25	2.25	2.70	2.95	2.95	4.40	4.60	4.70	3.20	3.40	3.50
Oxford Economics	1.27	1.79	1.88	1.86	2.36	2.41	3.51	4.02	4.03	2.44	2.91	3.00
Wells Fargo	1.30	1.35	1.20	--	--	--	--	--	--	--	--	--
October Consensus	1.67	1.83	1.90	2.13	2.51	2.74	3.75	4.13	4.30	2.71	3.09	3.37
High	2.50	2.39	2.51	2.70	2.95	2.95	4.40	4.60	4.70	3.20	3.40	3.61
Low	1.27	1.30	1.20	1.84	2.23	2.41	3.34	3.76	4.03	2.44	2.91	3.00
Last Months Avg.	1.31	1.35	1.44	1.78	1.82	1.95	3.42	3.44	3.51	2.48	2.50	2.61

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.42	-3.32	-3.26	-3.09
United Kingdom	0.28	-0.24	-0.25	-0.23
Switzerland	-2.47	-2.42	-2.08	-1.76
Canada	-0.62	-0.28	-0.22	-0.10
Australia	0.24	0.18	0.19	0.24
Germany	-1.66	-1.88	-1.65	-1.41
France	-1.09	-1.42	-0.97	-0.57
Italy	0.64	0.20	0.64	0.99
Spain	-0.65	-0.84	-0.40	0.06

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.23	-3.90	-4.13	-4.27
United Kingdom	-0.88	-1.08	-1.18	-0.84
Switzerland	-2.63	-3.24	-3.28	-3.05
Canada	0.13	-0.26	-0.44	-0.39
Australia	-0.78	-1.18	-1.20	-1.10
Euro area	-1.88	-2.13	-2.12	-1.93

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

Oil Rising Rates Are Complicating Fiscal Policy

There's an old joke about a patient who wakes up in the hospital after an operation. The doctor walks in and tells him he is going to live. In the next moment, though, the surgeon shares the bill for his services. The patient asks, "Is there any good news?"

The global economy has faced two heart-stopping events since 2020: first, the pandemic; then, the Russian invasion of Ukraine. Both have taken a significant humanitarian and financial toll. To aid in recovering from these situations, governments around the world have spent immense sums of money; more may be necessary to ensure a full recovery. The bills for the operation are coming due, though, and the carrying costs of financing them are rising.

Nations have accumulated immense amounts of debt during the past half-century. Classically, fiscal expansion is used to counteract shocks to private demand, such as those associated with war, natural disasters, or recessions. But since the 1980s, it has become much more common for countries to run deficits even during times of peace and prosperity.

Progressives have always favored using government to achieve a range of societal goals, while conservatives adopted a supply-side, tax-cutting approach to economic policy in the early 1980s. The two sides rarely agreed on legislation, but they generally agreed that deficits weren't a concern...and made little effort to contain them. Borrowing grew gradually, and then substantially after the challenges of 2008 and 2020.

Financing these endeavors has been facilitated by a seemingly boundless appetite among investors for sovereign debt. With rare exceptions, auctions of government paper are enthusiastically received; international investors are often heavy buyers. Carrying costs have generally been modest for most countries, enabling them to go further and further into debt.

The world's central banks have been among the most ravenous consumers of government debt during the past 14 years. Following the Global Financial Crisis, quantitative easing (QE) became a prominent part of monetary strategy in developed countries. Under QE, central banks purchase government bonds, helping to finance stimulative fiscal policy. This strategy was used to a significant degree from 2008-2015, but the response of monetary policy to the pandemic set a new standard. Leading central banks now own significant fractions of their nations' debt, leading some to wonder whether monetary and fiscal policy remain independent.

In retrospect, pandemic relief was excessive. Many countries recovered significant fractions of their lost output by the fall of 2020, but government programs were still stimulating demand. This demand was out of alignment with supply, creating the highest levels of inflation since the early 1980s. In an effort to bring the price level back under control, central banks are tightening policy aggressively; the Federal Reserve and the Bank of England (among others) announced large rate increases this week.

Further, a handful of central banks are seeking to reduce their investment portfolios, a process that has become known as quantitative tightening (QT). The Federal Reserve is in the forefront of this endeavor; its balance sheet is scheduled to fall by over \$2 trillion over the next two years. Private investors will be asked to absorb the debt.

All of this has caused the first sustained bear market in bonds for more than a generation. Yields are up across countries and across the maturity spectrum. At one point in 2020, more than one-third of global government debt carried negative interest rates; now, almost none of it does. As a result, interest as a fraction of government spending is rising sharply, and will continue to do so for some time as old issues mature and new ones are offered.

Countries had a golden opportunity in 2020 to reduce the sensitivity of their budgets to interest rates by locking in borrowing for longer terms. However, since the yield curve remained upward sloping, offering short-term bills saved interest. That funding strategy is now proving immensely costly.

Forecasts of debt and deficits for the world's leading economies are reaching uncomfortable levels. Rising interest payments may limit efforts to use fiscal policy to combat the possibility of economic downturns during the next twelve months. Over the longer run, borrowing costs can spiral out of control and become unsustainable.

The likelihood of that fate befalling a major developed market remains low. But in a number of cases, investors are taking note. As an example, Italy's borrowing costs are rising much more rapidly than Germany's, a situation that is being called "fragmentation." Italy's debt recently exceeded 150% of its annual gross domestic product (GDP), more than double the level seen in Germany. That is creating an uncomfortable situation for the European Central Bank.

For most of its history, the United States has not faced concerns about debt sustainability. While America's fiscal position is far from pristine, the Treasury bond market has attracted huge inflows as other markets have faltered. But it is not clear how long the U.S. will remain favored; the latest debt projections from the Congressional Budget Office show a debt to GDP ratio of more than 180% by mid-century...more than Italy bears today.

Given the budgetary challenges caused by tighter monetary policy, stress between central banks and legislatures could increase in the years ahead. Partners in the effort to overcome the pandemic, the two may come into conflict as they go their separate ways. For many years, many leaders have asserted that debt and deficits don't matter. But the bill for all the borrowing may soon come due...and may leave the markets in shock.

Carl Tannenbaum (Northern Trust)

Europe: Bracing For A Cold Winter

Rationing is the controlled distribution of scarce resources or a restriction of demand. It is an extreme measure typically undertaken in response to natural disasters, trade restrictions or wars, to mitigate the impact of scarcity.

Those living in the developing parts of the world are well familiar with the concept. For instance, the demand-supply gap in India regularly leads to power shortages or rationing of electricity. But at the moment, developed economies across Europe are facing the challenge of stretching scarce resources.

Russia has been increasingly weaponizing energy in its economic battle with the West. Natural gas flows through the important Nord Stream 1 pipeline to Germany have been suspended, escalating prices and raising the likelihood of rationing. European gas prices are now about ten times their average over the past decade. One-third of Europe's energy comes from gas, which is used for generating electricity, transport and heating.

The rise in household energy bills and corporate sector energy costs are weighing on economic activity. Soaring energy bills are impairing household finances. Various industries, from fertilizer manufacturers to zinc smelters, are struggling to pay the cost of fuel. European energy trading is strained as companies find it difficult to guarantee trades amid wild price swings.

Governments are stepping in with measures to keep a lid on costs. According to Bruegel, European governments have allocated €450 billion to shield consumers and businesses from rising energy bills, an amount more than half of the post-pandemic NextGenerationEU program. Some EU nations have already launched windfall tax measures to subsidize household bills.

On average, European Union member states have allocated about 2.5% of gross domestic product (GDP) to offset the surge in energy prices. While most European countries have lowered taxes on petrol and diesel, they differ in their approaches and spending. Germany has provided a one-time €300 allowance for income tax paying workers. Italy has put in place a one-off €200 "cost of living bonus" for most salaried workers, self-employed workers and pensioners. In France, the government has put a freeze on gas prices for consumers, as well as a 4% cap on electricity price increases. The Norwegian government is paying 90% of households' electricity bills when wholesale prices exceed prescribed thresholds.

Despite limited reliance on Russian energy, the U.K. is among the nations facing the biggest shock, with its households set to pay an average £2,500 a year on energy bills. To counteract this, new Prime Minister Liz Truss has proposed a £150 billion package of energy relief for households and firms.

Though the packages are crucial to keep the consumption engine running, they put central banks in an even tougher spot. By taking the edge off household utility bills, these measures could redirect spending to other non-essential areas of the economy, contributing to underlying price pressures.

European governments have been trying to wean themselves off Russian energy since the onset of the Ukraine war. The immediate focus has been on procuring liquified natural gas from other regions like North Africa, the U.S. and Qatar, but a lack of domestic transport infrastructure and terminals have impaired stockpiling.

EU states have reached a November 1 target to fill natural gas storage sites to 80% of projected needs for the winter, giving

hope that severe rationing can be avoided. But not all member nations have gas storage facilities and will have to rely on neighboring states for supplies. Experience from the early days of the pandemic suggests that intra-European solidarity has limits. Major energy consumers like steel and chemical manufacturers are stepping up production cuts, which could create supply challenges. A harsh winter could force drastic demand-reduction measures. Rationing even in a handful of member states, especially in a country like Germany, will have ripple effects across the bloc due to close economic linkages.

Rationing provides governments with a way to constrain demand, regulate supply, and cap prices, but market interventions of this kind should be used sparingly. Europe needs to develop a long-term energy strategy that makes winter 2023, and all subsequent winters, a warmer experience.

Vaibhav Tandon (Northern Trust)

The Fed Keeps At It

This week, the Federal Open Market Committee (FOMC) delivered its third consecutive rate hike of 75 basis points. From a starting point of the zero lower bound in March, the ascent to the current range of 3.00-3.25% has been steeper than nearly any forecaster expected to start the year. The projections and commentary that accompanied this week's meeting made it clear that more hikes will follow, and that the outlook will be difficult.

The September meeting included the quarterly Summary of Economic Projections (SEP), in which FOMC members anonymously share their outlooks for key economic variables. The "dot plot" of interest rate projections makes it clear the work is not done. The median forecast (with little dispersion) was for the Fed Funds rate to end this year at 4.25-4.50%, 125 basis points from the current level, with only two meetings remaining.

Given the Fed's rapid actions in the past six months, this forecast is credible. We are revising our forecast up to a 75 basis point increase at the November 2 meeting, and 50 basis points to follow on December 14. From there, committee members expect just one more quarter-point hike next year, and cuts in 2024.

These fast hikes will bring consequences. Monetary policy works with long and variable lags, and the market is still digesting a great deal of policy tightening. The SEP included economic growth forecasts revised down substantially, with one bearish committee member expecting a full-year contraction in 2023. The median forecast for next year's unemployment rate rose to 4.4%, up from 3.7% today; an increase of that magnitude has always accompanied a recession. In his press conference, Chair Jerome Powell stated clearly that "there isn't a painless way to get inflation behind us," conceding it will be "very challenging" to tame inflation without job losses.

Ultimately, the Fed's actions and Powell's statement held firm to the simple message of his Jackson Hole speech: the Fed will "keep at it" until price stability is restored. Job losses and market sell-offs may be the price to be paid. Hopes for a soft landing are quickly fading.

Ryan James Boyle (Northern Trust)

Special Questions:

1. How much do you expect the FFR to be increased in total in: 2022? 403 bps 2023? 20 bps
2. a. What do you think is the neutral (long run) Fed funds rate? 2.50 %
- b. What do you think will be the terminal fed funds rate (average of target range) in the current tightening cycle? 4.50%
- c. When will the terminal rate be reached?
- | <u>by the end 2022</u> | <u>Q1 2023</u> | <u>Q2 2023</u> | <u>Q3 2023</u> | <u>Q4 2023</u> | <u>Later</u> |
|------------------------|----------------|----------------|----------------|----------------|--------------|
| 31% | 50% | 19% | 0% | 0% | 0% |
- d. What will motivate the first FFR cut?
- | | |
|--|------------|
| a sharp and persistent rise in the unemployment rate | <u>27%</u> |
| a meaningful and persistent slowing in inflation | <u>67%</u> |
| far more intense global financial instability | <u>7%</u> |
3. a. Do you think that by removing monetary accommodation, major central banks will be successful in slowing inflation without precipitating a recession?
- | | <u>Yes</u> | <u>No</u> |
|-----------|------------|-----------|
| US | 33% | 67% |
| euro area | 0% | 100% |
| UK | 0% | 100% |
- b. If no, what type of recession do you project?
- | | <u>Mild</u> | <u>Severe</u> |
|-----------|-------------|---------------|
| US | 95% | 5% |
| euro area | 50% | 50% |
| UK | 50% | 50% |
4. What probability do you attach to a recession beginning in:
- | | <u>2022</u> | <u>2023</u> |
|---------------|-------------|-------------|
| the US | 36% | 55% |
| the euro area | 59% | 61% |
| globally | 47% | 51% |
5. The US 10yr/2yr yield curve has been inverted since early July while the 10yr/3mo yield curve remains positive. Which curve do you think is a more reliable leading indicator of recession in the US? 10yr/2yr 38% 10yr/3mo 62%
6. What is the one factor most influencing your US inflation forecast over the next 12 months? Expectations concerning...
- | | |
|---|-----|
| Overall economic growth | 30% |
| The behavior of energy/commodity prices | 17% |
| Supply-chain bottlenecks | 23% |
| Monetary policy | 20% |
| The US dollar | 7% |
| Fiscal policy | 3% |
7. a. At the beginning of September, the Federal Reserve doubled the monthly rate at which it reduces its holdings of both US Treasury debt and mortgage backed securities? Is this putting upward pressure on longer-term US Treasury yields?
- | | | | |
|------------|-----|-----------|-----|
| <u>Yes</u> | 86% | <u>No</u> | 14% |
|------------|-----|-----------|-----|
- b. Upward pressure on US mortgage interest rates? Yes 86% No 14%

Databank:

2022 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	2.7	1.7	1.2	0.7	0.4	1.0	-0.4	0.3	....	....	....	....
Auto & Light Truck Sales (b)	15.05	13.98	13.41	14.51	12.77	13.02	13.33	13.18	....	....	....	....
Personal Income (a, current \$)	0.0	0.6	0.6	0.4	0.6	0.7	0.2	....	....	....	....	....
Personal Consumption (a, current \$)	1.9	0.6	1.2	0.4	0.5	1.0	0.1	....	....	....	....	....
Consumer Credit (e)	3.9	9.0	12.2	8.9	6.2	10.2	6.2	....	....	....	....	....
Consumer Sentiment (U. of Mich.)	67.2	62.8	59.4	65.2	58.4	50.0	51.5	58.2	59.5	....	....	....
Household Employment (c)	1199	548	736	-353	321	-315	179	442	....	....	....	....
Nonfarm Payroll Employment (c)	504	714	398	368	386	293	526	315	....	....	....	....
Unemployment Rate (%)	4.0	3.8	3.6	3.6	3.6	3.6	3.5	3.7	....	....	....	....
Average Hourly Earnings (All, cur. \$)	31.56	31.60	31.75	31.86	31.98	32.11	32.26	32.36	....	....	....	....
Average Workweek (All, hrs.)	34.6	34.7	34.6	34.6	34.6	34.5	34.6	34.5	....	....	....	....
Industrial Production (d)	2.9	6.9	4.8	5.3	4.4	4.0	3.8	3.7	....	....	....	....
Capacity Utilization (%)	78.9	79.4	79.8	80.2	80.0	79.9	80.2	80.0	....	....	....	....
ISM Manufacturing Index (g)	57.6	58.6	57.1	55.4	56.1	53.0	52.8	52.8	....	....	....	....
ISM Nonmanufacturing Index (g)	59.9	56.5	58.3	57.1	55.9	55.3	56.7	56.9	....	....	....	....
Housing Starts (b)	1.666	1.777	1.716	1.805	1.562	1.575	1.404	1.575	....	....	....	....
Housing Permits (b)	1.841	1.857	1.879	1.823	1.695	1.696	1.685	1.542	....	....	....	....
New Home Sales (1-family, c)	831	790	707	619	636	582	532	685	....	....	....	....
Construction Expenditures (a)	2.7	1.5	0.9	0.7	0.7	-0.5	-0.4	....	....	....	....	....
Consumer Price Index (nsa, d)	7.5	7.9	8.5	8.3	8.6	9.1	8.5	8.3	....	....	....	....
CPI ex. Food and Energy (nsa, d)	6.0	6.4	6.5	6.2	6.0	5.9	5.9	6.3	....	....	....	....
PCE Chain Price Index (d)	6.0	6.3	6.6	6.3	6.3	6.8	6.3	....	....	....	....	....
Core PCE Chain Price Index (d)	5.1	5.3	5.2	4.9	4.7	4.8	4.6	....	....	....	....	....
Producer Price Index (nsa, d)	10.1	10.4	11.7	11.2	11.1	11.3	9.8	8.7	....	....	....	....
Durable Goods Orders (a)	3.1	-0.7	0.7	0.4	0.8	2.3	-0.1	-0.2	....	....	....	....
Leading Economic Indicators (a)	-0.7	0.8	-0.1	-0.5	-0.7	-0.7	-0.5	-0.3	....	....	....	....
Balance of Trade & Services (f)	-88.0	-87.8	-106.9	-86.7	-85.9	-80.9	-70.7	....	....	....	....	....
Federal Funds Rate (%)	0.08	0.08	0.20	0.33	0.77	1.21	1.68	2.33	....	....	....	....
3-Mo. Treasury Bill Rate (%)	0.15	0.31	0.45	0.76	0.99	1.54	2.30	2.72	....	....	....	....
10-Year Treasury Note Yield (%)	1.76	1.93	2.13	2.75	2.90	3.14	2.90	2.90	....	....	....	....

2021 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	5.5	-1.8	11.2	0.0	-0.5	1.0	-1.6	1.1	0.8	1.6	0.6	-1.6
Auto & Light Truck Sales (b)	16.78	15.93	17.64	18.30	16.89	15.47	14.66	13.09	12.29	13.05	13.04	12.54
Personal Income (a, current \$)	9.9	-7.2	21.0	-13.3	-2.0	0.3	1.3	0.4	-0.9	0.8	0.7	0.5
Personal Consumption (a, current \$)	3.3	-1.1	5.2	1.0	0.0	1.1	0.1	1.1	0.6	1.4	0.5	-0.9
Consumer Credit (e)	3.1	5.1	4.3	5.3	7.6	6.5	4.5	5.1	6.6	5.8	8.7	6.2
Consumer Sentiment (U. of Mich.)	79.0	76.8	84.9	88.3	82.9	85.5	81.2	70.3	72.8	71.7	67.4	70.6
Household Employment (c)	121	363	573	319	291	62	1092	463	639	428	1090	651
Nonfarm Payroll Employment (c)	520	710	704	263	447	557	689	517	424	677	647	588
Unemployment Rate (%)	6.4	6.2	6.0	6.0	5.8	5.9	5.4	5.2	4.7	4.6	4.2	3.9
Average Hourly Earnings (All, cur. \$)	29.93	30.04	30.06	30.20	30.36	30.52	30.67	30.76	30.92	31.11	31.23	31.38
Average Workweek (All, hrs.)	35.0	34.6	34.9	34.9	34.9	34.8	34.8	34.7	34.8	34.8	34.8	34.8
Industrial Production (d)	-2.0	-5.4	1.0	16.6	15.6	9.2	5.9	4.9	3.9	4.7	5.0	3.7
Capacity Utilization (%)	76.4	74.2	76.3	76.6	77.3	77.7	78.2	78.2	77.4	78.6	79.0	78.7
ISM Manufacturing Index (g)	59.4	60.9	63.7	60.6	61.6	60.9	59.9	59.7	60.5	60.8	60.6	58.8
ISM Nonmanufacturing Index (g)	58.5	55.9	62.2	62.7	63.2	60.7	64.1	62.2	62.6	66.7	68.4	62.3
Housing Starts (b)	1.602	1.430	1.711	1.505	1.605	1.664	1.573	1.576	1.559	1.563	1.706	1.768
Housing Permits (b)	1.843	1.743	1.773	1.765	1.691	1.661	1.655	1.772	1.615	1.698	1.729	1.896
New Home Sales (1-family, c)	911	768	881	809	740	714	726	686	732	671	756	839
Construction Expenditures (a)	1.1	-0.9	2.0	0.5	0.8	0.4	0.6	0.3	-0.5	0.7	1.3	1.0
Consumer Price Index (nsa, d)	1.4	1.7	2.6	4.2	5.0	5.4	5.4	5.3	5.4	6.2	6.8	7.0
CPI ex. Food and Energy (nsa, d)	1.4	1.3	1.6	3.0	3.8	4.5	4.3	4.0	4.0	4.6	4.9	5.5
PCE Chain Price Index (d)	1.4	1.6	2.5	3.6	4.0	4.0	4.2	4.2	4.4	5.1	5.6	5.8
Core PCE Chain Price Index (d)	1.5	1.5	2.0	3.1	3.5	3.6	3.6	3.6	3.7	4.2	4.7	4.9
Producer Price Index (nsa, d)	1.6	3.0	4.1	6.5	7.0	7.6	8.0	8.7	8.8	8.9	9.9	10.0
Durable Goods Orders (a)	2.5	0.1	1.6	-2.0	2.1	1.8	0.4	1.6	-1.5	1.5	1.4	0.9
Leading Economic Indicators (a)	0.6	-0.1	1.1	1.1	0.9	0.6	1.0	0.7	0.2	0.4	0.6	0.4
Balance of Trade & Services (f)	-63.8	-65.3	-68.1	-65.7	-66.6	-71.4	-69.4	-71.4	-78.3	-68.2	-78.0	-78.9
Federal Funds Rate (%)	0.09	0.08	0.07	0.07	0.06	0.08	0.10	0.09	0.08	0.08	0.08	0.08
3-Mo. Treasury Bill Rate (%)	0.08	0.04	0.03	0.02	0.02	0.04	0.05	0.05	0.04	0.05	0.05	0.06
10-Year Treasury Note Yield (%)	1.08	1.26	1.61	1.64	1.62	1.52	1.32	1.28	1.37	1.58	1.56	1.47

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

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VALUE LINE BETA
12/31/2013

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.80
New Jersey Resources Corporation	NJR	0.70
NiSource Inc.	NI	0.85
Northwest Natural Gas Company	NWN	0.65
Spire, Inc.	SR	0.65

Notes:

Value Line data downloaded on December 26, 2013.

VALUE LINE BETA
12/31/2014

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.80
New Jersey Resources Corporation	NJR	0.80
NiSource Inc.	NI	0.85
Northwest Natural Gas Company	NWN	0.70
Spire, Inc.	SR	0.70

Notes:

Value Line data downloaded on December 31, 2014.

VALUE LINE BETA
12/31/2015

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.80
New Jersey Resources Corporation	NJR	0.80
NiSource Inc.	NI	NMF
Northwest Natural Gas Company	NWN	0.65
Spire, Inc.	SR	0.70

Notes:

Value Line data downloaded on December 30, 2015.

VALUE LINE BETA
12/31/2016

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.70
New Jersey Resources Corporation	NJR	0.80
NiSource Inc.	NI	NMF
Northwest Natural Gas Company	NWN	0.65
Spire, Inc.	SR	0.70

Notes:

Value Line data downloaded on December 29, 2016.

VALUE LINE BETA
12/31/2017

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.70
New Jersey Resources Corporation	NJR	0.80
NiSource Inc.	NI	0.60
Northwest Natural Gas Company	NWN	0.70
ONE Gas, Inc.	OGS	0.70
Spire, Inc.	SR	0.70

Notes:

Value Line data downloaded on December 28, 2017.

VALUE LINE BETA
12/31/2018

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.60
New Jersey Resources Corporation	NJR	0.70
NiSource Inc.	NI	0.50
Northwest Natural Gas Company	NWN	0.60
ONE Gas, Inc.	OGS	0.65
Spire, Inc.	SR	0.65

Notes:

Value Line data downloaded on December 27, 2018.

VALUE LINE BETA
12/31/2019

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.60
New Jersey Resources Corporation	NJR	0.70
NiSource Inc.	NI	0.55
Northwest Natural Gas Company	NWN	0.60
ONE Gas, Inc.	OGS	0.65
Spire, Inc.	SR	0.65

Notes:

Value Line data downloaded on December 26, 2019.

VALUE LINE BETA
12/31/2020

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.80
New Jersey Resources Corporation	NJR	0.95
NiSource Inc.	NI	0.85
Northwest Natural Gas Company	NWN	0.80
ONE Gas, Inc.	OGS	0.80
Spire, Inc.	SR	0.85

Notes:

Value Line data downloaded on December 30, 2020.

VALUE LINE BETA
12/31/2021

Company	Ticker	Beta
Atmos Energy Corporation	ATO	0.80
New Jersey Resources Corporation	NJR	1.00
NiSource Inc.	NI	0.85
Northwest Natural Gas Company	NWN	0.85
ONE Gas, Inc.	OGS	0.80
Spire, Inc.	SR	0.85

Notes:

Value Line data downloaded on December 29, 2021.

ATMOS ENERGY CORP. NYSE-ATO										RECENT PRICE	P/E RATIO	Trailing: 21.3 Median: 20.0	RELATIVE P/E RATIO	DIV'D YLD	2.5%	VALUE LINE													
TIMELINESS 2 Raised 8/19/22	High: 35.6	37.3	47.4	58.2	64.8	82.0	93.6	100.8	115.2	121.1	105.3	123.0																	
SAFETY 1 Raised 6/6/14	Low: 28.5	30.4	34.9	44.2	50.8	60.0	72.5	76.5	89.2	77.9	84.6	99.8																	
TECHNICAL 2 Lowered 6/10/22	LEGENDS 36.50 x Dividends p sh --- Relative Price Strength Options: Yes Shaded area indicates recession																												
BETA .80 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$86-\$139 \$113 (-5%)																												
2025-27 PROJECTIONS High Price Gain Ann'l Total Low 130 160 (+35%) 10% 130 130 (+10%) 5%																													
Institutional Decisions 302021 402021 102022 to Buy 262 305 315 to Sell 217 223 221 Hld's(000) 114371 120194 126318 Percent shares traded 24 16 6																													
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023																													
75.27	66.03	79.52	53.69	53.12	48.15	38.10	42.88	49.22	40.82	32.23	26.01	28.00	24.32	22.41	25.73	28.85	30.15	Revenues per sh ^A	35.50										
4.26	4.14	4.19	4.29	4.64	4.72	4.76	5.14	5.42	5.81	6.19	6.62	7.24	7.57	8.03	8.64	9.20	9.90	"Cash Flow" per sh	11.95										
2.00	1.94	2.00	1.97	2.16	2.26	2.10	2.50	2.96	3.09	3.38	3.60	4.00	4.35	4.72	5.12	5.60	6.00	Earnings per sh ^{AB}	7.30										
1.26	1.28	1.30	1.32	1.34	1.36	1.38	1.40	1.48	1.56	1.68	1.80	1.94	2.10	2.30	2.50	2.72	2.92	Div's Decl'd per sh ^C	3.50										
5.20	4.39	5.20	5.51	6.02	6.90	8.12	9.32	8.32	9.61	10.46	10.72	13.19	14.19	15.38	14.87	17.25	17.10	Cap'l Spending per sh	18.00										
20.16	22.01	22.60	23.52	24.16	24.98	26.14	28.47	30.74	31.48	33.32	36.74	42.87	48.18	53.95	59.71	65.85	68.20	Book Value per sh	82.85										
81.74	89.33	90.81	92.55	90.16	90.30	90.24	90.64	100.39	101.48	103.93	106.10	111.27	119.34	125.88	132.42	142.00	146.00	Common Shs Outst'g ^D	155.00										
13.5	15.9	13.6	12.5	13.2	14.4	15.9	15.9	16.1	17.5	20.8	22.0	21.7	23.2	22.3	18.8	18.0	18.0	Avg Ann'l P/E Ratio	20.0										
.73	.84	.82	.83	.84	.90	1.01	.89	.85	.88	1.09	1.11	1.17	1.24	1.15	1.00	1.00	1.00	Relative P/E Ratio	1.10										
4.7%	4.2%	4.8%	5.3%	4.7%	4.2%	4.1%	3.5%	3.1%	2.9%	2.4%	2.3%	2.2%	2.1%	2.2%	2.6%	2.6%	2.6%	Avg Ann'l Div'd Yield	2.4%										
CAPITAL STRUCTURE as of 6/30/22 Total Debt \$7960.6 mill. Due in 5 Yrs \$2410.0 mill. LT Debt \$5759.2 mill. LT Interest \$85.0 mill. (LT interest earned: 10.8x; total interest coverage: 10.8x) Leases, Uncapitalized Annual rentals \$41.8 mill.										3438.5	3886.3	4940.9	4142.1	3349.9	2759.7	3115.5	2901.8	2821.1	3407.5	4100	4400	4100	4400	4100	4400	4100	Revenues (\$mill) ^A	6000	
Pfd Stock None										192.2	230.7	289.8	315.1	350.1	382.7	444.3	511.4	580.5	665.6	780	870	780	870	780	870	Net Profit (\$mill)	1130		
Pension Assets-9/21 \$596.8 mill. Oblig. \$596.0 mill. Common Stock 139,891,918 shs. as of 7/29/22										33.8%	38.2%	39.2%	38.3%	36.4%	36.6%	36.6%	36.6%	36.6%	36.6%	36.6%	36.6%	36.6%	36.6%	36.6%	36.6%	36.6%	Income Tax Rate	25.0%	
MARKET CAP: \$16.4 billion (Large Cap)										5.6%	5.9%	5.9%	7.6%	10.5%	13.9%	14.3%	17.6%	20.6%	19.5%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	Net Profit Margin	18.8%		
CURRENT POSITION 2020 2021 6/30/22										45.3%	48.8%	44.3%	43.5%	38.7%	44.0%	34.3%	38.0%	40.0%	38.4%	38.5%	40.0%	38.5%	40.0%	38.5%	40.0%	Long-Term Debt Ratio	40.0%		
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. '19-'21 to '25-'27										54.7%	51.2%	55.7%	56.5%	61.3%	56.0%	65.7%	62.0%	60.0%	61.6%	61.5%	60.0%	61.5%	60.0%	61.5%	60.0%	61.5%	Common Equity Ratio	60.0%	
Business: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to over three million customers through six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Gas sales breakdown for fiscal 2021: 67.9%, residential; 26.8%, commercial; 3.6%, industrial; and 1.7% other. The company sold Atmos Energy Marketing, 1/17. Officers and directors own approximately .9% of common stock (12/21 Proxy). President and Chief Executive Officer: Kevin Akers. Incorporated: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.										4315.5	5036.1	5542.2	5650.2	5651.8	6965.7	7263.6	9279.7	11323	12837	15200	16600	16600	16600	16600	16600	16600	Total Capital (\$mill)	21400	
Atmos Energy seems to be on track to a solid fiscal 2022 (which concludes on September 30th). Through the first nine months, share net of \$5.15 was 7.5% higher than last year's \$4.79 figure. This was made possible partially by the distribution division, aided by favorable rate case outcomes and an expanded customer base. Too, results of the pipeline and storage unit benefited from GRIP filings approved in May, 2021 and May, 2022. A significantly reduced effective income tax rate also helped the company. So, if there are no major setbacks in the fourth quarter, Atmos' full-year profits might rise around 10%, to \$5.60 a share, compared to fiscal 2021's \$5.12 total. Concerning next year, share net stands to increase another 7%, to \$6.00, assuming additional expansion of operating margins.										5475.6	6030.7	6725.9	7430.6	8280.5	9259.2	10371	11788	13355	15064	17300	18700	18700	18700	18700	18700	18700	Net Plant (\$mill)	24000	
There's adequate liquidity to meet various commitments for quite a while. When the third quarter ended, cash and equivalents sat at \$328.1 million. Furthermore, long-term debt was reasonable (roughly 38% of total capital) and short-term obligations did not seem to be a major obstacle. Also, \$2.2 billion in com-										6.1%	5.9%	6.4%	6.6%	7.2%	6.4%	6.9%	6.1%	5.5%	5.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	Return on Total Cap'l	6.5%	
mon stock and/or debt securities remained available for issuance (out of \$5 billion) under a shelf registration statement expiring in June, 2024. Finally, Atmos Energy can access four revolving credit facilities totaling \$2.5 billion plus a \$1.5 billion commercial paper program.										8.1%	8.9%	9.4%	9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	Return on Shr. Equity	9.0%	
We think good things are in store for the company over the 2025-2027 span. It ranks as one of the country's biggest natural gas-only distributors, with more than three million customers across several states, including Texas, Louisiana, and Mississippi. Too, the pipeline and storage segment seems to have promising overall growth opportunities, given that it operates in one of the most-active drilling regions in the world. The sound balance sheet is another plus.										8.1%	8.9%	9.4%	9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	Return on Com Eq	9.0%
The top-quality stock offers unexciting long-term total return potential. Capital appreciation possibilities are underwhelming. Moreover, the dividend yield is lower than the average of Value Line's Natural Gas Utility group. But these shares are ranked 2 (Above Average) for Timeliness.										2.8%	4.0%	4.7%	4.9%	5.1%	4.9%	4.8%	4.6%	4.4%	4.3%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	Returned to Com Eq	4.5%
Frederick L. Harris, III August 26, 2022										65%	56%	50%	51%	50%	50%	48%	48%	49%	49%	50%	49%	49%	50%	49%	49%	50%	All Div's to Net Prof	48%	
Fiscal Year 2019 2020 2021 2022 2023										QUARTERLY REVENUES (\$ mill.) ^A Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year										Business: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to over three million customers through six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Gas sales breakdown for fiscal 2021: 67.9%, residential; 26.8%, commercial; 3.6%, industrial; and 1.7% other. The company sold Atmos Energy Marketing, 1/17. Officers and directors own approximately .9% of common stock (12/21 Proxy). President and Chief Executive Officer: Kevin Akers. Incorporated: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.									
Fiscal Year 2019 2020 2021 2022 2023										EARNINGS PER SHARE ^{ABE} Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year										mon stock and/or debt securities remained available for issuance (out of \$5 billion) under a shelf registration statement expiring in June, 2024. Finally, Atmos Energy can access four revolving credit facilities totaling \$2.5 billion plus a \$1.5 billion commercial paper program.									
Cal-endar 2018 2019 2020 2021 2022										QUARTERLY DIVIDENDS PAID ^C Mar.31 Jun.30 Sep.30 Dec.31 Full Year										The top-quality stock offers unexciting long-term total return potential. Capital appreciation possibilities are underwhelming. Moreover, the dividend yield is lower than the average of Value Line's Natural Gas Utility group. But these shares are ranked 2 (Above Average) for Timeliness.									
2018 .485 .485 .485 .525 1.98 2019 .525 .525 .525 .575 2.15 2020 .575 .575 .575 .625 2.35 2021 .625 .625 .625 .68 2.56 2022 .68 .68 .68 .68										2019 1.38 1.82 .68 .49 4.35 2020 1.47 1.95 .79 .53 4.72 2021 1.71 2.30 .78 .37 5.12 2022 1.86 2.37 .92 .45 5.60 2023 2.02 2.43 1.01 .54 6.00										Frederick L. Harris, III August 26, 2022									
(A) Fiscal year ends Sept. 30th. (B) Diluted shrs. Excl. nonrec. gains (loss): '10, '5c, '11, '16; '18, \$1.43; '20, '17c. Excludes discontinued operations: '11, '10c; '12, '27c; '13, '14c; '17, '13c. Next egs. rpt. due early Nov.										(C) Dividends historically paid in early March, June, Sept., and Dec. (D) Div. reinvestment plan. Direct stock purchase plan avail.										(E) Qtrs may not add due to change in shrs outstanding.									
Company's Financial Strength A+ Stock's Price Stability 85 Price Growth Persistence 80 Earnings Predictability 100										To subscribe call 1-800-VALUELINE																			

NISOURCE INC. NYSE-NI				RECENT PRICE	31.36	P/E RATIO	20.9	(Trailing: 22.9)	RELATIVE P/E RATIO	1.30	DIV'D YLD	3.0%	VALUE LINE							
TIMELINESS 4	Raised 3/11/22	High: 24.0	26.2	33.5	44.9	49.2	26.9	27.8	28.1	30.7	30.5	27.8	32.6							
SAFETY 3	Lowered 3/19/21	Low: 17.7	22.3	24.8	32.1	16.0	19.0	21.7	22.4	24.7	19.6	21.1	26.4							
TECHNICAL 2	Raised 8/19/22	LEGENDS 0.50 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																		
BETA .85	(1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$25-\$39 \$32 (0%)																		
2025-27 PROJECTIONS High 50 (+60%) 15% Low 35 (+10%) 6%																				
Institutional Decisions to Buy 302021 402021 102022 to Sell 230 293 266 Hld's(000) 376481 377935 381604																				
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023																				
27.37	28.96	32.36	24.02	22.99	21.33	16.31	18.04	20.47	14.58	13.90	14.46	13.74	13.63	11.95	12.09	14.20	14.60	Revenues per sh	17.55	
3.18	3.20	3.32	2.96	3.19	2.98	3.13	3.41	3.60	2.27	2.71	2.07	2.86	3.17	3.15	3.26	3.45	3.50	"Cash Flow" per sh	4.35	
1.14	1.14	1.34	.84	1.06	1.05	1.37	1.57	1.67	.63	1.00	.39	1.30	1.31	1.32	1.37	1.45	1.60	Earnings per sh ^A	2.40	
.92	.92	.92	.92	.92	.92	.94	.98	1.02	.83	.64	.70	.78	.80	.84	.88	.94	.98	Div'd Decl'd per sh ^B	1.08	
2.33	2.88	3.54	2.81	2.88	3.99	4.83	5.99	6.42	4.26	4.57	5.03	4.88	4.72	4.49	4.53	5.90	8.10	Cap'l Spending per sh	5.75	
18.32	18.52	17.24	17.54	17.63	17.71	17.90	18.77	19.54	12.04	12.60	12.82	13.08	13.36	12.66	13.33	13.75	14.35	Book Value per sh ^C	17.50	
273.65	274.18	274.26	276.79	279.30	282.18	310.28	313.68	316.04	319.11	323.16	337.02	372.36	382.14	391.76	404.30	406.00	408.00	Common Shs Outst'g ^D	415.00	
19.2	18.8	12.1	14.3	15.3	19.4	17.9	18.9	22.7	37.3	23.2	NMF	19.3	21.3	18.7	18.0			Avg Ann'l P/E Ratio	19.0	
1.04	1.00	7.3	.95	.97	1.22	1.14	1.06	1.19	1.88	1.22	3.24	1.04	1.13	.96	.99			Relative P/E Ratio	1.05	
4.2%	4.3%	5.7%	7.6%	5.7%	4.5%	3.8%	3.3%	2.7%	3.5%	2.8%	2.8%	3.1%	2.9%	3.4%	3.6%			Avg Ann'l Div'd Yield	2.5%	
CAPITAL STRUCTURE as of 6/30/22 Total Debt \$10112.5 mill. Due in 5 Yrs \$1318 mill. LT Debt \$9520.2 mill. LT Interest \$336 mill. (Interest cov. earned: 2.2x) (58% of Cap'l)																				
5061.2	5657.3	6470.6	4651.8	4492.5	4874.6	4651.8	4492.5	4874.6	5114.5	5208.9	4681.7	4899.6	5750	5950	590	655	Revenues (\$mill)	7300		
34.4%	34.8%	36.9%	41.6%	35.7%	37.0%	34.4%	34.8%	36.9%	41.6%	35.7%	37.0%	19.7%	17.0%	18.3%	15.7%	19.0%	19.0%	Income Tax Rate	19.0%	
																	2.0%	2.0%	AFUDC % to Net Profit	2.0%
55.1%	56.3%	56.9%	60.7%	59.8%	63.5%	55.3%	56.8%	61.2%	56.9%	55.0%	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	Long-Term Debt Ratio	52.0%	
44.9%	43.7%	43.1%	39.3%	40.2%	36.5%	37.9%	36.9%	32.9%	33.5%	33.5%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	Common Equity Ratio	39.5%	
12373	13480	14331	9792.0	10129	11832	12856	13843	15058	16131	17250	17500	17500	17500	17500	17500	17500	17500	Total Capital (\$mill)	18750	
12916	14365	16017	12112	13068	14360	15543	16912	16620	17882	18750	19250	19250	19250	19250	19250	19250	19250	Net Plant (\$mill)	22500	
5.0%	5.2%	5.3%	4.0%	5.0%	2.6%	5.1%	5.3%	5.0%	4.9%	3.5%	4.0%	4.0%	4.0%	4.2%	4.2%	4.2%	4.2%	Return on Total Cap'l	5.5%	
7.4%	8.3%	8.6%	5.2%	8.1%	3.0%	8.3%	9.2%	9.6%	9.0%	9.5%	9.0%	9.0%	9.0%	9.6%	9.0%	9.5%	9.0%	Return on Shr. Equity	11.5%	
7.4%	8.3%	8.6%	5.2%	8.1%	3.0%	8.3%	9.2%	10.2%	10.6%	9.5%	9.0%	9.0%	9.0%	10.2%	10.6%	9.5%	9.0%	Return on Com Eq	11.5%	
2.5%	3.1%	3.4%	NMF	3.0%	NMF	4.0%	3.8%	3.7%	4.2%	2.5%	3.0%	3.0%	3.0%	3.7%	4.2%	2.5%	3.0%	Retained to Com Eq	5.5%	
67%	62%	61%	NMF	63%	NMF	60%	64%	67%	64%	65%	60%	60%	60%	67%	64%	65%	60%	All Div's to Net Prof	55%	
CURRENT POSITION 2020 2021 6/30/22 (\$MILL.) Cash Assets 116.5 85.2 77.8 Other 1542.9 1835.6 1833.9 Current Assets 1659.4 1920.8 1911.7 Accts Payable 589.0 697.8 650.3 Debt Due 526.3 618.1 592.3 Other 1164.1 1430.9 1772.4 Current Liab. 2279.4 2746.2 3015.0 Fix. Chg. Cov. 250% 250% 255%																				
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '19-'21 to '25-'27 Revenues -6.0% -5.0% 5.5% "Cash Flow" 5% 2.0% 5.5% Earnings 3.0% 4.0% 9.5% Dividends -1.0% - - 4.5% Book Value -3.0% -2.5% 5.0%																				
QUARTERLY REVENUES (\$ mill.) Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 1869.8 1010.4 931.5 1397.2 5208.9 2020 1605.5 962.7 902.5 1211.0 4681.7 2021 1545.6 986.0 959.4 1408.6 4899.6 2022 1873.3 1183.2 1050 1643.5 5750 2023 1960 1170 1120 1700 5950																				
EARNINGS PER SHARE ^A Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 .82 .05 - - .45 1.31 2020 .76 .13 .09 .34 1.32 2021 .77 .13 .11 .39 1.37 2022 .75 .12 .10 .48 1.45 2023 .80 .20 .20 .40 1.60																				
QUARTERLY DIVIDENDS PAID ^B Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 .195 .195 .195 .195 .78 2019 .200 .200 .200 .200 .80 2020 .21 .21 .21 .21 .84 2021 .22 .22 .22 .22 .88 2022 .235 .235																				
BUSINESS: NiSource Inc. is a holding company for Northern Indiana Public Service Company (NIPSCO), which supplies electricity and gas to the northern third of Indiana. Customers: 479,185 electric in Indiana, 3,200,000 million gas in Indiana, Ohio, Pennsylvania, Kentucky, Virginia, Maryland, through its Columbia subsidiaries. Revenue breakdown, 2021: electrical, 31%; gas, 69%; other, less than 1%. Generating sources, coal, 69.4%; purchased & other, 30.6%. 2021 reported depreciation rates: 2.9% electric, 2.2% gas. Has 7,304 employees. Chairman: Richard L. Thompson. President & Chief Executive Officer: Lloyd Yates. Incorporated: Indiana. Address: 801 East 86th Avenue, Merrillville, Indiana 46410. Telephone: 877-647-5990. Internet: www.nisource.com																				
NiSource beat our earnings and revenue expectations in the second quarter. The northern Indiana utility company posted revenues 20% higher and share net one cent lower than its 2021 June quarter figures. The observed margin compression is primarily due to increased energy costs over the period. The Electric operations segment underperformed; its quarterly earnings decreased \$11 million from the year prior as increased operating costs outpaced revenue growth. The Gas Distribution segment also experienced margin pressure, despite overall earnings growth. Energy costs for the segment increased \$124.4 million, doubling the quarter's expense year over year. Strong revenue growth of \$167 million insulated the segment's bottom line. Yet the reduction in margin displays the company's exposure to structural volatility and commodity price risk in energy markets. The stock's price exhibited volatility in the quarter, but currently trades where they were three months ago. This result is in line with our expectations, as many of the adverse trends in the operating environment over the quarter have since reversed. Specifically, the shares fell when gas prices peaked in mid-June, but they have since recovered with the price of gas reverting to lower levels. Economic policy and recent data indicate that reductions in energy prices may persist, providing relief to the company's expense profile. Our 2022 bottom-line forecast remains unchanged. Management has reaffirmed guidance of share net between \$1.42 and \$1.48 on the year, supporting its long-term target earnings growth rate of 7% to 9% year over year. With a significant number of capital projects in development and more in the pipeline, this growth rate seems achievable. Despite current supply chain challenges disrupting the production of solar panels, the company is committed to developing a sustainable electric supply, which will protect margins from the energy market's volatility and promote growth. With an attractive 3- to 5- year price upside potential, paired with the above average dividend yield, this issue is suitable for income investors. Furthermore, the optional dividend reinvestment plan is another plus.																				
Earl B. Humes August 26, 2022																				
Company's Financial Strength Stock's Price Stability 100 Price Growth Persistence 20 Earnings Predictability 50																				

(A) Dil. EPS. Excl. gains (losses) on disc. ops.: '06, ('10); '07, '36; '08, (\$1.14); '15, (30c); '18, (\$1.48). Next egs. report due late October.
(B) Div's historically paid in mid-Feb., May, Aug., Nov. ■ Div'd reinv. avail.
(C) Incl. intang in '21: \$1485.9 million, \$3.68/sh.
(D) In mill.
(E) Spun off Columbia Pipeline Group (7/15)
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NEW JERSEY RES. NYSE-NJR										RECENT PRICE	P/E RATIO 18.7 (Trailing: 22.5 Median: 17.0)					RELATIVE P/E RATIO 1.17	DIV'D YLD 3.2%	VALUE LINE	
TIMELINESS 3	Raised 8/19/22	High: 25.2	25.1	23.8	32.1	34.1	38.9	45.4	51.8	51.2	44.7	44.4	47.5						
SAFETY 2	Lowered 4/17/20	Low: 19.8	19.3	19.5	21.9	26.8	30.5	33.7	35.6	40.3	21.1	33.3	37.8						
TECHNICAL 2	Raised 7/22/22	LEGENDS 0.40 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 3/15 Options: Yes Shaded area indicates recession 2-for-1																	
BETA .95	(1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$30-\$53 \$42 (-10%)																	
2025-27 PROJECTIONS High Low Price Gain Ann'l Total Return 7% 55 40 (+15%) (-15%) Nil																			
Institutional Decisions 302021 402021 102022 to Buy 109 158 144 to Sell 121 95 110 Hld's(000) 66131 68260 69401 Percent shares traded 30 20 10																			
© VALUE LINE PUB. LLC 25-27 % TOT. RETURN 7/22 THIS STOCK VL ARRH. INDEX 1 yr. 24.3 -8.2 3 yr. 3.3 40.3 5 yr. 28.5 56.9																			
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Revenues per sh ^A	33.00
39.81	36.31	45.37	31.17	32.05	36.30	27.08	38.38	44.40	32.09	21.90	26.28	33.24	29.01	20.39	22.71	28.15	29.40	"Cash Flow" per sh	4.25
1.37	1.22	1.81	1.58	1.63	1.70	1.86	1.93	2.73	2.52	2.46	2.68	3.72	2.99	3.30	3.36	3.70	3.90	Earnings per sh ^B	2.90
.93	.78	1.35	1.20	1.23	1.29	1.36	1.37	2.08	1.78	1.61	1.73	2.72	1.96	2.07	2.16	2.40	2.50	Div'ds Decl'd per sh ^C	1.95
.48	.51	.56	.62	.72	.77	.81	.86	.93	.98	1.04	1.11	1.19	1.19	1.27	1.36	1.48	1.55	Cap'l Spending per sh	8.50
.64	.73	.86	.90	1.05	1.13	1.26	1.33	1.52	3.76	4.15	3.80	4.39	5.83	4.65	5.42	6.05	5.15	Book Value per sh ^D	25.00
7.50	7.75	8.64	8.29	8.81	9.36	9.80	10.65	11.48	12.99	13.58	14.33	16.18	17.37	19.26	17.18	18.75	20.00	Common Shs Outstg ^E	100.00
82.88	83.22	84.12	83.17	82.35	82.89	83.05	83.32	84.20	85.19	85.88	86.32	87.69	89.34	95.80	94.95	98.00	99.00	Avg Ann'l P/E Ratio	17.0
16.1	21.6	12.3	14.9	15.0	16.8	16.8	16.0	11.7	16.6	21.3	22.4	15.6	24.3	17.7	17.5	17.5	17.5	Relative P/E Ratio	.95
.87	1.15	.74	.99	.95	1.05	1.07	.90	.62	.84	1.12	1.13	.84	1.29	.91	.94	.94	.94	Avg Ann'l Div'd Yield	4.0%
3.2%	3.0%	3.3%	3.5%	3.7%	3.3%	3.4%	3.7%	3.5%	3.1%	2.9%	2.7%	2.6%	2.5%	3.5%	3.6%	3.6%	3.6%		
CAPITAL STRUCTURE as of 6/30/22 Total Debt \$2919.7 mill. Due in 5 Yrs \$300 mill. LT Debt \$2524.6 mill. LT Interest \$78.6 mill. Incl. \$6.0 mill. capitalized leases. (LT interest earned: 5.0x; total interest coverage: 5.0x) Pension Assets-9/21 \$469.5 mill. Oblig. \$640.2 mill. Pfd Stock None Common Stock 96,228,378 shs. as of 8/1/22 MARKET CAP: \$4.5 billion (Mid Cap)																			
CURRENT POSITION 2020 2021 6/30/22 (SMILL.) Cash Assets 117.0 4.7 27.7 Other 505.3 629.6 712.4 Current Assets 622.3 634.3 740.1 Accts Payable 270.1 429.6 129.4 Debt Due 152.6 450.1 395.1 Other 111.0 171.7 444.9 Current Liab. 533.7 1051.4 969.4 Fix. Chg. Cov. 545% 545% 550%																			
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '19-'21 of change (per sh) Revenues -3.0% -0.0% 2.5% "Cash Flow" 7.0% 4.5% 5.0% Earnings 5.0% 2.5% 5.0% Dividends 6.5% 6.5% 5.0% Book Value 7.5% 7.0% 4.5%																			
QUARTERLY REVENUES (\$ mill.)^A Fiscal Year Ends Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year 2019 811.8 866.2 434.9 479.1 2592.0 2020 615.0 639.6 299.0 400.1 1953.7 2021 454.3 802.2 367.6 532.5 2156.6 2022 675.8 912.3 552.3 559.6 2700 2023 775 1050 500 525 2850																			
EARNINGS PER SHARE^{A B} Fiscal Year Ends Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year 2019 .61 1.27 d.20 .29 1.96 2020 .44 1.12 d.06 .57 2.07 2021 .46 1.77 d.15 .07 2.16 2022 .69 1.36 d.04 .39 2.40 2023 .70 1.45 .05 .40 2.50																			
QUARTERLY DIVIDENDS PAID^C Calendar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 .273 .273 .273 .2925 1.11 2019 .2925 .2925 .2925 .3125 1.19 2020 .3125 .3125 .3125 .3325 1.27 2021 .3325 .3325 .3325 .3625 1.36 2022 .3625 .3625 .3625																			
BUSINESS: New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in NJ, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had 564,000 cust. at 9/30/21. Fiscal 2021 volume: 112 bill. cu. ft. (20% interruptible, 61% residential, commercial & firm transportation, 19% other). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2021 dep. rate: 2.4%. Has 1,251 empl. Off/dir. own less than 1% of common; BlackRock, 15.3%; Vanguard, 10.6% (12/21 Proxy). CEO, President & Director: Steven D. Westhoven. Incorporated: New Jersey. Address: 1415 Wyckoff Road, Wall, NJ 07719. Telephone: 732-938-1480. Web: www.njresources.com.																			
New Jersey Resources exceeded our fiscal third-quarter revenue estimate and registered more than a nickel above share-net expectations. In the utility company's low season, it posted \$552 million in revenues, a 50% increase from the year before, driven chiefly by higher revenues in its utilities business. Net financial earnings, a non-GAAP financial performance metric used to adjust for unrealized gains and losses on derivatives, economic hedges on inventory, and impairment of equity investments, was negative \$0.04 per share, a dime over our forecasts. While the energy services division has continued to experience compressed margins due to higher gas prices, the segment's margins showed improvement from the December period. Strong performance in the core utility segment more than made up for the shortfall, leading to overall good financial results. In fact, all business units other than Clean Energy Ventures showed improved earnings year over year. Overall, the quarter was positive for shareholders as the company raised its fiscal 2022 guidance. New estimates suggest net financial earnings of 2.40 to \$2.50 per share.																			
The company has reinforced its central utility segment, New Jersey Natural Gas, through strategic investments in other business units. With a number of capital projects coming to completion, including the breakthrough Adelpia pipeline, the company is able to leverage the complimentary suite of its business units. In addition to opening doors to new customers, these investments make the company more sustainable, with much of its cutting-edge infrastructure capable of integrating alternative energy sources such as clean hydrogen and solar. Climate and energy provisions within the Inflation Reduction Act provide a prospective boost to the company's clean energy and energy services segments respectively. To-wit, the company has a large pipeline of capital projects moving forward and is actively seeking to expand its balance sheet. Overall, the innovative company is positioning itself well for the future, but its stock appears overpriced. Our 18-month price-appreciation forecast is negative, as the stock is currently trading above its estimated fair value.																			
<i>Earl B. Humes August 26, 2022</i>																			

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Cily: revenues and egs. may not sum to total due to rounding and change in shares outstanding. Next earnings © 2022 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.
(C) Dividends historically paid in early Jan., April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes regulatory assets in 2021: \$522.1 million, \$5.49/share.
(E) In millions, and adjusted for splits.
Company's Financial Strength A+
Stock's Price Stability 85
Price Growth Persistence 50
Earnings Predictability 55
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N.W. NATURAL NYSE:NWN RECENT PRICE **53.11** P/E RATIO **19.3** (Trailing: 21.3, Median: 24.0) RELATIVE P/E RATIO **1.23** DIV'D YLD **3.6%** VALUE LINE

TIMELINESS 3 Raised 8/19/22 High: 49.0, 50.8, 46.6, 52.6, 52.3, 66.2, 69.5, 71.8, 74.1, 77.3, 56.8, 57.6, 78.2
SAFETY 3 Lowered 3/19/21 Low: 39.6, 41.0, 40.0, 40.1, 42.0, 48.9, 56.5, 51.5, 57.2, 42.3, 41.7, 45.8
TECHNICAL 1 Raised 8/19/22
BETA .80 (1.00 = Market)
18-Month Target Price Range Target Price Range 2025 2026 2027
Low-High Midpoint (% to Mid) \$37-\$63 \$50 (-5%)

2025-27 PROJECTIONS
Price Gain Ann'l Total Return
High 85 (+60%) 15%
Low 55 (+5%) 5%

Institutional Decisions

LEGENDS
0.60 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area indicates recession

% TOT. RETURN 7/22
THIS STOCK VL ARRH. INDEX
1 yr. 6.8 -8.2
3 yr. -16.8 40.3
5 yr. -0.1 56.9

Percent shares traded
15
10
5

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
37.20	39.13	39.16	38.17	30.56	31.72	27.14	28.02	27.64	26.39	23.61	26.52	24.45	24.49	25.29	27.64	27.55	27.60	Revenues per sh	33.55
4.76	5.41	5.31	5.20	5.18	5.00	4.94	5.04	5.05	4.91	4.93	5.28	5.15	5.15	5.69	6.17	6.75	6.40	"Cash Flow" per sh	7.65
2.35	2.76	2.57	2.83	2.73	2.39	2.22	2.24	2.16	1.96	2.12	2.19	2.30	2.19	2.30	2.56	2.60	2.85	Earnings per sh ^A	3.45
1.39	1.44	1.52	1.60	1.68	1.75	1.79	1.83	1.85	1.86	1.87	1.88	1.89	1.90	1.91	1.92	1.93	1.94	Div'ds Decl'd per sh ^B	1.96
3.56	4.48	3.92	5.09	9.35	3.76	4.91	5.13	4.40	4.37	4.87	7.43	7.43	7.95	9.18	9.49	9.60	7.75	Cap'l Spending per sh	9.40
22.01	22.52	23.71	24.88	26.08	26.70	27.23	27.77	28.12	28.47	29.71	25.85	26.41	28.42	29.05	30.04	32.55	34.25	Book Value per sh ^C	37.20
27.24	26.41	26.50	26.53	26.58	26.76	26.92	27.08	27.28	27.43	28.63	28.74	28.88	30.47	30.59	31.13	35.00	35.50	Common Shs Outst ^g	32.00
15.9	16.7	18.1	15.2	17.0	19.0	21.1	19.4	20.7	23.7	26.9	--	26.6	30.9	25.0	19.5	<i>Bold figures are Value Line estimates</i>	<i>1.28</i>	Avg Ann'l P/E Ratio	20.0
.86	.89	1.09	1.01	1.08	1.19	1.34	1.09	1.09	1.19	1.41	--	1.44	1.65	1.28	1.06	<i>Bold figures are Value Line estimates</i>	<i>1.06</i>	Relative P/E Ratio	1.10
3.7%	3.1%	3.3%	3.7%	3.6%	3.9%	3.8%	4.2%	4.1%	4.0%	3.3%	3.0%	3.0%	2.8%	3.3%	3.8%	<i>Bold figures are Value Line estimates</i>	<i>3.8%</i>	Avg Ann'l Div'd Yield	2.6%

CAPITAL STRUCTURE as of 6/30/22

Total Debt \$1268.6 mill. Due in 5 Yrs \$175.3 mill.	730.6	758.5	754.0	723.8	676.0	762.2	706.1	746.4	773.7	860.4	965	980	Revenues (\$mill)	1125
LT Debt \$1045.5 mill. LT Interest \$44.5 mill.	59.9	60.5	58.7	53.7	58.9	65.6	67.3	65.3	70.3	78.7	90.0	100.0	Net Profit (\$mill)	135
(Total interest coverage: 3.1x)	42.4%	40.8%	41.5%	40.0%	40.9%	--	26.4%	16.2%	23.1%	25.8%	21.0%	21.0%	Income Tax Rate	21.0%
Pension Assets-12/21 \$399.2 mill.	8.2%	8.0%	7.8%	7.4%	8.7%	NMF	9.5%	8.8%	9.1%	9.1%	9.3%	9.7%	Net Profit Margin	12.0%
Oblig. \$569.8 mill.	48.5%	47.6%	44.8%	42.5%	44.4%	47.9%	48.1%	48.2%	49.2%	52.8%	50.0%	50.0%	Long-Term Debt Ratio	48.0%
Pfd Stock None	51.5%	52.4%	55.2%	57.5%	55.6%	52.1%	51.9%	51.8%	50.8%	47.2%	50.0%	50.0%	Common Equity Ratio	52.0%
Common Stock 34,817,043 shares as of 07/28/22	1424.7	1433.6	1389.0	1357.7	1529.8	1426.0	1468.9	1672.0	1748.8	1979.7	2200	2255	Total Capital (\$mill)	2550
MARKET CAP \$1.8 billion (Mid Cap)	1973.6	2062.9	2121.6	2182.7	2260.9	2255.0	2421.4	2438.9	2654.8	2871.4	3150	3360	Net Plant (\$mill)	4250
CURRENT POSITION (SMILL.)	5.7%	5.8%	5.8%	5.5%	5.1%	NMF	5.8%	5.2%	5.2%	5.1%	4.0%	4.5%	Return on Total Cap'l	6.0%
Cash Assets	8.2%	8.1%	7.6%	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	8.0%	9.5%	Return on Shr. Equity	9.5%
Other	8.2%	8.1%	7.6%	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	8.0%	9.5%	Return on Com Equity	9.5%
Current Assets	1.6%	1.5%	1.1%	.6%	.9%	NMF	2.1%	1.4%	1.7%	2.4%	2.0%	3.0%	Retained to Com Eq	4.0%
Accs Payable	80%	81%	85%	92%	87%	NMF	76%	82%	79%	71%	75%	68%	All Div'ds to Net Prof	55%
Debt Due	BUSINESS: Northwest Natural Holding Co. distributes natural gas to 1,000 communities, 775,000 customers, in Oregon (89% of customers) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 3.7 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system. Owns local underground storage. Rev. breakdown: residential, 37%; commercial, 22%; industrial, gas transportation, 41%. Employs 1,167. BlackRock Inc. owns 17.2% of shares; Vanguard, 11.8%; Off./Dir., .92% (4/22 proxy). CEO: David H. Anderson, Inc.: Oregon. Address: 220 NW 2nd Ave., Portland, OR 97209. Tel.: 503-226-4211. Internet: www.nwnatural.com.													
Other	Shares of Northwest Natural Holdings traded modestly higher over the quarter, registering an advance of 2.3% since our last report in May. These gains are less than the S&P 500's 4.4% rise over the same period. However, considering the stock's bright first-quarter returns, year to date performance has outpaced the index by more than 18%.													
Current Liab.	The company exceeded second-quarter earnings and revenue estimates. Revenues of \$195 million represented a 32% increase from a year earlier. Earnings per share increased to \$0.05 in the quarter, up from a loss of \$0.02 in 2021. In the six months ended June 30, revenues were \$80.5 million higher, while share-net was down \$0.07. Higher energy costs in the first half of the year impaired the company's profitability. With these prices falling in July and August, the company's third and fourth-quarter profit margins and earnings are likely to show year over year improvement.													
Fix. Chg. Cov.	A petition for higher base rates is expected to pass, effective November 1, subject to regulatory approval. The rate settlement stipulates an annual revenue requirement increase of \$62.7 million per year and an overall higher base rate of \$1.77 billion, allowing for \$337 million of additional provisions for net plant. These investments will serve to allow continued customer growth as the company expands geographically. In the past year it has added more than ten-thousand new customers. The settlement will also boost its efforts towards its ambitious destination zero program to reduce scope 2 greenhouse gas emissions. One of Northwest's flagship cap-ex projects resulting from the higher rates is a one megawatt hydrogen gas plant that will be blended into the gas supply. In the fourth-quarter we expect revenue and earnings to see a material advancement as these new rates take effect.													

ANNUAL RATES	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21	'25-'27
Revenues	-2.5%	--	4.5%	
"Cash Flow"	1.0%	2.5%	5.0%	
Earnings	-1.0%	2.9%	6.5%	
Dividends	1.5%	.5%	.5%	
Book Value	1.0%	.5%	4.0%	

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2019	285.4	123.4	90.3	247.3	746.4
2020	285.2	135.0	93.3	260.2	773.7
2021	315.9	148.9	101.5	294.1	860.4
2022	350.3	195.0	110	309.7	965
2023	365	160	115	340	980

Cal-endar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2019	1.50	.07	d.61	1.26	2.19
2020	1.58	d.17	d.61	1.50	2.30
2021	1.94	d.02	d.67	1.31	2.56
2022	1.80	.05	d.60	1.35	2.60
2023	1.95	.05	d.55	1.40	2.85

Cal-endar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	.4725	.4725	.4725	.475	1.89
2019	.475	.475	.475	.4775	1.90
2020	.4775	.4775	.4775	.48	1.91
2021	.48	.48	.48	.483	1.92
2022	.483	.483	.483		

(A) Diluted earnings per share. Excludes non-recurring items: '06, (\$0.06); '08, (\$0.03); '09, \$0.06; May not sum due to rounding. Next earnings report due in early November.	(B) Dividends historically paid in mid-February, May, August, and November.	(C) In millions.	(D) Includes intangibles. In 2021: \$70.6 million, \$2.27/share.
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Company's Financial Strength	A
Stock's Price Stability	B5
Price Growth Persistence	35
Earnings Predictability	10

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ONE GAS, INC. NYSE-OGS				RECENT PRICE	83.14	P/E RATIO	20.5	(Trailing: 21.2 Median: NMF)	RELATIVE P/E RATIO	1.24	DIV'D YLD	3.1%	VALUE LINE																																																																																																																																																																																																																																																																																																																																																
TIMELINESS 3	Raised 5/13/22	High:	44.3	51.8	67.4	79.5	87.8	96.7	97.0	81.9	92.3																																																																																																																																																																																																																																																																																																																																																		
SAFETY 2	New 6/2/17	Low:	31.9	38.9	48.0	61.4	62.2	75.8	63.7	62.5	73.4																																																																																																																																																																																																																																																																																																																																																		
TECHNICAL 2	Lowered 8/26/22	LEGENDS --- 39.00 x Dividends p sh ... Relative Price Strength Options: Yes Shaded area indicates recession																																																																																																																																																																																																																																																																																																																																																											
BETA .80	(1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$69-\$115 \$92 (10%)																																																																																																																																																																																																																																																																																																																																																											
2025-27 PROJECTIONS High Price Gain Ann'l Total Return Low 105 (+25%) 9%																																																																																																																																																																																																																																																																																																																																																													
Institutional Decisions 3Q2021 4Q2021 1Q2022 to Buy 135 148 146 to Sell 122 119 118 Hld's(000) 42681 43769 44094 Percent shares traded 21 14 7																																																																																																																																																																																																																																																																																																																																																													
<p>The shares of ONE Gas, Inc. began trading "regular-way" on the New York Stock Exchange on February 3, 2014. That happened as a result of the separation of ONEOK's natural gas distribution operation. Regarding the details of the spinoff, on January 31, 2014, ONEOK distributed one share of OGS common stock for every four shares of ONEOK common stock held by ONEOK shareholders of record as of the close of business on January 21. It should be mentioned that ONEOK did not retain any ownership interest in the new company.</p>																																																																																																																																																																																																																																																																																																																																																													
CAPITAL STRUCTURE as of 6/30/22 Total Debt \$4174.0 mill. Due in 5 Yrs \$2900.0 mill. LT Debt \$2283.9 mill. LT Interest \$140.0 mill. (LT interest earned: 5.1x; total interest coverage: 5.1x) Leases, Uncapitalized Annual rentals \$7.5 mill. Pfd Stock None Pension Assets-12/21 \$1245.2 mill. Oblig. \$1272.8 mill. Common Stock 54,137,522 shs. as of 7/25/22 MARKET CAP: \$4.5 billion (Mid Cap)																																																																																																																																																																																																																																																																																																																																																													
<table border="1"> <thead> <tr> <th></th> <th>2012</th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> <th>25-27</th> </tr> </thead> <tbody> <tr> <td>Revenues per sh</td> <td>--</td> <td>--</td> <td>34.92</td> <td>29.62</td> <td>27.30</td> <td>29.43</td> <td>31.08</td> <td>31.32</td> <td>28.78</td> <td>33.72</td> <td>43.30</td> <td>45.85</td> <td>61.40</td> </tr> <tr> <td>"Cash Flow" per sh</td> <td>--</td> <td>--</td> <td>4.52</td> <td>4.82</td> <td>5.43</td> <td>5.96</td> <td>6.32</td> <td>6.96</td> <td>7.36</td> <td>7.71</td> <td>8.05</td> <td>8.50</td> <td>10.55</td> </tr> <tr> <td>Earnings per sh ^A</td> <td>--</td> <td>--</td> <td>2.07</td> <td>2.24</td> <td>2.65</td> <td>3.02</td> <td>3.25</td> <td>3.51</td> <td>3.68</td> <td>3.85</td> <td>4.00</td> <td>4.20</td> <td>5.30</td> </tr> <tr> <td>Div'ds Decl'd per sh ^B</td> <td>--</td> <td>--</td> <td>.84</td> <td>1.20</td> <td>1.40</td> <td>1.68</td> <td>1.84</td> <td>2.00</td> <td>2.16</td> <td>2.32</td> <td>2.48</td> <td>2.64</td> <td>3.12</td> </tr> <tr> <td>Cap'l Spending per sh</td> <td>--</td> <td>--</td> <td>5.70</td> <td>5.63</td> <td>5.91</td> <td>6.81</td> <td>7.50</td> <td>7.91</td> <td>8.87</td> <td>9.23</td> <td>9.35</td> <td>9.55</td> <td>9.85</td> </tr> <tr> <td>Book Value per sh</td> <td>--</td> <td>--</td> <td>34.45</td> <td>35.24</td> <td>36.12</td> <td>37.47</td> <td>38.86</td> <td>40.35</td> <td>42.01</td> <td>43.81</td> <td>49.60</td> <td>50.70</td> <td>63.15</td> </tr> <tr> <td>Common Shs Outstg ^C</td> <td>--</td> <td>--</td> <td>52.08</td> <td>52.26</td> <td>52.28</td> <td>52.31</td> <td>52.57</td> <td>52.77</td> <td>53.17</td> <td>53.63</td> <td>54.50</td> <td>54.50</td> <td>57.00</td> </tr> <tr> <td>Avg Ann'l P/E Ratio</td> <td>--</td> <td>--</td> <td>17.8</td> <td>19.8</td> <td>22.7</td> <td>23.5</td> <td>23.1</td> <td>25.3</td> <td>21.7</td> <td>18.9</td> <td><i>Bold figures are Value Line estimates</i></td> <td></td> <td>23.5</td> </tr> <tr> <td>Relative P/E Ratio</td> <td>--</td> <td>--</td> <td>.94</td> <td>1.00</td> <td>1.19</td> <td>1.18</td> <td>1.25</td> <td>1.35</td> <td>1.11</td> <td>1.03</td> <td></td> <td></td> <td>1.30</td> </tr> <tr> <td>Avg Ann'l Div'd Yield</td> <td>--</td> <td>--</td> <td>2.3%</td> <td>2.7%</td> <td>2.3%</td> <td>2.4%</td> <td>2.5%</td> <td>2.3%</td> <td>2.7%</td> <td>3.2%</td> <td></td> <td></td> <td>2.5%</td> </tr> <tr> <td>Revenues (\$mill)</td> <td>--</td> <td>--</td> <td>1818.9</td> <td>1547.7</td> <td>1427.2</td> <td>1539.6</td> <td>1633.7</td> <td>1652.7</td> <td>1530.3</td> <td>1808.6</td> <td>2360</td> <td>2500</td> <td>3500</td> </tr> <tr> <td>Net Profit (\$mill)</td> <td>--</td> <td>--</td> <td>109.8</td> <td>119.0</td> <td>140.1</td> <td>159.9</td> <td>172.2</td> <td>186.7</td> <td>196.4</td> <td>206.4</td> <td>218</td> <td>230</td> <td>300</td> </tr> <tr> <td>Income Tax Rate</td> <td>--</td> <td>--</td> <td>38.4%</td> <td>38.0%</td> <td>37.8%</td> <td>36.4%</td> <td>23.7%</td> <td>18.7%</td> <td>17.5%</td> <td>16.3%</td> <td>18.0%</td> <td>18.5%</td> <td>22.0%</td> </tr> <tr> <td>Net Profit Margin</td> <td>--</td> <td>--</td> <td>6.0%</td> <td>7.7%</td> <td>9.8%</td> <td>10.4%</td> <td>10.5%</td> <td>11.3%</td> <td>12.8%</td> <td>11.4%</td> <td>9.2%</td> <td>9.2%</td> <td>8.6%</td> </tr> <tr> <td>Long-Term Debt Ratio</td> <td>--</td> <td>--</td> <td>40.1%</td> <td>39.5%</td> <td>38.7%</td> <td>37.8%</td> <td>38.6%</td> <td>37.7%</td> <td>41.5%</td> <td>61.0%</td> <td>48.0%</td> <td>49.0%</td> <td>52.0%</td> </tr> <tr> <td>Common Equity Ratio</td> <td>--</td> <td>--</td> <td>59.9%</td> <td>60.5%</td> <td>61.3%</td> <td>62.2%</td> <td>61.4%</td> <td>62.3%</td> <td>58.5%</td> <td>39.0%</td> <td>52.0%</td> <td>51.0%</td> <td>48.0%</td> </tr> <tr> <td>Total Capital (\$mill)</td> <td>--</td> <td>--</td> <td>2995.3</td> <td>3042.9</td> <td>3080.7</td> <td>3153.5</td> <td>3328.1</td> <td>3415.5</td> <td>3815.7</td> <td>6032.9</td> <td>5200</td> <td>5420</td> <td>7500</td> </tr> <tr> <td>Net Plant (\$mill)</td> <td>--</td> <td>--</td> <td>3293.7</td> <td>3511.9</td> <td>3731.6</td> <td>4007.6</td> <td>4283.7</td> <td>4565.2</td> <td>4867.1</td> <td>5190.8</td> <td>5500</td> <td>5800</td> <td>6750</td> </tr> <tr> <td>Return on Total Cap'l</td> <td>--</td> <td>--</td> <td>4.4%</td> <td>4.7%</td> <td>5.2%</td> <td>5.8%</td> <td>5.9%</td> <td>6.4%</td> <td>6.0%</td> <td>3.9%</td> <td>5.5%</td> <td>5.5%</td> <td>5.5%</td> </tr> <tr> <td>Return on Shr. Equity</td> <td>--</td> <td>--</td> <td>6.1%</td> <td>6.5%</td> <td>7.4%</td> <td>8.2%</td> <td>8.4%</td> <td>8.8%</td> <td>8.8%</td> <td>8.8%</td> <td>8.0%</td> <td>8.5%</td> <td>8.5%</td> </tr> <tr> <td>Return on Com Equity</td> <td>--</td> <td>--</td> <td>6.1%</td> <td>6.5%</td> <td>7.4%</td> <td>8.2%</td> <td>8.4%</td> <td>8.8%</td> <td>8.8%</td> <td>8.8%</td> <td>8.0%</td> <td>8.5%</td> <td>8.5%</td> </tr> <tr> <td>Retained to Com Eq</td> <td>--</td> <td>--</td> <td>3.7%</td> <td>3.1%</td> <td>3.5%</td> <td>3.7%</td> <td>3.7%</td> <td>3.8%</td> <td>3.7%</td> <td>3.5%</td> <td>3.0%</td> <td>3.0%</td> <td>3.5%</td> </tr> <tr> <td>All Div'ds to Net Prof</td> <td>--</td> <td>--</td> <td>40%</td> <td>53%</td> <td>52%</td> <td>55%</td> <td>56%</td> <td>56%</td> <td>58%</td> <td>60%</td> <td>62%</td> <td>63%</td> <td>59%</td> </tr> </tbody> </table>															2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	25-27	Revenues per sh	--	--	34.92	29.62	27.30	29.43	31.08	31.32	28.78	33.72	43.30	45.85	61.40	"Cash Flow" per sh	--	--	4.52	4.82	5.43	5.96	6.32	6.96	7.36	7.71	8.05	8.50	10.55	Earnings per sh ^A	--	--	2.07	2.24	2.65	3.02	3.25	3.51	3.68	3.85	4.00	4.20	5.30	Div'ds Decl'd per sh ^B	--	--	.84	1.20	1.40	1.68	1.84	2.00	2.16	2.32	2.48	2.64	3.12	Cap'l Spending per sh	--	--	5.70	5.63	5.91	6.81	7.50	7.91	8.87	9.23	9.35	9.55	9.85	Book Value per sh	--	--	34.45	35.24	36.12	37.47	38.86	40.35	42.01	43.81	49.60	50.70	63.15	Common Shs Outstg ^C	--	--	52.08	52.26	52.28	52.31	52.57	52.77	53.17	53.63	54.50	54.50	57.00	Avg Ann'l P/E Ratio	--	--	17.8	19.8	22.7	23.5	23.1	25.3	21.7	18.9	<i>Bold figures are Value Line estimates</i>		23.5	Relative P/E Ratio	--	--	.94	1.00	1.19	1.18	1.25	1.35	1.11	1.03			1.30	Avg Ann'l Div'd Yield	--	--	2.3%	2.7%	2.3%	2.4%	2.5%	2.3%	2.7%	3.2%			2.5%	Revenues (\$mill)	--	--	1818.9	1547.7	1427.2	1539.6	1633.7	1652.7	1530.3	1808.6	2360	2500	3500	Net Profit (\$mill)	--	--	109.8	119.0	140.1	159.9	172.2	186.7	196.4	206.4	218	230	300	Income Tax Rate	--	--	38.4%	38.0%	37.8%	36.4%	23.7%	18.7%	17.5%	16.3%	18.0%	18.5%	22.0%	Net Profit Margin	--	--	6.0%	7.7%	9.8%	10.4%	10.5%	11.3%	12.8%	11.4%	9.2%	9.2%	8.6%	Long-Term Debt Ratio	--	--	40.1%	39.5%	38.7%	37.8%	38.6%	37.7%	41.5%	61.0%	48.0%	49.0%	52.0%	Common Equity Ratio	--	--	59.9%	60.5%	61.3%	62.2%	61.4%	62.3%	58.5%	39.0%	52.0%	51.0%	48.0%	Total Capital (\$mill)	--	--	2995.3	3042.9	3080.7	3153.5	3328.1	3415.5	3815.7	6032.9	5200	5420	7500	Net Plant (\$mill)	--	--	3293.7	3511.9	3731.6	4007.6	4283.7	4565.2	4867.1	5190.8	5500	5800	6750	Return on Total Cap'l	--	--	4.4%	4.7%	5.2%	5.8%	5.9%	6.4%	6.0%	3.9%	5.5%	5.5%	5.5%	Return on Shr. Equity	--	--	6.1%	6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.0%	8.5%	8.5%	Return on Com Equity	--	--	6.1%	6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.0%	8.5%	8.5%	Retained to Com Eq	--	--	3.7%	3.1%	3.5%	3.7%	3.7%	3.8%	3.7%	3.5%	3.0%	3.0%	3.5%	All Div'ds to Net Prof	--	--	40%	53%	52%	55%	56%	56%	58%	60%	62%	63%	59%
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	25-27																																																																																																																																																																																																																																																																																																																																																
Revenues per sh	--	--	34.92	29.62	27.30	29.43	31.08	31.32	28.78	33.72	43.30	45.85	61.40																																																																																																																																																																																																																																																																																																																																																
"Cash Flow" per sh	--	--	4.52	4.82	5.43	5.96	6.32	6.96	7.36	7.71	8.05	8.50	10.55																																																																																																																																																																																																																																																																																																																																																
Earnings per sh ^A	--	--	2.07	2.24	2.65	3.02	3.25	3.51	3.68	3.85	4.00	4.20	5.30																																																																																																																																																																																																																																																																																																																																																
Div'ds Decl'd per sh ^B	--	--	.84	1.20	1.40	1.68	1.84	2.00	2.16	2.32	2.48	2.64	3.12																																																																																																																																																																																																																																																																																																																																																
Cap'l Spending per sh	--	--	5.70	5.63	5.91	6.81	7.50	7.91	8.87	9.23	9.35	9.55	9.85																																																																																																																																																																																																																																																																																																																																																
Book Value per sh	--	--	34.45	35.24	36.12	37.47	38.86	40.35	42.01	43.81	49.60	50.70	63.15																																																																																																																																																																																																																																																																																																																																																
Common Shs Outstg ^C	--	--	52.08	52.26	52.28	52.31	52.57	52.77	53.17	53.63	54.50	54.50	57.00																																																																																																																																																																																																																																																																																																																																																
Avg Ann'l P/E Ratio	--	--	17.8	19.8	22.7	23.5	23.1	25.3	21.7	18.9	<i>Bold figures are Value Line estimates</i>		23.5																																																																																																																																																																																																																																																																																																																																																
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Avg Ann'l Div'd Yield	--	--	2.3%	2.7%	2.3%	2.4%	2.5%	2.3%	2.7%	3.2%			2.5%																																																																																																																																																																																																																																																																																																																																																
Revenues (\$mill)	--	--	1818.9	1547.7	1427.2	1539.6	1633.7	1652.7	1530.3	1808.6	2360	2500	3500																																																																																																																																																																																																																																																																																																																																																
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Net Profit Margin	--	--	6.0%	7.7%	9.8%	10.4%	10.5%	11.3%	12.8%	11.4%	9.2%	9.2%	8.6%																																																																																																																																																																																																																																																																																																																																																
Long-Term Debt Ratio	--	--	40.1%	39.5%	38.7%	37.8%	38.6%	37.7%	41.5%	61.0%	48.0%	49.0%	52.0%																																																																																																																																																																																																																																																																																																																																																
Common Equity Ratio	--	--	59.9%	60.5%	61.3%	62.2%	61.4%	62.3%	58.5%	39.0%	52.0%	51.0%	48.0%																																																																																																																																																																																																																																																																																																																																																
Total Capital (\$mill)	--	--	2995.3	3042.9	3080.7	3153.5	3328.1	3415.5	3815.7	6032.9	5200	5420	7500																																																																																																																																																																																																																																																																																																																																																
Net Plant (\$mill)	--	--	3293.7	3511.9	3731.6	4007.6	4283.7	4565.2	4867.1	5190.8	5500	5800	6750																																																																																																																																																																																																																																																																																																																																																
Return on Total Cap'l	--	--	4.4%	4.7%	5.2%	5.8%	5.9%	6.4%	6.0%	3.9%	5.5%	5.5%	5.5%																																																																																																																																																																																																																																																																																																																																																
Return on Shr. Equity	--	--	6.1%	6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.0%	8.5%	8.5%																																																																																																																																																																																																																																																																																																																																																
Return on Com Equity	--	--	6.1%	6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.0%	8.5%	8.5%																																																																																																																																																																																																																																																																																																																																																
Retained to Com Eq	--	--	3.7%	3.1%	3.5%	3.7%	3.7%	3.8%	3.7%	3.5%	3.0%	3.0%	3.5%																																																																																																																																																																																																																																																																																																																																																
All Div'ds to Net Prof	--	--	40%	53%	52%	55%	56%	56%	58%	60%	62%	63%	59%																																																																																																																																																																																																																																																																																																																																																
BUSINESS: ONE Gas, Inc. provides natural gas distribution services to more than two million customers. There are three divisions: Oklahoma Natural Gas, Kansas Gas Service, and Texas Gas Service. The company purchased 164 Bcf of natural gas supply in 2021, compared to 153 Bcf in 2020. Total volumes delivered by customer (fiscal 2021): transportation, 59.3%; residential, 30.4%; commercial & industrial, 9.7%; other, .6%. ONE Gas has around 3,600 employees. BlackRock owns 12.2% of common stock; The Vanguard Group, 10.9%; American Century Investment, 8.0%; officers and directors, 1.5% (4/22 Proxy). CEO: Robert S. McAnnally, Incorporated: Oklahoma. Address: 15 East Fifth Street, Tulsa, Oklahoma 74103. Tel.: 918-947-7000. Internet: www.onegas.com.																																																																																																																																																																																																																																																																																																																																																													
Earnings for ONE Gas are running a bit ahead of last year's. Indeed, through the first half, share net of \$2.42 was 3% higher than the 2021 total of \$2.35. This can be attributed partly to benefits from new rates. Moreover, there was an increase in residential sales due primarily to net customer growth in Texas and Oklahoma. Bad-debt expense dropped, as well. So, if there are no major downside surprises during the second half, full-year profits stand to advance around 4%, to \$4.00 a share, relative to the 2021 figure of \$3.85. Concerning next year, the company's share net may grow at a similar percentage rate, to \$4.20, assuming that operating margins widen further.																																																																																																																																																																																																																																																																																																																																																													
Business prospects over the 2025-2027 horizon look promising. ONE Gas remains the top natural gas distributor (as measured by customer count) in both Oklahoma and Kansas, and holds the number-three position in Texas. Also, we believe these markets have decent growth possibilities and are located in one of the most active drilling regions in the United States. Another positive is the healthy balance sheet.																																																																																																																																																																																																																																																																																																																																																													
Corporate finances are in solid shape. The good-quality stock holds worthwhile long-term total return potential. When the second quarter concluded, cash and equivalents were about \$7.4 million, and cash flows were decent. Furthermore, there was \$490.1 million available (out of \$1 billion) under a commercial paper program. ONE Gas also possesses a \$1 billion revolving credit facility expiring in March, 2027. Finally, at the end of the June period, long-term debt was a reasonable 48% of total capital, and short-term borrowings did not seem to be a major stumbling block. All things considered, the energy firm ought to continue to be able to meet its working capital requirements, capital expenditures, and other obligations with minimal difficulty.																																																																																																																																																																																																																																																																																																																																																													
The good-quality stock holds worthwhile long-term total return potential. Upside possibilities during the 3- to 5-year span are decent. What's more, the dividend yield is respectable, relative to the average yield in Value Line's Natural Gas Utility universe. Meanwhile, these shares are ranked to perform in line with the broader market for the coming six to 12 months.																																																																																																																																																																																																																																																																																																																																																													
Company's Financial Strength B++ Stock's Price Stability 95 Price Growth Persistence 60 Earnings Predictability 100																																																																																																																																																																																																																																																																																																																																																													

(A) Diluted EPS. Excludes nonrecurring gain: June, Sept., and Dec. = Dividend reinvestment plan. Direct stock purchase plan.
(C) In millions.
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SPIRE INC. NYSE-SR		RECENT PRICE	76.28	P/E RATIO	17.6	(Trailing: 19.5) (Median: 19.0)	RELATIVE P/E RATIO	1.06	DIV'D YLD	3.7%	VALUE LINE								
TIMELINESS	3 Raised 6/17/22	High:	42.8	44.0	48.5	55.2	61.0	71.2	82.9	81.1	88.0	88.0	77.9	79.2	Target Price	2025	2026	Range 2027	
SAFETY	2 Raised 6/20/03	Low:	32.9	36.5	37.4	44.0	49.1	57.1	62.3	60.1	71.7	50.6	59.3	61.9					
TECHNICAL	2 Lowered 8/26/22	LEGENDS --- 26.50 x Dividends p sh ... Relative Price Strength Options: Yes Shaded area indicates recession																	
BETA	.80 (1.00 = Market)																		
18-Month Target Price Range																			
Low-High Midpoint (% to Mid)																			
\$54-\$89 \$72 (-5%)																			
2025-27 PROJECTIONS																			
High Price Gain Ann'l Total Low 95 130 (+70%) 17% 95 95 (+25%) 9%																			
Institutional Decisions																			
to Buy 302021 402021 102022 125 132 144 to Sell 113 116 113 Hld's(000) 42729 44013 44838																			
Percent 18 shares 12 traded 6																			
% TOT. RETURN 7/22																			
THIS STOCK VL ARTH. INDEX																			
1 yr. 10.3 -8.2 3 yr. 1.9 40.3 5 yr. 22.8 56.9																			
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
93.51	93.40	100.44	85.49	77.83	71.48	49.90	31.10	37.68	45.59	33.68	36.07	38.78	38.30	35.96	43.24	40.85	41.90	Revenues per sh ^A	63.65
3.81	3.87	4.22	4.56	4.11	4.62	4.58	3.12	3.87	6.15	6.16	6.54	7.55	7.12	5.25	9.09	8.40	9.10	"Cash Flow" per sh	10.90
2.37	2.31	2.64	2.92	2.43	2.86	2.79	2.02	2.35	3.16	3.24	3.43	4.33	3.52	1.44	4.96	3.90	4.35	Earnings per sh ^{A B}	5.50
1.40	1.45	1.49	1.53	1.57	1.61	1.66	1.70	1.76	1.84	1.96	2.10	2.25	2.37	2.49	2.60	2.74	2.86	Div'ds Decl'd per sh ^C	3.30
2.97	2.72	2.57	2.36	2.56	3.02	4.83	4.00	3.96	6.68	6.42	9.08	9.86	16.15	12.37	12.09	10.30	11.25	Cap'l Spending per sh	12.00
18.85	19.79	22.12	23.32	24.02	25.56	26.67	32.00	34.93	36.30	38.73	41.26	44.51	45.14	44.19	46.74	50.80	56.15	Book Value per sh ^D	67.10
21.36	21.65	21.99	22.17	22.29	22.43	22.55	32.70	43.18	43.36	45.65	48.26	50.67	50.97	51.60	51.70	52.50	52.50	Common Shs Outst'g ^E	55.00
13.6	14.2	14.3	13.4	13.7	13.0	14.5	21.3	19.8	16.5	19.6	19.8	16.7	22.8	NMF	13.6	<i>Bold figures are Value Line estimates</i>		Avg Ann'l P/E Ratio	20.5
.73	.75	.86	.89	.87	.82	.92	1.20	1.04	.83	1.03	1.00	9.0	1.21	NMF	.73			Relative P/E Ratio	1.15
4.3%	4.4%	3.9%	3.9%	4.7%	4.3%	4.1%	4.0%	3.8%	3.5%	3.1%	3.1%	3.1%	3.0%	3.4%	3.8%			Avg Ann'l Div'd Yield	3.0%
CAPITAL STRUCTURE as of 6/30/22																			
Total Debt \$3948.3 mill. Due in 5 Yrs \$1520.0 mill.																			
LT Debt \$3207.9 mill. LT Interest \$145.0 mill.																			
(Total interest coverage: 4.2x)																			
1125.5 1017.0 1627.2 1976.4 1537.3 1740.7 1965.0 1952.4 1855.4 2235.5 2145 2200																			
62.6 52.8 84.6 136.9 144.2 161.6 214.2 184.6 88.6 271.7 205 230																			
29.6% 25.0% 27.6% 31.2% 32.5% 32.4% NMF 15.7% 12.3% 20.1% 20.0% 20.5%																			
5.6% 5.2% 5.2% 6.9% 9.4% 9.3% 10.9% 9.5% 4.8% 12.2% 9.6% 10.5%																			
36.1% 46.6% 55.1% 53.0% 50.9% 50.0% 45.7% 45.0%																			
63.9% 53.4% 44.9% 47.0% 49.1% 50.0% 54.3% 49.7%																			
941.0 1959.0 3359.4 3345.1 3601.9 3986.3 4155.5 4625.6																			
1019.3 1776.6 2759.7 2941.2 3300.9 3665.2 3970.5 4352.0																			
7.9% 3.3% 3.1% 5.1% 4.9% 5.0% 6.3% 5.1%																			
10.4% 5.0% 5.6% 8.7% 8.2% 8.1% 9.5% 7.3%																			
10.4% 5.0% 5.6% 8.7% 8.2% 8.1% 9.5% 7.9%																			
4.3% 1.0% 1.5% 3.7% 3.3% 3.3% 4.7% 2.7%																			
59% 81% 73% 58% 59% 60% 51% 66%																			
NMF 54% 77% 72%																			
Revenues (\$mill) ^A																			
Net Profit (\$mill)																			
Income Tax Rate																			
Net Profit Margin																			
Long-Term Debt Ratio																			
Common Equity Ratio																			
Total Capital (\$mill)																			
Net Plant (\$mill)																			
Return on Total Cap'l																			
Return on Shr. Equity																			
Return on Com Equity																			
Retained to Com Eq																			
All Div'ds to Net Prof																			
Leases, Uncapitalized Annual rentals \$8.8 mill.																			
Pension Assets-9/21 \$945.7 mill.																			
Oblig. \$1318.0 mill.																			
Pfd Stock \$242.0 mill. Pfd Div'd \$14.8 mill.																			
Common Stock 52,492,777 shs. as of 7/31/22																			
MARKET CAP: \$4.0 billion (Mid Cap)																			
CURRENT POSITION 2020 2021 6/30/22 (\$MILL.)																			
Cash Assets 4.1 4.3 16.0																			
Other 566.5 1312.2 1245.1																			
Current Assets 590.6 1316.5 1261.1																			
Accts Payable 243.3 409.9 581.2																			
Debt Due 708.4 727.8 740.4																			
Other 497.5 470.6 428.3																			
Current Liab. 1449.2 1608.3 1749.9																			
Fix. Chg. Cov. 373% 448% 440%																			
ANNUAL RATES Past Past Est'd '19-'21 of change (per sh) 10 Yrs. 5 Yrs. to 25-'27																			
Revenues -6.5% 6.0% 6.5%																			
"Cash Flow" 5.0% 6.0% 7.5%																			
Earnings 2.0% 2.5% 3.0%																			
Dividends 4.5% 6.0% 5.0%																			
Book Value 6.5% 4.5% 7.0%																			
Fiscal Year Ends																			
QUARTERLY REVENUES (\$ mill.)^A																			
Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year																			
2019 602.0 803.5 321.3 225.6 1952.4																			
2020 566.9 715.5 321.1 251.9 1855.4																			
2021 512.6 1104.9 327.8 290.2 2235.5																			
2022 555.4 880.9 448.0 260.7 2145																			
2023 580 950 405 265 2200																			
Fiscal Year Ends																			
EARNINGS PER SHARE ^{A B F}																			
Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year																			
2019 1.32 3.04 d.09 d.74 3.52																			
2020 1.24 2.54 d1.87 d.45 1.44																			
2021 1.65 3.55 .03 d.26 4.96																			
2022 1.01 3.27 d.10 d.28 3.90																			
2023 1.35 3.36 d.03 d.33 4.35																			
Cal-endar																			
QUARTERLY DIVIDENDS PAID ^C																			
Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2018 .5625 .5625 .5625 .5625 2.25																			
2019 .5925 .5925 .5925 .5925 2.37																			
2020 .6225 .6225 .6225 .6225 2.49																			
2021 .65 .65 .65 .65 2.60																			
2022 .685 .685 .685 .685																			

(A) Fiscal year ends Sept. 30th. (B) Based on diluted shares outstanding. Excludes nonrecurring loss: '06, '7c. Excludes gain from discontinued operations: '08, '94c. Next earnings report due late Oct. (C) Dividends paid in early January, April, July, and October. (D) Dividend reinvestment plan available. (E) Incl. deferred charges. In '21: \$1,171.6 mill., \$22.66/sh. (F) Qlty. eqs may not sum due to rounding or change in shares outstanding.

Company's Financial Strength B++
 Stock's Price Stability 90
 Price Growth Persistence 55
 Earnings Predictability 40

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Frederick L. Harris, III August 26, 2022

Atmos Energy Corporation (ATO)

NYSE - NYSE Delayed Price. Currency in USD

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👤 Visitors trend 2W ↓ 10W ↑ 9M ↑

Quote Lookup

101.85 -2.81 (-2.68%) **101.85** 0.00 (0.00%)

At close: 04:03PM EDT

After hours: 05:00PM EDT





Summary Company Outlook v+ Chart Conversations Statistics Historical Data Profile Financials **Analysis** Options Holders Sustainability

Earnings Estimate	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
No. of Analysts	6	4	11	11
Avg. Estimate	0.43	2.14	5.56	5.95
Low Estimate	0.39	1.83	5.52	5.89
High Estimate	0.49	2.92	5.6	6.02
Year Ago EPS	0.37	1.86	5.12	5.56

Revenue Estimate	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
No. of Analysts	4	3	9	9
Avg. Estimate	659.68M	1.11B	3.89B	4.25B
Low Estimate	567M	1.07B	3.37B	3.65B
High Estimate	765.08M	1.19B	4.24B	4.95B
Year Ago Sales	568.38M	N/A	3.41B	3.89B
Sales Growth (year/est)	16.10%	N/A	14.10%	9.30%

Earnings History	9/29/2021	12/30/2021	3/30/2022	6/29/2022
	EPS Est.	0.34	1.85	2.35	0.84
EPS Actual	0.37	1.86	2.37	0.92
Difference	0.03	0.01	0.02	0.08
Surprise %	8.80%	0.50%	0.90%	9.50%

EPS Trend	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Current Estimate	0.43	2.14	5.56	5.95
7 Days Ago	0.44	2.14	5.56	5.95
30 Days Ago	0.43	2.14	5.56	5.95

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60 Days Ago	0.49	2.11	5.55	5.92
90 Days Ago	0.47	2.07	5.54	5.92

EPS Revisions	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Up Last 7 Days	N/A	N/A	1	N/A
Up Last 30 Days	N/A	N/A	2	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	1	N/A	N/A	N/A

Growth Estimates	ATO	Industry	Sector(s)	S&P 500
Current Qtr.	16.20%	N/A	N/A	N/A
Next Qtr.	15.10%	N/A	N/A	N/A
Current Year	8.60%	N/A	N/A	N/A
Next Year	7.00%	N/A	N/A	N/A
Next 5 Years (per annum)	8.39%	N/A	N/A	N/A
Past 5 Years (per annum)	11.79%	N/A	N/A	N/A

New Jersey Resources Corporation (NJR)

NYSE - NYSE Delayed Price. Currency in USD

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[Visitors trend](#) 2W ↑ 10W ↑ 9M ↑

[Quote Lookup](#)

38.70 -1.01 (-2.54%) **38.70** 0.00 (0.00%)

At close: 04:00PM EDT

After hours: 05:00PM EDT





[Summary](#) [Company Outlook](#) v+ [Chart](#) [Conversations](#) [Statistics](#) [Historical Data](#) [Profile](#) [Financials](#) **[Analysis](#)** [Options](#) [Holders](#) [Sustainability](#)

Earnings Estimate	Currency in USD				\n Advertisement\n
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)	
No. of Analysts	7	4	9	9	
Avg. Estimate	0.43	0.87	2.43	2.46	
Low Estimate	0.29	0.55	2.3	2.39	
High Estimate	0.47	1.3	2.48	2.53	
Year Ago EPS	0.07	0.69	2.16	2.43	\n Advertisement\n

Revenue Estimate	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
No. of Analysts	2	1	2	3
Avg. Estimate	428.91M	696.48M	2.51B	2.52B
Low Estimate	254.82M	696.48M	2.28B	2.38B
High Estimate	603M	696.48M	2.74B	2.73B
Year Ago Sales	532.53M	N/A	2.16B	2.51B
Sales Growth (year/est)	-19.50%	N/A	16.40%	0.40%

Earnings History	9/29/2021	12/30/2021	3/30/2022	6/29/2022
	EPS Est.	0.08	0.73	1.28	0.06
EPS Actual	0.07	0.69	1.36	-0.04
Difference	-0.01	-0.04	0.08	-0.1
Surprise %	-12.50%	-5.50%	6.20%	-166.70%

EPS Trend	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Current Estimate	0.43	0.87	2.43	2.46
7 Days Ago	0.43	0.87	2.43	2.46
30 Days Ago	0.39	0.87	2.42	2.44

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60 Days Ago	0.25	0.95	2.35	2.43
90 Days Ago	0.25	0.96	2.33	2.43

EPS Revisions	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	2	N/A	3	3
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	NJR	Industry	Sector(s)	S&P 500
Current Qtr.	514.30%	N/A	N/A	N/A
Next Qtr.	26.10%	N/A	N/A	N/A
Current Year	12.50%	N/A	N/A	N/A
Next Year	1.20%	N/A	N/A	N/A
Next 5 Years (per annum)	6.00%	N/A	N/A	N/A
Past 5 Years (per annum)	-2.06%	N/A	N/A	N/A

NiSource Inc. (NI)

NYSE - NYSE Delayed Price. Currency in USD

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Quote Lookup

25.19 -0.78 (-3.00%) **25.01** -0.18 (-0.71%)

At close: 04:04PM EDT

After hours: 06:00PM EDT





Summary Company Outlook **▼** Chart Conversations Statistics Historical Data Profile Financials **Analysis** Options Holders Sustainability

Earnings Estimate	Currency in USD				\n Advertisement\n
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)	
No. of Analysts	9	9	13	14	
Avg. Estimate	0.12	0.44	1.45	1.55	
Low Estimate	0.1	0.38	1.44	1.53	
High Estimate	0.15	0.48	1.5	1.58	
Year Ago EPS	0.11	0.39	1.37	1.45	\n Advertisement\n

Revenue Estimate	Currency in USD				\n Advertisement\n
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)	
No. of Analysts	4	4	8	8	
Avg. Estimate	1.03B	1.47B	5.37B	5.57B	
Low Estimate	999.21M	1.19B	5.07B	5.14B	
High Estimate	1.06B	1.68B	5.76B	6.03B	
Year Ago Sales	950.45M	1.41B	4.9B	5.37B	
Sales Growth (year/est)	7.90%	4.70%	9.60%	3.80%	

Earnings History	9/29/2021	12/30/2021	3/30/2022	6/29/2022
	EPS Est.	0.09	0.36	0.77	0.12
EPS Actual	0.11	0.39	0.75	0.12
Difference	0.02	0.03	-0.02	0
Surprise %	22.20%	8.30%	-2.60%	0.00%

EPS Trend	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Current Estimate	0.12	0.44	1.45	1.55
7 Days Ago	0.12	0.44	1.45	1.55
30 Days Ago	0.12	0.45	1.45	1.55

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60 Days Ago	0.12	0.45	1.45	1.55
90 Days Ago	0.12	0.43	1.45	1.55

EPS Revisions	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	N/A	N/A	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	NI	Industry	Sector(s)	S&P 500
Current Qtr.	9.10%	N/A	N/A	N/A
Next Qtr.	12.80%	N/A	N/A	N/A
Current Year	5.80%	N/A	N/A	N/A
Next Year	6.90%	N/A	N/A	N/A
Next 5 Years (per annum)	7.30%	N/A	N/A	N/A
Past 5 Years (per annum)	4.02%	N/A	N/A	N/A

Northwest Natural Holding Company (NWN)

NYSE - NYSE Delayed Price. Currency in USD

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Quote Lookup

43.38 -1.53 (-3.41%) **43.80** +0.42 (+0.97%)

At close: 04:00PM EDT

After hours: 07:17PM EDT





Summary Company Outlook v+ Chart Conversations Statistics Historical Data Profile Financials **Analysis** Options Holders Sustainability

Earnings Estimate	Currency in USD				\n Advertisement\n
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)	
No. of Analysts	6	6	6	7	
Avg. Estimate	-0.7	1.43	2.51	2.69	
Low Estimate	-0.76	1.23	2.45	2.56	
High Estimate	-0.63	1.51	2.56	2.78	
Year Ago EPS	-0.67	1.31	2.56	2.51	\n Advertisement\n

Revenue Estimate	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
No. of Analysts	2	2	3	4
Avg. Estimate	105.19M	286.25M	924.06M	989.89M
Low Estimate	104.5M	274.1M	898.83M	944.2M
High Estimate	105.88M	298.4M	949.54M	1.04B
Year Ago Sales	100.93M	294.09M	860.4M	924.06M
Sales Growth (year/est)	4.20%	-2.70%	7.40%	7.10%

Earnings History	9/29/2021	12/30/2021	3/30/2022	6/29/2022
	EPS Est.	-0.74	1.28	1.91	-0.04
EPS Actual	-0.67	1.31	1.8	0.05
Difference	0.07	0.03	-0.11	0.09
Surprise %	9.50%	2.30%	-5.80%	225.00%

EPS Trend	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Current Estimate	-0.7	1.43	2.51	2.69
7 Days Ago	-0.7	1.43	2.51	2.69
30 Days Ago	-0.71	1.5	2.53	2.69

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60 Days Ago	-0.71	1.5	2.53	2.69
90 Days Ago	-0.71	1.5	2.53	2.7

EPS Revisions	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	N/A	N/A	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	NWN	Industry	Sector(s)	S&P 500
Current Qtr.	-4.50%	N/A	N/A	N/A
Next Qtr.	9.20%	N/A	N/A	N/A
Current Year	-2.00%	N/A	N/A	N/A
Next Year	7.20%	N/A	N/A	N/A
Next 5 Years (per annum)	4.30%	N/A	N/A	N/A
Past 5 Years (per annum)	0.82%	N/A	N/A	N/A

ONE Gas, Inc. (OGS)

NYSE - NYSE Delayed Price. Currency in USD

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70.39 **-1.86 (-2.57%)** **70.39** 0.00 (0.00%)

At close: 04:00PM EDT

After hours: 05:00PM EDT




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Earnings Estimate	Currency in USD				\n Advertisement\n
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)	
No. of Analysts	7	7	7	6	
Avg. Estimate	0.41	1.25	4.08	4.37	
Low Estimate	0.28	1.2	4.07	4.34	
High Estimate	0.46	1.38	4.09	4.41	
Year Ago EPS	0.38	1.12	3.85	4.08	\n Advertisement\n

Revenue Estimate	Currency in USD				\n Advertisement\n
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)	
No. of Analysts	3	3	5	5	
Avg. Estimate	280.05M	437.35M	2.09B	2.09B	
Low Estimate	271.15M	71.47M	1.74B	1.84B	
High Estimate	291.29M	671.89M	2.36B	2.44B	
Year Ago Sales	N/A	593.74M	1.81B	2.09B	
Sales Growth (year/est)	N/A	-26.30%	15.30%	0.20%	

Earnings History	9/29/2021	12/30/2021	3/30/2022	6/29/2022
	EPS Est.	0.38	1.12	1.93	0.59
EPS Actual	0.38	1.12	1.83	0.59
Difference	0	0	-0.1	0
Surprise %	0.00%	0.00%	-5.20%	0.00%

EPS Trend	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Current Estimate	0.41	1.25	4.08	4.37
7 Days Ago	0.41	1.25	4.08	4.37
30 Days Ago	0.43	1.23	4.07	4.39

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60 Days Ago	0.43	1.23	4.07	4.39
90 Days Ago	0.43	1.23	4.07	4.39

EPS Revisions	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	N/A	1	N/A	N/A
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	OGS	Industry	Sector(s)	S&P 500
Current Qtr.	7.90%	N/A	N/A	N/A
Next Qtr.	11.60%	N/A	N/A	N/A
Current Year	6.00%	N/A	N/A	N/A
Next Year	7.10%	N/A	N/A	N/A
Next 5 Years (per annum)	5.00%	N/A	N/A	N/A
Past 5 Years (per annum)	6.01%	N/A	N/A	N/A

Spire Inc. (SR)

NYSE - NYSE Delayed Price. Currency in USD

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Quote Lookup

62.33 -1.69 (-2.64%) **62.33** 0.00 (0.00%)

At close: 04:00PM EDT

After hours: 05:00PM EDT





Summary Company Outlook **▼** Chart Conversations Statistics Historical Data Profile Financials **Analysis** Options Holders Sustainability

Earnings Estimate	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
No. of Analysts	8	5	8	9
Avg. Estimate	-0.67	1.13	3.89	4.37
Low Estimate	-0.75	0.43	3.84	4.27
High Estimate	-0.58	1.63	3.93	4.56
Year Ago EPS	-0.32	1.14	4.86	3.89

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\n Advertisement\n

Revenue Estimate	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
No. of Analysts	4	3	6	7
Avg. Estimate	275.13M	584.28M	2.16B	2.18B
Low Estimate	245M	549.12M	2.05B	1.83B
High Estimate	315.44M	633.1M	2.26B	2.39B
Year Ago Sales	290.2M	N/A	2.24B	2.16B
Sales Growth (year/est)	-5.20%	N/A	-3.50%	1.00%

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Earnings History	9/29/2021	12/30/2021	3/30/2022	6/29/2022
	EPS Est.	-0.69	1.32	3.11
EPS Actual	-0.32	1.14	3.42	0.01
Difference	0.37	-0.18	0.31	-0.01
Surprise %	53.60%	-13.60%	10.00%	-50.00%

EPS Trend	Currency in USD			
	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Current Estimate	-0.67	1.13	3.89	4.37
7 Days Ago	-0.68	1.12	3.88	4.37
30 Days Ago	-0.68	1.12	3.88	4.38

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60 Days Ago	-0.66	1.13	3.9	4.38
90 Days Ago	-0.6	1.14	3.91	4.38

EPS Revisions	Current Qtr. (Sep 2022)	Next Qtr. (Dec 2022)	Current Year (2022)	Next Year (2023)
Up Last 7 Days	N/A	N/A	N/A	N/A
Up Last 30 Days	1	N/A	N/A	1
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates	SR	Industry	Sector(s)	S&P 500
Current Qtr.	-109.40%	N/A	N/A	N/A
Next Qtr.	-0.90%	N/A	N/A	N/A
Current Year	-20.00%	N/A	N/A	N/A
Next Year	12.30%	N/A	N/A	N/A
Next 5 Years (per annum)	4.30%	N/A	N/A	N/A
Past 5 Years (per annum)	-21.79%	N/A	N/A	N/A

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