

# Blue Chip Financial Forecasts<sup>®</sup>

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

**Vol. 39, No. 12, December 1, 2020**

**Wolters Kluwer**

**FPL 054352  
20210015-EI**

# BLUE CHIP FINANCIAL FORECASTS®

Executive Editor:  
Joseph Aguinaldo  
Director of Data Research & Analytics  
Haver Analytics  
60 East 42<sup>nd</sup> Street  
New York, NY 10165  
Phone (212) 986-9300  
E-mail: [bluechip@haver.com](mailto:bluechip@haver.com)

Robert J. Eggert, Founder  
Randell E. Moore, Editor Emeritus  
Dom Cervi, Publisher

**Blue Chip Financial Forecasts®** (ISSN: 0741-8345) is published monthly by CCH Incorporated, 28 Liberty St., 44th Floor New York, NY 10005-1400. Printed in the U.S.A.

**Subscriptions:** For information on annual subscriptions, format options (PDF, Excel, online), multiple-copy rates and/or site-license agreements please contact Peggy Hayner at: [peggy.hayner@wolterskluwer.com](mailto:peggy.hayner@wolterskluwer.com).

**Permission requests:** For information on how to obtain permission to reproduce content, please visit the Wolters Kluwer website at: <https://lrus.wolterskluwer.com/policies/permissions-reprints-and-licensing/>

**Purchasing reprints:** For customized article reprints, please contact *Wright's Media* at 1-877-652-5295 or go to the *Wright's Media* website at [www.wrightsmedia.com](http://www.wrightsmedia.com).

**Customer Service: 1-800-234-1660**

**To Order: 1-800-638-8437**

**Customer Service Fax: 1-800-901-9075**

**Email:** [customer.service@wolterskluwer.com](mailto:customer.service@wolterskluwer.com)

**Web Site:**

<https://lrus.wolterskluwer.com/corporate/blue-chip/>

**Blue Chip Financial Forecasts®** is a general circulation news monthly. No statement in this issue is to be construed as a recommendation to buy or sell securities or to provide investment advice. The editor and CCH Incorporated, while considering the contents to be reliable, take no responsibility for the information contained herein.

**Copyright © 2020 CCH Incorporated. All Rights Reserved.** This material may not be used, published, broadcast, rewritten, copied, redistributed or used to create any derivative works without written permission from the publisher.

## TABLE OF CONTENTS

<b>Domestic Commentary</b>	<b>p. 1</b>
<b>Domestic Summary Table</b> – Table of consensus forecasts of U.S. interest rates and key economic assumptions	<b>p. 2</b>
<b>International Summary Table</b> – Table of consensus forecasts of international interest rates and foreign exchange values	<b>p. 3</b>
<b>International Commentary</b> (by Sandy Batten)	<b>p. 3</b>
<b>Individual Panel Member's U.S. Forecasts</b> – Of interest rates and key assumptions for the next six quarters	<b>p. 4-9</b>
<b>Individual Panel Member's International Forecasts</b> – Of international interest rates and foreign exchange values	<b>p. 10-11</b>
<b>Viewpoints</b> – A sampling of views on the economy and government policy excerpted from recent reports issued by our panel members	<b>p. 12-13</b>
<b>Long-Range Survey</b> – Results of twice annual long-range survey forecasts for the five years 2022 through 2026 and the five-year period 2027-2031	<b>p. 14</b>
<b>Databank</b> – Monthly historical data on many key indicators of economic activity	<b>p. 15</b>
<b>Calendar</b> – Release dates for important upcoming economic data, FOMC meetings, etc.	<b>p. 16</b>
<b>List of Contributing Economists</b> – To Domestic and International Survey	<b>inside of back cover</b>

---

## COVID-19 Slows Near-Term Growth; Vaccines Can Help Growth Recover

---

**Forecast Growth Slowed Due to COVID Resurgence.** COVID-19 arguably remains the most potent force in the world economy and in the associated financial markets. As of November 27, data published by Oxford University show that there were 580,896 new cases (according to the so-called “smoothed” series), almost exactly double the number two months ago. However, in the US, this comparison was markedly more severe: the number of cases as of November 27 was 166,123, which was almost quadruple the number two months before. Governments have been imposing restrictions on public activities to try to curb the spread of the disease, and Oxford calculates indexes of the force of these restrictions, called “stringency indexes” to help gauge the impact on economies over all. These cover such activities and events as school closures, workplace closures and travel bans, scaled to a value from 0 to 100, where 100 is the strictest response. For the US, this gauge hit a new high of 75.46 on November 16. Since each country’s response is unique in content, the indexes cannot be combined to a broad world total, but one can get a sense of their relative movement through time. During November, the stringency index has been 64.81 for Germany and 75.00 for France, both up from 49.54 in September while for the UK it has been 63.89, down from 67.59 in September.

**But Vaccine Release Would Support Firmer Growth in 2021.** For the overall US economic outlook, then, it is not surprising that GDP forecasts eased somewhat over the last month. With COVID cases expected to increase still more in the days ahead, the Blue Chip Financial Forecasts panel now projects 3.7% GDP growth (SAAR) in the current quarter, down from 3.9% estimated in the November forecast, and 2.6% in Q1 2021, down from 4.0% estimated last month.

While these are more sluggish forecasts for this quarter and next, the differences are not dramatic and, in fact, by Q2 2021, the comparison switches, so that the 4.0% growth now seen in that quarter is slightly higher than the 3.8% projected in early November. We’d guess that low inflation and low interest rates and – perhaps more significantly – the impending release and distribution of vaccines will provide noticeable support to demand and supply in the US economy.

**Fed Continues to Strive toward Inflation Higher than 2% for “Some Time.”** Indeed, the low inflation expectations can evidently be seen as a brake on interest rate movements, according to the Federal Reserve’s current monetary policy stance. As Fed Chair Powell and other Fed Governors have described the last couple of months, not only does inflation have to achieve a 2% annualized pace in the months ahead, but it also has to sustain a pace somewhat above 2% before the Federal Open Market Committee would tighten policy. The idea is that the policy goal is an average inflation pace of 2% over time, indicating that inflation needs to exceed 2% for “some time,” according to these officials, to offset the periods below 2% and convince investors, business leader and consumers that inflation is being sustained at an average of 2%. The result for the Blue Chip Financial Forecasts is that the Fed will not adjust the federal funds rate until at least 2023. Hope-

fully, the upcoming FOMC meeting on December 15-16 will yield more forward guidance, as it is one of those meetings with the quarterly “Summary of Economic Projections.”

In the meantime, monetary policy has continued to concentrate on asset purchases and specialized credit support programs. The Fed has added to its holdings of Treasuries and mortgage-backed bonds an average of \$23.3 billion a week for the last three months. The Fed also manages several other kinds of assets to ensure credit is available for various other kinds of financing, notably auto loans, student loans, small and medium-sized businesses and others. Since these are not government-backed loans, the Fed and the Treasury made an arrangement for the Treasury to guarantee the associated loans so the Fed could buy notes collateralized by those loans. However, Treasury Secretary Mnuchin announced on November 19 that the Treasury would discontinue a specific group of these loan guarantees, thus blocking the Fed’s participation. Notably, though, little actual lending will be affected by these discontinuations, since there was little outright use of the specific loan programs; however, their mere existence has meant that credit availability has been assured for the relevant borrowers and this has supported their general financing.

**Long-Term Outlook: Fed May Not Raise Fed Funds Rate until 2023.** Finally, this month, we have the semiannual Blue Chip Financial Forecasts long-range outlook. The previous look out into the mid-2020s took place in the June 1 edition of BCFF. Growth then was seen at an average annual rate of 2.4% out to 2026 and then 2.1% during the 2027-2031 period. Growth projections now look the same. Inflation forecasts back in June showed the consumer price index advancing 2.1% per year in 2022-2026 and 2.2% in the second half of this long forecast range. In the new outlook, CPI is seen at the same pace, and we have added the PCE price index, which the panel estimates with marginally lower inflation of 2.1% and 2.0% for the two five-year periods.

**Fed Funds Rate Rises More Slowly with Symmetric Inflation Targeting.** The fact that the panel sees the PCE price index sustaining a pace just above 2% does mean that eventually, the Fed can indeed be expected to raise the fed funds rate to encourage the inflation rate to ease back toward settling in at 2%. The Blue Chip panel looks for a modest uptrend in the funds rate to begin with one tightening move in 2023, a little more tightening the next year and eventually reaching an average of 1.5% for the year 2026. The main item of note in this new outlook is that the funds rate is seen to be modestly lower through this five-year stretch, since there’s now the new requirement for inflation to sustain a moderately higher pace before the Fed acts to restrain it. So overall, the fed funds rate is projected to be lower than in the prior forecast, that is, it would average 0.8% in 2022-2026 versus 1.4% in last June’s set of projections. For 2027-2031, the prior projection was an average of 2.3%. but now it is 1.8%.

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

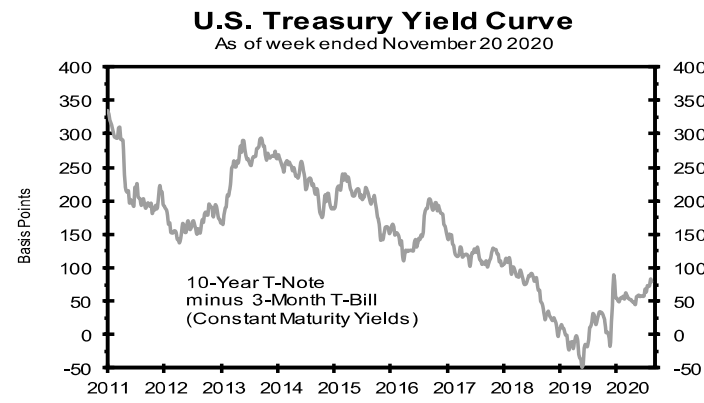
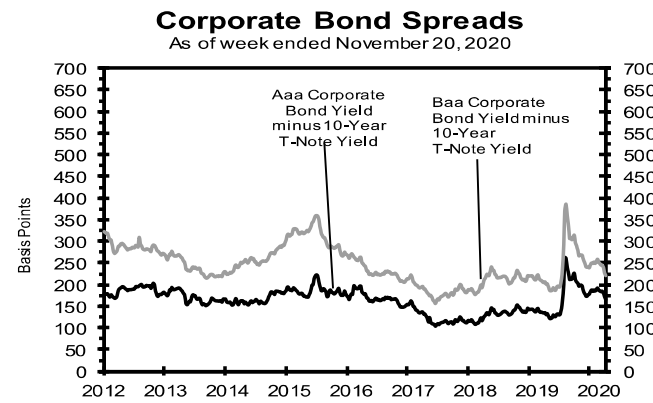
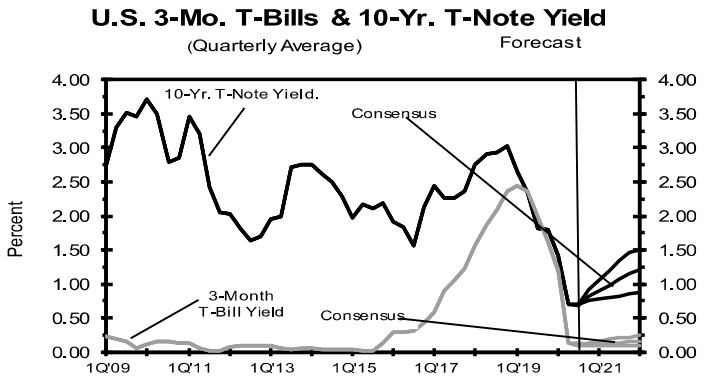
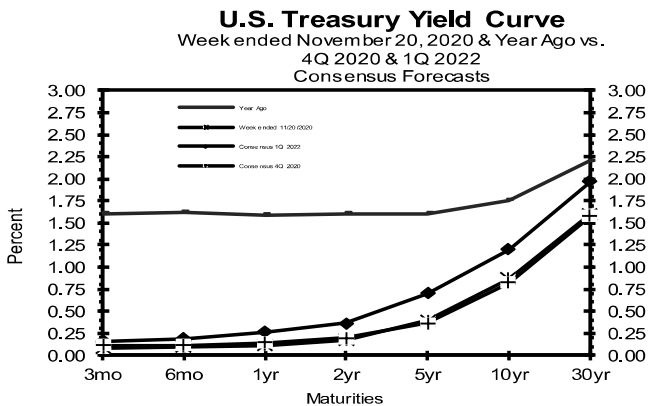
### Consensus Forecasts of U.S. Interest Rates and Key Assumptions

Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			Latest Qtr	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022
	Nov 20	Nov 13	Nov 6	Oct 30	Oct	Sep	Aug	3Q 2020	2020	2021	2021	2021	2021	2022
Federal Funds Rate	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.09	0.1	0.1	0.1	0.1	0.1	0.1
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.3	3.3	3.3	3.3	3.3	3.3
LIBOR, 3-mo.	0.22	0.22	0.22	0.22	0.22	0.24	0.25	0.25	0.3	0.3	0.3	0.3	0.3	0.3
Commercial Paper, 1-mo.	0.10	0.10	0.09	0.10	0.09	0.09	0.09	0.10	0.2	0.2	0.2	0.2	0.2	0.2
Treasury bill, 3-mo.	0.08	0.10	0.10	0.10	0.10	0.11	0.10	0.11	0.1	0.1	0.1	0.1	0.1	0.2
Treasury bill, 6-mo.	0.10	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.1	0.1	0.1	0.2	0.2	0.2
Treasury bill, 1 yr.	0.11	0.12	0.13	0.12	0.13	0.13	0.13	0.14	0.1	0.2	0.2	0.2	0.2	0.3
Treasury note, 2 yr.	0.17	0.18	0.15	0.16	0.15	0.13	0.14	0.14	0.2	0.2	0.2	0.3	0.3	0.4
Treasury note, 5 yr.	0.39	0.43	0.36	0.36	0.34	0.27	0.27	0.27	0.4	0.4	0.5	0.6	0.6	0.7
Treasury note, 10 yr.	0.87	0.93	0.83	0.82	0.79	0.68	0.65	0.65	0.8	0.9	1.0	1.1	1.2	1.2
Treasury note, 30 yr.	1.60	1.69	1.60	1.60	1.57	1.42	1.36	1.36	1.6	1.6	1.8	1.8	1.9	2.0
Corporate Aaa bond	2.53	2.66	2.64	2.68	2.65	2.56	2.48	2.49	2.5	2.5	2.6	2.7	2.8	2.8
Corporate Baa bond	3.08	3.20	3.22	3.27	3.27	3.20	3.09	3.14	3.5	3.6	3.7	3.7	3.8	3.8
State & Local bonds	2.78	2.85	2.89	2.92	2.93	2.92	2.88	2.93	2.5	2.5	2.6	2.7	2.8	2.8
Home mortgage rate	2.72	2.84	2.78	2.81	2.83	2.89	2.94	2.95	2.9	2.9	3.0	3.0	3.1	3.1

Key Assumptions	History								Consensus Forecasts-Quarterly						
	4Q				1Q			2Q	3Q	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022
	2018	2019	2019	2019	2019	2020	2020	2020	2020	2020	2020	2021	2021	2021	2022
Fed's AFE \$ Index	109.4	109.4	110.3	110.5	110.3	111.2	112.4	107.2	106.1	106.3	106.0	105.8	105.9	105.6	
Real GDP	1.3	2.9	1.5	2.6	2.4	-5.0	-31.4	33.1	3.7	2.6	4.0	4.0	3.6	3.0	
GDP Price Index	1.8	1.2	2.5	1.5	1.4	1.4	-1.8	3.6	1.7	1.7	1.8	1.8	1.8	1.8	
Consumer Price Index	1.3	0.9	3.0	1.8	2.4	1.2	-3.5	5.2	2.0	1.9	1.9	2.0	2.0	2.0	
PCE Price Index	1.4	0.6	2.5	1.4	1.5	1.3	-1.6	3.7	1.8	1.7	1.9	1.9	1.9	1.9	

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP 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 and GDP/PCE Chained Price Indexes are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS).





**-----Policy Rates<sup>1</sup>-----**

	-----History-----			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	0.13	0.13	1.63	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>
Japan	-0.10	-0.10	-0.10	<b>-0.09</b>	<b>-0.09</b>	<b>-0.09</b>
U.K.	0.10	0.10	0.75	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>
Switzerland	-0.75	-0.75	-0.75	<b>-0.75</b>	<b>-0.75</b>	<b>-0.75</b>
Canada	0.25	0.25	1.75	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>
Australia	0.10	0.25	0.75	<b>0.13</b>	<b>0.13</b>	<b>0.14</b>
Euro area	0.00	0.00	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**-----10-Yr. Government Bond Yields<sup>2</sup>-----**

	-----History-----			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	0.83	0.85	1.77	<b>0.86</b>	<b>0.99</b>	<b>1.20</b>
Germany	-0.59	-0.58	-0.36	<b>-0.54</b>	<b>-0.46</b>	<b>-0.31</b>
Japan	0.02	0.04	-0.08	<b>0.00</b>	<b>0.01</b>	<b>0.03</b>
U.K.	0.43	0.33	0.80	<b>0.29</b>	<b>0.34</b>	<b>0.46</b>
France	-0.35	-0.30	-0.05	<b>-0.32</b>	<b>-0.24</b>	<b>-0.10</b>
Italy	0.60	0.76	1.30	<b>0.68</b>	<b>0.75</b>	<b>0.89</b>
Switzerland	-0.47	-0.49	-0.52	<b>-0.65</b>	<b>-0.63</b>	<b>-0.58</b>
Canada	0.65	0.64	1.47	<b>0.75</b>	<b>0.86</b>	<b>1.04</b>
Australia	0.86	0.86	1.10	<b>0.89</b>	<b>0.91</b>	<b>1.04</b>
Spain	0.07	0.17	0.44	<b>0.12</b>	<b>0.20</b>	<b>0.34</b>

**-----Foreign Exchange Rates<sup>3</sup>-----**

	-----History-----			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	105.34	105.96	110.83	<b>106.1</b>	<b>105.3</b>	<b>104.3</b>
Japan	103.81	104.78	108.67	<b>104.5</b>	<b>104.3</b>	<b>104.1</b>
U.K.	1.33	1.30	1.28	<b>1.32</b>	<b>1.32</b>	<b>1.36</b>
Switzerland	0.91	0.91	1.00	<b>0.91</b>	<b>0.91</b>	<b>0.91</b>
Canada	1.31	1.31	1.33	<b>1.32</b>	<b>1.32</b>	<b>1.30</b>
Australia	0.73	0.71	0.68	<b>0.72</b>	<b>0.72</b>	<b>0.73</b>
Euro	1.19	1.18	1.10	<b>1.18</b>	<b>1.19</b>	<b>1.21</b>

**Consensus Policy Rates vs. US Rate**

	Now	In 12 Mo.
Japan	-0.23	<b>-0.21</b>
U.K.	-0.03	<b>-0.02</b>
Switzerland	-0.88	<b>-0.87</b>
Canada	0.13	<b>0.13</b>
Australia	-0.03	<b>0.02</b>
Euro area	-0.13	<b>-0.12</b>

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

	Now	In 12
Germany	-1.42	<b>-1.51</b>
Japan	-0.81	<b>-1.18</b>
U.K.	-0.40	<b>-0.74</b>
France	-1.18	<b>-1.30</b>
Italy	-0.23	<b>-0.31</b>
Switzerland	-1.30	<b>-1.79</b>
Canada	-0.17	<b>-0.16</b>
Australia	0.03	<b>-0.16</b>
Spain	-0.76	<b>-0.87</b>

**International** As accelerating new COVID cases generate lockdowns across Europe and numerous localized restrictions in much of the US, concerns over the near-term economic outlook are intensifying. Forecasts of the pace of economic activity in Q4 2020 and Q1 2021 are starting to be marked down with some forecasters fearing a contraction in some countries in either Q4 or Q1. PMIs have already moved into contraction territory in Europe and have remained there in Japan. Moreover, the latest restrictions will likely intensify an already dichotomized sectoral impact in these economies. The rebound thus far has mainly reflected a revival of goods production with goods output in many countries already back above levels prior to the pandemic. In contrast, service-producing sectors, which are more dependent on interpersonal contact, are still reeling from the first lockdown and the continued restraint from widespread self-imposed social distancing. These already appear to be getting hit by the new round of restrictions. Indeed, the recent drop in composite PMIs was due mostly to declines in service-producing sectors.

However, global financial markets, at least so far, appear to be looking through the expected near-term economic hit from new restrictions, likely reflecting the string of extremely positive reports on vaccines. To be sure, specific issues remain about likely efficacy, but the numbers of vaccines that are yielding positive results undeniably point to some light at the end of the pandemic tunnel. Global financial markets have certainly welcomed the recent news with equity prices in all major economies ending November considerably higher than where they started the month. On the flip side, a “risk on” attitude may lead some investors to shy away from fixed income assets, thereby putting upward pressure on longer-term interest rates. Our forecasters look for yields on 10-year government debt in North America and Europe to rise modestly over the twelve-month forecast horizon. But they expect little change in the 10-year yield in Japan, likely reflecting continuation of the Bank of Japan’s current policy of yield curve control.

The Bank of England and the Reserve Bank of Australia each held monetary policy meetings in November and each made significant moves to more accommodation. The BoE increased the size of its target for asset purchases by £150 billion to £895 billion (about 40% of GDP), extended its purchases until the end of 2021, and still left open the possibility of moving to a negative policy interest rate. At its early November meeting, the RBA was even more aggressive. It lowered its policy cash rate, cut its target for the yield on the three-year government bond, each by 15 basis points to 0.10%, and introduced a purely quantitative easing policy by announcing that over the next six months it would purchase A\$100 billion (about 5% of GDP) in government bonds with maturities between five and ten years in addition to the bond purchases required to achieve its three-year yield target. Since it established a three-year yield target in March, the RBA has already purchased more than A\$150 billion in securities. Elsewhere, European Central Bank President Lagarde’s remarks in the middle of November echoed the indications that the ECB provided at its October meeting that more accommodation was likely at its December meeting (it did not meet in November). Markets generally expect this to entail an increase in its PEPP asset purchases and more generous terms for its TLTROs.

Despite the sharp acceleration in COVID cases, there has been little change in fiscal policy over the past month. US policymakers were consumed by the nationwide election though by the end of November there were press accounts that negotiations were about to resume on new legislation to support the parts of the US economy most adversely impacted by COVID. In Europe, markets are mostly waiting for loans and grants from the EU recovery fund, which are expected to begin next spring. In Japan, the government had already announced a third supplemental budget in October. On a more active note, in announcing a new nationwide lockdown in November, the UK government extended several of its programs designed to ease the impact of the pandemic.

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

## Fourth Quarter 2020 Interest Rate Forecasts

### Key Assumptions

Blue Chip Financial Forecasts Panel Members	-----Percent Per Annum -- Average For Quarter-----																Avg. For ---Qtr.---	------(Q-Q % Change)-----														
	-----Short-Term-----															-----Intermediate-Term-----					-----Long-Term-----					------(SAAR)-----						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.		B.	C.	D.	E.											
	Federal Funds Rate	Prime Bank Rate	LIBOR Rate 3-Mo.	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		Real GDP	GDP Price Index	Cons. Price Index	PCE Price Index											
Action Economics	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	2.4	3.5	2.9	3.1	H	107.2	H	6.4	2.2	1.9	1.3						
AIG	0.1	H	3.3	H	0.4	na	0.1	L	0.1	L	0.1	L	0.2	0.3	0.7	L	1.4	L	na	3.3	na	3.0	na	4.0	1.7	2.6	4.3	H				
Amherst Pierpont Securities	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.3	0.8	1.6	2.3	3.3	2.3	2.8	105.8	8.1	H	2.2	2.1	1.7	1.7					
Bank of America	0.1	H	na	0.3	na	na	na	na	na	0.2	0.4	0.9	1.7	na	na	na	na	na	na	na	na	4.0	1.7	1.9	1.9	1.9	1.9					
Barclays	0.1	H	3.3	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	5.0	1.8	1.9	1.4	1.4	1.4					
BMO Capital Markets	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.2	0.4	0.9	1.7	na	na	na	na	2.9	na	4.0	1.6	1.8	1.5	1.5					
BNP Paribas Americas	0.1	H	na	na	na	na	na	na	na	0.2	na	0.9	na	na	na	na	na	na	na	na	na	3.3	na	2.3	2.1	2.1	2.1					
Chan Economics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.4	0.9	1.6	2.5	3.6	2.5	2.9	105.5	3.0	1.6	2.1	2.1	2.0	2.0						
Chmura Economics & Analytics	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	2.4	na	na	2.8	na	1.5	0.6	0.5	L	na	na					
Comerica Bank	0.1	H	3.2	0.2	L	na	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	na	na	na	2.8	na	3.5	1.9	1.4	1.5	1.5	1.5					
Daiwa Capital Markets America	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.4	0.9	1.6	2.4	3.4	na	2.8	106.0	4.6	2.0	2.0	1.9	1.9	1.9					
DePrince & Assoc.	0.1	H	3.2	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.3	0.8	1.6	2.4	3.5	2.3	2.8	106.6	5.1	1.4	1.8	na	na	na	na	na					
Economist Intelligence Unit	0.1	H	3.3	H	na	0.1	L	0.1	L	0.1	L	0.2	0.3	0.7	L	1.5	na	na	na	2.8	na	4.2	na	1.5	na	na	na					
Fannie Mae	0.1	H	3.3	H	na	na	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	na	na	na	2.8	na	4.3	2.0	2.3	1.7	1.7	1.7					
Georgia State University	0.1	H	3.3	H	na	na	0.1	L	0.1	L	0.1	L	0.2	0.3	0.9	1.7	2.5	3.6	na	2.9	na	3.2	1.8	2.3	1.7	1.7	1.7					
GLC Financial Economics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.3	H	0.5	H	0.8	1.4	L	2.9	H	4.2	2.8	2.8	106.4	6.4	2.1	2.3	2.3				
Goldman Sachs & Co.	0.1	H	na	0.5	H	na	0.3	H	na	na	0.2	0.4	0.8	1.5	na	na	na	na	na	na	na	3.5	0.4	1.3	1.5	1.5	1.5					
Grant Thornton/Diane Swonk	0.1	H	3.3	H	0.4	0.6	H	0.1	L	0.1	L	0.1	L	0.2	0.2	L	0.8	1.7	2.2	L	3.2	na	2.8	na	-0.7	2.4	H	2.7	2.1			
ING	0.1	H	na	0.3	na	na	na	na	na	0.2	0.3	0.8	1.6	na	na	na	na	na	na	na	na	1.6	na	na	na	na	na	na				
J.P. Morgan Chase	0.1	H	na	0.2	L	na	na	na	na	0.2	0.3	0.8	1.6	na	na	na	na	na	na	na	na	2.8	1.9	1.9	1.9	1.8	1.8	1.8				
Loomis, Sayles & Company	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.3	0.9	1.6	2.4	3.3	2.9	2.9	106.5	4.0	2.1	2.0	1.8	1.8	1.8	1.8				
MacroFin Analytics & Rutgers Bus School	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.4	0.9	1.6	2.6	3.1	L	2.8	105.4	3.8	1.5	1.9	1.6	1.6	1.6	1.6				
Mizuho Research Institute	0.1	H	na	na	na	na	na	na	na	na	0.9	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na				
Moody's Analytics	0.1	H	3.2	0.2	L	0.1	L	0.1	L	0.2	0.2	0.4	0.7	L	1.6	2.4	3.6	2.1	2.9	na	3.0	1.9	1.6	2.2	2.2	2.2	2.2	2.2				
Moody's Capital Markets Group	0.1	H	3.3	H	0.2	L	0.2	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	2.6	3.2	2.9	2.8	105.9	4.9	1.7	2.4	1.9	1.9	1.9	1.9			
MUFG Union Bank	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.2	0.3	0.8	1.5	2.3	3.4	2.7	2.9	106.0	5.0	1.5	2.2	2.6	2.6	2.6	2.6				
Naroff Economic Advisors	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.4	0.8	1.5	2.2	L	4.0	2.3	2.9	106.8	4.6	2.0	1.7	1.0	1.0	1.0	1.0				
NatWest Markets	0.1	H	3.3	H	0.2	L	0.3	0.1	L	0.2	H	0.3	H	0.2	0.5	H	1.0	H	1.8	H	2.9	H	3.9	3.1	H	3.1	H	106.3	3.5	1.5	2.1	1.6
Nomura Securities, Inc.	0.1	H	3.3	H	na	na	na	na	na	0.2	0.4	0.9	na	na	na	na	na	na	na	na	na	3.5	1.9	2.1	1.7	1.7	1.7	1.7				
Oxford Economics	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.1	L	0.2	0.3	0.8	1.4	L	na	na	na	2.8	107.0	3.1	1.2	1.7	1.6	1.6	1.6			
PNC Financial Services Corp.	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	na	3.4	1.1	L	2.8	na	4.4	2.3	1.6	2.1	2.1	2.1			
RDQ Economics	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.2	0.5	H	0.8	1.5	2.3	3.1	L	2.9	2.8	105.8	6.5	2.3	2.5	2.3	2.3			
Regions Financial Corporation	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	2.4	3.6	2.5	2.9	106.3	3.9	1.9	2.4	1.5	1.5	1.5	1.5				
Scotiabank Group	0.1	H	3.3	H	na	na	0.1	L	na	na	0.2	0.4	0.8	1.6	na	na	na	na	na	na	na	na	1.9	0.7	1.8	1.6	1.6	1.6	1.6			
Swiss Re	0.1	H	3.3	H	0.3	0.2	0.1	L	0.2	H	0.2	0.2	0.4	0.9	1.5	2.9	H	4.3	H	na	2.5	L	na	1.3	0.3	L	0.7	0.7	L			
The Northern Trust Company	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.6	2.5	3.4	3.0	2.9	106.0	3.7	2.0	1.8	1.7	1.7	1.7	1.7				
TS Lombard	0.1	H	3.2	0.4	0.2	0.2	0.2	H	0.2	0.1	L	0.3	0.9	1.6	2.4	3.3	1.5	2.9	105.0	L	3.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5				
Via Nova Investment Mgt.	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.1	L	0.3	0.7	L	1.5	2.6	3.2	2.9	2.9	106.2	5.0	1.5	1.7	1.5	1.5	1.5	1.5		
Wells Fargo	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.1	L	0.3	0.8	1.6	2.5	3.3	2.9	2.8	na	4.5	1.9	2.2	1.7	1.7	1.7	1.7			
ACIMA Private Wealth	0.0	L	3.1	L	0.2	L	0.3	0.1	L	0.1	L	0.1	L	0.3	0.7	L	1.4	L	2.4	4.0	1.6	2.9	105.0	L	-3.0	L	1.0	3.9	H	0.7	L	
<b>December Consensus</b>	<b>0.1</b>	<b>3.3</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.4</b>	<b>0.8</b>	<b>1.6</b>	<b>2.5</b>	<b>3.5</b>	<b>3.5</b>	<b>2.5</b>	<b>2.9</b>	<b>106.1</b>	<b>3.7</b>	<b>1.7</b>	<b>2.0</b>	<b>1.8</b>											
Top 10 Avg.	0.1	3.3	0.4	0.3	0.1	0.1	0.2	0.2	0.4	0.9	1.7	2.7	3.8	2.9	3.0	106.5	5.7	2.2	2.6	2.5												
Bottom 10 Avg.	0.1	3.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.8	1.5	2.3	3.2	2.1	2.8	105.6	1.4	1.0	1.4	1.3												
November Consensus	0.1	3.3	0.3	0.2	0.1	0.1	0.2	0.2	0.4	0.8	1.5	2.4	3.6	2.5	2.9	106.8	3.9	1.6	2.1	1.8												
Number of Forecasts Changed From A Month Ago:																																
Down	0	1	5	1	2	2	6	4	4	3	5	5	7	6	14	12	15	7	13	12												
Same	39	30	26	20	30	28	22	30	27	24	17	11	11	10	14	5	10	14	14	9												
Up	1	2	1	2	1	1	3	4	6	12	14	8	7	4	3	2	13	14	10	12												
Diffusion Index	51%	52%	44%	52%	48%	48%	45%	50%	53%	62%	63%	56%	50%	45%	32%	24%	47%	60%	46%	50%												



## Second Quarter 2021

### 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-----																----- (SAAR) -----															
	---Intermediate-Term---					-----Long-Term-----					B.		C.		D.		E.															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		Fed's Adv	Real	Price	Cons.	PCE											
Federal	Prime	LIBOR	Com.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home	Fgn Econ	GDP	Index	Index	Price													
Rate	Bank	Rate	Paper	Bills	Bills	Bills	Notes	Notes	Notes	Notes	Corp.	Corp.	Local	Mtg.	\$ Index	GDP	Index	Index	Index													
		3-Mo.	1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate																		
Action Economics	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.2	H	0.2	0.3	0.6	0.8	1.6	2.5	3.3	2.9	3.1	106.5	4.8	2.1	2.0	1.8							
AIG	0.1	H	3.3	H	0.3	na		0.1	L	0.1	L	0.2	0.2	0.4	0.8	1.6	na	3.3	na	3.1	na	3.5	1.0	2.2	5.6	H						
Amherst Pierpont Securities	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.2	H	0.2	0.3	0.7	1.4	H	2.3	H	3.1	H	4.1	2.7	3.3	107.0	4.6	2.3	2.7	2.4				
Bank of America	0.1	H	na		0.2	L	na	na	na	na	na	na	0.3	0.4	1.2	2.0	na	na	na	na	na	na	7.0	1.5	1.9	1.7						
Barclays	0.1	H	3.3	H	na	na	na	na	na	na	na	na	0.2	0.5	1.1	1.8	na	na	na	na	na	na	5.0	1.7	1.4	1.3						
BMO Capital Markets	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.2	0.6	1.1	1.8	na	na	na	na	3.1	na	4.8	1.5	1.6	1.3						
BNP Paribas Americas	0.1	H	na		na	na	na	na	na	na	na	na	0.2	na	1.2	na	na	na	na	na	na	na	3.6	na	1.7	1.5						
Chan Economics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.2	0.4	1.0	1.7	2.6	3.7	2.6	3.0	105.3	3.0	1.6	1.9	1.9							
Chmura Economics & Analytics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.1	L	0.2	0.4	0.9	1.6	2.4	na	na	2.9	na	5.2	1.7	1.8	na							
Comerica Bank	0.1	H	3.2		0.2	L	na	0.1	L	0.2	H	0.2	0.4	0.5	1.1	1.8	na	na	na	2.8	na	3.5	2.0	1.8	1.8							
Daiwa Capital Markets America	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.1	L	0.2	0.6	1.1	1.8	2.6	3.6	na	3.0	107.0	3.3	1.9	2.2	2.0						
DePrince & Assoc.	0.1	H	3.2		0.4	0.3	0.2	0.2	H	0.2	0.3	0.5	1.0	1.7	2.9	4.0	2.5	3.0	3.0	3.0	106.9	4.2	1.7	1.8	na							
Economist Intelligence Unit	0.1	H	3.3	H	na	0.1	L	0.1	L	0.1	L	0.2	0.2	0.4	0.8	1.6	na	na	na	2.9	na	4.8	na	1.7	na							
Fannie Mae	0.1	H	3.3	H	na	na	0.1	L	0.1	L	0.2	0.2	0.5	0.9	1.6	na	na	na	na	2.7	L	na	2.9	2.2	2.6	2.2						
Georgia State University	0.1	H	3.3	H	na	na	0.1	L	0.1	L	0.1	L	0.2	0.5	1.1	1.9	2.4	3.9	na	3.1	na	0.4	L	2.1	2.6	2.2						
GLC Financial Economics	0.1	H	3.3	H	0.4	0.2	0.1	L	0.1	L	0.2	0.3	0.5	0.8	1.2	L	2.5	3.8	2.6	3.1	106.8	3.9	1.5	1.9	1.9							
Goldman Sachs & Co.	0.1	H	na		0.5	H	na	0.3	H	na	na	na	na	na	1.0	na	na	na	na	na	na	na	9.5	1.8	1.9	1.9						
Grant Thornton/Diane Swonk	0.1	H	3.3	H	0.4	0.3	0.1	L	0.1	L	0.2	0.2	0.5	1.0	1.9	2.5	3.5	na	3.0	3.0	na	3.9	1.9	2.2	1.9							
ING	0.1	H	na		0.3	na	na	na	na	na	na	0.3	0.6	1.0	2.0	na	na	na	na	na	na	na	9.8	H	na	na	na					
J.P. Morgan Chase	0.1	H	na		0.2	L	na	na	na	na	na	0.2	0.3	L	0.9	1.7	na	na	na	na	na	na	4.5	1.6	1.9	1.3						
Loomis, Sayles & Company	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.2	H	0.2	0.2	0.4	1.0	1.7	2.3	L	3.1	L	2.7	2.9	105.6	3.5	1.9	1.8	1.7				
MacroFin Analytics & Rutgers Bus School	0.1	H	3.3	H	0.2	L	0.1	L	0.2	0.2	H	0.2	0.2	0.5	1.0	1.7	2.7	3.4	2.9	2.9	106.1	2.2	1.8	2.1	2.0							
Mizuho Research Institute	0.1	H	na		na	na	na	na	na	na	na	na	na	0.9	na	na	na	na	na	na	na	na	na	na	na	na	na					
Moody's Analytics	0.1	H	3.2		0.3	0.1	L	0.2	0.2	H	0.4	H	0.6	H	0.7	0.9	2.1	2.5	3.6	2.3	3.0	na	3.8	1.4	1.9	2.0						
Moody's Capital Markets Group	0.1	H	3.3	H	0.2	L	0.2	0.1	L	0.1	L	0.2	0.2	0.4	0.9	1.6	2.6	3.3	2.9	2.8	107.1	3.7	1.8	1.9	2.0							
MUFG Union Bank	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.2	0.3	L	0.8	1.6	2.5	3.7	2.8	3.0	106.0	2.5	1.5	2.3	2.1						
Naroff Economic Advisors	0.1	H	3.3	H	0.3	0.2	0.2	0.2	H	0.2	0.3	0.5	0.9	1.8	2.3	L	4.1	2.6	3.1	3.1	108.3	H	2.4	1.9	2.0	1.6						
NatWest Markets	0.1	H	3.3	H	0.3	0.2	0.1	L	0.2	H	0.3	0.2	0.5	1.1	2.0	2.9	3.9	2.9	2.9	2.9	106.0	4.2	2.3	1.8	2.2							
Nomura Securities, Inc.	0.1	H	3.2		0.3	na	na	na	na	na	na	0.2	0.4	0.8	na	na	na	na	na	na	na	na	1.6	2.0	1.3	1.2						
Oxford Economics	0.1	H	3.3	H	0.3	na	0.2	0.2	H	0.2	0.2	0.4	1.0	1.7	na	na	na	na	3.0	3.0	107.8	3.3	2.3	1.7	1.7							
PNC Financial Services Corp.	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.1	L	0.2	0.5	0.9	1.7	na	3.4	1.2	L	2.8	na	3.4	2.2	1.8	1.4					
RDQ Economics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.8	H	1.4	H	2.3	H	2.8	3.8	3.7	H	3.5	H	106.7	4.2	2.7	2.6	2.5			
Regions Financial Corporation	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.3	0.5	1.0	1.8	2.6	3.7	2.6	3.1	3.1	105.2	3.2	1.7	1.9	1.5							
Scotiabank Group	0.1	H	3.3	H	na	na	0.1	L	na	na	na	0.4	0.7	1.1	1.7	na	na	na	na	na	na	na	3.4	1.1	2.1	1.9						
Swiss Re	0.1	H	3.3	H	0.4	0.3	0.2	0.2	H	0.3	0.4	0.6	1.0	1.6	3.1	H	4.3	na	2.7	L	na	5.3	4.5	H	2.8	H	2.3					
The Northern Trust Company	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.2	0.5	0.9	1.9	2.7	3.7	3.5	2.9	104.5	4.1	2.0	1.7	1.7							
TS Lombard	0.1	H	3.2		0.4	0.2	0.2	0.2	H	0.2	0.2	0.3	L	1.0	1.7	2.5	3.3	1.6	3.0	3.0	105.0	3.0	0.8	L	0.8	L	0.8	L				
Via Nova Investment Mgt.	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.1	L	0.3	L	0.7	1.4	2.5	3.2	2.9	2.9	105.0	3.5	1.6	1.9	1.6					
Wells Fargo	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.2	0.4	1.0	1.8	2.5	3.4	3.0	2.9	na	3.1	1.7	1.5	1.6							
ACIMA Private Wealth	-0.1	L	3.0	L	0.3	0.4	H	0.1	L	0.1	L	0.1	L	0.3	L	0.6	L	1.4	2.8	4.5	H	1.7	2.8	102.0	L	2.5	0.9	1.3	0.8	L		
<b>December Consensus</b>	<b>0.1</b>	<b>3.3</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.5</b>	<b>1.0</b>	<b>1.8</b>	<b>2.6</b>	<b>3.7</b>	<b>2.6</b>	<b>3.0</b>	<b>106.0</b>	<b>4.0</b>	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>												
Top 10 Avg.	0.1	3.3	0.4	0.3	0.2	0.2	0.2	0.4	0.6	1.2	2.0	2.8	4.0	3.0	3.2	107.0	6.1	2.5	2.4	2.6												
Bottom 10 Avg.	0.1	3.2	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.8	1.5	2.4	3.3	2.2	2.8	105.1	2.4	1.3	1.5	1.3												
November Consensus	0.1	3.3	0.3	0.2	0.1	0.2	0.2	0.3	0.5	0.9	1.7	2.6	3.7	2.6	3.0	106.7	3.8	1.5	1.8	1.7												
Number of Forecasts Changed From A Month Ago:																																
Down	0	1	6	2	1	4	5	6	4	6	3	3	6	6	9	10	13	0	9	8												
Same	39	30	25	20	30	25	23	27	23	21	22	14	14	9	19	5	13	19	15	15												
Up	1	2	1	1	2	2	3	5	10	13	11	7	5	5	3	4	12	16	13	10												
Diffusion Index	51%	52%	42%	48%	52%	47%	47%	49%	58%	59%	61%	58%	48%	48%	40%	34%	49%	73%	55%	53%												

# Third Quarter 2021

## 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	LIBOR Rate 3-Mo.	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														
Action Economics	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.2	H	0.2	0.3	0.6	0.9	1.7	2.5	3.4	2.9	3.2	106.4	na	na	2.2	1.9				
AIG	0.1	H	3.3	H	0.3	na	0.1	L	0.1	L	0.2	0.3	0.5	0.9	1.7	na	3.4	na	3.1	na	na	na	3.0	1.3	2.1	4.1	H		
Amherst Pierpont Securities	0.1	H	3.3	H	0.3	0.2	0.2	0.2	H	0.3	0.4	0.9	H	1.7	H	2.6	H	3.4	H	4.4	3.0	3.5	107.5	4.6	2.4	2.8	2.5		
Bank of America	0.1	H	na	0.2	L	na	na	na	na	na	0.3	0.5	1.4	2.3	na	na	na	na	na	na	na	na	5.0	1.7	1.8	1.6			
Barclays	0.1	H	3.3	H	na	na	na	na	na	na	0.2	0.6	1.2	1.9	na	na	na	na	na	na	na	na	6.0	2.2	2.4	1.9			
BMO Capital Markets	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.3	0.6	1.2	1.9	na	na	na	na	3.1	na	4.3	2.1	2.4	2.2			
BNP Paribas Americas	0.1	H	na	na	na	na	na	na	na	na	0.3	na	1.3	na	na	na	na	na	na	na	na	na	5.0	na	1.6	1.5			
Chan Economics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.4	1.0	1.7	2.6	3.7	2.6	3.0	106.5	na	4.5	1.8	2.1	1.9				
Chimura Economics & Analytics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.4	0.9	1.7	2.4	na	na	na	2.9	na	4.0	1.6	1.7	na				
Comerica Bank	0.1	H	3.2	0.3	na	0.1	L	0.2	H	0.3	0.4	0.6	1.2	1.9	na	na	na	na	2.8	na	na	3.1	2.0	2.1	1.9				
Daiwa Capital Markets America	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.3	0.7	1.2	2.0	2.7	3.7	na	3.2	107.0	3.1	2.0	2.2	2.0				
DePrince & Assoc.	0.1	H	3.2	0.4	0.3	0.2	0.2	H	0.2	0.3	0.6	1.1	1.8	3.0	4.0	2.7	3.0	107.1	na	3.7	1.8	1.9	na	na	na				
Economist Intelligence Unit	0.1	H	3.3	H	na	0.1	L	0.2	0.2	H	0.2	0.2	0.4	0.9	1.6	na	na	na	na	3.0	na	5.5	na	1.9	na				
Fannie Mae	0.1	H	3.3	H	na	na	0.1	L	0.2	H	0.2	0.3	0.5	1.0	1.6	na	na	na	na	2.8	na	3.9	1.9	2.9	H	2.2			
Georgia State University	0.1	H	3.3	H	na	na	0.1	L	0.1	L	0.1	L	0.2	0.6	1.3	2.1	2.4	3.9	na	3.3	na	1.3	L	1.8	2.8	2.1			
GLC Financial Economics	0.1	H	3.3	H	0.4	0.2	0.1	L	0.1	L	0.2	0.3	0.5	0.7	1.0	L	2.1	L	3.3	2.4	3.0	106.9	3.2	1.7	2.1	2.1			
Goldman Sachs & Co.	0.1	H	na	0.5	H	na	0.3	H	na	na	na	na	1.2	na	na	na	na	na	na	na	na	na	7.0	H	1.3	1.4	1.4		
Grant Thornton/Diane Swonk	0.1	H	3.3	H	0.4	0.4	H	0.1	L	0.1	L	0.1	L	0.2	0.5	1.0	2.0	2.5	3.5	na	3.0	na	5.6	1.6	2.4	1.7			
ING	0.1	H	na	0.3	na	na	na	na	na	na	0.3	0.6	1.0	2.0	na	na	na	na	na	na	na	na	4.0	na	na	na			
J.P. Morgan Chase	0.1	H	na	0.2	L	na	na	na	na	na	0.2	0.4	0.9	1.8	na	na	na	na	na	na	na	na	6.5	1.7	1.9	1.5			
Loomis, Sayles & Company	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.2	H	0.2	0.3	0.5	1.1	1.9	2.3	3.1	L	2.6	2.9	105.4	3.1	1.8	1.8	1.7			
MacroFin Analytics & Rutgers Bus School	0.1	H	3.3	H	0.2	L	0.2	0.2	H	0.2	0.3	0.5	1.0	1.7	2.7	3.4	2.9	2.9	2.9	106.5	na	2.0	2.0	2.1	2.1				
Mizuho Research Institute	0.1	H	na	na	na	na	na	na	na	na	na	na	0.9	na	na	na	na	na	na	na	na	na	na	na	na	na			
Moody's Analytics	0.1	H	3.2	0.3	0.1	L	0.2	0.2	H	0.5	H	0.7	H	0.9	H	1.1	2.3	2.6	3.7	2.4	3.2	na	3.1	2.3	2.7	2.8			
Moody's Capital Markets Group	0.1	H	3.3	H	0.2	L	0.2	0.1	L	0.1	L	0.2	0.2	0.4	0.9	1.6	2.6	3.3	2.9	2.8	107.3	2.8	1.8	1.9	2.0				
MUFG Union Bank	0.1	H	3.3	H	0.2	L	na	0.1	L	0.2	H	0.2	0.2	0.4	0.8	1.6	2.5	3.8	2.8	3.0	104.0	2.5	1.5	2.3	1.9				
Naroff Economic Advisors	0.1	H	3.3	H	0.3	0.2	0.2	0.2	H	0.3	0.4	0.6	1.0	1.8	2.3	4.1	2.7	3.2	109.0	H	2.1	2.0	2.1	1.9					
NatWest Markets	0.1	H	3.3	H	0.3	0.2	0.1	L	0.2	H	0.3	0.3	0.5	1.1	2.1	2.9	3.9	2.8	3.0	105.0	na	6.0	1.9	1.8	2.0				
Nomura Securities, Inc.	0.1	H	3.3	H	na	na	na	na	na	na	0.2	0.5	0.9	na	na	na	na	na	na	na	na	na	2.9	2.4	1.6	1.5			
Oxford Economics	0.1	H	3.3	H	0.3	na	0.2	0.2	H	0.2	0.2	0.5	1.2	1.8	na	na	na	na	3.1	107.9	na	3.3	2.0	1.7	1.7				
PNC Financial Services Corp.	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.1	L	0.2	0.6	1.1	1.8	na	3.5	1.3	L	2.9	na	3.2	2.2	2.2			
RDQ Economics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	0.9	H	1.6	2.5	3.0	4.1	3.8	H	3.6	H	107.3	3.9	2.9	H	2.6	2.5	
Regions Financial Corporation	0.1	H	3.3	H	0.3	0.2	0.2	0.2	H	0.2	0.4	0.6	1.1	1.9	2.7	3.8	2.7	3.2	105.2	na	4.0	2.0	1.9	2.3					
Scotiabank Group	0.1	H	3.3	H	na	na	0.1	L	na	na	0.5	0.9	H	1.3	1.8	na	na	na	na	na	na	na	4.2	1.3	2.1	1.9			
Swiss Re	0.1	H	3.3	H	0.4	0.3	0.2	0.2	H	0.3	0.4	0.6	1.0	1.6	3.1	4.3	na	na	2.7	L	na	6.0	0.3	L	1.9	1.3			
The Northern Trust Company	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.2	H	0.2	0.2	0.6	1.0	2.0	2.8	3.8	3.6	3.0	103.0	3.8	1.8	1.7	1.7				
TS Lombard	0.1	H	3.2	0.4	0.2	0.2	0.2	H	0.2	0.3	0.4	1.1	1.8	2.6	3.4	1.7	3.1	104.0	na	5.5	0.8	0.8	L	0.8	L				
Via Nova Investment Mgt.	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.1	L	0.3	L	0.7	1.4	2.5	3.2	2.9	2.9	105.0	3.0	1.7	2.0	1.6		
Wells Fargo	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.2	0.5	1.1	1.9	2.6	3.5	3.1	3.0	na	2.9	1.7	1.8	1.7				
ACIMA Private Wealth	-0.1	L	3.0	L	0.3	0.4	H	0.1	L	0.1	L	0.1	L	0.3	L	0.6	L	1.3	3.0	4.8	H	1.7	2.8	100.0	L	3.0	0.9	1.0	1.2
<b>December Consensus</b>	<b>0.1</b>	<b>3.3</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.6</b>	<b>1.1</b>	<b>1.8</b>	<b>2.7</b>	<b>3.7</b>	<b>2.7</b>	<b>3.0</b>	<b>105.8</b>	<b>4.0</b>	<b>1.8</b>	<b>2.0</b>	<b>1.9</b>									
Top 10 Avg.	0.1	3.3	0.4	0.3	0.2	0.2	0.3	0.4	0.7	1.3	2.2	2.9	4.1	3.1	3.3	107.3	5.8	2.3	2.6	2.5									
Bottom 10 Avg.	0.1	3.2	0.2	0.1	0.1	0.1	0.2	0.2	0.4	0.8	1.5	2.4	3.4	2.3	2.8	104.4	2.6	1.2	1.5	1.4									
November Consensus	0.1	3.3	0.3	0.2	0.2	0.2	0.2	0.3	0.5	1.0	1.8	2.6	3.7	2.6	3.0	106.2	3.3	1.7	2.1	1.9									
<b>Number of Forecasts Changed From A Month Ago:</b>																													
Down	0	1	5	1	4	6	5	6	4	6	3	5	9	5	9	8	7	6	8	6									
Same	39	30	26	21	28	24	24	26	24	22	22	14	11	10	16	7	12	17	18	15									
Up	1	2	1	1	1	1	2	6	9	12	11	5	5	5	6	4	18	11	11	12									
Diffusion Index	51%	52%	44%	50%	45%	42%	45%	50%	57%	58%	61%	50%	42%	50%	45%	39%	65%	57%	54%	59%									

# Fourth Quarter 2021

## 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. 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	LIBOR Rate 3-Mo.	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																	
Action Economics	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.2	0.2	0.3	0.6	0.9	1.7	2.5	3.4	2.9	3.2	106.2	na	na	na	na								
AIG	0.1	H	3.3	H	0.3	na		0.1	L	0.1	L	0.2	0.3	0.5	1.0	1.8	na	3.4	na	3.1	na	2.8	2.3	3.5	H	3.2	H					
Amherst Pierpont Securities	0.1	H	3.3	H	0.3	0.2		0.2	0.3	H	0.3	0.5	1.1	H	1.9	H	2.9	H	3.7	H	4.6	H	3.3	3.8	H	108.5	3.9	2.4	2.8	2.5		
Bank of America	0.1	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	5.0	1.4	1.7	1.4		na					
Barclays	0.1	H	3.3	H	na	na	na	na	na	na	na	0.2	0.6	1.3	1.9	na	na	na	na	na	na	4.5	2.0	2.0	1.7		na					
BMO Capital Markets	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.3	0.7	1.3	1.9	na	na	na	na	3.2	na	3.3	1.9	2.2	1.9		na				
BNP Paribas Americas	0.1	H	na	na	na	na	na	na	na	na	na	0.3	na	1.4	na	na	na	na	na	na	na	4.3	na	1.3	1.1		na					
Chan Economics	0.1	H	3.3	H	0.3	0.2		0.2	0.2	0.2	0.2	0.3	0.5	1.0	1.8	2.7	3.8	2.7	3.0	105.4	3.0	1.8	2.0	1.9		na						
Chmura Economics & Analytics	0.1	H	3.3	H	0.4	0.2		0.1	L	0.2	0.2	0.2	0.5	0.9	1.7	2.4	na	na	2.9	na	3.1	1.5	1.9	na		na						
Comerica Bank	0.1	H	3.2	0.3	na	0.1	L	0.2	0.3	0.5	0.7	1.2	1.9	na	na	na	na	2.8	na	na	3.2	2.1	2.3	2.2		na						
Daiwa Capital Markets America	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.4	0.8	1.4	2.1	2.9	3.9	na	3.3	108.0	2.7	2.1	2.3	2.1		na					
DePrince & Assoc.	0.1	H	3.2	0.5	H	0.3	0.2	0.2	0.2	0.2	0.4	0.7	1.2	1.9	3.2	4.0	2.8	3.1	na	na	107.3	3.2	1.7	1.9	na		na					
Economist Intelligence Unit	0.1	H	3.3	H	na	0.2	0.2	0.2	0.2	0.2	0.4	1.0	1.6	na	na	na	na	3.0	na	na	na	5.8	H	na	2.2	na		na				
Fannie Mae	0.1	H	3.3	H	na	na	0.2	0.2	0.2	0.2	0.3	0.6	1.0	1.6	na	na	na	na	2.8	na	na	3.8	2.1	2.9	2.4		na					
Georgia State University	0.1	H	3.3	H	na	na	0.1	L	0.1	L	0.1	L	0.3	0.8	1.4	2.3	2.5	4.0	na	3.5	na	2.1	1.8	2.8	2.2		na					
GLC Financial Economics	0.1	H	3.3	H	0.4	0.2		0.1	L	0.1	L	0.2	0.3	0.5	0.8	1.0	L	2.2	L	3.4	2.5	2.7	L	107.0	4.2	1.9	2.3	2.3				
Goldman Sachs & Co.	0.1	H	na	0.5	H	na	0.3	H	na	na	na	na	1.3	na	na	na	na	na	na	na	na	4.5	1.3	1.8	1.4		na					
Grant Thornton/Diane Swonk	0.1	H	3.3	H	0.4	0.5	H	0.1	L	0.1	L	0.2	0.3	0.5	1.1	2.1	2.6	3.6	na	3.1	na	4.3	1.9	2.8	2.2		na					
ING	0.1	H	na	0.3	na	na	na	na	na	0.4	0.8	1.3	2.2	na	na	na	na	na	na	na	na	3.5	na	na	na		na					
J.P. Morgan Chase	0.1	H	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3.8	1.8	1.9	1.6		na					
Loomis, Sayles & Company	0.1	H	3.3	H	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5	1.3	2.0	2.4	3.2	L	2.6	3.0	na	105.2	3.0	1.8	1.9	1.8		na					
MacroFin Analytics & Rutgers Bus School	0.1	H	3.3	H	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5	1.0	1.7	2.7	3.4	3.0	2.9	na	na	107.0	2.0	L	1.7	2.0	2.2		na				
Mizuho Research Institute	0.1	H	na	na	na	na	na	na	na	na	na	0.9	na	na	na	na	na	na	na	na	na	na	na	na	na		na					
Moody's Analytics	0.1	H	3.2	0.3	0.1	L	0.2	0.3	H	0.6	H	0.8	H	1.1	H	1.4	2.5	2.9	4.0	2.7	3.4	na	5.8	H	2.5	2.9	2.7		na			
Moody's Capital Markets Group	0.1	H	3.3	H	0.2	L	0.2	0.1	L	0.2	0.2	0.2	0.4	1.0	1.6	2.6	3.3	2.9	2.8	na	107.4	3.5	1.8	2.0	2.1		na					
MUFG Union Bank	0.1	H	3.3	H	0.2	L	na	0.1	L	0.2	0.2	0.2	0.4	0.8	1.6	2.5	3.9	2.9	3.1	na	104.0	2.3	1.5	2.3	2.0		na					
Naroff Economic Advisors	0.1	H	3.3	H	0.3	0.2	0.2	0.3	H	0.4	0.5	0.7	1.1	2.0	2.5	4.2	2.8	3.3	na	na	109.8	H	2.3	2.2	2.2	2.2		na				
NatWest Markets	0.1	H	3.3	H	0.3	0.2	0.1	L	0.2	0.3	0.3	0.6	1.2	2.1	2.9	3.8	2.7	3.0	na	na	105.0	5.7	0.5	L	1.1	1.7		na				
Nomura Securities, Inc.	0.1	H	3.3	H	na	na	na	na	na	na	0.2	0.7	1.0	na	na	na	na	na	na	na	na	3.1	2.2	1.2	1.3		na					
Oxford Economics	0.1	H	3.3	H	0.3	na	0.2	0.2	0.2	0.2	0.2	0.5	1.4	2.0	na	na	na	na	3.1	na	107.8	3.2	2.0	1.7	1.7		na					
PNC Financial Services Corp.	0.1	H	3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.2	0.7	1.2	2.0	na	3.7	1.5	L	3.0	na	3.0	2.0	2.0	2.0		na				
RDQ Economics	0.1	H	3.3	H	0.3	0.2	0.1	L	0.1	L	0.2	0.2	1.0	1.7	2.6	3.1	4.2	3.9	H	3.7	107.3	3.6	3.1	H	2.6	2.5		na				
Regions Financial Corporation	0.1	H	3.3	H	0.4	0.3	0.2	0.2	0.2	0.2	0.5	0.6	1.2	2.0	2.8	3.8	2.7	3.2	na	na	105.6	4.2	1.9	1.9	2.3		na					
Scotiabank Group	0.1	H	3.3	H	na	na	0.1	L	na	na	0.6	1.0	1.5	2.0	na	na	na	na	na	na	na	3.2	1.6	2.2	2.0		na					
Swiss Re	0.1	H	3.3	H	0.4	0.3	0.2	0.2	0.3	0.4	0.6	1.0	1.6	3.1	4.3	na	na	2.7	L	na	na	3.8	0.6	1.0	L	1.4		na				
The Northern Trust Company	0.1	H	3.2	0.3	0.1	L	0.1	L	0.2	0.2	0.3	0.7	1.1	2.1	2.9	3.9	3.7	3.1	na	na	102.0	3.5	1.8	1.7	1.7		na					
TS Lombard	0.1	H	3.2	0.4	0.2	0.2	0.2	0.2	0.3	0.4	0.5	1.3	2.0	2.7	3.6	1.9	3.3	na	na	104.0	4.5	1.0	1.0	L	1.0	L	na					
Via Nova Investment Mgt.	0.1	H	3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.1	L	0.3	L	0.7	1.4	2.5	3.2	L	2.9	2.9	105.0	2.5	1.8	2.0	1.7		na		
Wells Fargo	0.1	H	3.3	H	0.3	0.1	L	0.1	L	0.1	L	0.2	0.2	0.6	1.2	2.0	2.7	3.6	3.2	3.0	na	2.8	1.8	2.4	1.7		na					
ACIMA Private Wealth	-0.1	L	3.0	L	0.3	0.4	0.1	L	0.1	L	0.1	L	0.3	L	0.6	L	1.2	3.0	4.5	1.8	2.9	100.0	L	2.0	L	0.8	1.0	L	1.3			
<b>December Consensus</b>	<b>0.1</b>	<b>3.3</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.6</b>	<b>1.2</b>	<b>1.9</b>	<b>2.8</b>	<b>3.8</b>	<b>2.8</b>	<b>3.1</b>	<b>105.9</b>	<b>3.6</b>	<b>1.8</b>	<b>2.0</b>	<b>1.9</b>												
Top 10 Avg.	0.1	3.3	0.4	0.3	0.2	0.2	0.3	0.5	0.9	1.5	2.3	3.1	4.2	3.2	3.4	107.6	4.9	2.3	2.7	2.5												
Bottom 10 Avg.	0.1	3.2	0.3	0.1	0.1	0.1	0.2	0.2	0.4	0.9	1.5	2.5	3.4	2.4	2.8	104.2	2.5	1.2	1.4	1.4												
November Consensus	0.1	3.3	0.3	0.2	0.2	0.2	0.2	0.3	0.6	1.1	1.9	2.7	3.8	2.7	3.1	106.1	3.2	1.7	2.0	1.8												
Number of Forecasts Changed From A Month Ago:																																
Down	1	2	6	0	2	3	4	6	6	4	4	5	8	5	8	6	7	7	5	3												
Same	38	29	23	22	30	27	25	24	22	21	17	12	11	9	16	6	14	16	17	16												
Up	1	2	1	1	1	1	2	5	6	12	12	7	6	6	7	7	16	11	14	13												
Diffusion Index	50%	50%	42%	52%	48%	47%	47%	49%	50%	61%	62%	54%	46%	53%	48%	53%	62%	56%	63%	66%												

# First 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. Price Index	D. Price Index	E. Price Index															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																					
	Federal Funds Rate	Prime Bank Rate	LIBOR Rate 3-Mo.	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	0.2	H	3.3	H	0.5	H	0.3	0.4	H	0.5	H	0.6	0.7	1.4	H	2.1	H	3.1	H	3.9	H	4.8	H	3.5	4.0	H	109.5	H	3.5	2.5	H	2.8	2.5	H		
Regions Financial Corporation	0.2	H	3.3	H	0.4		0.3	0.2		0.3		0.3	0.5	0.7		1.3		2.1		2.8		3.9		2.7	3.3		106.0		2.1	1.7		1.8	1.6			
Action Economics	0.1		3.3	H	0.3		0.1	L	0.1	L	0.2	0.2	0.3	0.6	0.9	1.7	2.5	3.4	2.9	3.2		na		2.9	3.2		106.0		na	na	na	na	na			
AIG	0.1		3.3	H	0.3		na	0.1	L	0.1	L	0.2	0.3	0.6	1.1	1.9	na	3.4	na	3.1		na		na	3.1		na		3.2	1.7	2.0	1.5				
BMO Capital Markets	0.1		3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.3	0.8	1.3	2.0	na	na	na	3.2		na		na	3.2		na		2.6	1.8	2.0	1.8				
BNP Paribas Americas	0.1		na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na		na		na	na		na		3.2	na	2.1	1.9				
Chan Economics	0.1		3.3	H	0.4		0.3	0.2		0.2		0.3	0.4	0.6	1.1	1.9	2.8	3.9	2.8	3.1		105.7		2.8	3.1		105.7		2.0	1.9	2.0	2.0				
Chimura Economics & Analytics	0.1		3.3	H	0.4		0.2	0.1	L	0.2		0.2	0.2	0.5	0.9	1.7	2.5	na	na	2.9		na		na	2.9		na		2.3	2.0	1.2	na				
Comerica Bank	0.1		3.2		0.3		na	0.1	L	0.2		0.3	0.5	0.7	1.3	2.0	na	na	na	2.8		na		na	2.8		na		2.9	2.0	1.8	1.8				
Daiwa Capital Markets America	0.1		3.3	H	0.3		0.1	L	0.1	L	0.1	L	0.2	0.5	1.0	1.6	2.3	3.1	4.1	na	3.5		na	3.5		108.0		2.5	2.1	2.4	2.2					
DePrince & Assoc.	0.1		3.2		0.5	H	0.4	H	0.2		0.2	0.3	0.4	0.8	1.3	1.9	3.3	4.0	2.7	3.2		107.5		3.2	3.2		107.5		3.2	1.7	2.1	na				
Economist Intelligence Unit	0.1		3.3	H	na		0.2	0.2		0.2		0.2	0.2	0.5	1.1	1.7	na	na	na	3.1		na		na	3.1		na		0.8	L	na	2.1	na			
Fannie Mae	0.1		3.3	H	na		na	0.2		0.2		0.3	0.3	0.7	1.0	1.7	na	na	na	2.8		na		na	2.8		na		3.6	2.1	2.6	2.3				
Georgia State University	0.1		3.3	H	na		na	0.1	L	0.1	L	0.1	L	0.4	0.9	1.6	2.4	2.5	4.0	na	3.5		na	3.5		na		5.0	1.5	2.3	1.9					
GLC Financial Economics	0.1		3.3	H	0.4		0.2	0.1	L	0.1	L	0.2	0.3	0.4	1.0	1.5	3.2	4.4	3.0	2.8		107.1		3.0	2.8		107.1		4.0	1.7	1.7	1.7				
Goldman Sachs & Co.	0.1		na		0.5	H	na	0.3		na		na	na	na	1.4	na	na	na	na	na		na		na	na		na		3.0	1.7	2.0	1.8				
Grant Thornton/Diane Swonk	0.1		3.3	H	0.4		0.4	H	0.1	L	0.1	L	0.2	0.3	0.6	1.2	2.1	2.7	3.6	na	3.1		na	3.1		na		1.9	2.2	2.9	H	2.5	H			
ING	0.1		na		0.3		na	na		na		na	0.4	0.8	1.3	2.2	na	na	na	na		na		na	na		na		3.2	na	na	na				
Loomis, Sayles & Company	0.1		3.3	H	0.3		0.2	0.2		0.2		0.2	0.3	0.6	1.3	2.0	2.4	L	3.2	L	2.4	2.9		105.2		105.2		3.0	1.9	1.9	1.8					
MacroFin Analytics & Rutgers Bus School	0.1		3.3	H	0.3		0.2	0.2		0.2		0.3	0.3	0.5	1.0	1.7	2.7	3.4	3.0	3.0		107.5		3.0	3.0		107.5		1.8	2.1	2.2	2.2				
Mizuho Research Institute	0.1		na		na		na	na		na		na	na	0.9	na	na	na	na	na	na		na		na	na		na		na	na	na	na				
Moody's Analytics	0.1		3.2		0.4		0.1	L	0.2		0.3	0.7	H	0.9	H	1.3	1.6	2.7	3.0	4.1	2.7	3.6		na	3.6		na		5.2	H	2.3	2.8	2.5	H		
Moody's Capital Markets Group	0.1		3.3	H	0.2	L	0.2	0.2		0.2		0.3	0.3	0.5	1.1	1.7	2.6	3.3	3.0	2.9		107.6		2.9	2.9		107.6		3.9	1.8	1.9	1.9				
MUFG Union Bank	0.1		3.3	H	0.2	L	na	0.1	L	0.2		0.2	0.2	0.4	0.8	1.6	2.5	3.9	2.9	3.1		103.0		3.1	3.1		103.0		2.0	1.5	2.3	2.1				
Naroff Economic Advisors	0.1		3.3	H	0.4		0.2	0.3		0.3		0.4	0.6	0.9	1.2	2.1	2.7	4.4	2.9	3.5		109.0		3.5	3.5		109.0		2.5	1.7	2.4	2.4				
NatWest Markets	0.1		3.3	H	0.3		0.2	0.1	L	0.2		0.3	0.3	0.7	1.2	2.1	2.9	3.8	2.7	3.0		105.0		3.0	3.0		105.0		4.2	1.7	2.2	1.7				
Nomura Securities, Inc.	0.1		3.3	H	na		na	na		na		na	0.2	0.9	1.1	na	na	na	na	na		na		na	na		na		3.9	2.3	1.5	1.4				
Oxford Economics	0.1		3.3	H	0.3		na	0.2		0.2		0.2	0.2	0.6	1.4	2.1	na	na	na	3.1		107.6		3.1	3.1		107.6		3.0	2.0	1.8	1.8				
PNC Financial Services Corp.	0.1		3.3	H	0.2	L	na	0.1	L	0.1	L	0.2	0.2	0.8	1.3	2.2	na	3.8	1.6	L	3.1		na	3.1		na		2.4	2.1	2.1	2.1					
Scotiabank Group	0.1		3.3	H	na		na	0.1	L	na		na	0.6	1.0	1.5	2.0	na	na	na	na		na		na	na		na		3.0	1.8	2.1	1.9				
Swiss Re	0.1		3.3	H	0.4		0.3	0.2		0.2		0.3	0.4	0.6	1.0	1.6	3.1	3.9	na	2.7	L	na		na	2.7		na		2.3	na	1.1	na				
The Northern Trust Company	0.1		3.2		0.3		0.1	L	0.1	L	0.2		0.3	0.3	0.8	1.3	2.3	3.1	4.1	3.9	H	3.3		101.0		101.0		3.2	1.9	1.8	1.8					
TS Lombard	0.1		3.2		0.4		0.2	0.2		0.2		0.4	0.6	0.7	1.3	2.0	2.7	3.6	1.9	3.3		100.0	L	3.3	3.3		100.0	L	4.0	1.2	1.2	1.2	L			
Via Nova Investment Mgt.	0.1		3.3	H	0.2	L	0.1	L	0.1	L	0.1	L	0.1	L	0.3	L	0.7	1.4	2.5	3.2	L	2.9	2.9		105.0		105.0		2.5	1.8	2.0	1.8				
Wells Fargo	0.1		3.3	H	0.3		0.1	L	0.1	L	0.1	L	0.2	0.3	0.7	1.3	2.1	2.7	3.6	3.3	3.1		na	3.1		na		2.8	1.8	2.3	1.7					
ACIMA Private Wealth	-0.1	L	3.0	L	0.3		0.4	H	0.1	L	0.1	L	0.1	L	0.3	L	0.5	L	1.2	L	3.0		100.0	L	3.0	3.0		100.0	L	3.0	0.9	L	1.0	L	1.2	L
<b>December Consensus</b>	<b>0.1</b>		<b>3.3</b>		<b>0.3</b>		<b>0.2</b>	<b>0.2</b>		<b>0.2</b>		<b>0.3</b>	<b>0.4</b>	<b>0.7</b>	<b>1.2</b>	<b>2.0</b>	<b>2.8</b>	<b>3.8</b>	<b>2.8</b>	<b>3.1</b>		<b>105.6</b>		<b>3.1</b>	<b>3.1</b>		<b>105.6</b>		<b>3.0</b>	<b>1.8</b>	<b>2.0</b>	<b>1.9</b>				
Top 10 Avg.	0.1		3.3		0.4		0.3	0.2		0.3		0.4	0.6	1.0	1.5	2.4	3.1	4.2	3.1	3.4		107.6		3.4	3.4		107.6		4.1	2.2	2.5	2.3				
Bottom 10 Avg.	0.1		3.2		0.3		0.1	0.1		0.1		0.2	0.2	0.5	0.9	1.6	2.6	3.5	2.4	2.9		103.7		2.9	2.9		103.7		1.9	1.5	1.5	1.6				
November Consensus	0.1		3.3		0.3		0.2	0.2		0.2		0.3	0.4	0.7	1.2	2.0	2.8	3.9	2.7	3.2		106.4		3.2	3.2		106.4		2.9	1.8	2.0	1.9				
Number of Forecasts Changed From A Month Ago:																																				
Down	0		2		5		0	2		5		4	7	4	5	5	5	7	4	5		6		5	5		6		5	5	5	8				
Same	34		25		23		20	28		23		22	20	21	20	16	11	10	11	18		9		18	18		9		13	18	15	11				
Up	2		4		1		2	2		2		4	6	8	10	11	7	7	4	7		3		7	7		3		16	7	12	8				
Diffusion Index	53%		53%		43%		55%	50%		45%		50%	48%	56%	57%	59%	54%	50%	50%	53%		42%		53%	53%		42%		66%	53%	61%	50%				

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	Fed Fund Target Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.13	0.13	--
BMO Capital Markets	0.13	0.13	0.13
IHSMarket	--	--	--
ING Financial Markets	0.13	0.13	0.13
Mizuho Research Institute	--	--	--
Moody's Analytics	0.08	0.07	0.07
Moody's Capital Markets	0.13	0.13	0.13
Northern Trust	0.08	0.08	0.08
Oxford Economics	0.13	0.13	0.13
Scotiabank	0.13	0.13	0.13
TS Lombard	0.13	0.13	0.13
Wells Fargo	0.13	0.13	0.13
<b>December Consensus</b>	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>
High	0.13	0.13	0.13
Low	0.08	0.07	0.07
Last Months Avg.	0.12	0.12	0.12

Blue Chip Forecasters	Policy Rate Balance Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	-0.10	-0.10	--
BMO Capital Markets	-0.10	-0.10	-0.10
IHSMarket	--	--	--
ING Financial Markets	-0.10	-0.10	-0.10
Mizuho Research Institute	-0.10	-0.10	-0.10
Moody's Analytics	-0.10	-0.10	-0.10
Moody's Capital Markets	-0.10	-0.10	-0.10
Nomura Securities	--	--	--
Northern Trust	-0.10	-0.10	-0.10
Oxford Economics	-0.05	-0.05	-0.05
Scotiabank	-0.10	-0.10	-0.10
TS Lombard	-0.06	-0.06	-0.06
Wells Fargo	-0.10	-0.10	-0.10
<b>December Consensus</b>	<b>-0.09</b>	<b>-0.09</b>	<b>-0.09</b>
High	-0.05	-0.05	-0.05
Low	-0.10	-0.10	-0.10
Last Months Avg.	-0.08	-0.08	-0.08

Blue Chip Forecasters	Official Bank Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.10	0.10	--
BMO Capital Markets	0.10	0.10	0.10
IHSMarket	--	--	--
ING Financial Markets	0.10	0.10	0.10
Moody's Analytics	0.10	0.10	0.10
Moody's Capital Markets	0.10	0.10	0.10
Nomura Securities	--	--	--
Northern Trust	0.10	0.10	0.10
Oxford Economics	0.10	0.10	0.10
Scotiabank	0.10	0.10	0.10
TS Lombard	0.10	0.10	0.10
Wells Fargo	0.10	0.10	0.10
<b>December Consensus</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>
High	0.10	0.10	0.10
Low	0.10	0.10	0.10
Last Months Avg.	0.10	0.10	0.10

Blue Chip Forecasters	SNB Policy Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	-0.75	-0.75	--
IHSMarket	--	--	--
ING Financial Markets	-0.75	-0.75	-0.75
Moody's Analytics	-0.75	-0.75	-0.75
Moody's Capital Markets	-0.75	-0.75	-0.75
Nomura Securities	--	--	--
Northern Trust	-0.75	-0.75	-0.75
Oxford Economics	-0.75	-0.75	-0.75
Scotiabank	--	--	--
TS Lombard	-0.75	-0.75	-0.75
Wells Fargo	--	--	--
<b>December Consensus</b>	<b>-0.75</b>	<b>-0.75</b>	<b>-0.75</b>
High	-0.75	-0.75	-0.75
Low	-0.75	-0.75	-0.75
Last Months Avg.	-0.75	-0.75	-0.75

Blue Chip Forecasters	O/N MMkt Financing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.25	0.25	--
BMO Capital Markets	0.25	0.25	0.25
IHSMarket	--	--	--
ING Financial Markets	0.25	0.25	0.25
Moody's Analytics	0.25	0.25	0.25
Moody's Capital Markets	0.25	0.25	0.25
Nomura Securities	--	--	--
Northern Trust	0.25	0.25	0.25
Oxford Economics	0.25	0.25	0.25
Scotiabank	0.25	0.25	0.25
TS Lombard	0.25	0.25	0.25
Wells Fargo	0.25	0.25	0.25
<b>December Consensus</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>
High	0.25	0.25	0.25
Low	0.25	0.25	0.25
Last Months Avg.	0.25	0.25	0.25

United States			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.00	1.10	--	
1.05	1.10	1.25	
0.88	0.93	1.06	
0.75	1.00	1.25	
0.85	0.85	0.85	
0.79	0.90	1.37	
0.80	0.85	1.00	
0.80	0.90	1.10	
0.95	1.12	1.39	
0.85	1.10	1.50	
0.80	1.00	1.25	
0.85	1.00	1.20	
<b>0.86</b>	<b>0.99</b>	<b>1.20</b>	
1.05	1.12	1.50	
0.75	0.85	0.85	
0.78	0.88	1.12	

Japan			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.05	0.05	--	
-0.05	-0.05	-0.05	
--	--	--	
0.00	0.00	0.00	
0.00	0.00	0.00	
-0.01	0.00	0.01	
0.00	0.00	0.12	
--	--	--	
0.00	0.00	0.00	
0.00	0.00	0.00	
--	--	--	
0.00	0.00	0.00	
0.05	0.10	0.15	
<b>0.00</b>	<b>0.01</b>	<b>0.03</b>	
0.05	0.10	0.15	
-0.05	-0.05	-0.05	
0.01	0.01	0.01	

United Kingdom			
10 Yr. Gilt Yields %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.40	0.40	--	
0.50	0.60	0.75	
--	--	--	
0.20	0.30	0.50	
0.10	0.14	0.39	
0.25	0.30	0.45	
--	--	--	
0.30	0.40	0.50	
0.34	0.31	0.31	
--	--	--	
0.19	0.25	0.30	
0.30	0.40	0.50	
<b>0.29</b>	<b>0.34</b>	<b>0.46</b>	
0.50	0.60	0.75	
0.10	0.14	0.30	
0.28	0.34	0.46	

Switzerland			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
--	--	--	
-0.55	-0.40	-0.30	
-1.17	-1.25	-1.23	
-0.60	-0.55	-0.41	
--	--	--	
-0.50	-0.50	-0.50	
-0.59	-0.58	-0.56	
--	--	--	
-0.50	-0.50	-0.50	
--	--	--	
<b>-0.65</b>	<b>-0.63</b>	<b>-0.58</b>	
-0.50	-0.40	-0.30	
-1.17	-1.25	-1.23	
-0.59	-0.57	-0.53	

Canada			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
0.85	0.95	1.10	
--	--	--	
0.75	1.00	1.25	
0.79	0.96	1.38	
0.62	0.68	0.83	
--	--	--	
0.70	0.80	0.90	
1.02	1.15	1.33	
--	--	--	
0.53	0.43	0.50	
0.75	0.90	1.05	
<b>0.75</b>	<b>0.86</b>	<b>1.04</b>	
1.02	1.15	1.38	
0.53	0.43	0.50	
0.71	0.83	1.04	

Fed's AFE \$ Index			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
105.5	105.0	104.2	
--	--	--	
104.5	102.6	101.0	
--	--	--	
--	--	--	
105.9	107.0	107.4	
106.0	104.5	102.0	
107.4	107.8	107.8	
--	--	--	
108.0	105.0	104.0	
105.5	105.0	103.8	
<b>106.1</b>	<b>105.3</b>	<b>104.3</b>	
108.0	107.8	107.8	
104.5	102.6	101.0	
106.9	106.7	104.5	

Yen per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
103.0	104.0	--	
105.0	106.0	107.0	
105.1	104.9	104.3	
102.0	102.0	102.0	
107.0	107.0	108.0	
102.2	99.6	97.3	
104.6	104.7	104.8	
105.0	106.0	108.0	
104.0	103.0	102.0	
105.5	105.5	105.5	
104.0	104.0	102.0	
106.0	103.0	100.0	
105.0	106.0	108.0	
<b>104.5</b>	<b>104.3</b>	<b>104.1</b>	
107.0	107.0	108.0	
102.0	99.6	97.3	
104.8	104.8	104.6	

US\$ per Pound Sterling			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.30	1.30	--	
1.31	1.31	1.33	
1.34	1.35	1.37	
1.36	1.39	1.42	
1.33	1.38	1.63	
1.32	1.31	1.30	
1.35	1.37	1.42	
1.28	1.27	1.29	
1.32	1.32	1.33	
1.30	1.31	1.33	
1.25	1.20	1.24	
1.32	1.33	1.35	
<b>1.32</b>	<b>1.32</b>	<b>1.36</b>	
1.36	1.39	1.63	
1.25	1.20	1.24	
1.29	1.30	1.35	

CHF per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.90	0.92	--	
0.93	0.93	0.94	
0.90	0.90	0.92	
0.87	0.84	0.82	
0.92	0.92	0.93	
0.87	0.87	0.87	
0.91	0.90	0.89	
0.91	0.93	0.95	
0.91	0.91	0.91	
0.97	0.97	0.97	
0.92	0.92	0.91	
<b>0.91</b>	<b>0.91</b>	<b>0.91</b>	
0.97	0.97	0.97	
0.87	0.84	0.82	
0.91	0.91	0.91	

C\$ per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.31	1.30	--	
1.30	1.30	1.29	
1.33	1.31	1.30	
1.29	1.25	1.23	
1.33	1.32	1.29	
1.31	1.32	1.32	
1.34	1.33	1.30	
1.31	1.29	1.28	
1.39	1.40	1.40	
1.30	1.30	1.28	
1.38	1.38	1.38	
1.30	1.28	1.25	
<b>1.32</b>	<b>1.32</b>	<b>1.30</b>	
1.39	1.40	1.40	
1.29	1.25	1.23	
1.33	1.32	1.31	



**International Interest Rate And Foreign Exchange Rate Forecasts**

Blue Chip Forecasters	Official Cash Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.10	0.10	--
IHSMarkit	--	--	--
ING Financial Markets	0.10	0.10	0.10
Moody's Analytics	0.10	0.10	0.10
Moody's Capital Markets	0.10	0.10	0.10
Nomura Securities	--	--	--
Northern Trust	0.10	0.10	0.10
Oxford Economics	0.07	0.07	0.09
Scotiabank	0.25	0.25	0.25
TS Lombard	0.25	0.25	0.25
Wells Fargo	--	--	--
<b>December Consensus</b>	<b>0.13</b>	<b>0.13</b>	<b>0.14</b>
High	0.25	0.25	0.25
Low	0.07	0.07	0.09
Last Months Avg.	0.22	0.22	0.23

Australia			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
--	--	--	
1.00	1.10	1.40	
0.82	0.80	1.21	
0.80	0.85	1.00	
--	--	--	
0.90	0.95	1.00	
0.93	0.94	0.95	
--	--	--	
0.90	0.80	0.70	
--	--	--	
<b>0.89</b>	<b>0.91</b>	<b>1.04</b>	
1.00	1.10	1.40	
0.80	0.80	0.70	
0.90	0.92	1.01	

US\$ per A\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.72	0.71	--	
0.72	0.71	0.69	
0.74	0.76	0.77	
0.68	0.71	0.71	
0.73	0.74	0.74	
0.72	0.73	0.75	
0.72	0.73	0.75	
0.72	0.72	0.73	
0.73	0.73	0.75	
0.66	0.66	0.66	
0.73	0.75	0.78	
<b>0.72</b>	<b>0.72</b>	<b>0.73</b>	
0.74	0.76	0.78	
0.66	0.66	0.66	
0.71	0.72	0.72	

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.00	0.00	--
BMO Capital Markets	0.00	0.00	0.00
IHSMarkit	--	--	--
ING Financial Markets	0.00	0.00	0.00
Moody's Analytics	0.00	0.00	0.00
Moody's Capital Markets	0.00	0.00	0.00
Nomura Securities	--	--	--
Northern Trust	0.00	0.00	0.00
Oxford Economics	0.00	0.00	0.00
Scotiabank	0.00	0.00	0.00
TS Lombard	0.00	0.00	0.00
Wells Fargo	0.00	0.00	0.00
<b>December Consensus</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
High	0.00	0.00	0.00
Low	0.00	0.00	0.00
Last Months Avg.	0.00	0.00	0.00

**Euro area**

US\$ per Euro			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.18	1.16	--	
1.19	1.20	1.22	
1.16	1.16	1.16	
1.20	1.22	1.25	
1.20	1.24	1.28	
1.18	1.17	1.16	
1.21	1.23	1.25	
1.18	1.20	1.23	
1.18	1.18	1.19	
1.20	1.20	1.21	
1.15	1.12	1.20	
1.18	1.18	1.20	
<b>1.18</b>	<b>1.19</b>	<b>1.21</b>	
1.21	1.24	1.28	
1.15	1.12	1.16	
1.18	1.19	1.21	

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	-0.50	-0.45	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	-0.40	-0.30	-0.15	--	--	--	--	--	--	--	--	--
ING Financial Markets	-0.55	-0.40	-0.25	-0.35	-0.20	-0.05	0.55	0.60	0.65	0.10	0.20	0.35
Moody's Analytics	-0.58	-0.53	-0.31	-0.29	-0.25	-0.05	0.89	0.88	1.03	0.17	0.23	0.36
Moody's Capital Markets	-0.62	-0.58	-0.42	-0.37	-0.33	-0.17	0.55	0.61	0.75	0.01	0.04	0.18
Northern Trust	-0.55	-0.45	-0.35	-0.30	-0.20	-0.10	0.70	0.80	0.90	0.20	0.30	0.40
Oxford Economics	-0.62	-0.60	-0.57	-0.33	-0.30	-0.25	0.80	0.92	1.15	0.19	0.25	0.36
TS Lombard	-0.50	-0.40	-0.20	-0.25	-0.15	0.05	0.57	0.67	0.87	0.07	0.17	0.37
Wells Fargo	-0.55	-0.40	-0.20	--	--	--	--	--	--	--	--	--
<b>December Consensus</b>	<b>-0.54</b>	<b>-0.46</b>	<b>-0.31</b>	<b>-0.32</b>	<b>-0.24</b>	<b>-0.10</b>	<b>0.68</b>	<b>0.75</b>	<b>0.89</b>	<b>0.12</b>	<b>0.20</b>	<b>0.34</b>
High	-0.40	-0.30	-0.15	-0.25	-0.15	0.05	0.89	0.92	1.15	0.20	0.30	0.40
Low	-0.62	-0.60	-0.57	-0.37	-0.33	-0.25	0.55	0.60	0.65	0.01	0.04	0.18
Last Months Avg.	-0.48	-0.42	-0.28	-0.20	-0.14	0.04	0.95	1.02	1.24	0.35	0.45	0.66

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-0.81	-0.86	-0.98	-1.18
United Kingdom	-0.40	-0.58	-0.64	-0.74
Switzerland	-1.30	-1.52	-1.62	-1.79
Canada	-0.17	-0.11	-0.13	-0.16
Australia	0.03	0.03	-0.08	-0.16
Germany	-1.42	-1.41	-1.44	-1.51
France	-1.18	-1.18	-1.23	-1.30
Italy	-0.23	-0.19	-0.24	-0.31
Spain	-0.76	-0.74	-0.79	-0.87

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-0.23	-0.21	-0.03	-0.21
United Kingdom	-0.03	-0.02	-0.02	-0.02
Switzerland	-0.88	-0.87	-0.87	-0.87
Canada	0.13	0.13	0.13	0.13
Australia	-0.03	0.01	0.01	0.02
Euro area	-0.13	-0.12	-0.12	-0.12

## 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

#### Can U.S. Consumers Cope Without More Fiscal Aid?

Apart from war-time rebuilding, America's fiscal response to the pandemic was unparalleled, and explains the perky recovery even in the face of renewed restrictions. With households driving the economy, this note focuses on the fiscal impact on personal income and spending—how much the support measures have helped, and how much it will hurt when they expire. We also discuss postelection prospects for more stimulus. According to the Congressional Budget Office, the four pandemic relief bills passed so far lifted the budget deficit by \$2.3 trillion in fiscal 2020 and by \$0.6 trillion in 2021. Without this support, the CBO estimates that U.S. GDP would have been 4.7% lower in 2020. In other words, the economy would have contracted by more than 8% this year instead of 3.5%, our current tally. Together with forgivable loans to companies via the Paycheck Protection Program (funded at \$660 billion), which indirectly helped workers, much of the fiscal aid was in the form of direct payments to households. This included \$1,200 in recovery rebate cheques to most taxpayers (and \$500 to children), and an expansion, extension and supplementation of UI benefits.

The rebate cheques, which were distributed mostly in April, added around \$270 billion to 2020 personal income, or 1.4%. The extra UI benefits included a \$600 weekly federal top-up to regular state benefits (Federal Pandemic Unemployment Compensation), an expansion of benefits to the self-employed and contract workers (Pandemic Unemployment Assistance or PUA), and a 13-week extension of regular state benefits (Pandemic Emergency Unemployment Compensation or PEUC). Between April and September, the extra UI benefits added more than \$360 billion to 2020 income, or 1.8%.

The CBO figures that 1.1 ppts of the 4.7% fiscal lift to GDP this year stemmed from the extra UI support, 0.8 ppts came from the Paycheck Protection Program (mostly by limiting business insolvencies and permanent layoffs), and 0.6 ppts was from the rebate cheques. Increased federal funding for state and local governments, to help cover the costs of combatting the pandemic and minimize job layoffs owing to balanced budget requirements, added 0.5 ppts of support. All remaining spending and revenue provisions added 1.7 ppts, and many indirectly supported workers and households. According to the IMF, the U.S. government ranked second among major economies (after Canada) in providing direct pandemic relief.

The \$600 federal U.I. top-up expired on July 31 and the payout was halved to \$300 per week via executive action with funding provided by FEMA's Disaster Relief Fund. This contributed to a 2.5% drop in personal income in August. Because of the earlier boost in government transfer payments to individuals, income was still 3.5% higher in September than in February. That's despite the labour market recovering just 52% of the earlier 22 million job losses. While worker compensation fell 2.6% between February and September, transfers to individuals jumped 29%. In dollar terms, the increase in transfers was three times greater than the decrease in compensation.

A wide gap between higher income and softer spending—with nominal consumption still down 2% since February after plunging 19% in the spring—has sent household saving skyward. Though more than halving since peaking above 33% in April, the 14.3% personal saving rate in September is still about double the pre-pandemic norm. Compared to the flow of saving in February, an extra \$1.2 trillion (or more than 6% of GDP) has piled up for households and this figure will continue to rise in the near term, albeit at an ebbing clip. Boosted by still-elevated transfer payments and rebounding small business income, personal income con-

tinues to flow faster than outlays, as spending on services remains constrained.

Importantly, it isn't just tax rebates and extra UI payments that have countered the collapse in worker earnings and padded personal saving. As the Fed cut policy rates to near zero and began buying large amounts of debt securities, 30-year mortgage rates tumbled below 3% for the first time and continue to hover near record lows. This caused mortgage refinancing to surge. The Mortgage Bankers Association's index hit its highest level in nearly 12 years in March and has stayed elevated.

For many homeowners, refinancing is freeing up cash flow that would otherwise be devoted to loan payments and, for others, it is generating lump-sum cash payments. Total cash-out volume was just under \$60 billion in Q3, the most in over 13 years. To put this in perspective, at about an annualized \$240 billion, cashout volume represents more than three-quarters of the current \$312 billion shortfall in employee compensation from its pre-pandemic peak.

However, only homeowners benefit from the refinancing lift to income. Renters incurred much of the loss in compensation, though they are currently protected against eviction under federal, state or local laws until year-end. Many homeowners are taking advantage of the CARES Act's forbearance program, which also expires at year-end.

Still, it should be noted that the average credit (FICO) score has increased as income-support programs allowed borrowers to stay current on payments, and forbearance measures (also including the CARES Act's program for student loans) did not tarnish credit ratings. Credit card debt also dropped sharply, as this is where some rebate cheques were put to work. According to the New York Fed, households used a third (35%) of the rebates to reduce debt, while 29% was spent and 36% was saved.

Turning to what this means for consumer spending, note that, despite a 2.5% decline in personal income in August owing to the \$300 reduction in weekly supplemental UI payments, spending actually rose 1.0% that month. The saving flow absorbed the hit to income, and still ran above its pre-pandemic pace. Funding for the \$300 supplemental payment ran out in October, likely resulting in a modest decline in personal income. However, consumer spending still looks to have risen last month. Of course, it helps that steady job growth has cut the ranks of those collecting some form of UI benefits (20 million in late October versus 28 million in late July). Importantly, excess saving is primed to also absorb the December 26 expiry of the PUA and PEUC programs. As of October 31, some 13 million persons relied on these programs. Assuming the number of recipients falls to about 12 million at year-end, it should result in a smaller drag on personal income (of less than \$200 billion annualized) than the hit caused by either of the two top-up reductions.

While excess saving affords a thick cushion of support against expiring government transfers, this is cold comfort for the millions of households with little or no savings who are about to exhaust UI benefits. Many worked in industries hammered by the pandemic. Moreover, the expiry of eviction moratoriums, along with mortgage and student loan forbearance, will likely lead to higher defaults, magnifying the hit to spending. Some extension of these programs is likely needed to avoid putting the recovery on a rocky footing now that the pandemic has caught a second wind.

The seven-day average of new COVID-19 infections has topped 165,000 as of November 19, causing more state and local governments to renew restrictions on business activity, albeit in a targeted fashion. If there is no return to widespread lockdowns, the fact that businesses are more accustomed to operating under COVID protocols and that the weakest firms have already succumbed to the first wave suggests a less negative impact on the economy this time around. And, even business confidence should prove more resilient with major progress being made towards an effective, safe and widely distributed vaccine.

Nevertheless, a re-opened and extra-funded Paycheck Protection Program (PPP) will likely be required to keep the potential second wave of job layoffs and business closures to a minimum. Many businesses are still facing a sharp decline in sales, and previous PPP loan proceeds have already been used to pay wages and other costs to fulfill forgiveness requirements. The PPP closed on August 8 after backing 5.2 million loans worth \$525 billion, and the undisbursed \$134 billion of funds went back into Treasury's coffers.

More direct federal support for state and local governments is also needed to keep schools open (critical to keeping people in the labour force) and to cover higher healthcare expenses at a time when financial resources are depleted by the first wave—and major cutbacks are required to balance budgets. For states, the Wall Street Journal calls this the “biggest cash crisis since the Great Depression”. There have already been bipartisan appeals for \$500 billion from the National Governors Association and \$250 billion from The United States Conference of Mayors.

While direct income support for households was a key feature of the first wave's relief bills, we judge indirect support via measures designed to further assist small businesses and municipal governments will likely be key measures in the second wave's relief package. Assuming Congress remains divided after the January 5 run-offs in two senate seats in Georgia, our working assumption is a stimulus deal worth up to \$1.0 trillion, or about 5% of GDP. If the Democrats end up controlling the Senate, we could easily see double this figure.

Bottom Line: Expected further fiscal aid underpins our outlook for 4% GDP growth in 2021, assuming the second wave doesn't trigger a tsunami of restrictions. Consumer spending will still downshift in coming months, as a new fiscal deal could be seriously delayed. However, the slowing will stem more from waning pent-up demand and lingering virus anxiety than from the end of income-support programs. Past relief measures have effectively boosted aggregate saving, giving consumers some backbone. This means that even if Congress remains gridlocked and no further relief bill is passed, the recovery will be dented but likely not derailed.

*Michael Gregory and Sal Guatieri (BMO Capital Markets Economics)*

### **A Winter of Economic Discontent**

Yes, we're getting closer to an effective, safe and widely-available COVID-19 vaccine. Over the past couple of weeks, news on the first criterion has excited even the scientists, let alone the stock market. The second criterion seems to be getting satisfied, but longer-term safety assessment, like longer-term efficacy evaluation, does require the passage of time. The third criterion remains at the wait-and-see stage. However, even if these three vaccine criteria are adequately addressed, there's the fourth issue of whether the public has the confidence to willingly get jabbed. Thus, for the U.S. and global economies, a pandemic-liberating vaccine is not yet as close.

Meanwhile, the virus' second wave continues to surge, with the people-gathering prone-Thanksgiving and other holidays fast approaching. The

seven-day average of new U.S. infections has now topped 165,000 (November 19), doubling in the past 2½ weeks and causing more states and local governments to increase restrictions. As long as there's no return to widespread lockdowns, the second wave should have less negative influence on the economy than the first wave. Businesses are now more accustomed to operating under COVID protocols, the weakest firms already closed amid the first wave and business confidence should prove more resilient given the progress towards a vaccine. But there will still be some negative economic impact, with the risks surrounding the near-term outlook skewed decidedly to the downside. A prudent risk management approach to economic policy dictates that if you can't do anything that mitigates the risks, at least don't magnify them.

But, in post-election, now-even-more-partisan Washington, the politicians' paucity of prudence is in full display. In 41 days, 13.1 million Americans will lose their federally funded unemployment insurance benefits, unless Congress extends them in the final 14 scheduled days of its lame-duck session. And, there's an even wider swath of the population potentially impacted by the contemporaneous expiries of federal student loan and mortgage forbearance programs along with the pan-jurisdictional moratoriums on renter evictions. The new Congress and the Administration (Trump's until it's Biden's on January 20) could still address these issues retroactively, but the 2021 political environment could remain as toxic as 2020's. And, even retroactive resolution might not prevent a permanent scar on consumer confidence from going hungry and homeless, even if just for a few days or weeks.

Enter Treasury Secretary Mnuchin, who appeared to play nice with the Fed in the sandbox at the start of the pandemic; now, he wants his ball back before heading home. The CARES Act authorized \$500 billion for the Exchange Stabilization Fund (ESF), which is controlled by the Treasury Secretary (how the funds are 'invested') under approval of the President. The Act allowed \$46 billion to be direct loans to companies in passenger and cargo air transportation and other businesses vital to national security: the remaining \$454 billion was earmarked as capital to support the Fed's lending programs. The latter was in addition to the \$40 billion (from the ESF) Mr. Mnuchin gave the Fed before the CARES Act to start setting up the facilities. The Fed has already allocated \$205 billion of the total \$494 billion to the Commercial Paper Funding Facility, the Corporate Credit Facility, the Main Street Lending Programs, the Municipal Liquidity Facility and the Term Asset-Backed Securities Loan Facility (TALF). Combined, these facilities have the capacity to lend up to \$2.05 trillion (an average capital ratio of 10%). As at November 18, however, total lending was a lacklustre \$126 billion.

There are many reasons cited for the low take-up. For example, the facilities' criteria were considered too stringent by some lenders and borrowers, and the 'announcement effect' of the facilities alone caused credit markets to improve and become relatively more attractive for some companies to tap. However, the facilities remained in place as a backstop to the credit creation process, with the potential to become more accommodative if need be (via relaxing the rules while upping the capital coverage). These facilities were scheduled to be closed on December 31. Chair Powell and other Fed officials argued that they should be extended, given the pandemic-related risks to the economic outlook. Instead, Mr. Mnuchin has requested that the unused capital and remaining unallocated funds (\$455 billion in total) be returned to Congress to be reappropriated, thus closing the facilities as scheduled. The facilities could be re-opened by the new Treasury Secretary, but Congress would then have to re-authorize their capital funding (good luck with that). The risks to the near-term economic outlook are rising rapidly, not only because of the pandemic's second wave, but because of political partisanship and policy imprudence.

*Michael Gregory (BMO Capital Markets 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 2022 through 2026 and averages for the five-year periods 2022-2026 and 2027-2031. 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	
		2022	2023	2024	2025	2026	2022-2026	2027-2031
1. Federal Funds Rate	<b>CONSENSUS</b>	<b>0.1</b>	<b>0.3</b>	<b>0.7</b>	<b>1.2</b>	<b>1.5</b>	<b>0.8</b>	<b>1.8</b>
	Top 10 Average	0.2	0.7	1.4	2.0	2.4	1.3	2.5
	Bottom 10 Average	0.1	0.1	0.2	0.4	0.6	0.3	1.2
2. Prime Rate	<b>CONSENSUS</b>	<b>3.3</b>	<b>3.5</b>	<b>3.9</b>	<b>4.3</b>	<b>4.6</b>	<b>3.9</b>	<b>4.9</b>
	Top 10 Average	3.4	3.7	4.4	5.0	5.4	4.4	5.4
	Bottom 10 Average	3.2	3.2	3.3	3.5	3.8	3.4	4.5
3. LIBOR, 3-Mo.	<b>CONSENSUS</b>	<b>0.4</b>	<b>0.6</b>	<b>1.1</b>	<b>1.5</b>	<b>1.8</b>	<b>1.1</b>	<b>2.2</b>
	Top 10 Average	0.5	1.0	1.7	2.2	2.6	1.6	2.7
	Bottom 10 Average	0.3	0.3	0.5	0.8	1.1	0.6	1.6
4. Commercial Paper, 1-Mo	<b>CONSENSUS</b>	<b>0.3</b>	<b>0.7</b>	<b>1.2</b>	<b>1.6</b>	<b>1.9</b>	<b>1.1</b>	<b>2.1</b>
	Top 10 Average	0.4	0.9	1.6	2.1	2.4	1.5	2.5
	Bottom 10 Average	0.2	0.4	0.8	1.2	1.5	0.8	1.7
5. Treasury Bill Yield, 3-Mo	<b>CONSENSUS</b>	<b>0.2</b>	<b>0.4</b>	<b>0.8</b>	<b>1.2</b>	<b>1.5</b>	<b>0.8</b>	<b>1.9</b>
	Top 10 Average	0.3	0.7	1.5	2.0	2.4	1.4	2.5
	Bottom 10 Average	0.1	0.1	0.2	0.5	0.7	0.3	1.3
6. Treasury Bill Yield, 6-Mo	<b>CONSENSUS</b>	<b>0.2</b>	<b>0.5</b>	<b>0.9</b>	<b>1.3</b>	<b>1.6</b>	<b>0.9</b>	<b>2.0</b>
	Top 10 Average	0.3	0.8	1.6	2.1	2.5	1.5	2.6
	Bottom 10 Average	0.1	0.2	0.3	0.5	0.8	0.4	1.4
7. Treasury Bill Yield, 1-Yr	<b>CONSENSUS</b>	<b>0.3</b>	<b>0.6</b>	<b>1.0</b>	<b>1.4</b>	<b>1.8</b>	<b>1.0</b>	<b>2.1</b>
	Top 10 Average	0.5	1.0	1.7	2.3	2.6	1.6	2.7
	Bottom 10 Average	0.2	0.3	0.4	0.7	0.9	0.5	1.6
8. Treasury Note Yield, 2-Yr	<b>CONSENSUS</b>	<b>0.4</b>	<b>0.8</b>	<b>1.2</b>	<b>1.6</b>	<b>1.9</b>	<b>1.2</b>	<b>2.3</b>
	Top 10 Average	0.7	1.2	1.9	2.4	2.8	1.8	2.9
	Bottom 10 Average	0.2	0.3	0.6	0.8	1.1	0.6	1.7
9. Treasury Note Yield, 5-Yr	<b>CONSENSUS</b>	<b>0.8</b>	<b>1.2</b>	<b>1.6</b>	<b>2.0</b>	<b>2.3</b>	<b>1.5</b>	<b>2.5</b>
	Top 10 Average	1.1	1.6	2.3	2.8	3.1	2.1	3.1
	Bottom 10 Average	0.5	0.7	1.0	1.2	1.4	1.0	1.9
10. Treasury Note Yield, 10-Yr	<b>CONSENSUS</b>	<b>1.3</b>	<b>1.7</b>	<b>2.0</b>	<b>2.4</b>	<b>2.6</b>	<b>2.0</b>	<b>2.8</b>
	Top 10 Average	1.7	2.2	2.7	3.1	3.4	2.6	3.5
	Bottom 10 Average	0.9	1.2	1.4	1.7	1.8	1.4	2.2
11. Treasury Bond Yield, 30-Yr	<b>CONSENSUS</b>	<b>2.1</b>	<b>2.4</b>	<b>2.8</b>	<b>3.1</b>	<b>3.4</b>	<b>2.8</b>	<b>3.6</b>
	Top 10 Average	2.5	3.0	3.5	4.0	4.2	3.4	4.3
	Bottom 10 Average	1.6	1.9	2.2	2.4	2.6	2.1	2.9
12. Corporate Aaa Bond Yield	<b>CONSENSUS</b>	<b>2.8</b>	<b>3.2</b>	<b>3.6</b>	<b>4.0</b>	<b>4.2</b>	<b>3.6</b>	<b>4.5</b>
	Top 10 Average	3.1	3.6	4.2	4.6	4.9	4.1	5.0
	Bottom 10 Average	2.4	2.8	3.0	3.3	3.6	3.0	3.9
13. Corporate Baa Bond Yield	<b>CONSENSUS</b>	<b>3.9</b>	<b>4.3</b>	<b>4.7</b>	<b>5.0</b>	<b>5.2</b>	<b>4.6</b>	<b>5.4</b>
	Top 10 Average	4.3	4.7	5.2	5.6	5.9	5.1	6.0
	Bottom 10 Average	3.5	3.9	4.1	4.3	4.5	4.1	4.9
14. State & Local Bonds Yield	<b>CONSENSUS</b>	<b>2.8</b>	<b>3.1</b>	<b>3.4</b>	<b>3.6</b>	<b>3.8</b>	<b>3.3</b>	<b>3.9</b>
	Top 10 Average	3.1	3.5	3.8	4.1	4.3	3.8	4.3
	Bottom 10 Average	2.5	2.8	2.9	3.2	3.4	2.9	3.6
15. Home Mortgage Rate	<b>CONSENSUS</b>	<b>3.2</b>	<b>3.5</b>	<b>3.9</b>	<b>4.2</b>	<b>4.5</b>	<b>3.9</b>	<b>4.7</b>
	Top 10 Average	3.5	3.9	4.4	4.9	5.2	4.4	5.2
	Bottom 10 Average	2.9	3.2	3.4	3.6	3.8	3.4	4.2
A. Fed's AFE Nominal \$ Index	<b>CONSENSUS</b>	<b>107.2</b>	<b>107.0</b>	<b>106.5</b>	<b>106.4</b>	<b>106.6</b>	<b>106.7</b>	<b>106.7</b>
	Top 10 Average	109.0	108.9	108.8	108.9	109.5	109.0	110.2
	Bottom 10 Average	105.4	105.2	104.4	103.8	103.7	104.5	103.0
		----- Year-Over-Year, % Change -----					Five-Year Averages	
		2022	2023	2024	2025	2026	2022-2026	2027-2031
B. Real GDP	<b>CONSENSUS</b>	<b>3.2</b>	<b>2.5</b>	<b>2.3</b>	<b>2.2</b>	<b>2.1</b>	<b>2.4</b>	<b>2.1</b>
	Top 10 Average	3.8	3.0	2.6	2.5	2.4	2.9	2.4
	Bottom 10 Average	2.6	2.1	1.9	1.9	1.8	2.1	1.8
C. GDP Chained Price Index	<b>CONSENSUS</b>	<b>1.9</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>	<b>2.1</b>
	Top 10 Average	2.2	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	1.7	1.8	1.9	1.9	1.9	1.8	1.9
D. Consumer Price Index	<b>CONSENSUS</b>	<b>2.1</b>	<b>2.2</b>	<b>2.2</b>	<b>2.1</b>	<b>2.2</b>	<b>2.1</b>	<b>2.2</b>
	Top 10 Average	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	Bottom 10 Average	1.8	1.9	1.9	1.9	1.9	1.9	1.9
E. PCE Price Index	<b>CONSENSUS</b>	<b>1.9</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>	<b>2.1</b>
	Top 10 Average	2.2	2.2	2.2	2.2	2.3	2.2	2.4
	Bottom 10 Average	1.7	1.8	1.9	1.9	1.9	1.8	1.9

## 2020 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	0.8	-0.4	-8.2	-14.7	18.3	8.6	1.1	1.4	1.6	0.3	....	....
Auto & Light Truck Sales (b)	16.87	16.77	11.36	8.72	12.11	13.01	14.58	15.13	16.29	16.21	....	....
Personal Income (a, current \$)	0.9	0.8	-1.8	12.4	-4.0	-1.1	0.9	-2.5	0.7	-0.7	....	....
Personal Consumption (a, current \$)	0.6	0.0	-6.7	-12.7	8.7	6.5	1.5	1.2	1.2	0.5	....	....
Consumer Credit (e)	2.8	5.5	-5.3	-18.5	-3.9	5.7	4.3	-2.0	4.7	....	....	....
Consumer Sentiment (U. of Mich.)	99.8	101.0	89.1	71.8	72.3	78.1	72.5	74.1	80.4	81.8	76.9	....
Household Employment (c)	-89	45	-2987	-22369	3839	4940	1350	3756	275	2243	....	....
Nonfarm Payroll Employment (c)	214	251	-1373	-20787	2725	4781	1761	1493	672	638	....	....
Unemployment Rate (%)	3.6	3.5	4.4	14.7	13.3	11.1	10.2	8.4	7.9	6.9	....	....
Average Hourly Earnings (All, cur. \$)	28.43	28.52	28.69	30.03	29.70	29.32	29.35	29.45	29.46	29.50	....	....
Average Workweek (All, hrs.)	34.3	34.4	34.1	34.2	34.7	34.6	34.6	34.7	34.8	34.8	....	....
Industrial Production (d)	-0.8	-0.2	-4.7	-16.3	-15.7	-10.7	-6.7	-6.7	-6.7	-5.3	....	....
Capacity Utilization (%)	76.9	76.9	73.6	64.2	64.8	68.7	71.7	72.2	72.0	72.8	....	....
ISM Manufacturing Index (g)	50.9	50.1	49.1	41.5	43.1	52.6	54.2	56.0	55.4	59.3	....	....
ISM Nonmanufacturing Index (g)	55.5	57.3	52.5	41.8	45.4	57.1	58.1	56.9	57.8	56.6	....	....
Housing Starts (b)	1.617	1.567	1.269	0.934	1.038	1.265	1.487	1.373	1.459	1.530	....	....
Housing Permits (b)	1.536	1.438	1.356	1.066	1.216	1.258	1.483	1.476	1.545	1.544	....	....
New Home Sales (1-family, c)	774	716	612	570	698	840	979	1001	1002	999	....	....
Construction Expenditures (a)	1.9	0.2	-0.3	-3.4	-1.3	1.0	1.1	0.8	0.3	....	....	....
Consumer Price Index (nsa, d)	2.5	2.3	1.5	0.3	0.1	0.6	1.0	1.3	1.4	1.2	....	....
CPI ex. Food and Energy (nsa, d)	2.3	2.4	2.1	1.4	1.2	1.2	1.6	1.7	1.7	1.6	....	....
Producer Price Index (nsa, d)	2.0	1.1	0.3	-1.5	-1.1	-0.7	-0.4	-0.2	0.4	0.5	....	....
Durable Goods Orders (a)	-0.2	2.0	-16.7	-18.3	15.0	7.7	11.8	0.4	2.1	1.3	....	....
Leading Economic Indicators (a)	0.5	-0.2	-7.4	-6.4	3.0	3.1	2.0	1.6	0.7	0.7	....	....
Balance of Trade & Services (f)	-43.4	-37.0	-46.1	-53.6	-57.9	-53.5	-63.4	-67.0	-63.9	....	....	....
Federal Funds Rate (%)	1.55	1.58	0.65	0.05	0.05	0.08	0.09	0.10	0.09	0.09	....	....
3-Mo. Treasury Bill Rate (%)	1.55	1.54	0.30	0.14	0.13	0.16	0.13	0.10	0.11	0.10	....	....
10-Year Treasury Note Yield (%)	1.76	1.50	0.87	0.66	0.67	0.73	0.62	0.65	0.68	0.79	....	....

## 2019 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	1.5	-0.1	1.6	0.5	0.4	0.3	0.7	0.5	-0.7	0.5	0.3	0.1
Auto & Light Truck Sales (b)	16.77	16.60	17.30	16.59	17.31	17.21	16.97	17.07	17.08	16.76	16.97	16.81
Personal Income (a, current \$)	0.2	0.4	0.3	0.2	0.1	0.2	0.1	0.5	0.2	0.3	0.5	0.1
Personal Consumption (a, current \$)	0.7	0.1	0.9	0.5	0.3	0.4	0.4	0.3	0.2	0.4	0.2	0.3
Consumer Credit (e)	5.2	4.9	3.7	5.2	4.4	3.5	6.6	4.3	3.7	3.7	1.9	6.6
Consumer Sentiment (U. of Mich.)	91.2	93.8	98.4	97.2	100.0	98.2	98.4	89.8	93.2	95.5	96.8	99.3
Household Employment (c)	-198	239	-125	-45	148	304	198	549	403	246	-8	267
Nonfarm Payroll Employment (c)	269	1	147	210	85	182	194	207	208	185	261	184
Unemployment Rate (%)	4.0	3.8	3.8	3.6	3.6	3.7	3.7	3.7	3.5	3.6	3.5	3.5
Average Hourly Earnings (All, cur. \$)	27.58	27.69	27.76	27.81	27.87	27.96	28.05	28.16	28.16	28.24	28.34	28.37
Average Workweek (All, hrs.)	34.5	34.4	34.5	34.4	34.4	34.4	34.3	34.4	34.4	34.4	34.3	34.3
Industrial Production (d)	3.6	2.7	2.3	0.7	1.7	1.0	0.4	0.3	-0.2	-0.8	-0.4	-0.8
Capacity Utilization (%)	79.0	78.5	78.4	77.8	77.8	77.7	77.4	77.8	77.4	77.0	77.6	77.2
ISM Manufacturing Index (g)	55.5	54.1	54.6	53.4	52.3	51.6	51.3	48.8	48.2	48.5	48.1	47.8
ISM Nonmanufacturing Index (g)	56.0	58.5	56.3	55.7	56.3	55.4	54.8	56.0	53.5	54.4	53.9	54.9
Housing Starts (b)	1.272	1.137	1.203	1.267	1.268	1.235	1.212	1.377	1.274	1.340	1.371	1.587
Housing Permits (b)	1.316	1.305	1.327	1.330	1.338	1.273	1.366	1.471	1.437	1.503	1.510	1.457
New Home Sales (1-family, c)	637	665	700	664	600	726	661	706	726	706	696	731
Construction Expenditures (a)	1.9	0.7	1.0	1.4	-0.2	0.1	0.9	0.9	1.0	-0.5	1.3	0.3
Consumer Price Index (nsa, d)	1.6	1.5	1.9	2.0	1.8	1.6	1.8	1.7	1.7	1.8	2.1	2.3
CPI ex. Food and Energy (nsa, d)	2.2	2.1	2.0	2.1	2.0	2.1	2.2	2.4	2.4	2.3	2.3	2.3
Producer Price Index (nsa, d)	1.9	1.9	2.0	2.4	2.1	1.6	1.6	1.9	1.5	1.0	1.0	1.4
Durable Goods Orders (a)	0.2	-3.3	4.0	-4.7	-1.5	0.1	2.5	0.5	-0.9	-0.1	-2.6	2.8
Leading Economic Indicators (a)	0.0	0.2	0.2	0.1	0.0	0.0	0.4	-0.2	-0.2	-0.2	0.2	-0.2
Balance of Trade & Services (f)	-49.0	-47.3	-48.9	-49.2	-51.3	-51.7	-51.0	-50.8	-47.8	-43.0	-41.1	-45.7
Federal Funds Rate (%)	2.40	2.40	2.41	2.42	2.39	2.38	2.40	2.13	2.04	1.83	1.55	1.55
3-Mo. Treasury Bill Rate (%)	2.42	2.44	2.45	2.43	2.40	2.22	2.15	1.99	1.93	1.68	1.57	1.57
10-Year Treasury Note Yield (%)	2.71	2.68	2.57	2.53	2.40	2.07	2.06	1.63	1.70	1.71	1.81	1.86

(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; (h) thousands. Most series are subject to frequent government revisions. Use with care.

## Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
	<b>December 1</b> ISM Manufacturing (Nov) IHS Markit Mfg PMI (Nov) Construction (Oct) Texas Service Sector Outlook Survey (Nov)	<b>2</b> ADP Employment Report (Nov) ISM New York (Nov) EIA Crude Oil Stocks Mortgage Applications	<b>3</b> ISM Services PMI (Nov) IHS Markit Services PMI(Nov) Challenger Employment Report (Nov) Weekly Jobless Claims Weekly Money Supply	<b>4</b> Employment Situation (Nov) Intl Trade (Oct) MSIO (Oct) Public Debt (Nov)
<b>7</b> Treasury Auction Allotments (Nov) Consumer Credit (Oct) NABE Outlook (Q4)	<b>8</b> Productivity & Costs (Q3) QFR (Q3) Manpower Survey (Q1) NFIB (Nov)	<b>9</b> Transportation Services Index (Oct) JOLTS (Oct) Wholesale Trade (Oct) Kansas City Financial Stress Index (Nov) EIA Crude Oil Stocks Mortgage Applications	<b>10</b> CPI (Nov) QSS (Q3) Financial Accounts (Q3) Monthly Treas Statement (Nov) Cleveland Fed Med CPI (Nov) Kansas City Fed Labor Market Conditions Indicators (Nov) Weekly Jobless Claims Weekly Money Supply	<b>11</b> Producer Prices (Nov) Consumer Sentiment (Dec, Preliminary)
<b>14</b>	<b>15</b> Import & Export Prices (Nov) Industrial Production (Nov) Empire State Mfg Survey (Dec) TIC Data (Oct) FOMC Meeting	<b>16</b> Advance Retail Sales (Nov) MTIS (Oct) Business Leaders Survey (Dec) Home Builders (Dec) FOMC Meeting EIA Crude Oil Stocks Mortgage Applications	<b>17</b> New Residential Construction (Nov) ECEC (Q3) Philadelphia Fed Mfg Bus Outlook Survey (Dec) Kansas City Fed Mfg Survey (Dec) Weekly Jobless Claims Weekly Money Supply	<b>18</b> International Transactions (Q3) Livingston Survey (Dec) Composite Indexes (Nov)
<b>21</b> Chicago Fed National Activity Index (Nov)	<b>22</b> GDP (Q3, 3rd Estimate) GDP by Industry (Q3) Consumer Confidence (Dec) Treas Auction Allotments (Dec) Existing Home Sales (Nov) Philadelphia Fed Nonmfg Business Outlook (Dec) Richmond Fed Mfg and Service Sector Surveys (Dec)	<b>23</b> Personal Income (Nov) FHFA HPI (Oct) New Residential Sales (Nov) Dallas Fed Trimmed-Mean PCE (Nov) Final Building Permits (Nov) Consumer Sentiment (Dec) FRB Philadelphia Coincident Economic Activity (Nov)	<b>24</b> Advance Durable Goods (Nov) Weekly Jobless Claims Weekly Money Supply	<b>25</b>  <b>CHRISTMAS DAY</b> <b>All Markets Closed</b>
<b>28</b> Texas Manufacturing Outlook Survey (Dec)	<b>29</b> IIP (Q3) Case Shiller HPI (Oct) Texas Service Sector Outlook Survey (Dec)	<b>30</b> Advance Trade & Inventories (Nov) Chicago PMI (Dec) Agriculture Prices (Nov) EIA Crude Oil Stocks Mortgage Applications	<b>31</b> Weekly Jobless Claims Weekly Money Supply	<b>January 1</b>  <b>NEW YEAR'S DAY</b> <b>All Markets Closed</b>
<b>4</b>	<b>5</b> ISM Manufacturing (Dec) IHS Markit Mfg PMI (Dec)	<b>6</b> ADP Employment Report (Dec) EIA Crude Oil Stocks Mortgage Applications	<b>7</b> ISM Services PMI (Dec) IHS Markit Services PMI(Dec) Challenger Employment Report (Dec) Weekly Jobless Claims Weekly Money Supply	<b>8</b> Employment Situation (Dec)

## 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

**Barclays**, New York, NY  
Michael Gapen

**BMO Capital Markets Economics**, Toronto, Canada  
Douglas Porter

**BNP Paribas North America**, New York, NY  
Bricklin Dwyer

**Chan Economics**, New York, NY  
Anthony Chan

**Chmura Economics & Analytics**, Richmond, VA  
Christine Chmura and Xiaobing Shuai

**Comerica**, Dallas, TX  
Robert A. Dye

**Daiwa Capital Markets America**, New York, NY  
Michael Moran

**DePrince & Associates**, Murfreesboro, TN  
Albert E. DePrince Jr.

**Economist Intelligence Unit**, New York, NY  
Leo Abruzzese and Jan Friederich

**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

**Grant Thornton**, Chicago, IL  
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

**Mizuho Research Institute**, Tokyo, Japan  
Takehiro Noguchi

**Moody's Analytics**, West Chester, PA  
Mark M. Zandi

**Moody's Capital Markets Group**, New York, NY  
John Lonski

**MUFG Union Bank**, New York, NY  
Christopher S. Rupkey

**Naroff Economic Advisors**, Philadelphia, PA  
Joel L. Naroff

**NatWest Markets**, Greenwich, CT  
Michelle Girard and Kevin Cummins

**Nomura Securities International, Inc.**, New York, NY  
Lewis Alexander

**Northern Trust Company**, Chicago, IL  
Carl Tannenbaum

**Oxford Economics**, New York, NY  
Gregory Daco

**PNC Financial Services Group**, Pittsburgh, PA  
Gus Faucher

**RDQ Economics**, New York, NY  
John Ryding and Conrad de Quadros

**Regions Financial Corporation**, Birmingham, AL  
Richard F. Moody

**Scotiabank Group**, Toronto, Canada  
Jean-Francois Perrault and Brett House

**Societe Generale**, NY, New York  
Stephen W. Gallagher

**S&P Global**, New York, NY  
Beth Ann Bovino

**Swiss Re**, New York, NY  
Jerome Haegeli

**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

**IHS Markit**, London, England

**ING Financial Markets**, London, England

**Mizuho Research Institute**, Tokyo, Japan

**Moody's Analytics**, West Chester, PA

**Moody's Capital Markets Group**, New York, NY

**Nomura Securities International, Inc.**, New York, NY

**Northern Trust Company**, Chicago, IL

**Oxford Economics**, Wayne, PA

**Scotiabank Group**, Toronto, Canada

**S&P Global**, New York, NY

**TS Lombard**, London, UK

**Wells Fargo**, Charlotte, NC