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

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Executive Editor: Joseph Aguinaldo
Assistant Editor: Jules Valencia
Haver Analytics
60 East 42nd Street
New York, NY 10165
Phone (212) 986-9300
E-mail: bluechip@haver.com

Robert J. Eggert, Founder
Randell E. Moore, Editor Emeritus
Rocco Impreveduto, General Manager

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Aggressive Fed Expected to Slow Rate Hikes in December

Another aggressive rate hike. As was widely expected, the US FOMC raised the target range for the federal funds rate (FFR) by 75bps at its November 1-2 meeting. Gauging from the FOMC's September projections (most recent release), it expects the FFR target (the midpoint of the 25bp target range) to end 2022 at 4.375%. With the November increase pushing the target range up to 3.75%-4.00%, the FOMC seems to expect a further FFR increase at the December meeting, but not a repeat of its string of four consecutive 75bp hikes. Rather, the FOMC anticipates a slowing of the pace of rate hikes with a 50bp increase at the next meeting. Indeed, in a speech delivered on November 30, Fed Chair Powell said that "the time for moderating the pace of rate increases may come as soon as the December [FOMC] meeting."

This expectation is shared by the fed funds futures market and generally by Blue Chip Financial Forecasts (BCFF) forecasters. The fed funds futures market is currently putting a 77% probability on a 50bp increase in December. The BCFF panel forecasts the FFR on a quarterly average basis. The 4.0% average the consensus expects for Q4 is broadly consistent with a 50bp increase in the target in December.

But easier financial conditions. Notwithstanding the Fed's continued aggressive interest rate hikes, financial conditions have actually eased a little over the past month or so with market interest rates having fallen slightly and equity prices having edged up. Moreover, credit spreads narrowed during November with yields on high-grade long-term corporate debt falling more than yields on longer-term Treasury debt. The softening of financial conditions followed lower-than-expected CPI and PPI reports for October and was magnified by Powell's late-month speech.

However, one month's inflation observation does not make a trend. Indeed, financial markets were also excited by an unchanged monthly reading on the CPI for June but were subsequently disappointed after the energy-driven decline was not sustained. Also, it appears that the good inflation news for October did not generate as much excitement at the Fed as it did in financial markets with Fed officials cautioning against reading too much into one month's report. In his November 30 speech, Powell specifically addressed the October inflation reports, stating "it will take substantially more evidence to give comfort that inflation is actually declining."

Tighter conditions ahead. The Fed's policy course to date has been aggressive—the most aggressive in about 40 years. Consequently, some slowing of the pace of tightening is to be expected. But BCFF forecasters continue to look for tighter financial conditions ahead. Inflation remains stubbornly elevated and the labor market tight, two points Powell made in his November 30 speech where he also noted that "we have a long way to go in restoring price stability." Besides the already noted expectation of further FFR rate hikes in early 2023, the BCFF consensus also looks for a re-tightening of financial conditions in the near term as market interest rates at nearly all tenors are expected to increase through the second quarter of next year. The recently inverted and key 10-year/3-month Treasury yield curve is expected to remain inverted, indicating heightened recession risk, and the AAA corporate bond/ 10-year Treasury credit spread is expected to widen, though only moderately.

Even though the BCFF forecasters look for further rate hikes in early 2023, they think that the Fed has already done most of its heavy interest-rate lifting. The BCFF consensus looks for the FFR to peak in the first quarter of 2023 at 5.01%. This is 30bps higher than the expected peak in last month's survey, an apparent response to the FOMC's post-November meeting comment that the peak FFR would be somewhat higher than previously thought. A peak of 5.01% would mean another 75bps of rate hikes following the 50bp increase expected in December.

After the FFR peaks, the consensus estimate looks for it to remain elevated for a few quarters, reflecting Powell's comment that "it is likely that restoring price stability will require holding policy at a restrictive level for some time." While the consensus quarterly forecast looks for a modest decline in the FFR in next year's fourth quarter, the majority of respondents to a special question did not expect the first FFR cut until the first quarter of 2024 or later.

Mixed economic signals. The economy is giving off mixed signals. GDP increased an upwardly revised 2.9% q/q saar in Q3 and the source data for Q4 appears to be pointing to another solid quarter for GDP growth. But purchasing managers' indexes have shown a sharp slowing of activity over the past few months with the Markit PMI and the ISM manufacturing PMI both dipping into contraction territory. Furthermore, leading indicators of recession are flashing bright yellow. BCFF forecasters are similarly uncertain over the near-term economic outlook. The consensus for Q4 2022 GDP growth was increased in the most recent survey, to a still-anemic 1.0% from 0.4% last month. However, the range of forecasts is quite wide—from a low of -2.0% to a high of 4.1%. The consensus forecast continues to look for a mild recession in Q1 and Q2 next year and then a return to very modest, but below-trend, growth over the rest of the forecast horizon.

Long-range forecasts. This month's survey also contains the semiannual longer-term forecasts—out to 2033. Longer-term forecasts reveal the trends that underlie the panel's higher frequency outlook. In general, the BCFF consensus envisions US GDP growing at its potential, inflation slightly above target, and elevated interest rates. After a recession in 2023 and a tepid recovery in 2024, the consensus looks for GDP growth to average around 1.9%, right around current estimates of the economy's growth potential. PCE inflation, targeted by the Fed, is expected to slow to 2.1% by 2025 and remain there for the rest of the forecast horizon. In contrast to the long-range forecasts made last June, the consensus looks for a higher level of the fed funds rate over the coming decade, implying either that the estimate of the neutral FFR has increased or that the consensus expects an extended period of modestly restrictive monetary policy. Forecasters expect higher 10-year Treasury yields, averaging 3.6%, the highest in more than a decade.

Sandy Batten (Haver Analytics, New York, NY)

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

	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Qtr*	4Q	1Q	2Q	3Q	4Q	1Q
Interest Rates	Nov 25	Nov 18	Nov 11	Nov 4	Oct	Sep	Aug	3Q 2022	2022	2023	2023	2023	2023	2024
Federal Funds Rate	3.83	3.83	3.83	3.08	3.08	2.56	2.33	2.19	**4.0**	**4.7**	**4.9**	**4.8**	**4.6**	**4.4**
Prime Rate	7.00	7.00	7.00	6.25	6.25	5.73	5.50	5.36	**7.0**	**7.8**	**8.1**	**7.9**	**7.7**	**7.5**
SOFR	3.80	3.80	3.78	3.35	3.04	2.50	2.28	2.13	**3.8**	**4.6**	**4.8**	**4.6**	**4.4**	**4.2**
Commercial Paper, 1-mo.	3.96	3.84	3.82	3.86	3.28	2.80	2.33	2.34	**4.0**	**4.7**	**5.0**	**4.8**	**4.5**	**4.3**
Treasury bill, 3-mo.	4.41	4.33	4.29	4.23	3.87	3.22	2.72	2.75	**4.3**	**4.7**	**4.8**	**4.7**	**4.5**	**4.3**
Treasury bill, 6-mo.	4.67	4.56	4.58	4.57	4.31	3.71	3.15	3.24	**4.5**	**4.9**	**4.9**	**4.7**	**4.5**	**4.3**
Treasury bill, 1 yr.	4.76	4.65	4.73	4.74	4.43	3.89	3.28	3.40	**4.7**	**4.9**	**4.9**	**4.6**	**4.4**	**4.2**
Treasury note, 2 yr.	4.46	4.41	4.59	4.61	4.38	3.86	3.25	3.38	**4.5**	**4.7**	**4.5**	**4.3**	**4.0**	**3.9**
Treasury note, 5 yr.	3.91	3.94	4.23	4.31	4.18	3.70	3.03	3.23	**4.2**	**4.3**	**4.2**	**4.0**	**3.8**	**3.7**
Treasury note, 10 yr.	3.75	3.79	4.08	4.12	3.98	3.52	2.90	3.11	**4.0**	**4.0**	**4.0**	**3.9**	**3.7**	**3.7**
Treasury note, 30 yr.	3.81	3.94	4.24	4.19	4.04	3.56	3.13	3.26	**4.0**	**4.2**	**4.2**	**4.1**	**3.9**	**3.9**
Corporate Aaa bond	4.96	5.15	5.49	5.52	5.41	4.87	4.35	4.54	**5.2**	**5.4**	**5.4**	**5.4**	**5.3**	**5.1**
Corporate Baa bond	5.67	5.87	6.23	6.29	6.22	5.64	5.08	5.29	**6.2**	**6.4**	**6.5**	**6.5**	**6.3**	**6.1**
State & Local bonds	4.33	4.44	4.68	4.76	4.62	4.31	3.84	3.99	**4.4**	**4.6**	**4.6**	**4.5**	**4.4**	**4.4**
Home mortgage rate	6.58	6.61	7.08	6.95	6.90	6.11	5.22	5.58	**6.7**	**6.7**	**6.6**	**6.5**	**6.3**	**6.2**
	History								Consensus Forecasts-Quarterly					
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
Key Assumptions	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	119.0	**120.5**	**120.3**	**119.9**	**119.6**	**118.9**	**118.3**
Real GDP	3.9	6.3	7.0	2.7	7.0	-1.6	-0.6	2.9	**1.0**	**-0.5**	**-0.5**	**0.4**	**0.9**	**1.4**
GDP Price Index	2.5	5.2	6.3	6.2	6.8	8.3	9.0	4.3	**4.3**	**3.8**	**3.0**	**2.7**	**2.6**	**2.3**
Consumer Price Index	2.2	4.1	8.2	6.7	7.9	9.2	10.5	5.7	**4.5**	**3.8**	**3.0**	**2.9**	**2.5**	**2.4**
PCE Price Index	1.6	4.5	6.4	5.6	6.2	7.5	7.3	4.3	**4.2**	**3.5**	**2.7**	**2.6**	**2.5**	**2.4**

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

----------Policy Rates[1]----------

	History			Consensus Forecasts Months From Now:		
	Latest:	Month Ago:	Year Ago:	3	6	12
U.S.	3.88	3.13	0.13	**4.59**	**4.82**	**4.39**
Japan	-0.10	-0.10	-0.10	**-0.09**	**-0.06**	**-0.08**
U.K.	3.00	2.25	0.10	**3.49**	**3.85**	**3.46**
Switzerland	0.50	0.50	-0.75	**1.11**	**1.36**	**1.38**
Canada	3.75	3.75	0.25	**4.39**	**4.58**	**4.02**
Australia	2.85	2.60	0.10	**3.42**	**3.61**	**3.11**
Euro area	2.00	1.25	0.00	**2.27**	**2.76**	**2.50**

----------10-Yr. Government Bond Yields[2]------

	History			Consensus Forecasts Months From Now:		
	Latest:	Month Ago:	Year Ago:	3	6	12
U.S.	3.68	4.02	1.48	**3.98**	**3.89**	**3.58**
Germany	1.97	2.10	-0.34	**2.09**	**2.07**	**2.03**
Japan	0.28	0.25	0.08	**0.25**	**0.24**	**0.22**
U.K.	3.26	3.60	0.82	**3.37**	**3.36**	**3.35**
France	2.43	2.61	0.03	**2.52**	**2.44**	**2.38**
Italy	3.85	4.17	0.97	**4.02**	**3.88**	**3.76**
Switzerland	1.01	1.06	-0.19	**1.21**	**1.33**	**1.37**
Canada	2.94	3.24	1.61	**3.33**	**3.36**	**3.21**
Australia	3.58	3.74	1.74	**3.82**	**3.76**	**3.58**
Spain	2.82	3.16	0.50	**3.10**	**3.00**	**2.94**

----------Foreign Exchange Rates[3]----------

	History			Consensus Forecasts Months From Now:		
	Latest:	Month Ago:	Year Ago:	3	6	12
U.S.	117.70	122.62	108.07	**122.0**	**119.7**	**118.4**
Japan	139.21	147.68	113.46	**142.6**	**139.1**	**135.0**
U.K.	1.21	1.16	1.33	**1.16**	**1.18**	**1.21**
Switzerland	0.95	1.00	0.92	**0.97**	**0.96**	**0.94**
Canada	1.34	1.36	1.28	**1.36**	**1.35**	**1.32**
Australia	0.68	0.64	0.71	**0.65**	**0.66**	**0.67**
Euro	1.04	0.99	1.13	**1.00**	**1.02**	**1.04**

	Consensus Policy Rates vs. US Rate			Consensus 10-Year Gov't Yields vs. U.S. Yield	
	Now	In 12 Mo.		Now	In 12 Mo.
Japan	-3.98	**-4.47**	Germany	-1.71	**-1.55**
U.K.	-0.88	**-0.93**	Japan	-3.41	**-3.36**
Switzerland	-3.38	**-3.02**	U.K.	-0.42	**-0.23**
Canada	-0.13	**-0.38**	France	-1.25	**-1.19**
Australia	-1.03	**-1.28**	Italy	0.17	**0.18**
Euro area	-1.88	**-1.89**	Switzerland	-2.67	**-2.20**
			Canada	-0.77	**-0.36**
			Australia	-0.10	**0.01**
			Spain	-0.87	**-0.64**

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

International. Investors have taken a more sanguine view toward the world economy in recent weeks. A key catalyst for this shift was a weaker-than-expected US CPI print for October and some subsequent data that suggested the US inflation cycle may now have peaked. But there have been some additional factors that have added some punch to this new-found optimism. These include a further retreat in energy prices, particularly in Europe; greater political stability in the UK; and a less hostile geopolitical environment in Eastern Europe. Insofar as these elements have reduced investor uncertainty, not least about the outlook for inflation and monetary policy, market risk premiums have been lowered and hard landing fears have eased.

Downside risks to the global economic outlook arguably still persist. On the data front November's flash PMI surveys suggested a broadly based decline in output has been unfolding in the US, Euro area, UK and Japan in recent weeks. If pandemic lockdown months are excluded, the scale of this decline is on a par with the global financial crisis. That chimes too with other leading indicators, including the shape of the US yield curve, which suggest the odds of a US and broader global recession in the months ahead remain worryingly high. It also chimes incidentally with our latest BCFF survey. All of our panelists, for example, who answered our special question on this topic this month, expect a recession in the Euro area and the UK in 2023. When pressed about its severity (mild or severe), 41% expect a severe recession in the Euro area against 52% in the UK.

Notwithstanding those views, central banks are still seemingly calibrating monetary policy with upside inflation risks in mind. Recent communications from policymakers at the Fed, the ECB and the BoE, for example, have stressed their low confidence in the idea that inflation has now peaked. That labor market activity continues to hold up well in nearly every major economy is one reason for that lack of confidence and thus critical for how monetary policy will be calibrated in the period ahead.

Against this backdrop Blue Chip panelists are expecting a further tightening of monetary policy in the period ahead in most of the major economies. And the pace of that tightening is now expected to be a little more acute over the next six months in the Euro area, UK, Canada and Australia relative to the pace that was anticipated in our November survey. The potential payback from this, however, is that policy rates are now expected to peak a little earlier than previously anticipated, albeit at a higher level. An easing cycle is also now expected to commence in all these economies in the latter half of next year, which is sooner than had been anticipated in the previous survey.

The developed economy that continues to buck this global trend toward tighter monetary policy is Japan. Thanks to relatively low levels of inflation and flagging economic growth, the majority of our panelists believe the BoJ will refrain from lifting interest rates in the immediate months ahead. Still, fears appear to be rising that interest rates may now be too low following a smattering of positive inflation surprises which, in turn, were generated, at least in part, by the policy-induced weakness of the yen.

However, the economy that more generally continues to buck the broader global trends discussed above is China. Renewed lockdowns in several major cities following further outbreaks of COVID have sparked some social instability, threatening to further boost economic instability. Ahead of this, the evidence on the economic front was already quite grim—the latest official PMI index, for example, slumped to 47.1 in November, from a prior 49.0, and the lowest reading in seven months. This economic weakness, in turn, is one reason why price pressures have, unlike in most developed economies, remained salient by their absence. To lean against this weakness, the authorities have rolled out a flurry of fiscal and monetary measures in recent months. But unless some social stability is restored in the coming weeks, further policy initiatives may be necessary before too long.

Fourth Quarter 2022

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter: Short-Term							Intermediate-Term			Long-Term					Avg. For Qtr.	(Q-Q % Change) (SAAR)			
	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
Swiss Re	4.6 H	na	na	na	na	na	na	na	na	3.9	na	na	na	na	na	na	1.7	na	na	na
Chan Economics	4.5	7.5	4.4	4.5	4.6	4.7	4.8	4.5	3.9 L	3.7	3.8	5.0	6.0	4.3	6.4	118.0	4.1 H	4.2	4.4	3.9
Scotiabank Group	4.5	na	na	na	4.9 H	na	na	4.7	4.4	4.0	4.1	na	na	na	na	na	-0.3	5.5	7.8 H	6.3 H
TS Lombard	4.5	7.6 H	4.4	4.5	4.3	4.3	4.4	4.5	3.9 L	3.8	3.9	4.7	5.5 L	3.8	6.5	122.0	3.0	4.7	4.7	4.7
Bank of America	4.4	na	5.0 H	na	na	na	na	4.5	4.3	4.0	4.1	na	na	na	na	na	0.5	5.4	4.6	4.5
BNP Paribas Americas	4.4	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.1	na	4.4	na
Economist Intelligence Unit	4.4	7.5	na	4.1	4.3	4.6	4.7	4.6	4.3	4.3	4.2	na	na	na	7.1	na	-1.1	na	4.1	na
Goldman Sachs & Co.	4.4	na	na	na	4.3	na	na	4.7	4.3	4.1	4.3	na	na	na	na	na	0.9	5.4	3.5	3.5
ING	4.4	na	na	na	na	na	na	4.6	4.4	4.3	4.3	na	na	na	na	na	2.4	na	na	na
Nationwide	4.4	7.5	4.3	4.6 H	4.4	4.5	4.8	4.6	4.2	4.0	4.1	5.1	6.0	na	7.0	na	3.2	4.9	5.2	4.5
NatWest Markets	4.4	7.5	3.1	4.5	4.6	4.7	4.8	4.3	4.1	3.6 L	3.0 L	5.0	5.9	4.0	4.8 L	na	0.5	5.8	4.4	4.4
Nomura Securities, Inc.	4.4	7.5	na	na	na	na	na	4.6	4.2	3.7	na	na	na	na	na	na	-1.1	5.0	4.0	3.9
Wells Fargo	4.4	7.5	4.3	4.4	4.7	4.9 H	4.9 H	4.7	4.3	4.2	4.4	5.4	6.4	4.8	7.0	na	1.1	4.4	4.3	4.4
ACIMA Private Wealth	4.3	7.3	4.3	4.4	4.3	4.8	4.8	4.7	4.3	3.9	3.9	5.0	5.8	3.0 L	6.8	119.0	1.5	5.0	4.5	5.0
DePrince & Assoc.	3.9	6.8	3.8	3.8	4.3	4.6	4.7	4.5	4.2	4.0	4.1	5.0	6.2	4.4	6.8	117.8 L	0.5	4.6	4.7	4.3
J.P. Morgan Chase	3.9	na	na	na	na	na	na	4.1 L	3.9 L	3.7	3.7	na	na	na	na	na	1.5	2.7	4.0	3.5
MacroFin Analytics & Rutgers Bus School	3.9	6.9	3.9	4.2	4.6	4.8	4.9 H	4.6	4.1	3.8	3.9	5.2	5.9	4.5	6.5	120.9	0.9	4.1	4.2	4.0
AIG	3.8	6.8	na	na	4.1	na	na	na	na	4.1	na	na	6.4	na	7.1	na	0.6	na	3.9	3.5
Bank of the West	3.8	6.9	3.6	3.6 L	4.1	4.5	4.6	4.5	4.1	3.9	4.0	5.1	6.2	4.7	6.8	121.5	1.0	3.9	4.3	3.5
BMO Capital Markets	3.8	6.9	3.6	na	4.2	4.5	4.6	4.4	4.1	3.9	4.0	na	na	na	6.9	122.2	1.0	3.3	5.4	5.2
Fannie Mae	3.8	7.0	na	na	4.3	4.6	4.7	4.5	4.0	3.9	3.9	na	na	na	6.7	na	-0.5	5.2	5.1	4.5
Georgia State University	3.8	6.9	na	na	4.4	4.7	4.9 H	5.0 H	4.5	4.0	4.1	5.7	6.6	na	7.0	na	1.0	5.8	5.0	4.5
GLC Financial Economics	3.8	6.9	3.6	3.7	3.6 L	3.6 L	3.8 L	4.2	4.0	3.9	4.0	5.2	6.1	4.6	6.2	123.4	1.0	5.7	3.7	3.9
KPMG	3.8	7.0	3.8	4.1	4.3	4.8	4.8	4.8	4.5	4.2	4.2	5.3	6.6	na	7.2 H	na	-0.8	5.9 H	6.0	5.0
Moody's Analytics	3.8	6.8	3.6	3.9	4.3	4.4	4.5	4.5	4.3	4.1	4.3	5.6	6.7 H	4.3	7.0	na	-0.1	3.1	4.0	3.7
Via Nova Investment Mgt.	3.8	7.0	3.9	4.0	4.4	4.9 H	4.8	4.8	4.7 H	4.5 H	4.5 H	5.9 H	6.5	5.3 H	7.0	120.5	3.5	4.2	4.0	3.7
Amherst Pierpont Securities	3.7	6.8	3.6	3.8	4.3	4.6	4.7	4.5	4.1	3.9	4.0	4.9	6.1	3.8	6.7	120.4	3.3	4.2	4.4	3.9
Comerica Bank	3.7	6.8	na	na	4.2	4.5	4.6	4.3	4.1	3.9	4.1	5.7	6.5	na	6.7	na	-2.0 L	3.3	4.2	4.6
Daiwa Capital Markets America	3.7	6.8	3.6	3.8	4.1	4.4	4.5	4.6	4.1	3.9	3.9	5.0	6.0	na	6.8	118.0	1.2	4.8	4.8	5.0
EY-Parthenon	3.7	na	na	na	3.8	na	na	na	na	3.9	na	na	na	na	na	na	1.5	2.9	4.0	3.6
Loomis, Sayles & Company	3.7	6.9	3.7	4.0	4.4	4.8	4.7	4.4	4.2	4.0	4.0	5.0	6.1	4.6	6.8	121.6	1.0	5.0	4.6	4.6
Oxford Economics	3.7	6.8	3.7	na	4.1	4.2	4.5	4.5	4.0	3.9	4.1	4.6 L	na	na	6.8	123.8 H	0.5	-0.2 L	5.2	4.2
PNC Financial Services Corp.	3.7	6.8	3.6	na	4.0	4.5	4.5	4.4	4.1	3.9	4.1	na	6.2	4.1	6.7	119.2	0.1	1.3	1.3 L	1.1 L
Regions Financial Corporation	3.7	6.6 L	3.6	3.9	4.2	4.6	4.7	4.4	4.1	3.9	3.9	5.0	5.8	4.6	6.8	120.3	1.1	3.7	3.0	3.1
S&P Global Market Intelligence	3.7	6.8	3.0 L	na	4.0	4.2	4.5	4.4	4.2	4.0	4.1	na	na	na	7.0	na	-0.4	5.1	5.4	4.5
Societe Generale	3.7	6.8	3.6	na	4.2	4.5	4.7	4.5	4.0	3.9	4.0	na	na	na	na	na	2.0	3.7	4.2	3.5
The Northern Trust Company	3.7	6.8	3.6	3.8	4.1	4.6	4.7	4.6	4.3	4.0	4.2	5.2	6.3	4.8	6.8	120.0	2.4	4.0	4.2	3.3
Thru the Cycle	3.7	6.8	3.6	3.7	4.2	4.6	4.7	4.5	4.1	3.9	4.0	5.3	6.1	4.4	6.7	120.2	1.8	5.2	4.8	5.7
Chmura Economics & Analytics	3.6 L	6.7	3.5	3.7	4.2	4.5	4.7	4.5	4.3	4.1	4.3	5.2	na	na	6.9	na	1.2	5.0	5.4	4.7
December Consensus	**4.0**	**7.0**	**3.8**	**4.0**	**4.3**	**4.5**	**4.7**	**4.5**	**4.2**	**4.0**	**4.0**	**5.2**	**6.2**	**4.4**	**6.7**	**120.5**	**1.0**	**4.3**	**4.5**	**4.2**
Top 10 Avg.	4.5	7.4	4.2	4.3	4.5	4.8	4.8	4.7	4.4	4.2	4.3	5.5	6.4	4.7	7.0	121.7	2.7	5.5	5.5	5.1
Bottom 10 Avg.	3.7	6.8	3.5	3.8	4.0	4.3	4.5	4.3	4.0	3.8	3.8	4.9	5.9	4.1	6.4	119.3	-0.6	2.8	3.5	3.2
November Consensus	3.9	6.9	3.7	4.0	4.1	4.4	4.5	4.4	4.2	4.0	4.0	5.3	6.3	4.6	6.8	123.2	0.4	4.6	4.8	4.3
Number of Forecasts Changed From A Month Ago:																				
Down	6	5	4	6	6	6	7	4	10	11	13	10	12	10	10	15	7	15	12	13
Same	20	14	13	7	9	6	8	11	8	11	6	7	4	5	9	0	9	7	8	8
Up	13	12	8	8	18	17	14	20	17	16	15	6	7	2	10	2	22	12	17	14
Diffusion Index	59%	61%	58%	55%	68%	69%	62%	73%	60%	57%	53%	41%	39%	26%	50%	12%	70%	46%	57%	51%

First Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	Avg. For Qtr. A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
	Percent Per Annum -- Average For Quarter																(Q-Q % Change) (SAAR)			
	Short-Term							Intermediate-Term			Long-Term									
TS Lombard	5.5 H	8.6 H	5.4 H	5.5 H	5.3	5.3	4.9	4.5	3.9	3.5	3.6	4.4 L	5.2 L	3.5	5.3	118.0	1.0	5.0	5.0	4.5
Nomura Securities, Inc.	5.4	8.5	na	na	na	na	na	4.8	4.1	3.4	na	na	na	na	na	na	-1.7	4.1	2.6	2.7
Bank of America	5.1	na	5.3	na	na	na	na	4.5	4.3	4.0	4.1	na	na	na	na	na	-1.0	5.5 H	4.3	3.9
BNP Paribas Americas	5.1	na	na	na	na	na	na	5.0	na	4.3	4.4	na	na	na	na	na	0.0	na	4.2	na
Nationwide	5.1	8.3	5.1	5.5 H	4.9	4.8	4.7	4.7	4.6	4.3	4.4	5.6	6.8	na	7.1	na	0.5	4.1	4.9	4.1
Swiss Re	5.1	na	na	na	na	na	na	na	na	3.5	na	na	na	na	na	na	-1.5	na	na	na
Wells Fargo	5.1	8.3	5.1	5.1	5.1	5.1	5.0	4.8	4.4	4.3	4.4	5.5	6.5	4.9	7.0	na	0.7	3.7	3.7	3.7
ACIMA Private Wealth	5.0	8.0	5.0	5.1	5.1	4.8	4.7	4.5	4.0	3.7	3.7	5.5	6.5	3.0 L	6.5	122.0	-2.0	1.0 L	0.8 L	1.0
Georgia State University	5.0	8.2	na	na	4.9	5.1	5.3	5.2	4.7	4.4	4.3	5.8	6.6	na	7.0	na	-1.2	5.0	4.2	3.9
Scotiabank Group	5.0	na	na	na	4.9	na	na	4.5	4.3	3.8	3.9	na	na	na	na	na	-0.2	4.0	6.7 H	5.3
Economist Intelligence Unit	4.9	8.0	na	4.6	4.7	4.9	4.8	4.6	4.5	4.3	4.5	na	na	na	7.2	na	-1.5	na	3.2	na
Goldman Sachs & Co.	4.9	na	na	na	4.5	na	na	4.9	4.5	4.4	4.5	na	na	na	na	na	0.8	3.3	3.0	2.4
ING	4.9	na	na	na	na	na	na	4.3	4.1	4.0	4.1	na	na	na	na	na	-1.8	na	na	na
Fannie Mae	4.8	7.9	na	na	4.9	4.9	4.8	4.4	3.8	3.7	3.7	na	na	na	6.5	na	-2.0	4.0	3.7	3.1
J.P. Morgan Chase	4.8	na	na	na	na	na	na	4.6	4.2	4.1	4.1	na	na	na	na	na	1.0	2.4	3.4	2.9
AIG	4.7	7.7	na	na	4.6	na	na	na	na	4.1	na	na	6.5	na	7.0	na	-0.1	na	3.6	3.5
Chan Economics	4.7	7.7	4.6	4.7	4.8	4.9	5.0	4.7	4.1	3.9	4.0	5.2	6.2	4.5	6.6	117.8	1.0	3.6	3.8	3.3
KPMG	4.7	7.9	4.7	4.5	4.8	5.3	5.4	5.3	4.8	4.3	4.4	5.5	6.9	na	7.3	na	-3.7 L	4.4	4.6	3.6
Loomis, Sayles & Company	4.7	7.8	4.6	5.0	5.3	5.6 H	5.2	4.4	4.1	4.0	4.0	5.0	6.1	4.6	6.8	121.4	-2.1	4.2	3.3	2.7
MacroFin Analytics & Rutgers Bus School	4.7	7.6	4.7	5.0	5.4 H	5.5	5.6 H	5.0	4.3	4.0	4.1	5.3	6.1	4.8	6.6	121.1	0.1	3.4	3.6	3.5
Via Nova Investment Mgt.	4.7	7.9	4.7	4.8	4.9	5.2	5.3	5.4 H	5.3 H	5.1 H	5.2 H	6.6 H	7.1	6.1 H	7.4 H	117.3	2.0	3.5	3.4	3.3
Bank of the West	4.6	7.8	4.5	4.5	4.6	4.7	4.7	4.6	4.4	4.2	4.3	5.5	6.7	5.1	7.1	122.6	-0.3	3.8	3.9	3.2
BMO Capital Markets	4.6	7.8	4.6	na	4.7	4.9	4.9	4.6	4.3	4.0	4.1	na	na	na	6.9	122.2	-1.5	4.1	5.6	5.4 H
Comerica Bank	4.6	7.7	na	na	4.7	4.8	4.7	4.1 L	3.9	3.7	4.0	5.9	6.6	na	6.8	na	-1.8	3.4	4.3	5.0
Daiwa Capital Markets America	4.6	7.8	4.6	4.5	4.7	5.0	5.1	4.8	4.2	4.0	4.1	5.2	6.2	na	7.0	118.0	-0.5	4.2	4.6	3.9
DePrince & Assoc.	4.6	7.8	4.5	4.7	5.0	5.2	5.2	5.0	4.5	4.2	4.1	5.2	6.2	4.6	6.8	117.2 L	0.5	3.6	3.7	3.4
NatWest Markets	4.6	7.7	3.1 L	4.7	4.9	5.0	5.1	4.3	4.0	3.7	3.0 L	5.0	6.0	4.0	4.8 L	na	-2.5	5.0	3.4	4.6
PNC Financial Services Corp.	4.6	7.7	4.5	na	4.2	4.5	4.6	4.7	4.5	4.2	4.3	na	6.5	4.6	6.7	119.7	0.0	1.0 L	1.0	0.8 L
The Northern Trust Company	4.6	7.7	4.5	4.7	4.7	4.8	4.9	4.9	4.5	4.3	4.5	5.6	6.7	5.2	6.9	122.0	0.9	4.4	3.5	2.5
Amherst Pierpont Securities	4.5	7.7	4.5	4.6	4.8	5.0	5.1	4.8	4.2	4.0	4.2	5.2	6.4	3.9	6.7	120.0	2.1 H	4.1	5.3	4.8
Chmura Economics & Analytics	4.5	7.6	4.4	4.6	4.8	5.1	5.2	4.9	4.7	4.6	4.8	5.6	na	na	7.0	na	-1.5	4.9	5.1	4.6
Moody's Analytics	4.5	7.7	4.5	4.6	4.5	4.5	4.6	4.5	4.5	4.6	4.8	6.2	7.4 H	5.0	7.2	na	0.1	2.8	3.6	3.3
Regions Financial Corporation	4.5	7.4 L	4.5	4.4	4.3	4.8	4.8	4.5	4.0	3.9	4.0	5.2	6.0	4.7	6.6	119.1	0.2	4.5	3.4	3.2
S&P Global Market Intelligence	4.5	7.7	4.5	na	4.5	4.6	4.7	4.5	4.3	4.1	4.2	na	na	na	7.0	na	-2.0	4.1	3.7	3.1
Societe Generale	4.5	7.7	4.5	na	4.8	4.9	5.0	4.4	3.7 L	3.7	4.0	na	na	na	na	na	2.1 H	3.4	3.4	3.0
EY-Parthenon	4.4	na	na	na	4.3	na	na	na	na	3.2 L	na	na	na	na	na	na	-2.3	3.1	3.3	2.9
Oxford Economics	4.4	7.5	4.4	na	4.3	4.3	4.1 L	4.2	3.9	3.6	3.7	4.4 L	na	na	6.4	123.8 H	-2.6	3.0	5.3	4.3
Thru the Cycle	4.4	7.5	4.3	4.4	4.5	4.7	4.5	4.4	4.1	3.8	3.9	5.2	6.1	4.3	6.7	119.5	-0.5	3.4	4.4	4.7
GLC Financial Economics	4.3 L	7.4 L	4.1	4.0 L	3.6 L	3.7 L	4.1 L	4.6	4.5	4.5	4.5	5.2	6.1	4.7	6.4	123.5	1.6	3.6	2.9	3.0
December Consensus	**4.7**	**7.8**	**4.6**	**4.7**	**4.7**	**4.9**	**4.9**	**4.7**	**4.3**	**4.0**	**4.2**	**5.4**	**6.4**	**4.6**	**6.7**	**120.3**	**-0.5**	**3.8**	**3.8**	**3.5**
Top 10 Avg.	5.1	8.2	4.9	5.0	5.1	5.2	5.3	5.0	4.7	4.5	4.6	5.8	6.8	5.0	7.1	121.8	1.3	4.7	5.2	4.7
Bottom 10 Avg.	4.5	7.6	4.3	4.5	4.3	4.5	4.5	4.4	3.9	3.6	3.8	5.0	6.0	4.2	6.2	118.8	-2.3	2.7	2.7	2.4
November Consensus	4.6	7.6	4.5	4.6	4.6	4.8	4.7	4.5	4.3	4.0	4.1	5.5	6.5	4.8	6.9	123.2	-0.4	3.8	4.0	3.6
Number of Forecasts Changed From A Month Ago:																				
Down	3	2	2	3	4	5	5	6	13	11	11	10	10	9	11	14	13	12	16	14
Same	14	11	9	5	6	4	5	9	8	11	7	7	6	5	7	0	10	13	11	10
Up	22	18	14	13	23	20	19	21	14	17	17	6	7	3	11	3	15	9	10	11
Diffusion Index	74%	76%	74%	74%	79%	76%	74%	71%	51%	58%	59%	41%	43%	32%	50%	18%	53%	46%	42%	46%

Second Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter: Short-Term							Intermediate-Term			Long-Term					Avg. For Qtr.	(Q-Q % Change) (SAAR)			
	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
Nomura Securities, Inc.	5.6 H	8.8 H	na	na	na	na	na	4.4	3.7	2.9 L	na	na	na	na	na	na	-2.4	3.1	1.6	1.7
TS Lombard	5.5	8.6	5.4 H	5.5	5.0	5.0	4.0 L	3.0 L	3.3 L	3.3	3.4	4.2 L	5.0 L	3.3	5.1	115.0 L	-1.5	4.0	4.0	4.0
Georgia State University	5.4	8.5	na	na	5.2	5.2	5.4	5.1	4.6	4.3	4.3	5.8	6.6	na	6.8	na	-0.8	3.4	2.4	2.1
Chan Economics	5.3	8.3	5.2	5.3	5.4 H	5.5	5.6	5.3	4.7	4.5	4.6	5.8	6.8	5.1	7.2	117.5	-0.3	3.0	3.2	2.7
Bank of America	5.1	na	5.3	na	na	na	na	4.3	4.0	3.8	3.9	na	na	na	na	na	-2.0	5.0 H	3.5	3.3
BNP Paribas Americas	5.1	na	na	na	na	na	na	4.3	na	4.0	4.2	na	na	na	na	na	-1.5	na	3.4	na
Daiwa Capital Markets America	5.1	8.2	5.1	5.1	5.3	5.5	5.6	5.2	4.6	4.3	4.4	5.6	6.7	na	7.3	117.0	-1.2	3.4	3.9	3.5
Goldman Sachs & Co.	5.1	na	na	na	4.5	na	na	5.0	4.7	4.5	4.6	na	na	na	na	na	1.0	4.2	3.8	3.4
KPMG	5.1	8.3	5.1	4.8	5.0	5.1	4.9	4.6	4.3	4.1	4.3	5.2	6.6	na	6.9	na	-1.2	0.8	1.1	1.0
Nationwide	5.1	8.3	5.1	5.7 H	4.9	4.8	4.6	4.6	4.5	4.2	4.4	5.8	7.2 H	na	6.7	na	-3.3 L	3.1	3.3	3.1
Swiss Re	5.1	na	na	na	na	na	na	na	na	3.4	na	na	na	na	na	na	-1.0	na	na	na
Via Nova Investment Mgt.	5.1	8.3	5.1	5.2	5.1	5.2	5.2	5.2	5.1 H	4.8	4.9	6.3 H	6.8	5.8 H	7.1	116.0	2.0 H	3.0	2.9	2.8
Wells Fargo	5.1	8.3	5.1	5.1	5.1	5.1	5.0	4.7	4.3	4.2	4.4	5.4	6.4	4.8	6.8	na	0.1	3.1	3.0	3.1
ACIMA Private Wealth	5.0	8.0	5.0	5.1	5.1	4.3	4.1	4.0	3.7	3.5	3.6	5.8	7.0	3.0 L	6.0	125.0 H	-2.0	-1.5 L	-1.0 L	-1.1 L
AIG	5.0	8.0	na	na	4.8	na	na	na	na	4.0	na	na	6.5	na	6.8	na	0.2	na	3.6	2.5
Amherst Pierpont Securities	5.0	8.2	4.9	5.1	5.1	5.2	5.3	5.0	4.6	4.4	4.7	5.8	7.1	4.3	7.1	120.0	1.8	3.6	5.2	4.7 H
DePrince & Assoc.	5.0	8.1	4.9	5.0	5.3	5.4	5.5	5.2	4.6	4.3	4.2	5.4	6.4	4.7	6.7	120.0	0.0	3.1	3.2	2.9
J.P. Morgan Chase	5.0	na	na	na	na	na	na	4.4	4.1	4.0	4.0	na	na	na	na	na	0.8	2.3	3.2	2.7
Scotiabank Group	5.0	na	na	na	4.9	na	na	4.0	3.9	3.7	3.8	na	na	na	na	na	0.2	4.5	5.3 H	4.2
Societe Generale	5.0	8.2	5.0	na	5.1	5.1	4.9	4.2	3.6	3.6	3.9	na	na	na	na	na	1.3	3.3	3.0	2.7
Bank of the West	4.9	8.0	4.7	4.8	4.8	4.9	4.9	4.8	4.7	4.5	4.5	5.8	7.0	5.4	7.4 H	122.0	-1.5	3.0	3.6	3.0
BMO Capital Markets	4.9	8.0	4.9	na	4.8	4.9	4.9	4.5	4.2	3.9	4.0	na	na	na	6.9	121.0	-1.0	2.9	3.7	3.5
Comerica Bank	4.9	8.0	na	na	4.9	4.8	4.6	4.0	3.8	3.7	4.1	5.8	6.6	na	6.5	na	1.3	2.7	2.6	2.2
Economist Intelligence Unit	4.9	8.0	na	4.8	4.9	5.0	5.0	4.7	4.4	4.2	4.4	na	na	na	7.0	na	0.5	na	2.8	na
Fannie Mae	4.9	8.0	na	na	4.8	4.7	4.6	4.2	3.8	3.6	3.7	na	na	na	6.4	na	-1.4	3.0	2.2	1.8
ING	4.9	na	na	na	na	na	na	3.9	3.8	3.8	4.0	na	na	na	na	na	-1.8	na	na	na
Loomis, Sayles & Company	4.9	8.1	4.8	5.1	5.3	5.4	5.0	4.1	3.9	3.8	3.8	4.8	5.9	4.4	6.6	121.2	-2.3	3.1	1.9	1.7
NatWest Markets	4.9	8.0	3.1 L	5.0	5.1	5.2	5.3	4.2	3.7	3.6	3.0 L	4.9	5.9	4.0	4.8 L	na	-1.5	3.9	3.5	4.5
PNC Financial Services Corp.	4.9	8.0	4.9	na	4.2	4.3	4.4	4.5	4.3	4.1	4.0	na	6.4	4.6	6.5	119.9	-0.2	0.8	0.8	0.7
S&P Global Market Intelligence	4.9	8.0	4.9	na	4.7	4.7	4.7	4.4	4.1	3.9	4.1	na	na	na	6.8	na	-0.4	3.0	2.2	1.8
The Northern Trust Company	4.9	8.0	4.8	5.0	4.9	4.9	4.8	4.8	4.4	4.1	4.4	5.5	6.5	5.1	6.6	118.0	0.1	2.9	2.8	2.1
Chmura Economics & Analytics	4.6	7.7	4.6	4.8	4.8	5.2	5.2	4.9	4.9	4.9 H	5.0 H	5.8	na	na	6.9	na	-2.1	4.5	4.9	4.4
EY-Parthenon	4.6	na	na	na	4.4	na	na	na	na	2.9 L	na	na	na	na	na	na	-1.1	2.4	1.9	2.1
GLC Financial Economics	4.6	7.7	4.4	4.6	3.8 L	3.9 L	4.2	4.7	4.7	4.7	4.9	5.5	6.4	4.9	6.5	123.5	1.8	3.1	2.6	2.6
MacroFin Analytics & Rutgers Bus School	4.6	7.8	4.6	5.0	5.4 H	5.6 H	5.7 H	5.7 H	4.5	4.4	4.5	5.5	6.6	5.1	7.0	121.3	0.3	3.1	3.0	2.9
Moody's Analytics	4.6	7.8	4.6	4.6	4.5	4.5	4.6	4.6	4.6	4.6	4.9	6.1	7.2 H	4.9	6.9	na	0.4	3.0	3.1	2.8
Regions Financial Corporation	4.5	7.5 L	4.5	4.4 L	4.2	4.7	4.8	4.3	4.0	3.8	3.9	5.3	6.2	4.6	6.4	118.3	0.3	2.9	3.1	2.8
Oxford Economics	4.4	7.5 L	4.4	na	4.3	4.4	4.1	4.1	3.7	3.4	3.4	4.2 L	na	na	6.2	123.4	-1.5	2.8	3.7	3.1
Thru the Cycle	4.3 L	7.5 L	4.2	4.4 L	4.4	4.5	4.3	4.2	3.9	3.5	3.6	5.0	6.0	4.1	6.5	119.8	-0.3	2.6	3.4	3.4
December Consensus	**4.9**	**8.1**	**4.8**	**5.0**	**4.8**	**4.9**	**4.9**	**4.5**	**4.2**	**4.0**	**4.2**	**5.4**	**6.5**	**4.6**	**6.6**	**119.9**	**-0.5**	**3.0**	**3.0**	**2.7**
Top 10 Avg.	5.2	8.4	5.1	5.2	5.2	5.3	5.4	5.1	4.7	4.6	4.7	5.9	6.9	5.0	7.1	121.7	1.1	4.0	4.2	3.9
Bottom 10 Avg.	4.6	7.8	4.4	4.7	4.4	4.5	4.4	4.0	3.7	3.4	3.6	5.0	6.1	4.2	6.1	118.2	-2.0	1.9	1.6	1.4
November Consensus	4.7	7.7	4.6	4.6	4.6	4.7	4.7	4.4	4.1	3.9	4.1	5.4	6.5	4.7	6.7	122.0	-0.1	3.1	3.0	2.8
Number of Forecasts Changed From A Month Ago:																				
Down	1	1	2	1	1	2	3	6	8	9	8	8	8	9	10	14	17	9	11	13
Same	10	6	6	6	8	9	8	11	8	11	9	6	6	3	5	0	14	15	19	13
Up	28	24	17	14	24	18	18	19	19	19	18	9	9	5	14	3	7	10	7	9
Diffusion Index	85%	87%	80%	81%	85%	78%	76%	68%	66%	63%	64%	52%	52%	38%	57%	18%	37%	51%	45%	44%

Third Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter: Short-Term							Intermediate-Term			Long-Term					Avg. For Qtr.	(Q-Q % Change) (SAAR)			
	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
Daiwa Capital Markets America	5.5 H	8.6 H	5.5 H	5.5	5.6 H	5.8 H	5.9 H	5.5 H	4.8	4.5	4.6	6.0	7.1	na	7.4 H	117.0	-1.3	3.2	3.3	3.2
Georgia State University	5.4	8.5	na	na	5.1	5.1	5.2	4.9	4.4	4.2	4.2	5.8	6.7	na	6.6	na	0.2	3.0	2.8	2.4
Nomura Securities, Inc.	5.4	8.5	na	na	na	na	na	3.9	3.2	2.5 L	na	na	na	na	na	na	-1.9	2.5	1.6	1.5
Chan Economics	5.3	8.3	5.2	5.3	5.4	5.5	5.6	5.3	4.7	4.5	4.6	5.8	6.8	5.1	7.2	117.6	-0.8	2.8	3.0	2.5
Via Nova Investment Mgt.	5.3	8.5	5.3	5.4	5.3	5.4	5.4	5.4	5.4 H	5.0 H	5.1 H	6.5 H	7.0	6.0 H	7.2	115.0 L	2.0	2.7	2.5	2.4
Amherst Pierpont Securities	5.1	8.3	5.1	5.2	5.1	5.2	5.2	5.1	4.7	4.5	4.8	5.8	7.0	4.4	7.2	119.5	1.7	3.4	4.4	4.0 H
Bank of America	5.1	na	na	na	na	na	na	3.8	3.7	3.5	3.7	na	na	na	na	na	-1.5	4.5 H	3.0	3.0
BNP Paribas Americas	5.1	na	na	na	na	na	na	3.9	na	3.8	4.0	na	na	na	na	na	-1.7	na	2.8	na
Goldman Sachs & Co.	5.1	na	na	na	4.6	na	na	4.8	4.6	4.4	4.5	na	na	na	na	na	1.3	3.1	2.4	2.7
Nationwide	5.1	8.3	5.1	5.8 H	4.9	4.8	4.6	4.5	4.4	4.1	4.3	6.0	7.4 H	na	6.4	na	-2.8 L	2.9	3.7	2.9
Societe Generale	5.1	8.3	5.1	na	5.1	5.0	4.7	3.8	3.3	3.3	3.6	na	na	na	na	na	2.3	3.3	3.1	2.8
Swiss Re	5.1	na	na	na	na	na	na	na	na	3.6	na	na	na	na	na	na	0.4	na	na	na
Wells Fargo	5.1	8.3	5.1	5.1	5.1	5.1	4.8	4.3	4.0	4.0	4.2	5.2	6.2	4.6	6.5	na	-2.5	2.6	2.7	2.6
AIG	5.0	8.0	na	na	4.7	na	na	na	na	4.0	na	na	6.4	na	6.8	na	0.8	na	3.3	2.2
DePrince & Assoc.	5.0	8.1	4.8	5.0	5.3	5.4	5.5	5.2	4.6	4.3	4.2	5.5	6.4	4.7	6.7	122.0	1.0	2.8	2.9	2.7
J.P. Morgan Chase	5.0	na	na	na	na	na	na	4.2	3.9	3.8	3.9	na	na	na	na	na	0.5	2.3	3.1	2.6
KPMG	5.0	8.2	5.0	4.6	4.8	4.5	4.3	4.0	3.9	4.1	4.3	5.3	6.4	na	6.7	na	0.5	3.5	3.5	3.1
Scotiabank Group	5.0	na	na	na	4.8	na	na	3.8	3.8	3.6	3.5	na	na	na	na	na	0.6	1.0	4.4	3.6
Bank of the West	4.9	8.0	4.7	4.8	4.8	4.9	4.9	4.8	4.7	4.5	4.5	5.9	7.1	5.5	7.3	121.6	-0.2	2.7	3.0	2.6
BMO Capital Markets	4.9	8.0	4.9	na	4.8	4.9	4.7	4.2	4.0	3.8	3.9	na	na	na	6.8	119.9	0.6	2.7	3.2	3.0
Economist Intelligence Unit	4.9	8.0	na	4.8	4.8	4.9	4.9	4.6	4.3	4.1	4.3	na	na	na	6.9	na	1.6	na	2.0	na
NatWest Markets	4.9	8.0	3.1 L	5.0	5.1	5.2	5.3	3.9	3.3	3.5	2.9	4.9	5.9	3.9	4.7 L	na	0.5	3.6	2.3	4.0 H
PNC Financial Services Corp.	4.9	8.0	4.9	na	4.2	4.3	4.3	4.4	4.1	3.9	3.9	na	6.2	4.5	6.3	119.8	-0.3	0.8	0.6 L	0.6 L
S&P Global Market Intelligence	4.9	8.0	4.9	na	4.6	4.6	4.6	4.3	3.9	3.8	4.0	na	na	na	6.5	na	1.0	2.8	3.1	2.6
The Northern Trust Company	4.9	8.0	4.8	5.0	5.0	4.9	4.7	4.7	4.3	4.0	4.3	5.4	6.4	5.0	6.5	116.0	0.3	2.4	2.6	2.2
Comerica Bank	4.8	8.0	na	na	4.8	4.6	4.3	3.8	3.8	3.8	4.2	5.8	6.6	na	6.4	na	2.3	2.2	1.7	1.4
Loomis, Sayles & Company	4.8	8.0	4.8	4.8	5.0	5.1	4.6	3.8	3.7	3.6	3.7	4.7	5.8	4.2	6.4	120.9	-0.5	3.0	3.2	2.7
Fannie Mae	4.7	7.8	na	na	4.6	4.5	4.3	4.1	3.7	3.6	3.7	na	na	na	6.3	na	-0.1	2.8	3.0	2.6
Chmura Economics & Analytics	4.6	7.7	4.6	4.8	4.8	5.1	5.0	4.9	4.9	4.9	5.0	5.9	na	na	6.8	na	0.4	4.1	4.6 H	4.0 H
EY-Parthenon	4.6	na	na	na	4.3	na	na	na	na	2.8	na	na	na	na	na	na	0.9	2.2	1.9	2.1
GLC Financial Economics	4.6	7.7	4.4	4.6	3.8	3.9	4.1	4.6	4.7	4.7	4.9	5.5	6.4	4.9	6.7	122.4	2.2	2.8	3.4	2.9
Moody's Analytics	4.6	7.8	4.5	4.5	4.4	4.4	4.5	4.5	4.6	4.6	4.9	6.0	7.1	4.8	6.7	na	1.9	2.9	2.5	2.3
Regions Financial Corporation	4.5	7.5	4.4	4.3	4.2	4.6	4.6	4.0	3.9	3.7	3.9	5.3	6.2	4.5	6.3	117.6	0.7	2.6	2.7	2.7
ING	4.4	na	na	na	na	na	na	3.4	3.3	3.3	3.7	na	na	na	na	na	-0.7	na	na	na
Oxford Economics	4.4	7.5	4.4	na	4.3	4.4	4.0	4.0	3.6	3.2	3.1	4.1 L	na	na	6.0	122.9	1.0	2.9	3.0	2.6
ACIMA Private Wealth	4.1	7.1	4.1	4.2	4.2	3.3 L	3.0 L	2.7 L	2.5 L	2.5 L	2.8 L	4.8	6.8	2.2 L	5.0	118.0	5.5 H	1.9	1.5	0.8
MacroFin Analytics & Rutgers Bus School	3.8	6.9	3.7	4.2	4.6	4.8	4.8	4.9	4.1	4.2	4.4	5.4	6.5	4.9	6.9	121.6	0.8	2.7	2.7	2.5
Thru the Cycle	3.7	6.8	3.6	3.7	3.7	3.8	3.7	3.7	3.5	3.3	3.4	4.8	5.8	3.9	6.2	123.1 H	0.7	0.2 L	3.1	2.9
TS Lombard	3.3 L	6.4 L	3.2	3.3 L	3.3 L	3.3 L	3.2	3.0	3.2	3.3	3.4	4.1 L	5.0 L	3.3	5.1	118.0	-1.0	3.0	3.0	3.5
December Consensus	**4.8**	**7.9**	**4.6**	**4.8**	**4.7**	**4.7**	**4.6**	**4.3**	**4.0**	**3.9**	**4.1**	**5.4**	**6.5**	**4.5**	**6.5**	**119.6**	**0.4**	**2.7**	**2.9**	**2.6**
Top 10 Avg.	5.2	8.4	5.1	5.2	5.2	5.3	5.3	5.1	4.8	4.6	4.7	6.0	7.0	5.0	7.1	121.4	2.2	3.5	3.7	3.4
Bottom 10 Avg.	4.2	7.3	4.0	4.3	4.1	4.1	4.0	3.6	3.3	3.1	3.4	4.9	6.0	4.0	5.9	117.8	-1.5	1.8	1.9	1.8
November Consensus	4.6	7.6	4.5	4.5	4.5	4.5	4.5	4.1	4.0	3.8	4.0	5.4	6.4	4.6	6.6	120.4	0.9	2.7	2.8	2.6
Number of Forecasts Changed From A Month Ago:																				
Down	2	1	1	3	2	2	4	6	9	9	6	7	7	8	12	11	22	9	7	11
Same	10	8	9	4	9	9	9	10	8	11	13	7	5	4	4	1	12	14	13	12
Up	27	22	15	14	22	18	16	20	18	19	16	9	11	5	13	5	4	11	17	12
Diffusion Index	82%	84%	78%	76%	80%	78%	71%	69%	63%	63%	64%	54%	59%	41%	52%	32%	26%	53%	64%	51%

Fourth Quarter 2023

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter: Short-Term: 1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	Intermediate-Term: 8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	Long-Term: 11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	Avg. For Qtr. A. Fed's Adv Fgn Econ $ Index	(Q-Q % Change) (SAAR) B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
Daiwa Capital Markets America	5.6 H	8.7 H	5.6 H	5.6 H	5.6 H	5.8 H	5.9 H	5.4 H	4.8	4.5	4.6	6.1	7.1 H	na	7.4 H	116.0	-0.3	3.0	2.9	2.8
Chan Economics	5.3	8.3	5.2	5.3	5.4	5.5	5.6	5.3	4.7	4.5	4.6	5.8	6.8	5.1	7.2	117.2	1.0	2.7	2.9	2.4
Georgia State University	5.3	8.4	na	na	4.9	4.9	4.9	4.6	4.1	4.0	4.1	5.7	6.7	na	6.4	na	-0.5	2.7	2.9	2.5
Via Nova Investment Mgt.	5.3	8.5	5.3	5.4	5.3	5.4	5.4	5.4 H	5.4 H	5.0 H	5.1 H	6.5 H	7.0	6.0 H	7.1	112.0 L	2.5	2.6	2.5	2.4
AIG	5.1	8.0	na	na	4.7	na	na	na	na	4.0	na	na	6.4	na	6.8	na	1.2	na	1.5	2.3
Amherst Pierpont Securities	5.1	8.3	5.1	5.1	5.1	5.2	5.2	5.1	4.7	4.5	4.8	5.8	7.0	4.5	7.1	119.0	1.6	3.3	3.7	3.3
BNP Paribas Americas	5.1	na	na	na	na	na	na	3.5	na	3.5	3.8	na	na	na	na	na	-1.0	na	1.9	na
Goldman Sachs & Co.	5.1	na	na	na	4.6	na	na	4.6	4.5	4.3	4.4	na	na	na	na	na	1.3	3.6	3.2	3.0
Nationwide	5.1	8.3	5.1	5.3	4.9	4.8	4.5	4.4	4.3	4.0	4.1	5.6	6.8	na	6.0	na	-1.4	2.7	3.3	2.9
Societe Generale	5.1	8.3	5.1	na	5.0	4.8	4.3	3.5	3.1	2.9	3.2	na	na	na	na	na	0.6	3.4	3.3	2.9
Swiss Re	5.1	na	na	na	na	na	na	na	na	3.6	na	na	na	na	na	na	0.9	na	na	na
Wells Fargo	5.1	8.3	5.1	5.1	5.0	4.7	4.1	3.4	3.4	3.4	3.7	4.6	5.6	4.0	5.8	na	-3.2 L	2.3	2.9	2.3
J.P. Morgan Chase	5.0	na	na	na	na	na	na	4.0	3.6	3.6	3.8	na	na	na	na	na	-0.5	2.3	2.4	2.1
Bank of America	4.9	na	na	na	na	na	na	3.3	3.3	3.3	3.4	na	na	na	na	na	1.0	4.2 H	1.9	2.2
Bank of the West	4.9	8.0	4.7	4.8	4.8	4.9	4.9	4.8	4.8	4.5	4.6	5.9	7.1 H	5.6	7.3	121.4	0.6	2.4	2.5	2.5
BMO Capital Markets	4.9	8.0	4.9	na	4.8	4.9	4.5	3.9	3.8	3.8	3.8	na	na	na	6.7	118.8	1.2	2.5	2.9	2.7
Economist Intelligence Unit	4.9	8.0	na	4.8	4.8	4.9	4.9	4.6	4.2	4.0	4.2	na	na	na	6.8	na	2.1	na	1.8	na
NatWest Markets	4.9	8.0	3.1	5.0	5.1	5.2	5.3	3.4	2.9	3.3	2.9	4.9	5.8	3.9	4.7	na	1.0	3.1	1.9	3.7
Nomura Securities, Inc.	4.9	8.0	na	na	na	na	na	3.2	2.7	2.1	na	na	na	na	na	na	-0.6	2.3	1.1	1.3
S&P Global Market Intelligence	4.9	8.0	4.9	na	4.6	4.4	4.4	4.1	3.7	3.6	3.9	na	na	na	6.3	na	1.6	2.5	3.1	2.5
The Northern Trust Company	4.9	8.0	4.8	5.0	4.9	4.8	4.6	4.5	4.0	3.8	4.1	5.2	6.2	4.8	6.3	114.0	0.7	2.5	2.5	2.3
DePrince & Assoc.	4.8	7.9	4.7	4.9	5.1	5.2	5.2	5.0	4.5	4.3	4.3	5.6	6.4	4.7	6.6	121.9	1.2	2.7	2.8	2.5
PNC Financial Services Corp.	4.8	8.0	4.8	na	4.1	4.1	4.1	4.1	4.0	3.8	3.8	na	6.0	4.3	6.1	119.7	-0.3	0.7 L	0.5 L	0.5 L
Scotiabank Group	4.8	na	na	na	4.3	na	na	3.6	3.6	3.5	3.4	na	na	na	na	na	1.2	1.4	3.5	2.9
Chmura Economics & Analytics	4.6	7.7	4.6	4.8	4.7	5.0	5.0	4.9	4.8	4.9	5.0	5.9	na	na	6.7	na	1.8	3.9	4.5 H	3.8 H
Comerica Bank	4.6	7.7	na	na	4.5	4.3	4.0	3.5	3.6	3.7	4.1	5.6	6.4	na	6.1	na	1.8	1.9	1.6	1.8
GLC Financial Economics	4.6	7.7	4.4	4.6	3.8	3.9	4.1	4.5	4.5	4.6	4.8	5.4	6.6	5.0	6.8	121.7	2.2	3.0	3.4	3.0
Moody's Analytics	4.5	7.7	4.5	4.5	4.4	4.4	4.5	4.5	4.5	4.5	4.9	6.0	7.0	4.8	6.5	na	2.0	2.7	2.4	2.4
Regions Financial Corporation	4.5	7.5	4.4	4.3	4.1	4.4	4.4	3.9	3.8	3.7	3.8	5.2	6.1	4.5	6.3	116.9	1.1	1.9	2.0	2.1
Fannie Mae	4.4	7.5	na	na	4.3	4.2	4.2	3.9	3.6	3.5	3.6	na	na	na	6.0	na	1.2	2.5	3.1	2.5
Loomis, Sayles & Company	4.4	7.6	4.4	4.3	4.5	4.5	4.1	3.1	3.6	3.5	3.6	4.6	5.7	4.1	6.1	120.6	1.1	2.5	3.4	2.8
Oxford Economics	4.4	7.5	4.4	na	4.3	4.3	3.9	4.0	3.4	3.1	2.9	3.9 L	na	na	5.9	122.4	1.5	2.8	2.5	2.3
EY-Parthenon	4.3	na	na	na	4.0	na	na	na	na	3.0	na	na	na	na	na	na	1.7	1.8	1.6	1.7
ING	3.9	na	na	na	na	na	na	2.9	2.8	3.0	3.3	na	na	na	na	na	1.7	na	na	na
KPMG	3.7	6.9	3.7	3.3	3.6	3.4	3.2	3.0	3.0	3.3	3.6	4.4	5.6	na	5.7	na	1.0	1.7	2.4	1.9
MacroFin Analytics & Rutgers Bus School	3.4	6.6	3.4	3.9	4.3	4.5	4.6	4.7	4.0	4.1	4.3	5.3	6.4	4.8	6.8	121.9	1.2	2.5	2.5	2.3
Thru the Cycle	3.1	6.3	3.0	3.2	3.2	3.2	3.1	3.0	3.1	3.2	3.4	4.8	5.9	3.9	6.2	122.9 H	0.6	2.3	2.1	2.4
ACIMA Private Wealth	2.8 L	5.8 L	2.8	2.9	2.8 L	1.5 L	1.1 L	1.0 L	1.0 L	2.0 L	2.8 L	4.5	6.0	2.0 L	4.5 L	115.0	4.0 H	1.8	2.0	2.2
TS Lombard	2.8 L	5.9	2.7 L	2.8 L	3.0	3.0	3.0	3.0	3.2	3.3	3.4	4.1	5.0 L	3.3	5.1	120.0	1.5	2.5	2.5	3.0
December Consensus	**4.6**	**7.7**	**4.4**	**4.5**	**4.5**	**4.5**	**4.4**	**4.0**	**3.8**	**3.7**	**3.9**	**5.3**	**6.3**	**4.4**	**6.3**	**118.9**	**0.9**	**2.6**	**2.5**	**2.5**
Top 10 Avg.	5.2	8.3	5.1	5.2	5.1	5.2	5.2	5.0	4.7	4.6	4.7	5.9	6.9	5.0	7.0	121.2	2.1	3.3	3.5	3.1
Bottom 10 Avg.	3.7	6.9	3.6	3.9	3.7	3.6	3.5	2.9	2.9	2.9	3.2	4.6	5.8	3.9	5.6	116.9	-0.7	1.8	1.6	1.8
November Consensus	4.4	7.4	4.3	4.3	4.3	4.3	4.3	3.9	3.8	3.7	3.9	5.3	6.3	4.5	6.4	119.6	1.2	2.7	2.6	2.4
Number of Forecasts Changed From A Month Ago:																				
Down	3	3	4	4	3	3	7	8	8	7	9	8	8	7	9	11	14	11	10	9
Same	11	8	5	4	8	10	7	11	10	13	10	5	4	5	8	1	19	15	13	12
Up	25	20	16	13	22	16	15	16	16	18	15	10	11	5	12	5	5	8	14	14
Diffusion Index	78%	77%	74%	71%	79%	72%	64%	61%	62%	64%	59%	54%	57%	44%	55%	32%	38%	46%	55%	57%

First Quarter 2024

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter: Short-Term							Intermediate-Term			Long-Term					Avg. For Qtr.	(Q-Q % Change) (SAAR)			
	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
Daiwa Capital Markets America	5.6 H	8.7 H	5.6 H	5.6 H	5.6 H	5.7 H	5.8 H	5.1 H	4.6	4.4	4.6	6.1	7.1 H	na	7.3 H	116.0	0.4	2.8	2.6	2.6
AIG	5.1	8.0	na	na	4.6	na	na	na	na	4.0	na	na	6.4	na	6.8	na	1.5	na	2.0	2.7
Amherst Pierpont Securities	5.1	8.3	5.1	5.1	5.1	5.1	5.1	5.1 H	4.6	4.4	4.7	5.7	6.9	4.4	6.9	118.5	1.4	3.1	3.2	2.9
Goldman Sachs & Co.	5.1	na	na	na	4.6	na	na	4.4	4.4	4.2	4.3	na	na	na	na	na	1.9	2.8	2.9	2.5
Chan Economics	5.0	8.0	4.9	5.0	5.1	5.2	5.3	5.0	4.4	4.2	4.3	5.5	6.5	4.8	6.9	116.8	1.0	2.6	2.8	2.3
J.P. Morgan Chase	5.0	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	-0.5 L	2.3	2.4	2.1
Via Nova Investment Mgt.	5.0	8.3	5.1	5.1	5.0	5.1	5.1	5.1 H	5.3 H	4.9 H	5.0 H	6.3 H	6.9	5.8 H	6.9	110.0 L	3.0 H	2.5	2.4	2.3
Economist Intelligence Unit	4.9	8.0	na	4.8	4.8	4.7	4.8	4.5	4.2	4.0	4.0	na	na	na	6.7	na	1.4	na	1.4	na
Nationwide	4.9	8.0	4.8	5.1	4.6	4.5	4.2	4.2	4.1	3.8	3.9	5.2	6.5	na	5.7	na	2.1	2.3	3.1	2.5
S&P Global Market Intelligence	4.9	8.0	4.9	na	4.5	4.3	4.2	3.9	3.5	3.5	3.8	na	na	na	6.0	na	1.3	2.3	2.8	2.4
Societe Generale	4.9	8.1	4.9	na	4.6	4.4	3.9	3.2	3.0	2.9	3.2	na	na	na	na	na	-0.2	1.8	2.2	2.7
Swiss Re	4.9	na	na	na	na	na	na	na	na	3.5	na	na	na	na	na	na	2.0	na	na	na
Bank of the West	4.8	7.9	4.7	4.7	4.7	4.8	4.8	4.8	4.7	4.5	4.6	5.9	7.1 H	5.6	7.2	121.4	0.9	2.2	2.4	2.3
BNP Paribas Americas	4.6	na	na	na	na	na	na	3.3	na	3.4	3.7	na	na	na	na	na	0.1	na	2.3	na
PNC Financial Services Corp.	4.6	7.7	4.6	na	4.0	4.0	3.9	3.9	3.8	3.7	3.7	na	5.8	4.2	5.9	119.3	0.0	0.4 L	0.4 L	0.3 L
The Northern Trust Company	4.6	7.8	4.6	4.7	4.6	4.5	4.5	4.3	3.8	3.6	3.9	5.0	6.0	4.6	6.1	112.0	1.3	2.3	2.3	2.2
BMO Capital Markets	4.5	7.7	4.7	na	4.5	4.6	4.3	3.7	3.7	3.7	3.7	na	na	na	6.6	117.8	1.6	2.1	2.3	2.2
Chmura Economics & Analytics	4.5	7.7	4.5	4.7	4.7	4.8	4.9	4.8	4.7	4.9 H	4.9	5.8	na	na	6.6	na	1.9	3.9	4.3 H	3.6
DePrince & Assoc.	4.5	7.6	4.4	4.6	4.8	4.8	4.8	4.7	4.4	4.3	4.3	5.6	6.4	4.7	6.4	121.7	1.9	2.6	2.7	2.5
Georgia State University	4.5	7.7	na	na	4.2	4.0	3.9	3.7	3.6	3.8	4.0	5.4	6.4	na	6.1	na	-0.1	2.3	2.7	2.4
Bank of America	4.4	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.5	4.3 H	2.3	2.2
GLC Financial Economics	4.4	7.6	4.2	4.4	3.9	4.0	4.3	4.6	4.6	4.7	4.9	5.4	6.5	5.0	6.8	121.1	2.4	3.1	3.1	3.0
Nomura Securities, Inc.	4.4	7.5	na	na	na	na	na	2.6	2.2 L	1.8 L	na	na	na	na	na	na	0.1	1.9	1.2	1.4
Comerica Bank	4.3	7.5	na	na	4.2	4.1	3.7	3.3	3.4	3.6	4.0	5.4	6.2	na	6.0	na	1.6	2.0	2.0	2.4
Moody's Analytics	4.3	7.5	4.3	4.2	4.1	4.2	4.3	4.3	4.4	4.4	4.8	5.9	7.0	4.8	6.2	na	2.2	2.8	2.3	2.2
Oxford Economics	4.3	7.4	4.3	na	4.2	4.2	3.7	3.8	3.2	2.9	2.7	3.8 L	na	na	5.6	121.5	1.5	3.0	2.5	2.6
Regions Financial Corporation	4.3	7.3	4.2	4.2	4.0	4.2	4.2	3.7	3.6	3.6	3.7	5.1	6.0	4.4	6.2	116.4	1.6	1.7	1.9	1.8
Scotiabank Group	4.3	na	na	na	3.8	na	na	3.4	3.5	3.4	3.3	na	na	na	na	na	1.8	0.8	2.7	2.2
Fannie Mae	4.2	7.3	na	na	4.1	4.1	4.0	3.8	3.6	3.5	3.6	na	na	na	5.8	na	1.3	2.3	2.8	2.4
EY-Parthenon	4.1	na	na	na	3.8	na	na	na	na	3.0	na	na	na	na	na	na	2.3	1.7	1.8	1.8
Wells Fargo	4.1	7.3	4.1	4.1	4.0	3.7	3.3	3.0	3.0	3.1	3.4	4.3	5.3	3.7	5.4	na	-0.5 L	2.2	2.7	2.2
Loomis, Sayles & Company	3.9	7.1	3.9	3.9	4.0	4.0	3.7	3.2	3.5	3.5	3.6	4.6	5.7	4.1	5.9	120.3	1.3	2.2	3.1	2.6
NatWest Markets	3.9	7.0	3.1	4.0	4.1	4.2	4.3	3.0	2.7	3.2	3.1	4.4	3.3 L	3.2 L	4.5 L	na	1.0	3.1	1.9	3.7 H
ING	3.4	na	na	na	na	na	na	2.6	2.7	3.0	3.4	na	na	na	na	na	2.7	na	na	na
MacroFin Analytics & Rutgers Bus School	3.1	6.3	3.1	3.7	4.0	4.2	4.3	4.5	4.0	4.0	4.3	5.2	6.4	4.7	6.7	122.2	1.4	2.2	2.4	2.2
TS Lombard	2.8	5.9	2.7	2.8	3.0	3.0	3.1	3.3	3.4	3.5	3.6	4.4	5.2	3.5	5.3	125.0 H	2.5	2.5	2.5	3.0
KPMG	2.5	5.7	2.5	2.2 L	2.4 L	2.6	2.5 L	2.4 L	2.5	2.7	3.2	3.9	5.0	na	5.0	na	2.3	1.8	2.4	2.0
Thru the Cycle	2.4 L	5.5 L	2.3 L	2.4	2.4 L	2.5 L	2.6	2.7	2.7	2.8	3.1	4.5	5.7	3.6	5.7	121.3	0.3	2.0	1.7	2.0
ACIMA Private Wealth	na	na	na	na	na	na	na	na	na	na	2.5 L	4.3	5.7	na	na	110.0 L	3.0 H	1.9	2.0	2.1
December Consensus	**4.4**	**7.5**	**4.2**	**4.3**	**4.3**	**4.3**	**4.2**	**3.9**	**3.7**	**3.7**	**3.9**	**5.1**	**6.1**	**4.4**	**6.2**	**118.3**	**1.4**	**2.3**	**2.4**	**2.4**
Top 10 Avg.	5.1	8.1	4.9	4.9	4.9	4.9	4.9	4.8	4.6	4.5	4.6	5.8	6.7	4.9	6.9	121.2	2.5	3.2	3.1	2.9
Bottom 10 Avg.	3.4	6.7	3.4	3.6	3.5	3.6	3.4	2.9	2.9	2.9	3.2	4.4	5.4	4.0	5.5	115.7	0.1	1.6	1.6	1.8
November Consensus	4.1	7.1	4.0	4.0	4.0	4.0	4.0	3.7	3.6	3.6	3.9	5.1	6.2	4.4	6.2	118.9	1.5	2.3	2.4	2.3
Number of Forecasts Changed From A Month Ago:																				
Down	6	5	4	4	5	7	7	6	8	9	10	8	10	9	8	10	13	11	9	8
Same	10	7	7	5	8	6	7	10	10	13	7	7	5	4	10	1	15	17	17	14
Up	22	18	13	11	19	15	14	16	14	13	15	8	8	3	10	6	10	6	11	13
Diffusion Index	71%	72%	69%	68%	72%	64%	63%	66%	59%	56%	58%	50%	46%	31%	54%	38%	46%	43%	53%	57%

International Interest Rate And Foreign Exchange Rate Forecasts

United States

Blue Chip Forecasters	Fed Fund Target Rate			10 Yr. Gov't Bond Yield %			Fed's AFE $ Index		
	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.
BMO Capital Markets	4.63	4.88	4.88	3.95	3.90	3.75	121.8	120.7	118.4
ING Financial Markets	4.88	4.88	4.13	4.00	3.75	3.00	124.5	120.9	116.9
Moody's Analytics	3.82	4.56	4.62	4.12	4.57	4.59	--	--	--
Northern Trust	4.38	4.38	4.38	4.25	4.10	3.80	122.0	118.0	114.0
Oxford Economics	3.71	4.38	4.38	3.87	3.64	3.23	123.8	123.8	122.9
S&P Global Market Intelligence	--	--	--	4.11	3.93	3.62	--	--	--
Scotiabank	5.00	5.00	4.75	3.80	3.65	3.45	--	--	--
TS Lombard	5.38	5.38	2.88	3.50	3.30	3.25	118.0	115.0	120.0
Wells Fargo	4.88	5.13	5.13	4.20	4.20	3.50	--	--	--
December Consensus	**4.59**	**4.82**	**4.39**	**3.98**	**3.89**	**3.58**	**122.0**	**119.7**	**118.4**
High	5.38	5.38	5.13	4.25	4.57	4.59	124.5	123.8	122.9
Low	3.71	4.38	2.88	3.50	3.30	3.00	118.0	115.0	114.0
Last Months Avg.	4.41	4.60	4.43	3.94	3.79	3.56	124.5	124.1	119.1

Japan

Blue Chip Forecasters	Policy-Rate Balance Rate			10 Yr. Gov't Bond Yield %			Yen per US$		
	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.
BMO Capital Markets	-0.10	-0.10	-0.10	0.25	0.25	0.25	143.0	140.0	135.0
ING Financial Markets	-0.10	-0.10	-0.10	0.25	0.25	0.20	145.0	140.0	130.0
Moody's Analytics	-0.10	-0.10	-0.10	0.26	0.24	0.24	148.0	144.0	137.4
Nomura Securities	--	--	--	--	--	--	138.3	131.7	125.8
Northern Trust	-0.10	-0.10	-0.10	0.25	0.25	0.25	143.0	137.0	135.0
Oxford Economics	-0.05	-0.05	-0.05	0.23	0.22	0.14	144.2	145.4	144.1
S&P Global Market Intelligence	--	--	--	--	--	--	149.2	144.7	137.6
Scotiabank	--	--	--	--	--	--	138.0	138.0	133.0
TS Lombard	-0.10	0.10	0.00	0.25	0.25	0.25	135.0	131.6	137.3
Wells Fargo	-0.10	-0.10	-0.10	0.25	0.25	0.20	--	--	--
December Consensus	**-0.09**	**-0.06**	**-0.08**	**0.25**	**0.24**	**0.22**	**142.6**	**139.1**	**135.0**
High	-0.05	0.10	0.00	0.26	0.25	0.25	149.2	145.4	144.1
Low	-0.10	-0.10	-0.10	0.23	0.22	0.14	135.0	131.6	125.8
Last Months Avg.	-0.09	-0.07	-0.08	0.24	0.23	0.22	144.4	140.9	135.2

United Kingdom

Blue Chip Forecasters	Official Bank Rate			10 Yr. Gilt Yields %			US$ per Pound Sterling		
	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.
BMO Capital Markets	3.75	3.75	3.75	3.40	3.40	3.35	1.14	1.15	1.15
ING Financial Markets	3.75	3.75	3.50	3.40	3.20	3.10	1.07	1.11	1.14
Moody's Analytics	2.87	4.10	4.50	3.82	4.10	4.62	1.19	1.30	1.39
Nomura Securities	--	--	--	--	--	--	1.19	1.20	1.24
Northern Trust	4.00	4.00	4.00	3.10	3.20	3.30	1.12	1.14	1.16
Oxford Economics	2.83	3.82	4.00	3.55	3.50	3.49	1.13	1.14	1.15
S&P Global Market Intelligence	--	--	--	--	--	--	1.19	1.20	1.23
Scotiabank	--	--	--	--	--	--	1.15	1.15	1.20
TS Lombard	3.75	3.76	1.25	2.90	2.70	2.65	1.22	1.25	1.21
Wells Fargo	3.50	3.75	3.25	3.40	3.45	2.95	--	--	--
December Consensus	**3.49**	**3.85**	**3.46**	**3.37**	**3.36**	**3.35**	**1.16**	**1.18**	**1.21**
High	4.00	4.10	4.50	3.82	4.10	4.62	1.22	1.30	1.39
Low	2.83	3.75	1.25	2.90	2.70	2.65	1.07	1.11	1.14
Last Months Avg.	3.39	3.63	3.64	3.74	3.72	3.65	1.11	1.10	1.16

Switzerland

Blue Chip Forecasters	SNB Policy Rate			10 Yr. Gov't Bond Yield %			CHF per US$		
	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.
ING Financial Markets	1.50	1.50	1.50	1.30	1.30	1.50	0.98	0.92	0.92
Moody's Analytics	1.25	1.50	1.50	1.66	2.21	2.46	0.96	0.93	0.86
Nomura Securities	--	--	--	--	--	--	0.93	0.94	0.97
Northern Trust	1.50	1.50	1.50	1.10	1.20	1.10	0.96	0.94	0.92
Oxford Economics	0.63	1.38	1.50	1.25	1.40	1.30	1.00	0.99	0.99
S&P Global Market Intelligence	--	--	--	--	--	--	1.01	1.00	0.97
Scotiabank	--	--	--	--	--	--	0.98	0.97	0.95
TS Lombard	0.50	0.50	0.50	0.75	0.55	0.50	0.97	0.97	0.97
Wells Fargo	1.25	1.75	1.75	--	--	--	--	--	--
December Consensus	**1.11**	**1.36**	**1.38**	**1.21**	**1.33**	**1.37**	**0.97**	**0.96**	**0.94**
High	1.50	1.75	1.75	1.66	2.21	2.46	1.01	1.00	0.99
Low	0.50	0.50	0.50	0.75	0.55	0.50	0.93	0.92	0.86
Last Months Avg.	1.09	1.45	1.42	1.48	1.41	1.36	1.01	1.01	0.97

Canada

Blue Chip Forecasters	O/N MMkt Financing Rate			10 Yr. Gov't Bond Yield %			C$ per US$		
	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.
BMO Capital Markets	4.50	4.50	4.50	3.35	3.30	3.25	1.35	1.34	1.33
ING Financial Markets	4.50	4.50	3.50	3.25	3.00	2.50	1.32	1.30	1.24
Moody's Analytics	3.69	4.43	4.50	3.89	4.67	4.82	1.34	1.33	1.30
Nomura Securities	--	--	--	--	--	--	1.39	1.38	1.36
Northern Trust	4.50	4.50	4.50	3.20	3.10	3.00	1.37	1.34	1.30
Oxford Economics	3.91	4.25	4.25	3.46	3.57	3.37	1.38	1.39	1.39
S&P Global Market Intelligence	--	--	--	--	--	--	1.38	1.39	1.35
Scotiabank	--	--	--	--	--	--	1.35	1.30	1.30
TS Lombard	5.63	5.63	3.13	2.80	2.60	2.55	1.35	1.35	1.35
Wells Fargo	4.00	4.25	3.75	3.35	3.30	3.00	--	--	--
December Consensus	**4.39**	**4.58**	**4.02**	**3.33**	**3.36**	**3.21**	**1.36**	**1.35**	**1.32**
High	5.63	5.63	4.50	3.89	4.67	4.82	1.39	1.39	1.39
Low	3.69	4.25	3.13	2.80	2.60	2.50	1.32	1.30	1.24
Last Months Avg.	4.27	4.27	4.21	3.55	3.48	3.31	1.36	1.36	1.32

International Interest Rate And Foreign Exchange Rate Forecasts

Australia

Blue Chip Forecasters	Official Cash Rate In 3 Mo.	Official Cash Rate In 6 Mo.	Official Cash Rate In 12 Mo.	10 Yr. Gov't Bond Yield % In 3 Mo.	10 Yr. Gov't Bond Yield % In 6 Mo.	10 Yr. Gov't Bond Yield % In 12 Mo.	US$ per A$ In 3 Mo.	US$ per A$ In 6 Mo.	US$ per A$ In 12 Mo.
ING Financial Markets	3.60	3.60	2.60	3.80	3.50	2.70	0.66	0.68	0.70
Moody's Analytics	2.85	3.10	3.35	4.35	4.66	4.79	0.64	0.66	0.69
Nomura Securities	--	--	--	--	--	--	0.66	0.69	0.72
Northern Trust	3.60	3.60	3.60	3.70	3.60	3.50	0.65	0.67	0.60
Oxford Economics	2.71	3.35	3.60	3.92	3.91	3.82	0.64	0.64	0.66
S&P Global Market Intelligence	--	--	--	--	--	--	0.62	0.62	0.63
Scotiabank	--	--	--	--	--	--	0.66	0.66	0.68
TS Lombard	4.68	4.68	2.18	3.35	3.15	3.10	0.65	0.65	0.65
Wells Fargo	3.10	3.35	3.35	--	--	--	--	--	--
December Consensus	**3.42**	**3.61**	**3.11**	**3.82**	**3.76**	**3.58**	**0.65**	**0.66**	**0.67**
High	4.68	4.68	3.60	4.35	4.66	4.79	0.66	0.69	0.72
Low	2.71	3.10	2.18	3.35	3.15	2.70	0.62	0.62	0.60
Last Months Avg.	3.22	3.16	3.09	4.04	3.88	3.65	0.65	0.66	0.69

Euro area

Blue Chip Forecasters	Main Refinancing Rate In 3 Mo.	Main Refinancing Rate In 6 Mo.	Main Refinancing Rate In 12 Mo.	US$ per Euro In 3 Mo.	US$ per Euro In 6 Mo.	US$ per Euro In 12 Mo.
BMO Capital Markets	2.50	3.00	3.00	1.00	1.01	1.03
ING Financial Markets	2.75	2.75	2.75	0.95	0.98	1.00
Moody's Analytics	1.79	2.67	3.00	0.98	0.99	1.04
Nomura Securities	--	--	--	1.08	1.08	1.10
Northern Trust	3.00	3.00	3.00	0.99	1.04	1.06
Oxford Economics	1.87	2.66	2.75	0.98	0.98	0.99
S&P Global Market Intelligence	--	--	--	0.97	0.98	1.01
Scotiabank	--	--	--	1.00	1.02	1.05
TS Lombard	2.00	2.75	0.50	1.05	1.08	1.04
Wells Fargo	2.00	2.50	2.50	--	--	--
December Consensus	**2.27**	**2.76**	**2.50**	**1.00**	**1.02**	**1.04**
High	3.00	3.00	3.00	1.08	1.08	1.10
Low	1.79	2.50	0.50	0.95	0.98	0.99
Last Months Avg.	2.10	2.48	2.50	0.96	0.95	1.01

10 Yr. Gov't Bond Yields %

Blue Chip Forecasters	Germany In 3 Mo.	Germany In 6 Mo.	Germany In 12 Mo.	France In 3 Mo.	France In 6 Mo.	France In 12 Mo.	Italy In 3 Mo.	Italy In 6 Mo.	Italy In 12 Mo.	Spain In 3 Mo.	Spain In 6 Mo.	Spain In 12 Mo.
BMO Capital Markets	2.20	2.20	2.15	--	--	--	--	--	--	--	--	--
ING Financial Markets	1.90	1.80	1.80	2.45	2.30	2.30	4.15	3.80	3.80	3.10	2.80	2.80
Moody's Analytics	2.31	2.44	2.65	2.85	2.92	3.00	4.62	4.63	4.37	3.55	3.66	3.68
Northern Trust	2.10	2.00	1.95	2.35	2.25	2.20	3.85	3.75	3.70	2.90	2.80	2.75
Oxford Economics	2.22	2.23	2.05	2.88	2.86	2.61	4.46	4.44	4.18	3.49	3.48	3.26
TS Lombard	1.70	1.50	1.45	2.05	1.85	1.80	3.00	2.80	2.75	2.45	2.25	2.20
Wells Fargo	2.20	2.35	2.15	--	--	--	--	--	--	--	--	--
December Consensus	**2.09**	**2.07**	**2.03**	**2.52**	**2.44**	**2.38**	**4.02**	**3.88**	**3.76**	**3.10**	**3.00**	**2.94**
High	2.31	2.44	2.65	2.88	2.92	3.00	4.62	4.63	4.37	3.55	3.66	3.68
Low	1.70	1.50	1.45	2.05	1.85	1.80	3.00	2.80	2.75	2.45	2.25	2.20
Last Months Avg.	2.24	2.15	2.15	2.68	2.48	2.44	4.26	4.01	3.85	3.30	3.07	2.98

Consensus Forecasts
10-year Bond Yields vs U.S. Yield

	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.41	-3.73	-3.65	-3.36
United Kingdom	-0.42	-0.61	-0.53	-0.23
Switzerland	-2.67	-2.77	-2.56	-2.20
Canada	-0.77	-0.65	-0.53	-0.36
Australia	-0.10	-0.15	-0.13	0.01
Germany	-1.71	-1.89	-1.82	-1.55
France	-1.25	-1.46	-1.46	-1.19
Italy	0.17	0.04	-0.01	0.18
Spain	-0.87	-0.88	-0.90	-0.64

Consensus Forecasts
Policy Rates vs U.S. Target Rate

	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.98	-4.68	-4.76	-4.47
United Kingdom	-0.88	-1.09	-0.98	-0.93
Switzerland	-3.38	-3.48	-3.47	-3.02
Canada	-0.13	-0.20	-0.24	-0.38
Australia	-1.03	-1.16	-1.21	-1.28
Euro area	-1.88	-2.31	-2.06	-1.89

Special Questions:

1. a. What do you think will be the terminal fed funds rate (average of target range) in the current tightening cycle?

Consensus	5.01%
Top 10	5.30%
Bottom 10	4.76%

b. When will the terminal rate be reached?

by the end 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Later
3%	66%	29%	3%	0%	0%

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

Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Later
0%	3%	29%	11%	46%	11%

3. a. Do you think that major central banks will be successful in reining in inflation without precipitating a recession?

	Yes	No
US	18%	82%
euro area	0%	100%
UK	0%	100%

b. If no, what type of recession do you project?

	Mild	Severe
US	100%	0%
euro area	59%	41%
UK	48%	52%

4. What is your estimate of the long-term noninflationary rate of unemployment (formerly called NAIRU) for the US?

Consensus	4.1%
Top 10	4.6%
Bottom 10	3.6%

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

The 4-Month Low for Confidence, Can Gas Prices Make Spirits Bright in December?

While hard data on consumer spending remains steadfast, consumer confidence continues its trend decline coming in at 100.2 in November even as last month's numbers were revised slightly lower. The measures for both the present situation and for future expectations also declined slightly as recession fears begin to take hold.

Even with the decline in November, confidence is still 4.9 points higher than it was in July, following the June peak in gasoline prices. Falling prices at the pump can underpin confidence. The nationwide average price for a gallon of unleaded gasoline fell throughout November. That this decline did not result in a rise in confidence may be because most of the decline occurred in the second half of the month after survey responses had been submitted. If the trend decline in gas prices remains intact throughout December, that could be key to making spirits bright going into the critical holiday shopping season.

Even though fuel expenditures represent a small share of consumer spending, gas prices have a way of getting into consumers' heads. Not only would a sustained drop in fuel prices support confidence, it could also help quell fears about inflation.

Labor Market Losing Momentum. Consumers' assessment of the labor market has been deteriorating on trend for the better part of the past year. How households view their job situations and prospects directly influences their willingness to spend. With the sand running out of the hourglass in terms of excess savings drying up, job prospects take on additional significance for consumption decisions today. Relying on savings to fund spending is a lot more comfortable when you have job security.

In October's report, we saw the smallest share of households in 18 months viewing jobs as "plentiful" in that month. That share rose slightly to 45.8 in November. The share of households reporting jobs as "hard to get" remained unchanged at 13.0%, a figure that is historically low and consistent with the low unemployment rate and overall tightness that still exists in the labor market. Employment conditions have a large bearing on the overall confidence index, and as the Fed's tighter policy stance to tame inflation weighs on demand, we expect to see some deterioration in the labor market. Specifically we expect Friday's nonfarm payroll report to show the economy added 205K jobs in November, a bit slower that the 261K print for October and a decided shift from the 347K jobs that have been added on average over the past six months. This slowing will keep downward pressure on consumer confidence for some time.

GDP Overstating Strength, Look at GDI

The U.S. economy expanded at a 2.9% annualized pace in the third quarter according to the second estimate of GDP, which was slightly stronger than the initial advance estimate of 2.6%. The headline continued to be flattered by a sizable gain in net exports due to an unsustainable gain in exports and decline in import activity.

The largest upward revision, however, came from nonresidential structures investment, where the originally reported 15.3% annualized decline was more than halved to a 6.9% drop. Structures is a relatively small component of overall GDP, representing just around 3% of total U.S. output, but the upward gain here flattered the headline. Beyond that, there was also a modest upward revision to real personal consumption expenditures, which now look to have risen at a 1.7% annualized pace in Q3 amid upward revisions to goods consumption specifically. Real final sales to domestic purchasers were thus revised modestly higher to nearly a 1% gain in Q3, demonstrating a still-slow but better pace of growth for the core of the U.S. economy.

This release also included the first look at Gross Domestic Income (GDI), which in theory should be equivalent to GDP. The two have diverged recently, but the gap in the year-ago pace of the two narrowed to just 0.4% in Q2, from 1.1% in Q2. Still, the more modest 0.3% gain in the annualized rate of real GDI for Q3 and downward revisions to Q2 which flipped a 0.1% gain to a 0.8% decline provide further evidence the economy is slowing. The headline GDP growth rate continues to overstate strength in Q3, in our view.

Profits Slip, Margins Compress. Pre-tax profits slipped a modest 1.1% (not annualized) in Q3, or by just $31.6 billion, which keeps the overall level of nominal profits near a record high. In fact, on a year-ago basis, profits were still up 4.4%. Third quarter weakness can be traced to domestic financial profits and international profits specifically. Growth in profits of domestic nonfinancial industries, a bulk of overall profits, slowed from the robust Q2 pace but remained positive.

Profits continue to be supported by underlying demand in the United States and the staying power of consumers more specifically. Consumers have largely been price takers this year, continuing to spend in the face of higher inflation, and that gives businesses little incentive to forgo further price increases. Firms have thus been able to maintain elevated profit margins, but there's evidence of compression in the third quarter. Economy-wide corporate profit margins are running at a 11.6% pace, a touch above the average that prevailed over the past cycle.

We continue to expect further margin compression going forward. A more pronounced pullback in demand next year, as consumers become more thinly stretched, will dent businesses' ability to continue to pass costs on to consumers. Inventory dynamics are also a challenge with big-box retailers cautioning a hit to revenues from a need to move undesired inventory through discounting. Some reprieve in input prices, particularly of goods, may help counteract these headwinds, but it's likely not enough to keep overall margins at such elevated levels. Slowing demand and higher borrowing costs will make it more difficult to retain workers and invest in capital expenditures while maintaining the bottom line. Something's got to give.

Tim Quinlan and Shannon Seery (Wells Fargo Economics)

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 2024 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	
		2024	2025	2026	2027	2028	2024-2028	2029-2033
1. Federal Funds Rate	**CONSENSUS**	**3.7**	**2.9**	**2.8**	**2.8**	**2.7**	**3.0**	**2.8**
	Top 10 Average	4.5	3.7	3.6	3.5	3.4	3.7	3.4
	Bottom 10 Average	2.7	2.2	2.2	2.2	2.2	2.3	2.3
2. Prime Rate	**CONSENSUS**	**6.8**	**6.1**	**5.9**	**5.9**	**5.9**	**6.1**	**5.9**
	Top 10 Average	7.6	6.8	6.7	6.6	6.5	6.8	6.5
	Bottom 10 Average	5.9	5.3	5.3	5.3	5.3	5.4	5.3
3. SOFR	**CONSENSUS**	**3.7**	**2.9**	**2.8**	**2.8**	**2.7**	**3.0**	**2.8**
	Top 10 Average	4.4	3.6	3.4	3.3	3.2	3.6	3.3
	Bottom 10 Average	3.0	2.3	2.2	2.2	2.2	2.4	2.2
4. Commercial Paper, 1-Mo	**CONSENSUS**	**3.7**	**3.1**	**3.0**	**2.9**	**2.9**	**3.1**	**2.9**
	Top 10 Average	4.4	3.6	3.5	3.4	3.3	3.6	3.3
	Bottom 10 Average	3.2	2.6	2.5	2.4	2.4	2.6	2.5
5. Treasury Bill Yield, 3-Mo	**CONSENSUS**	**3.7**	**3.0**	**2.9**	**2.8**	**2.8**	**3.0**	**2.8**
	Top 10 Average	4.4	3.7	3.6	3.5	3.4	3.7	3.4
	Bottom 10 Average	2.9	2.2	2.3	2.2	2.2	2.4	2.3
6. Treasury Bill Yield, 6-Mo	**CONSENSUS**	**3.7**	**3.0**	**3.0**	**3.0**	**2.9**	**3.1**	**3.0**
	Top 10 Average	4.4	3.7	3.7	3.6	3.5	3.8	3.5
	Bottom 10 Average	3.1	2.4	2.4	2.4	2.4	2.5	2.4
7. Treasury Bill Yield, 1-Yr	**CONSENSUS**	**3.8**	**3.1**	**3.1**	**3.1**	**3.0**	**3.2**	**3.1**
	Top 10 Average	4.4	3.8	3.7	3.6	3.5	3.8	3.6
	Bottom 10 Average	3.1	2.5	2.5	2.5	2.5	2.6	2.6
8. Treasury Note Yield, 2-Yr	**CONSENSUS**	**3.6**	**3.2**	**3.2**	**3.1**	**3.1**	**3.2**	**3.1**
	Top 10 Average	4.4	3.9	3.8	3.8	3.7	3.9	3.8
	Bottom 10 Average	2.7	2.5	2.6	2.6	2.6	2.6	2.6
9. Treasury Note Yield, 5-Yr	**CONSENSUS**	**3.6**	**3.3**	**3.4**	**3.4**	**3.3**	**3.4**	**3.4**
	Top 10 Average	4.4	4.0	4.0	4.0	3.9	4.1	3.9
	Bottom 10 Average	2.9	2.7	2.7	2.8	2.8	2.8	2.9
10. Treasury Note Yield, 10-Yr	**CONSENSUS**	**3.7**	**3.5**	**3.6**	**3.6**	**3.6**	**3.6**	**3.7**
	Top 10 Average	4.4	4.2	4.4	4.4	4.3	4.3	4.3
	Bottom 10 Average	3.0	2.9	2.8	2.9	3.0	2.9	3.0
11. Treasury Bond Yield, 30-Yr	**CONSENSUS**	**4.0**	**3.9**	**3.9**	**4.0**	**3.9**	**3.9**	**4.0**
	Top 10 Average	4.6	4.5	4.7	4.6	4.6	4.6	4.7
	Bottom 10 Average	3.4	3.3	3.3	3.3	3.3	3.3	3.3
12. Corporate Aaa Bond Yield	**CONSENSUS**	**5.1**	**4.9**	**5.0**	**5.0**	**5.0**	**5.0**	**5.1**
	Top 10 Average	5.7	5.5	5.6	5.6	5.6	5.6	5.7
	Bottom 10 Average	4.6	4.4	4.4	4.4	4.5	4.4	4.5
13. Corporate Baa Bond Yield	**CONSENSUS**	**6.2**	**5.9**	**5.9**	**6.0**	**5.9**	**6.0**	**6.0**
	Top 10 Average	6.6	6.4	6.5	6.5	6.5	6.5	6.6
	Bottom 10 Average	5.7	5.3	5.3	5.4	5.4	5.4	5.5
14. State & Local Bonds Yield	**CONSENSUS**	**4.4**	**4.2**	**4.3**	**4.3**	**4.3**	**4.3**	**4.4**
	Top 10 Average	4.8	4.7	4.8	4.7	4.7	4.7	4.8
	Bottom 10 Average	3.9	3.7	3.8	3.9	3.9	3.9	3.9
15. Home Mortgage Rate	**CONSENSUS**	**5.9**	**5.5**	**5.5**	**5.5**	**5.5**	**5.6**	**5.5**
	Top 10 Average	6.6	6.2	6.2	6.2	6.2	6.3	6.2
	Bottom 10 Average	5.3	4.8	4.8	4.8	4.8	4.9	4.9
A. Fed's AFE Nominal $ Index	**CONSENSUS**	**117.6**	**116.0**	**114.5**	**113.5**	**112.2**	**114.8**	**110.7**
	Top 10 Average	120.7	119.3	118.5	118.0	117.9	118.9	116.7
	Bottom 10 Average	115.1	112.9	110.7	109.2	107.2	111.0	105.4
		Year-Over-Year, % Change					Five-Year Averages	
		2024	2025	2026	2027	2028	2024-2028	2029-2033
B. Real GDP	**CONSENSUS**	**1.4**	**2.2**	**2.1**	**2.0**	**2.0**	**1.9**	**1.9**
	Top 10 Average	2.2	2.6	2.6	2.4	2.4	2.5	2.3
	Bottom 10 Average	0.5	1.8	1.7	1.7	1.7	1.5	1.6
C. GDP Chained Price Index	**CONSENSUS**	**2.3**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**
	Top 10 Average	2.7	2.4	2.3	2.3	2.3	2.4	2.2
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	**CONSENSUS**	**2.4**	**2.2**	**2.2**	**2.2**	**2.2**	**2.2**	**2.1**
	Top 10 Average	2.8	2.5	2.4	2.3	2.3	2.5	2.3
	Bottom 10 Average	2.0	2.0	2.0	2.0	2.0	2.0	2.0
E. PCE Price Index	**CONSENSUS**	**2.3**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**
	Top 10 Average	2.6	2.4	2.4	2.3	2.2	2.4	2.2
	Bottom 10 Average	1.9	1.9	1.9	1.9	2.0	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	1.2	0.7	0.4	1.0	-0.4	0.7	0.0	1.3	....	....
Auto & Light Truck Sales (b)	15.11	13.71	13.55	14.28	12.58	13.05	13.32	13.24	13.57	14.94	....	....
Personal Income (a, current $)	-0.1	0.5	0.5	0.2	0.5	0.5	0.5	0.3	0.4	0.7	....	....
Personal Consumption (a, current $)	1.2	0.7	1.2	0.4	0.7	1.2	-0.2	0.7	0.6	0.8	....	....
Consumer Credit (e)	3.9	9.1	12.1	8.3	7.1	10.4	6.2	7.8	6.4	....	....	....
Consumer Sentiment (U. of Mich.)	67.2	62.8	59.4	65.2	58.4	50.0	51.5	58.2	58.6	59.9	56.8	....
Household Employment (c)	1199	548	736	-353	321	-315	179	442	204	-328	....	....
Nonfarm Payroll Employment (c)	504	714	398	368	386	293	537	292	315	261	....	....
Unemployment Rate (%)	4.0	3.8	3.6	3.6	3.6	3.6	3.5	3.7	3.5	3.7	....	....
Average Hourly Earnings (All, cur. $)	31.56	31.60	31.75	31.86	31.98	32.11	32.27	32.36	32.46	32.58	....	....
Average Workweek (All, hrs.)	34.6	34.7	34.6	34.6	34.6	34.5	34.5	34.5	34.5	34.5	....	....
Industrial Production (d)	2.9	6.9	4.8	5.3	4.4	3.9	3.9	3.8	5.0	3.3	....	....
Capacity Utilization (%)	78.9	79.4	79.8	80.2	80.0	79.8	80.2	80.0	80.1	79.9	....	....
ISM Manufacturing Index (g)	57.6	58.6	57.1	55.4	56.1	53.0	52.8	52.8	50.9	50.2	49.0	....
ISM Nonmanufacturing Index (g)	59.9	56.5	58.3	57.1	55.9	55.3	56.7	56.9	56.7	54.4	....	....
Housing Starts (b)	1.666	1.777	1.716	1.805	1.562	1.575	1.377	1.508	1.488	1.425	....	....
Housing Permits (b)	1.841	1.857	1.879	1.823	1.695	1.696	1.685	1.542	1.564	1.512	....	....
New Home Sales (1-family, c)	831	790	707	619	636	571	543	661	588	632	....	....
Construction Expenditures (a)	2.7	1.5	0.9	0.7	0.7	0.6	0.8	-1.1	0.1	-0.3	....	....
Consumer Price Index (nsa, d)	7.5	7.9	8.5	8.3	8.6	9.1	8.5	8.3	8.2	7.7	....	....
CPI ex. Food and Energy (nsa, d)	6.0	6.4	6.5	6.2	6.0	5.9	5.9	6.3	6.6	6.3	....	....
PCE Chain Price Index (d)	6.1	6.4	6.8	6.4	6.5	7.0	6.4	6.2	6.3	6.0	....	....
Core PCE Chain Price Index (d)	5.2	5.4	5.4	5.0	4.9	5.0	4.7	4.9	5.2	5.0	....	....
Producer Price Index (nsa, d)	10.1	10.4	11.7	11.2	11.1	11.2	9.7	8.7	8.4	8.0	....	....
Durable Goods Orders (a)	3.1	-0.7	0.7	0.4	0.8	2.3	-0.1	0.2	0.3	1.0	....	....
Leading Economic Indicators (a)	-0.7	0.8	-0.1	-0.5	-0.7	-0.7	-0.5	-0.1	-0.5	-0.8	....	....
Balance of Trade & Services (f)	-88.0	-87.8	-106.9	-86.7	-85.9	-80.9	-70.5	-65.7	-73.3	....	....	....
Federal Funds Rate (%)	0.08	0.08	0.20	0.33	0.77	1.21	1.68	2.33	2.56	3.08	....	....
3-Mo. Treasury Bill Rate (%)	0.15	0.31	0.45	0.76	0.99	1.54	2.30	2.72	3.22	3.87	....	....
10-Year Treasury Note Yield (%)	1.76	1.93	2.13	2.75	2.90	3.14	2.90	2.90	3.52	3.98	....	....

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	1.0	1.1	1.6	0.5	-1.6
Auto & Light Truck Sales (b)	16.82	15.65	17.72	18.17	16.69	15.28	14.62	13.06	12.31	13.22	13.10	12.72
Personal Income (a, current $)	9.6	-7.1	20.7	-13.1	-1.9	0.1	1.1	0.3	-0.8	0.8	0.5	0.3
Personal Consumption (a, current $)	2.5	-0.6	5.2	0.6	0.4	1.2	0.4	0.7	0.8	1.3	0.5	-0.2
Consumer Credit (e)	3.1	5.1	4.3	5.3	7.6	6.5	4.5	5.1	6.6	5.7	8.7	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)	-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)	1.5	1.7	2.5	3.6	4.0	4.3	4.4	4.5	4.7	5.2	5.9	6.0
Core PCE Chain Price Index (d)	1.6	1.6	2.0	3.1	3.5	3.8	3.9	3.9	3.9	4.3	4.8	5.0
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.

Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
December 5 ISM Services PMI (Nov) S&P Global Services PMI (Nov) MSIO (Oct) NABE Outlook (Q4)	**6** International Trade (Oct) Public Debt (Nov) Interest on Public Debt (Nov) Kansas City Fed Labor Market Conditions Indicators (Nov)	**7** Productivity & Costs (Q3) QFR (Q3) Transportation Services Index (Oct) Consumer Credit (Oct) Treasury Auction Allotments (Nov) EIA Crude Oil Stocks Mortgage Application	**8** QSS (Q3) Weekly Jobless Claims	**9** Producer Prices (Nov) Wholesale Trade (Oct) Consumer Sentiment (Dec, Preliminary) Financial Accounts (Q3) Housing Affordability (Oct) Kansas City Financial Stress Index (Nov)
12 Monthly Treasury (Nov)	**13** CPI (Nov) Real Earnings (Nov) Cleveland Fed Median CPI(Nov) Manpower Survey (Q1) NFIB (Nov) OPEC Crude Oil Spot Prices (Nov) FOMC Meeting	**14** Import/Export Prices (Nov) FOMC Meeting EIA Crude Oil Stocks Mortgage Application	**15** Advance Retail Sales (Nov) IP & Capacity Utilization (Nov) MTIS (Oct) ECEC (Q3) Philadelphia Fed Mfg Business Outlook Survey (Dec) Empire State Mfg Survey (Dec) TIC Data (Oct) Weekly Jobless Claims	**16** Business Leaders Survey (Dec) Livingston Survey (Dec) S&P Global Flash PMI (Dec)
19 Home Builders (Dec)	**20** New Residential Construction (Nov) Philadelphia Fed Nonmanufacturing Business Outlook Survey (Dec)	**21** International Transactions (Q3) Existing Home Sales (Nov) EIA Crude Oil Stocks Mortgage Application	**22** GDP (Q3, 3rd Estimate) Treasury Auction (Dec) Chicago Fed National Activity Index (Nov) Kansas City Fed Manufacturing Survey (Dec) Composite Indexes (Nov) Weekly Jobless Claims	**23** Advance Durable Goods (Nov) Personal Income (Nov) New Residential Sales (Nov) Dallas Fed PCE Trimmed Mean (Nov) Final Building Permits (Nov) Consumer Sentiment (Dec, Final)
26 **CHRISTMAS DAY OBSERVED** **ALL MARKETS CLOSED**	**27** Adv Trade & Inventories(Nov) FHFA HPI (Oct) Case-Shiller HPI (Oct) H.6 Money Stock (Nov) Consumer Confidence (Dec) Richmond Fed Mfg & Service Sector (Dec) Texas Mfg Outlook (Dec)	**28** Texas Service Sector Outlook Survey (Dec) Steel Imports for Consumption (Nov, Preliminary) FRB Philadelphia Coincident Economic Activity Index (Nov) Pending Home Sales (Nov) Mortgage Application	**29** International Investment Position (Q3) EIA Crude Oil Stocks Weekly Jobless Claims	**30** Agriculture Prices (Nov Strike Report (Dec) Chicago PMI (Dec)
January 2 **NEW YEAR'S DAY OBSERVED** **ALL MARKETS CLOSED**	**3** Construction (Nov)	**4** JOLTS (Nov) ISM Manufacturing (Dec) S&P Global Mfg PMI (Dec) Mortgage Application	**5** ADP Employment (Dec) International Trade (Nov) BEA Auto Sales (Dec) BEA Truck Sales (Dec) Challenger Employment Report (Dec) EIA Crude Oil Stocks Weekly Jobless Claims	**6** Employment Situation (Dec) MSIO (Nov) Public Debt (Dec) Interest on Public Debt (Dec) ISM Services PMI (Dec) S&P Global Services PMI (Dec)
9 Consumer Credit (Nov)	**10** Wholesale Trade (Nov) NFIB (Dec) Kansas City Fed Labor Market Conditions Indicators (Dec) Kansas City Financial Stress Index (Dec)	**11** EIA Crude Oil Stocks Mortgage Application	**12** CPI (Dec) Cleveland Fed Median CPI (Dec) Monthly Treasury (Dec) Weekly Jobless Claims	**13** Housing Affordability (Nov)

BLUE CHIP FORECASTERS

CONTRIBUTORS TO DOMESTIC SURVEY

ACIMA Private Wealth, Richmond, VA
Ardavan Mobasheri
Action Economics, LLC, Boulder, CO
Michael Englund
AIG, New York, NY
Henry Mo and Jerry Cai
Amherst Pierpont Securities, Stamford, CT
Stephen Stanley
Bank of America, New York, NY
Ethan Harris
Bank of the West, SF, CA
Scott Anderson
Barclays, New York, NY
Michael Gapen
BMO Capital Markets Economics, Toronto, Canada
Douglas Porter
BNP Paribas North America, New York, NY
Andrew Schneider
Chan Economics, New York, NY
Anthony Chan
Chmura Economics & Analytics, Richmond, VA
Christine Chmura and Xiaobing Shuai
Comerica, Dallas, TX
Bill Adams
Daiwa Capital Markets America, New York, NY
Michael Moran
DePrince & Associates, Murfreesburo, TN
Albert E. DePrince Jr.
Economist Intelligence Unit, New York, NY
Leo Abruzzese and Jan Friederich
EY-Parthenon, New York, NY
Gregory Daco
Fannie Mae, Washington, DC
Douglas Duncan
Georgia State University, Atlanta, GA
Rajeev Dhawan
GLC Financial Economics, Providence, RI
Gary L. Ciminero
Goldman, Sachs & Co., New York, NY
Jan Hatzius
KPMG, New York, NY
Diane Swonk
ING Financial Markets, London, England
James Knightley
J.P. Morgan Chase, New York, NY
Bruce Kasman
Loomis, Sayles & Company, L.P., Boston, MA
Brian Horrigan
MacroFin Analytics & Rutgers Business School, Wayne, NJ
Parul Jain
MacroPolicy Perspectives, New York, NY
Julia Coronado and Laura Rosner
Mizuho Research Institute, Tokyo, Japan
Mio Uemura
Moody's Analytics, West Chester, PA
Mark M. Zandi
Naroff Economic Advisors, Philadelphia, PA
Joel L. Naroff
Nationwide, New York, NY
Kathy Bostjancic
NatWest Markets, Greenwich, CT
Michelle Girard and Kevin Cummins
Nomura Securities International, Inc., New York, NY
U.S. Economics
Northern Trust Company, Chicago, IL
Carl Tannenbaum
Oxford Economics, New York, NY
Oren Klachkin
PNC Financial Services Group, Pittsburgh, PA
Gus Faucher
RDQ Economics, New York, NY
John Ryding and Conrad DeQuadros
Regions Financial Corporation, Birmingham, AL
Richard F. Moody
Scotiabank Group, Toronto, Canada
Jean-Francois Perrault
Societe Generale, New York, NY
Stephen W. Gallagher
S&P Global Market Intelligence, St. Louis, MO
Joel Prakken & Chris Varvares
Swiss Re, New York, NY
Jerome Haegeli
ThruTheCycle.com, White Plains, NY
John Lonski
TS Lombard, London, UK
Steven Blitz
Via Nova Investment Management, Fredericksburg, VA
Alan Gayle
Wells Fargo, Charlotte, NC
Jay Bryson and Mark Vitner

CONTRIBUTORS TO INTERNATIONAL SURVEY

Barclays Capital, New York, NY
BMO Capital Markets Economics, Toronto, Canada
ING Financial Markets, London, England
Mizuho Research Institute, Tokyo, Japan
Moody's Analytics, West Chester, PA
Nomura Securities International, Inc., New York, NY
Northern Trust Company, Chicago, IL
Oxford Economics, Wayne, PA
Scotiabank Group, Toronto, Canada
S&P Global Market Intelligence, St. Louis, MO
TS Lombard, London, UK
Wells Fargo, Charlotte, NC