

Blue Chip Financial Forecasts[®]

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

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BLUE CHIP FINANCIAL FORECASTS®

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Trump Win Shifts Market, If Not Analysts View, Of Growth/Inflation Outlook

Domestic Commentary U.S. fixed income markets were shellacked in the wake of the U.S. national elections that saw Donald Trump defeat Hillary Clinton and Republicans retain of Congress. Rather than increased uncertainty and a flight to safety that some analysts had anticipated in the case of a Trump win, market participants have instead seized on Trump's campaign proposals as a recipe for faster economic growth and higher inflation. The result has been a sharp jump in interest rates, a steepening of the yield curve, a stronger dollar, and a rally in equity markets to record highs.

In short, markets seem to expect Trump to fulfill campaign promises to massively expand fiscal policy by way of stepped up government spending and tax cuts that would likely spur an increase in aggregate demand at a time when labor markets are already at or near full employment, wage growth is accelerating, and monetary policy remains very accommodative. Trump's proposals for tougher trade policies through increased protectionism, coupled with changes to healthcare regulation and immigration, could also contribute to higher inflation, while his plans to roll-back financial market regulations imposed following the 2007-2009 financial crisis and recession might prompt banks to step up their lending.

Particularly unsettling to fixed income investors is the fact that inflationary pressures already were on the rise. The year-over-year change in average hourly earnings jumped to 2.8% in October, the fastest pace since June 2009. Moreover, the effects of the past plunge in energy prices are rapidly fading and core inflation, especially in services, has accelerated. The year-over-year (y/y) change in core consumer price inflation has so far exceeded 2.0% in each and every month of this year and the y/y change in services inflation is within a hair's breath of 3.0%. Inflation as measured by the Federal Reserve's preferred gauge – the personal consumption expenditures (PCE) price index – has looked less threatening, but even here building pressures are evident with the core PCE price index up 1.7% over the past year and nearing the Fed's 2.0% target, while services inflation now is running at a y/y rate of 2.4%. It's little wonder that prices for Treasury Inflation-Protected Securities (TIPS) caught such a firm bid following the election results.

Of course, there remains considerable uncertainty about if, when, and how many of Trump's campaign proposals will be actually implemented. While a Republican-controlled Congress obviously gives the President-elect greater odds of seeing his proposals turned into new laws and regulations, it may be difficult for many of his party to abandon their traditional conservative positions on fiscal spending. Fears of igniting a trade war also may hamper efforts to enact tough protectionist policies. Immigration reforms that include mass deportations also are likely to run into opposition from the agricultural and construction industries, while reform of the Affordable Care Act absent help for the millions that have obtained insurance through the program poses its own political risks.

There also is the question of just how much additional aggregate demand would be created even if a preponderance of Trump's fiscal proposals were to be enacted. An aging population and low productivity growth are still likely to represent headwinds to a marked acceleration in GDP's growth rate over an extended period of time. Tax reform that drops the corporate tax rate and provides for an even more generous tax rate on profits repatriated from abroad might end up being primarily used by firms for stock buybacks and dividends rather than new investment in plant and equipment that would boost productivity.

Then there is the risk that sustained increases in interest rates and the value of the dollar will act as headwinds to faster economic growth by depressing housing activity and export demand. While the rally in equity prices since the election has offset some of the tightening in financial conditions represented by the rise in interest rates and a

stronger dollar, equity valuations are now stretched by historical standards, possibly limiting additional gains unless we see a marked upturn in corporate earnings.

At present, our panelists seem much more skeptical than fixed income market participants that economic growth, inflation, or both will shoot higher over the next year and a half. There was very little change over the past month in consensus forecasts of economic growth and inflation over the forecast horizon. While annual real GDP growth in 2017 is expected to exceed that in 2016, it still is forecast to closely adhere to the slightly more than 2.0% average that has prevailed since the end of the Great Recession. Consensus forecasts of inflation also underwent little change this month. The GDP price index still is expected to register annualized rates of increase of slightly more than 2.0% through Q1 2018, while the Consumer Price Index is forecast to post annualized rates of increase about 0.2 of a percentage point greater than that.

Nonetheless, the fixed income market's previously-held assumption that interest rates would remain "lower for longer" as the Fed kept its policy rates unusually low for an extended period of time was smashed by Trump's victory. Even before the election, the Federal Reserve's Open Market Committee (FOMC) seemed predisposed to hike rates at its December 13th-14th meeting. Recently released minutes of the November meeting reinforced that presumption among markets participants and our panelists. Financial markets now place the odds at 100% for a 25 basis point hike in policy rates by the FOMC in December and have priced in two additional 25-basis-point hikes in 2017. That leaves market predictions of likely Fed action next year in line with the FOMC's most recent "dot plot" estimates.

All of our panelists also expect the FOMC to hike rates by a quarter-point in December, according to a special question asked of our panelists this month. We also saw some upward adjustment to consensus forecasts of interest rates and yields over the forecast horizon. However, it seemed to largely reflect a simple mark-to-marking of forecasts given the post-election run-up in interest rates. Yes, the consensus still looks for rates and yields to rise over the forecasts horizon, but not at the breakneck pace seen in the immediate post-election period. As for FOMC rate hikes in 2017, 28.9% of our panelists currently foresee only one 25 basis points increase next year, 40.0% see two 25-basis-point increases, 17.8% expect three quarter-point moves, and 13.3% said they anticipate the FOMC to hike rates by 25 basis points four or more times.

Federal Reserve Board policy in 2017 and beyond also will be shaped by the appointment of two new governors by the Trump Administration to fill existing vacancies. In 2018, Trump will have a chance to replace Janet Yellen and Stanley Fischer as their terms as chair and vice chair expire in February and June, respectively. There also is potential for Congressional moves to reform the Fed that have been pushed in the past by some in the Republican party.

Consensus Forecast The FOMC is universally expected to raise its policy rates by 25 basis points in mid-December. In 2017, another 50 basis points of rate hikes seem likely at the moment. Real GDP growth is expected to improve next year and inflation increase, but not by as much as fixed income markets now appear to fear. Treasury note and bond yields are expected to increase over the forecast horizon, but not at nearly the pace seen in the few weeks since the November elections. The trade-weighted value of the U.S. dollar is likely to continue increasing over the coming year as U.S. economic growth picks up and interest rates rise. That will be especially true if monetary policy abroad remains especially easy (*see page 2*).

Long-Range Survey On page 14 are results of our twice-yearly, long-range survey with consensus estimates for the years 2018 through 2022 and averages for the 5-year periods 2018-2022 and 2023-2027 (*see page 14*)

Consensus Forecasts Of U.S. Interest Rates And Key Assumptions¹

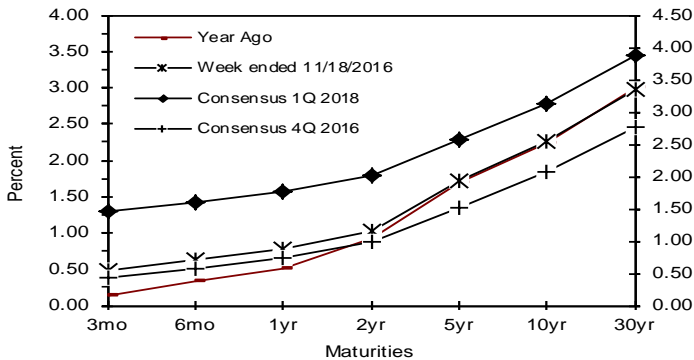
Interest Rates	History								Consensus Forecasts-Quarterly Avg.						
	Average For Week Ending				Average For Month				Latest Qtr	4Q 2016	1Q 2017	2Q 2017	3Q 2017	4Q 2017	1Q 2018
	Nov. 18	Nov. 11	Nov. 4	Oct. 28	Oct	Sep	Aug	3Q 2016	2016	2017	2017	2017	2017	2018	
Federal Funds Rate	0.41	0.41	0.40	0.41	0.39	0.40	0.40	0.40	0.5	0.7	0.8	1.0	1.1	1.3	
Prime Rate	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.6	3.8	3.9	4.1	4.2	4.4	
LIBOR, 3-mo.	0.91	0.89	0.88	0.89	0.88	0.85	0.81	0.79	0.9	1.1	1.2	1.4	1.5	1.7	
Commercial Paper, 1-mo.	0.43	0.42	0.42	0.40	0.43	0.40	0.37	0.37	0.5	0.7	0.9	1.1	1.3	1.4	
Treasury bill, 3-mo.	0.48	0.44	0.36	0.32	0.33	0.29	0.30	0.30	0.4	0.6	0.8	1.0	1.1	1.3	
Treasury bill, 6-mo.	0.62	0.56	0.51	0.48	0.47	0.47	0.45	0.44	0.6	0.8	0.9	1.1	1.3	1.4	
Treasury bill, 1 yr.	0.77	0.70	0.64	0.67	0.66	0.59	0.57	0.56	0.7	0.9	1.1	1.3	1.4	1.6	
Treasury note, 2 yr.	1.03	0.88	0.82	0.86	0.84	0.77	0.74	0.73	1.0	1.1	1.3	1.5	1.6	1.8	
Treasury note, 5 yr.	1.71	1.42	1.27	1.30	1.27	1.18	1.13	1.13	1.5	1.7	1.9	2.0	2.2	2.3	
Treasury note, 10 yr.	2.26	1.98	1.82	1.81	1.76	1.63	1.56	1.56	2.1	2.3	2.4	2.6	2.7	2.8	
Treasury note, 30 yr.	2.98	2.76	2.58	2.55	2.50	2.35	2.26	2.28	2.8	3.0	3.1	3.2	3.3	3.4	
Corporate Aaa bond	4.10	3.95	3.79	3.73	3.69	3.41	3.32	3.34	3.8	4.0	4.1	4.2	4.4	4.5	
Corporate Baa bond	4.77	4.61	4.44	4.37	4.34	4.31	4.24	4.26	4.7	4.9	5.1	5.2	5.3	5.5	
State & Local bonds	3.59	3.40	3.36	3.37	3.35	2.93	2.85	2.87	3.4	3.6	3.7	3.8	3.9	4.0	
Home mortgage rate	3.94	3.57	3.54	3.47	3.47	3.46	3.44	3.45	3.8	4.0	4.2	4.3	4.4	4.6	

Key Assumptions	History								Consensus Forecasts-Quarterly					
	4Q		1Q		2Q		3Q		4Q 2016	1Q 2017	2Q 2017	3Q 2017	4Q 2017	1Q 2018
	2014	2015	2015	2015	2015	2015	2016	2016	2016	2016	2017	2017	2017	2018
Major Currency Index	82.6	89.4	89.9	91.8	93.1	93.3	89.6	90.0	92.8	93.9	94.3	94.2	94.2	93.8
Real GDP	2.3	2.0	2.6	2.0	0.9	0.8	1.4	2.9	2.3	2.2	2.2	2.3	2.2	2.3
GDP Price Index	0.5	-0.1	2.3	1.3	0.8	0.5	2.3	1.5	2.1	1.9	2.1	2.1	2.1	2.2
Consumer Price Index	-0.3	-2.9	2.4	1.4	0.8	-0.3	2.5	1.6	2.8	2.1	2.4	2.3	2.5	2.3

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 is sourced from Haver Analytics. Historical data for Fed's Major Currency Index is from FRSR H.10. Historical data for Real GDP and GDP Chained Price Index 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).

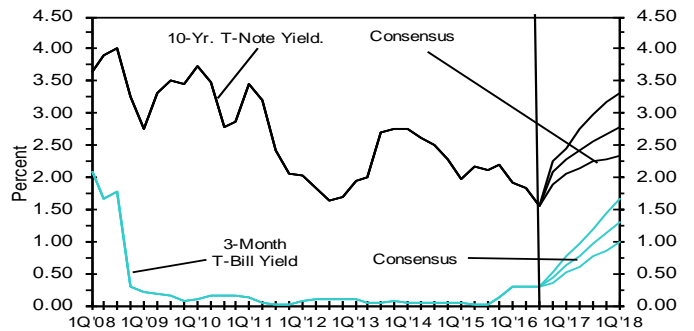
U.S. Treasury Yield Curve

Week ended November 18, 2016 and Year Ago v.s. 4Q 2016 and 1Q 2018 Consensus Forecasts



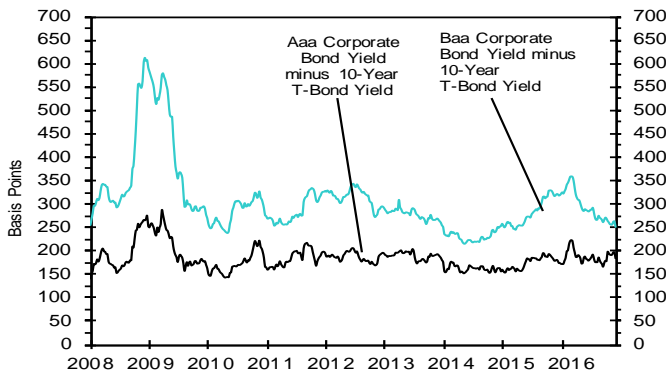
U.S. 3-Mo. T-Bills & 10-Yr. T-Note Yield

(Quarterly Average) Forecast



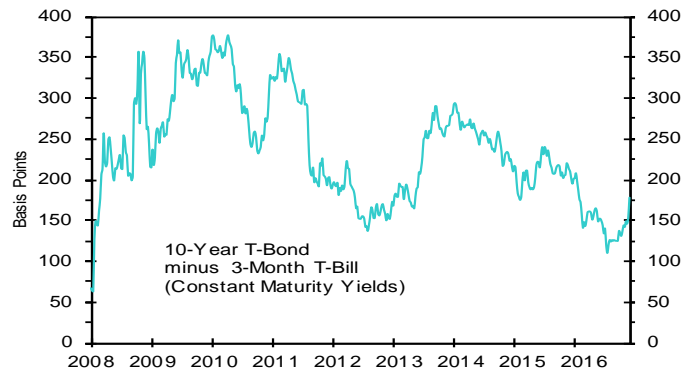
Corporate Bond Spreads

As of week ended November 18, 2016



U.S. Treasury Yield Curve

As of week November 18, 2016



-----3-Month Interest Rates¹-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	0.92	0.88	0.40	1.01	1.11	1.39
Japan	-0.06	-0.01	0.07	0.00	0.01	0.01
U.K.	0.38	0.38	0.57	0.36	0.35	0.34
Switzerland	-0.75	-0.73	-0.81	-0.85	-0.85	-0.85
Canada	0.85	0.85	0.76	0.70	0.70	0.93
Australia	2.21	2.06	2.63	1.60	1.60	1.70
Eurozone	-0.31	-0.31	-0.10	-0.31	-0.31	-0.32

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

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	2.29	1.75	2.33	2.06	2.19	2.33
Germany	0.26	0.04	0.47	0.17	0.24	0.38
Japan	0.03	-0.05	0.32	0.00	0.00	0.03
U.K.	1.46	1.15	1.93	1.21	1.28	1.31
France	0.71	0.32	0.85	0.51	0.57	0.72
Italy	2.13	1.45	1.44	1.64	1.65	1.73
Switzerland	-0.15	-0.44	-0.29	-0.26	-0.21	-0.08
Canada	1.54	1.19	1.59	1.44	1.57	1.81
Australia	2.65	2.26	2.88	2.39	2.38	2.43
Spain	1.53	1.10	1.63	1.31	1.35	1.51

-----Foreign Exchange Rates¹-----

	History			Consensus Forecasts		
	Month	Year	Months From Now:			
Latest:	Ago:	Ago:	3	6	12	
U.S.	94.965	92.769	94.304	92.9	92.9	92.8
Japan	110.51	103.96	122.80	106.6	107.5	110.3
U.K.	1.2327	1.2210	1.5199	1.23	1.24	1.25
Switzerland	1.0094	0.9951	1.0183	1.03	1.04	1.03
Canada	1.3518	1.3324	1.3337	1.35	1.34	1.32
Australia	0.7345	0.7597	0.7233	0.74	0.74	0.74
Euro	1.0600	1.0866	1.0660	1.07	1.06	1.08

	Consensus 3-Month Rates vs. U.S. Rate			Consensus 10-Year Gov't Yields vs. U.S. Yield	
	Now	In 12 Mo.		Now	In 12
Japan	-0.98	-1.38	Germany	-2.03	-1.95
U.K.	-0.54	-1.05	Japan	-2.26	-2.30
Switzerland	-1.67	-2.24	U.K.	-0.83	-1.02
Canada	-0.07	-0.46	France	-1.58	-1.61
Australia	1.29	0.31	Italy	-0.16	-0.60
Eurozone	-1.23	-1.70	Switzerland	-2.44	-2.40
			Canada	-0.75	-0.52
			Australia	0.36	0.11
			Spain	-0.76	-0.82

International Commentary Global financial markets were roiled over the past month in reaction to U.S. President-elect Donald Trump's shocking win. The event represented the second, big political surprise of the year for markets after the unexpected outcome of the U.K.'s Brexit referendum. Moreover, upcoming elections and referendums in Europe during December and in 2017 hold the potential to rattle markets even further if voters continue to express their disfavor of existing government policies on immigration, trade and a host of other policies in favor of those with a more populist/nationalistic and less bureaucratic bent. Presidential elections in Austria on December 4th will likely see the populist Freedom Party's candidate win. On the same day, Italy will hold its referendum on constitutional reform. Its likely defeat is expected to prompt Prime Minister Renzi to step down, raising uncertainty about that nation's economic and political future in the face of severe stress in its banking sector due to billions of non-performing loans. In March 2017, general elections in the Netherlands could produce a win by the right-wing Freedom Party that has campaigned on the promise of a referendum to leaving or staying in the European Union. May elections in France could see far-right Front National leader Marine Le Pen become the next president, while in October German elections will see Angela Merkel face a tough battle as she seeks her fourth term.

Market participants appear to presume that President-elect Trump's promises of massive infrastructure spending, tax cuts, de-regulation, and tougher trade policies will lead to stronger U.S. economic growth, but larger government deficits and higher inflation. In reaction, U.S. and other developed market sovereign bond prices were sent reeling since the election, the trade-weighted value of the U.S. dollar popped to 14-year highs, while equities and industrial commodity prices have rallied. Emerging markets have been especially hard hit on fears that the U.S. is headed for an era of rising interest rates and more protectionist trade policies. Further appreciation of the dollar poses a particular threat to holders of the trillions in dollar-denominated debt issued by foreign entities over the past several years. The tumble in global bond prices was likely aggravated by near unanimity that the Federal Reserve will hike interest rates at its December meeting and may hike rates faster next year than presumed prior to Trump's election win, coupled with the perception that other major central banks have recently become less inclined to further lower interest rates given a bit more optimism on the pace of growth, lessening deflationary worries, and increasing worries that the negative interest rate policies being run by some central bank may be doing more harm than good.

As for central bank action over the coming month, the European Central Bank is expected to leave rates unchanged at its December 8th meeting. While many analysts still look for the bank to announce an extension of its massive asset purchase program beyond its scheduled March 2017 expiration, a likely Fed hike in December, a weaker euro, and improving economic data may prompt the ECB to simply tweak its asset purchase program to address scarcity problems by expanding what the bank can purchase.

The Bank of England's Monetary Policy Committee December 15th meeting should see policy remain on hold. Economic growth has held up much better than expected after the Brexit vote, manufacturing has boomed given the 20% drop in Sterling's value, and equity prices have jumped to record highs. That has prompted MPC members to adopt a more neutral bias toward future policy moves. Nonetheless, growth still is expected to slow next year and inflation increase.

The Bank of Japan surprised markets in mid-November by offering to buy an unlimited amount of JGB's at fixed rates for the first time since it announced its intention to keep 10-year yields at 0%. The move came in the wake of the global sell-off in bonds following the U.S. elections. Real GDP growth in Q3 surprised on the upside, registering its best performance since Q1 2015. The weaker yen and potential for greater exports to the U.S have brightened growth prospects for 2017 (see pages 10-11 for individual panelists' forecasts).

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: ¹Three month rate on interest-earning money market deposits denominated in selected currencies. ²Government bonds are yields to maturity. 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 Major Currency Index.

Fourth Quarter 2016

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-----						A. Fed's Major Currency \$ Index	B. Real GDP	C. GDP Price Index	D. Cons. 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. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mg. Rate					
Moody's Analytics	0.8 H	3.9	1.1	0.7 H	0.3 L	0.4 L	0.7	1.1	1.7	2.2	3.0	3.9	5.5 H	3.1	3.7	na	3.0	1.9	2.5	
IHS Markit	0.8 H	3.5 L	0.9	na	0.4	0.5	0.7	0.9	1.3	1.9	2.6	3.6	4.5	3.3	3.5 L	na	2.1	2.7	3.4	
Scotiabank Group	0.8 H	3.8	na	na	0.5	na	na	1.0	1.7	2.1	2.9	na	na	na	na	na	2.2	2.0	1.5 L	
Woodworth Holdings	0.7	3.8	0.8 L	0.7	0.6	0.7 H	0.8 H	1.0	1.5	2.1	2.9	3.9	4.9	3.5	3.9	94.0	2.0	0.8 L	2.5	
BNP Paribas Americas	0.6	na	0.9	na	na	na	na	1.0	1.6	2.1	na	na	na	na	na	na	1.6	na	3.1	
J.P. Morgan Chase	0.6	na	1.1	na	na	na	na	0.9	1.4	1.9	2.7	na	na	na	na	na	2.0	3.0	1.8	
UBS AG	0.6	na	1.3 H	na	0.7 H	na	na	na	na	2.2	na	na	na	na	na	na	2.0	1.5	3.0	
Barclays Capital	0.6	3.8	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.5	2.7	3.1	
Chase Wealth Management	0.6	3.8	1.0	0.6	0.6	0.7 H	0.8 H	1.1	1.8 H	2.3	3.0 H	4.1 H	5.1	3.7 H	4.1	95.0 H	2.5	1.8	2.3	
Regions Financial Corporation	0.5	3.5 L	0.9	0.5	0.5	0.6	0.8 H	1.0	1.6	2.1	2.8	3.8	4.7	3.6	3.9	93.7	2.1	2.1	2.6	
Cycledata Corp.	0.5	3.6	0.9	0.5	0.5	0.6	0.8 H	0.9	1.5	2.1	2.8	3.9	4.8	3.5	3.8	92.0	3.1 H	2.0	2.3	
Goldman Sachs & Co.	0.5	na	0.9	na	0.4	na	na	0.8 L	1.2 L	1.8 L	2.5	na	na	na	3.8	na	2.8	2.4	3.0	
RBC Capital Markets	0.5	na	na	na	0.4	na	0.8 H	1.3 H	1.8	2.5 H	na	na	na	na	na	na	2.6	2.8	2.6	
Swiss Re	0.5	3.5 L	0.9	0.5	0.4	0.5	0.8 H	1.1	1.4	2.0	2.8	3.8	4.7	na	3.7	na	2.6	2.4	3.4	
Wells Capital Management	0.5	3.6	1.0	0.5	0.5	0.6	0.8 H	1.0	1.5	2.0	2.7	3.7	4.6	3.6	3.7	92.7	2.5	1.8	2.3	
Action Economics	0.5	3.6	0.8 L	0.5	0.5	0.6	0.7	1.0	1.6	2.2	2.9	4.1 H	5.1	3.5	4.0	90.3 L	2.2	2.5	3.4	
DePrince & Assoc.	0.5	3.5 L	1.0	0.6	0.5	0.6	0.8 H	1.0	1.6	2.2	2.9	3.4	4.3	2.9 L	3.5 L	91.1	2.2	1.9	2.5	
RidgeWorth Investments	0.5	3.6	0.9	0.5	0.4	0.5	0.7	0.9	1.4	1.9	2.5	3.6	4.6	3.3	3.7	94.0	3.0	2.0	2.2	
BMO Capital Markets	0.5	3.6	1.0	na	0.5	0.6	0.8 H	1.0	1.5	2.1	2.8	na	na	na	3.8	93.1	2.4	2.3	3.0	
MacroFin Analytics	0.5	3.6	0.9	0.5	0.5	0.6	0.8 H	0.8 L	1.3	1.8 L	2.5	4.1 H	4.8	3.0	3.5 L	92.6	2.1	1.9	2.1	
S&P Global	0.5	3.9 H	1.1	na	0.4	0.5	0.6 L	0.8 L	1.4	1.9	2.6	2.8 L	4.2 L	na	3.8	91.9	2.9	2.0	2.9	
Chmura Economics & Analytics	0.5	3.6	0.9	0.5	0.4	0.6	0.7	0.9	1.4	2.0	2.7	na	na	na	3.9	91.1	2.4	1.7	2.1	
Loomis, Sayles & Company	0.5	3.6	0.9	0.4 L	0.4	0.5	0.7	0.9	1.8 H	2.2	3.0 H	3.9	4.7	3.5	3.7	93.5	1.5 L	2.1	3.6	
Societe Generale	0.5	3.5 L	na	na	na	na	na	0.9	1.3	2.3	2.4 L	na	na	na	na	na	2.3	2.1	3.8	
Amherst Pierpont Securities	0.4 L	3.6	0.9	0.5	0.4	0.6	0.7	1.0	1.6	2.1	2.8	3.8	4.7	3.6	3.8	93.5	2.8	1.8	3.4	
Fannie Mae	0.4 L	3.6	na	na	0.5	0.6	0.8 H	1.0	1.6	2.1	2.8	na	na	na	3.8	na	1.9	1.6	3.9 H	
Naroff Economic Advisors	0.4 L	3.6	0.9	0.5	0.5	0.6	0.7	1.0	1.6	2.1	2.8	3.7	4.7	3.1	3.6	91.3	3.1 H	2.4	2.7	
Nomura Securities, Inc.	0.4 L	3.6	1.1	na	na	na	na	1.2	1.7	2.2	2.8	3.8	4.8	na	4.1	na	1.6	1.6	3.3	
Comerica Bank	0.4 L	3.5 L	0.9	na	0.4	0.5	0.7	1.0	1.6	2.0	2.8	na	na	na	3.8	na	2.9	1.8	2.7	
Georgia State University	0.4 L	3.6	na	na	0.5	0.6	0.8 H	1.0	1.7	2.2	2.9	3.8	4.8	na	3.9	na	2.3	3.2 H	3.4	
GLC Financial Economics	0.4 L	3.5 L	0.9	0.5	0.4	0.5	0.7	0.9	1.5	2.1	2.8	4.1 H	4.9	3.6	4.2 H	92.0	2.5	2.4	2.8	
PNC Financial Services Corp.	0.4 L	3.6	0.9	na	0.4	0.6	0.7	0.9	1.5	2.0	2.8	na	4.5	3.6	3.7	90.3 L	2.2	2.6	2.9	
RBS Securities	0.4 L	3.5 L	0.9	0.4 L	0.4	0.5	0.7	0.9	1.3	1.9	2.6	3.7	4.4	3.3	3.7	93.0	2.4	2.7	3.1	
The Northern Trust Company	0.4 L	3.6	0.9	0.4 L	0.5	0.6	0.7	1.0	1.5	2.1	2.9	3.8	4.7	3.5	3.8	93.0	2.0	1.9	2.2	
DS Economics	0.4 L	3.7	0.9	0.5	0.5	0.6	0.7	1.0	1.6	2.1	2.8	3.9	4.7	3.6	3.9	93.3	1.6	2.1	3.9	
Economist Intelligence Unit	0.4 L	3.5 L	0.9	0.5	0.5	0.6	0.7	1.0	1.6	2.2	2.9	na	na	na	3.9	na	2.8	na	2.1	
Moody's Capital Markets Group	0.4 L	3.7	0.9	0.5	0.5	0.6	0.8 H	1.0	1.6	2.1	2.8	3.8	4.6	3.2	3.8	93.8	2.5	1.9	2.5	
Oxford Economics	0.4 L	3.6	0.9	na	0.4	0.5	0.7	1.0	1.5	2.1	na	na	na	na	3.5	92.7	3.0	2.0	2.2	
High Frequency Economics	0.4 L	3.5 L	na	na	0.4	0.6	0.7	1.0	1.4	1.9	2.7	na	na	na	na	na	2.3	2.4	2.4	
Daiwa Capital Markets America	0.4 L	3.5 L	1.0	0.5	0.5	0.6	0.7	1.0	1.5	2.1	2.8	3.8	4.7	3.5	3.8	94.0	2.0	2.0	3.5	
MUFG Union Bank	0.4 L	3.5 L	0.9	0.4 L	0.3 L	0.5	0.6 L	1.0	1.5	2.0	2.7	3.7	4.7	2.9	3.7	93.0	2.4	1.1	3.1	
Natl Assn. of Realtors	0.4 L	3.5 L	0.8 L	0.5	0.4	0.6	0.7	1.0	1.6	2.1	2.8	4.0	4.7	3.5	3.8	na	2.4	2.3	2.9	
RDQ Economics	0.4 L	3.5 L	0.9	0.4 L	0.4	0.6	0.8 H	1.0	1.6	2.1	2.8	3.8	4.8	3.5	3.7	93.5	2.3	2.1	3.6	
Wells Fargo	0.4 L	3.6	1.0	0.4 L	0.5	0.6	0.7	1.0	1.4	1.9	2.7	3.7	4.7	3.4	3.8	95.0 H	1.9	2.3	1.8	
Stone Harbor Investment Partners	0.4 L	3.7	0.8 L	0.5	0.3 L	0.5	0.6	1.0	1.5	2.1	2.8	3.8	5.0	na	3.9	92.0	2.0	1.6	2.0	
December Consensus	0.5	3.6	0.9	0.5	0.4	0.6	0.7	1.0	1.5	2.1	2.8	3.8	4.7	3.4	3.8	92.8	2.3	2.1	2.8	
Top 10 Avg.	0.7	3.7	1.0	0.6	0.5	0.6	0.8	1.1	1.7	2.2	2.9	4.0	5.0	3.6	4.0	94.0	2.9	2.7	3.6	
Bottom 10 Avg.	0.4	3.5	0.9	0.4	0.4	0.5	0.7	0.9	1.3	1.9	2.6	3.6	4.5	3.2	3.6	91.5	1.8	1.5	2.0	
November Consensus	0.5	3.6	0.9	0.5	0.4	0.5	0.7	0.9	1.3	1.8	2.5	3.5	4.5	3.2	3.6	91.6	2.3	2.0	2.7	
<u>Number of Forecasts Changed From A Month Ago:</u>																				
Down	5	2	5	6	5	4	2	2	2	1	1	1	1	2	4	3	11	9	11	
Same	26	26	11	11	9	6	12	9	7	5	4	3	2	2	4	4	14	16	12	
Up	14	12	21	10	26	26	23	32	34	38	35	25	21	17	29	18	20	18	22	
Diffusion Index	60%	63%	72%	57%	76%	81%	78%	85%	87%	92%	93%	91%	92%	86%	84%	80%	60%	60%	62%	

First Quarter 2017

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-----						A. Fed's Major Currency \$ Index	----(SAAR)----			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			B. Real GDP	C. Price Index	D. Price Index	
	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 Mg. Rate						
Moody's Analytics	1.0 H	4.1	1.2	0.9	0.5 L	0.6 L	0.8 L	1.1	1.8	2.4	3.2	4.1	5.7 H	3.3	3.9	na	3.2 H	2.1	2.8		
Cycledata Corp.	0.9	4.0	1.2	1.0 H	0.9 H	0.9	1.2 H	1.3 H	1.8	2.2	2.9	4.0	5.0	3.7	4.0	92.0	2.9	2.2	2.5		
Woodworth Holdings	0.8	3.9	1.0	0.8	0.8	0.8	1.0	1.2	1.7	2.5	3.3	4.3	5.3	3.9	4.3	94.5	1.5	1.0	1.6		
IHS Markit	0.8	3.7	1.1	na	0.6	0.7	0.9	1.1	1.5	2.0 L	2.7	3.8	4.6	3.4	3.7	na	2.3	2.3	1.9		
Scotiabank Group	0.8	3.8	na	na	0.6	na	na	1.1	1.8	2.2	3.0	na	na	na	na	na	2.0	2.0	1.9		
Chmura Economics & Analytics	0.8	3.8	1.1	0.7	0.7	0.8	1.0	1.2	1.9	2.4	3.3 H	na	na	na	4.4	91.1	3.0	2.1	2.2		
J.P. Morgan Chase	0.8	na	1.1	na	na	na	na	1.1	1.7	2.2	3.0	na	na	na	na	na	2.0	2.0	2.5		
High Frequency Economics	0.8	3.9	na	na	0.7	0.9	0.9	1.3 H	1.8	2.3	3.1	na	na	na	na	na	2.3	2.6	2.6		
MacroFin Analytics	0.7	3.8	1.2	0.8	0.8	0.9	1.1	1.1	1.5	2.1	2.8	4.4 H	5.1	3.2	3.8	92.9	2.2	1.8	1.9		
Regions Financial Corporation	0.7	3.7	1.0	0.8	0.7	0.8	0.9	1.2	1.8	2.4	3.1	4.1	5.0	3.9	4.2	95.2	2.3	1.8	2.4		
Nat'l Assn. of Realtors	0.7	3.8	1.1	0.8	0.7	0.9	1.0	1.3 H	1.8	2.3	2.9	4.1	4.8	3.6	4.1	na	2.3	2.1	2.3		
Wells Fargo	0.7	3.8	1.1	0.7	0.6	0.7	0.8 L	1.1	1.5	2.0 L	2.8	3.8	4.8	3.5	3.8	95.5	1.8	2.1	2.4		
RDQ Economics	0.7	3.7	1.2	0.8	0.8	1.0 H	1.1	1.2	1.8	2.4	3.0	4.1	5.1	3.7	4.0	95.1	1.9	2.2	2.5		
Amherst Pierpont Securities	0.7	3.8	1.1	0.8	0.7	0.9	1.1	1.3 H	2.0 H	2.6 H	3.3 H	4.3	5.2	4.1 H	4.3	95.5	2.4	2.2	3.0 H		
DS Economics	0.7	3.9	1.2	0.8	0.7	0.8	0.9	1.1	1.9	2.4	3.1	4.1	4.9	3.9	4.1	94.4	1.6	1.4	1.3		
Moody's Capital Markets Group	0.7	3.9	1.2	0.7	0.7	0.8	0.9	1.0 L	1.5	2.0 L	2.7	3.6	4.5	3.1	3.7	95.8 H	2.1	1.7	1.5		
DePrince & Associates	0.7	3.7	1.1	0.8	0.7	0.8	0.9	1.3 H	2.0 H	2.4	3.1	3.5	4.3 L	3.2	3.8	94.6	2.1	1.8	2.1		
MJFG Union Bank	0.7	3.8	1.0	0.7	0.6	0.8	0.9	1.3 H	1.7	2.2	2.9	4.0	4.8	3.0 L	4.0	95.0	2.5	0.7 L	2.3		
Daiwa Capital Markets America	0.7	3.8	1.1	0.7	0.6	0.8	0.9	1.2	1.8	2.4	3.1	4.1	5.0	3.8	4.0	94.0	2.0	1.9	2.3		
GLC Financial Economics	0.7	3.7	1.0	0.7	0.6	0.7	0.8	1.0 L	1.8	2.3	3.1	4.3	5.3	3.8	4.7 H	92.6	2.8	2.6	2.7		
RBC Capital Markets	0.6 L	na	na	na	0.5 L	na	na	1.0 L	1.6	2.1	2.8	na	na	na	na	na	2.5	0.8	0.8 L		
BNP Paribas Americas	0.6 L	na	0.9 L	na	na	na	na	1.3 H	2.0 H	2.5	na	na	na	na	na	na	2.1	na	1.2		
Fannie Mae	0.6 L	3.8	na	na	0.7	0.8	1.0	1.2	1.9	2.4	3.0	na	na	na	4.0	na	1.7	1.2	1.4		
S&P Global	0.6 L	4.2 H	1.2	na	0.6	0.7	0.9	1.1	1.5	2.0 L	2.7	3.1 L	4.4	na	4.0	93.0	1.9	2.2	1.5		
Goldman Sachs	0.6 L	na	1.0	na	0.5 L	na	na	1.0 L	1.5	2.2	2.7	na	na	na	3.8	na	2.0	1.7	1.6		
UBS AG	0.6 L	na	1.4 H	na	0.8	na	na	na	na	2.2	na	na	na	na	na	na	2.4	2.0	1.7		
RBS Securities	0.6 L	3.7	1.1	0.6 L	0.6	0.7	0.9	1.0 L	1.7	2.3	3.1	4.0	4.7	3.8	4.1	94.0	2.5	1.9	1.8		
Georgia State University	0.6 L	3.8	na	na	0.6	0.7	0.9	1.2	1.8	2.4	2.9	4.0	5.0	na	4.2	na	1.7	2.7	1.8		
Swiss Re	0.6 L	3.6 L	0.9 L	0.6 L	0.5 L	0.6 L	1.0	1.3 H	1.7	2.4	3.3 H	4.2	5.2	na	4.2	na	1.9	1.9	1.9		
Nomura Securities, Inc.	0.6 L	3.8	1.1	na	na	na	na	1.0 L	1.5	2.1	2.9	3.7	4.7	na	3.9	na	2.1	1.6	2.0		
Action Economics	0.6 L	3.8	1.0	0.7	0.6	0.7	0.8 L	1.1	1.7	2.4	3.1	4.4	5.5	3.8	4.5	93.8	2.0	1.8	2.0		
Loomis, Sayles & Company	0.6 L	3.7	1.1	0.6 L	0.6	0.7	0.9	1.2	1.9	2.3	3.1	4.1	4.9	3.5	3.8	95.1	2.0	1.4	2.1		
PNC Financial Services Corp.	0.6 L	3.8	1.0	na	0.6	0.7	0.8 L	1.1	1.7	2.3	2.9	na	4.7	3.8	3.9	90.9 L	2.0	1.9	2.2		
Economist Intelligence Unit	0.6 L	3.7	1.0	0.7	0.8	0.9	1.2	1.9	2.5	3.1	na	na	na	na	4.2	na	1.8	na	2.2		
Oxford Economics	0.6 L	3.8	1.0	na	0.5 L	0.7	0.9	1.2	1.8	2.4	na	na	na	na	3.6 L	93.4	1.7	1.6	2.2		
The Northern Trust Company	0.6 L	3.8	1.0	0.6 L	0.6	0.8	0.9	1.3 H	1.7	2.3	3.1	3.9	4.9	3.6	4.0	94.0	1.8	1.8	2.3		
BMO Capital Markets	0.6 L	3.8	1.1	na	0.7	0.8	0.9	1.1	1.8	2.4	3.1	na	na	na	4.1	94.9	2.0	2.1	2.3		
Comerica Bank	0.6 L	3.6 L	1.1	na	0.6	0.7	0.9	1.2	1.7	2.1	3.0	na	na	na	4.1	na	3.1	1.8	2.5		
Naroff Economic Advisors	0.6 L	3.8	1.1	0.6 L	0.5 L	0.7	0.9	1.1	1.8	2.4	3.1	3.9	4.9	3.3	3.8	90.9 L	3.2 H	2.8 H	2.9		
Barclays Capital	0.6 L	3.8	1.0	na	na	na	na	1.2	1.7	2.3	3.0	na	na	na	na	na	2.0	2.3	1.8		
Wells Capital Management	0.6 L	3.8	1.1	0.7	0.7	0.9	1.2 H	1.2	1.7	2.3	2.9	4.0	4.9	3.5	4.1	93.5	2.4	2.1	2.0		
RidgeWorth Investments	0.6 L	3.8	1.0	0.7	0.5 L	0.6 L	0.8 L	1.0 L	1.5	2.0 L	2.6	3.8	4.7	3.5	3.8	95.0	2.3	2.0	2.2		
Societe Generale	0.6 L	3.8	na	na	na	na	na	1.1	1.4 L	2.4	2.4 L	na	na	na	na	na	2.5	2.0	2.2		
Stone Harbor Investment Partners	0.6 L	3.8	1.0	0.7	0.5 L	0.7	0.8 L	1.1	1.7	2.2	3.0	3.8	5.1	na	4.0	94.0	1.4 L	2.3	2.3		
Chase Wealth Management	0.6 L	3.8	1.0	0.6 L	0.7	0.8	0.9	1.2	1.9	2.4	3.1	4.2	5.2	3.8	4.2	95.2	1.8	1.8	2.2		
December Consensus	0.7	3.8	1.1	0.7	0.6	0.8	0.9	1.1	1.7	2.3	3.0	4.0	4.9	3.6	4.0	93.9	2.2	1.9	2.1		
Top 10 Avg.	0.8	3.9	1.2	0.8	0.8	0.9	1.0	1.3	1.9	2.5	3.2	4.2	5.3	3.8	4.3	95.2	2.8	2.4	2.6		
Bottom 10 Avg.	0.6	3.7	1.0	0.6	0.5	0.7	0.8	1.0	1.5	2.0	2.7	3.7	4.6	3.3	3.8	92.4	1.7	1.3	1.4		
November Consensus	0.7	3.7	1.0	0.7	0.6	0.7	0.9	1.1	1.5	1.9	2.6	3.7	4.7	3.3	3.8	92.3	2.2	2.0	2.2		
Number of Forecasts Changed From A Month Ago:																					
Down	3	1	5	6	3	4	3	2	1	0	0	2	4	3	4	0	15	10	14		
Same	33	31	19	10	19	10	13	12	9	8	7	3	3	3	6	6	19	24	17		
Up	9	8	13	10	18	22	20	30	34	37	35	22	22	19	27	21	11	9	14		
Diffusion Index	57 %	59 %	61 %	58 %	69 %	75 %	74 %	82 %	88 %	91 %	92 %	87 %	81 %	82 %	81 %	89 %	46 %	49 %	50 %		

Second Quarter 2017

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						A. Fed's Major Currency \$ Index	B. Real GDP	C. GDP Price Index	D. Cons. 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. Bonds 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate					
Chmura Economics & Analytics	1.3 H	4.2 H	1.7 H	1.3 H	1.1 H	1.4 H	1.6 H	1.8 H	2.4 H	3.1 H	3.9 H	na	na	na	4.8 H	90.8	3.6 H	2.0	2.3	
Moody's Analytics	1.1	4.2 H	1.3	1.0	0.6 L	0.7 L	0.9 L	1.2	2.0	2.7	3.4	4.4	6.0 H	3.4	4.1	na	2.8	2.2	2.9	
Woodworth Holdings	1.1	4.2 H	1.2	1.1	1.0	1.1	1.2	1.4	2.0	2.5	3.3	4.3	5.2	3.9	4.3	95.0	2.0	1.2	1.7	
MacroFin Analytics	1.0	4.1	1.5	1.0	1.0	1.2	1.3	1.4	1.8	2.3	3.0	4.6	5.4	3.5	4.1	93.4	2.3	1.9	2.0	
Scotiabank Group	1.0	4.0	na	na	0.8	na	na	1.2	1.9	2.3	3.1	na	na	na	na	na	2.0	2.0	2.0	
High Frequency Economics	1.0	4.1	na	na	0.9	1.1	1.1	1.5	1.9	2.4	3.2	na	na	na	na	na	2.3	2.7	2.7	
Amherst Pierpont Securities	0.9	4.1	1.4	1.0	1.0	1.2	1.4	1.6	2.3	2.8	3.7	4.7 H	5.6	4.4 H	4.6	96.5 H	2.8	2.1	3.2	
DS Economics	0.9	4.2 H	1.4	1.0	0.9	1.0	1.2	1.4	1.9	2.5	3.2	4.1	4.9	3.9	4.1	94.6	1.4	2.2	2.5	
Chase Wealth Management	0.9	4.0	1.2	0.9	0.9	1.0	1.1	1.4	2.1	2.6	3.3	4.4	5.4	4.0	4.4	95.4	2.1	1.9	2.1	
Wells Fargo	0.9	3.9	1.2	0.9	0.8	0.9	1.0	1.3	1.7	2.1	2.9	3.9	4.9	3.6	4.0	96.5 H	2.3	2.0	2.4	
Natl Assn. of Realtors	0.9	4.0	1.3	1.0	0.9	1.1	1.2	1.5	2.0	2.5	3.1	4.3	5.0	3.8	4.3	na	2.5	2.2	2.5	
RDQ Economics	0.9	3.9	1.4	1.0	1.0	1.3	1.4	1.5	2.1	2.6	3.1	4.3	5.3	3.8	4.2	96.5 H	1.8	2.3	2.5	
Cycledata Corp.	0.9	4.0	1.2	1.0	0.9	1.0	1.2	1.4	1.8	2.3	3.0	4.0	5.0	3.9	4.1	92.0	2.9	2.3	2.6	
MJFG Union Bank	0.9	4.0	1.3	1.0	0.8	1.0	1.2	1.7	1.9	2.4	3.0	4.2	5.0	3.1	4.2	92.0	2.5	2.5	3.4	
Moody's Capital Markets Group	0.9	4.1	1.3	1.0	0.9	1.1	1.0	1.0 L	1.5	2.0 L	2.6	3.6	4.4 L	3.0 L	3.7 L	96.5 H	2.5	1.8	1.6 L	
UBS AG	0.9	na	1.5	na	1.0	na	na	na	na	2.2	na	na	na	na	na	na	2.4	2.0	2.2	
J.P. Morgan Chase	0.9	na	1.2	na	na	na	na	1.2	1.7	2.3	3.0	na	na	na	na	na	2.0	2.0	2.4	
DePrince & Assoc.	0.9	3.9	1.3	1.0	0.9	1.0	1.1	1.4	2.1	2.5	3.1	3.8	4.8	3.6	3.9	94.3	2.2	2.1	2.2	
GLC Financial Economics	0.8	3.8	1.1	0.9	0.7	0.8	0.9 L	1.1	1.8	2.4	3.0	4.1	5.2	3.7	4.5	92.4	2.4	2.5	2.8	
Regions Financial Corporation	0.8	3.8	1.1	0.9	0.9	1.0	1.0	1.3	1.9	2.4	3.2	4.1	5.1	4.0	4.3	96.1	1.9	1.9	2.3	
Georgia State University	0.8	3.9	na	na	0.7	0.9	1.0	1.3	2.0	3.0	3.1	4.4	5.2	na	4.8 H	na	1.0 L	3.0 H	2.3	
Swiss Re	0.8	3.8	1.1	0.7 L	0.6 L	0.7 L	1.0	1.3	1.8	2.5	3.4	4.3	5.3	na	4.3	na	2.2	0.7 L	1.7	
RBC Capital Markets	0.8	na	na	na	0.6 L	na	na	1.1	1.7	2.3	2.9	na	na	na	na	na	2.5	1.7	1.8	
Daiwa Capital Markets America	0.8	3.8	1.2	0.8	0.7	0.9	1.0	1.4	2.0	2.5	3.2	4.2	5.1	4.0	4.2	95.0	2.1	1.9	2.2	
IHS Markit	0.8	3.7 L	1.1	na	0.6 L	0.8	0.9 L	1.1	1.5	2.0	2.7	3.8	4.6	3.4	3.8	na	2.2	2.3	2.5	
Goldman Sachs & Co.	0.8	na	1.2	na	0.7	na	na	1.2	1.7	2.4	2.8	na	na	na	4.0	na	2.0	2.3	2.6	
BMO Capital Markets	0.7	3.8	1.2	na	0.8	0.9	1.0	1.3	1.9	2.4	3.1	na	na	na	4.1	95.9	2.4	2.0	2.2	
Action Economics	0.7	3.8	1.0	0.8	0.7	0.8	1.0	1.3	1.8	2.4	3.2	4.4	5.5	3.9	4.5	94.9	2.4	2.5	2.2	
S&P Global	0.7	4.1	1.3	na	0.7	0.8	0.9 L	1.2	1.6	2.1	2.9	3.2 L	4.5	na	4.3	94.1	2.6	2.5	3.6 H	
Wells Capital Management	0.7	3.8	1.2	0.8	0.8	1.0	1.3	1.4	1.9	2.4	3.0	4.1	5.0	3.6	4.2	93.9	2.6	2.2	2.1	
RidgeWorth Investments	0.7	3.8	1.1	0.7 L	0.6 L	0.7 L	0.9 L	1.1	1.6	2.1	2.7	3.8	4.7	3.7	3.9	94.0	2.3	2.2	2.2	
Naroff Economic Advisors	0.7	3.9	1.2	0.8	0.8	0.9	1.1	1.3	2.2	2.8	3.4	4.2	5.2	3.5	4.0	90.2 L	2.3	2.4	3.1	
Loomis, Sayles & Company	0.7	3.8	1.1	0.7 L	0.6 L	0.8	1.1	1.4	2.1	2.4	3.2	4.2	5.0	3.5	3.9	95.8	2.0	2.2	2.2	
The Northern Trust Company	0.7	3.8	0.9 L	0.7 L	0.7	0.9	1.0	1.4	1.9	2.6	3.4	4.1	5.2	3.9	4.2	95.0	2.0	1.8	2.3	
Societe Generale	0.7	3.8	na	na	na	na	na	1.3	1.3 L	2.6	2.4 L	na	na	na	na	na	2.2	2.1	2.5	
Oxford Economics	0.7	3.8	1.0	na	0.7	0.8	1.0	1.3	1.8	2.4	na	na	na	na	3.8	93.2	2.1	1.6	1.9	
RBS Securities	0.7	3.8	1.0	0.7 L	0.7	0.9	1.0	1.2	1.9	2.5	3.4	4.2	4.9	4.0	4.3	95.0	2.3	1.7	2.2	
PNC Financial Services Corp.	0.7	3.8	1.1	na	0.8	0.8	0.9 L	1.2	1.7	2.3	3.0	na	4.7	3.6	3.9	91.1	2.3	2.0	2.2	
Economist Intelligence Unit	0.7	3.7 L	1.1	0.8	0.7	0.9	0.9 L	1.3	1.9	2.6	3.2	na	na	na	4.2	na	2.4	na	2.3	
Comerica Bank	0.7	3.7 L	1.1	na	0.6 L	0.8	0.9 L	1.4	1.8	2.2	3.0	na	na	na	4.1	na	3.0	1.9	2.8	
Nomura Securities, Inc.	0.7	3.8	1.4	na	na	na	na	1.5	2.0	2.6	3.2	4.2	5.2	na	4.6	na	1.9	1.6	2.4	
Stone Harbor Investment Partners	0.7	3.8	1.0	0.7 L	0.6 L	0.7 L	0.9 L	1.3	1.9	2.3	3.0	4.0	5.0	na	3.8	95.0	1.6	2.9	2.5	
Fannie Mae	0.6 L	3.8	na	na	0.9	1.0	1.1	1.4	2.0	2.4	3.1	na	na	na	4.0	na	1.8	2.0	2.4	
BNP Paribas Americas	0.6 L	na	0.9 L	na	na	na	na	1.5	2.2	2.7	na	na	na	na	na	na	2.3	na	2.5	
Barclays Capital	0.6 L	3.8	1.1	na	na	na	na	1.3	1.8	2.4	3.2	na	na	na	na	na	1.5	2.8	3.1	
December Consensus	0.8	3.9	1.2	0.9	0.8	0.9	1.1	1.3	1.9	2.4	3.1	4.1	5.1	3.7	4.2	94.3	2.2	2.1	2.4	
Top 10 Avg.	1.0	4.1	1.4	1.0	1.0	1.1	1.3	1.5	2.1	2.7	3.4	4.4	5.4	4.0	4.5	95.9	2.8	2.6	3.0	
Bottom 10 Avg.	0.7	3.7	1.0	0.7	0.6	0.8	0.9	1.1	1.6	2.2	2.8	3.8	4.7	3.4	3.9	92.3	1.7	1.6	1.9	
November Consensus	0.8	3.9	1.2	0.8	0.8	0.9	1.0	1.2	1.6	2.1	2.8	3.9	4.8	3.4	3.9	92.6	2.3	2.1	2.3	
Number of Forecasts Changed From A Month Ago:																				
Down	5	4	6	5	5	3	2	2	2	0	1	2	2	5	2	1	14	13	9	
Same	30	28	16	13	17	12	15	14	11	9	9	3	7	5	10	7	22	19	19	
Up	10	8	15	9	18	21	19	27	31	35	32	24	20	15	24	18	9	11	17	
Diffusion Index	56 %	55 %	62 %	57 %	66 %	75 %	74 %	79 %	83 %	90 %	87 %	88 %	81 %	70 %	81 %	83 %	44 %	48 %	59 %	

Third Quarter 2017

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For ---Qtr--- Fed's Major Currency \$ Index	-----(Q-Q % Change)----			
	Short-Term					Intermediate-Term					Long-Term						A. B. C. D.	Real GDP	Price Index	Cons. 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	Slate & Local Bonds	Home Mtg. Rate					
Chmura Economics & Analytics	1.7 H	4.7 H	2.1 H	1.7 H	1.5 H	1.8 H	2.1 H	2.2 H	2.9 H	3.5 H	4.3 H	na	na	na	5.1 H	89.7	3.3 H	2.1	2.5	
Moody's Analytics	1.3	4.4	1.5	1.2	0.7 L	0.8 L	1.0 L	1.3	2.0	2.9	3.6	4.5	6.1 H	3.6	4.3	na	2.8	2.6	2.9	
Scotiabank Group	1.3	4.3	na	na	1.1	na	na	1.3	1.9	2.4	3.2	na	na	na	na	na	2.3	2.0	2.3	
MacroFin Analytics	1.2	4.3	1.7	1.2	1.2	1.4	1.6	1.6	2.0	2.5	3.2	4.9	5.6	3.7	4.3	94.0	2.2	2.0	2.1	
RDQ	1.2	4.2	1.7	1.3	1.4	1.7	1.8	1.8	2.3	2.8	3.2	4.5	5.5	3.9	4.4	97.9 H	1.6	2.3	2.6	
Amherst Pierpont Securities	1.2	4.3	1.6	1.3	1.3	1.5	1.8	1.9	2.4	3.1	4.0	5.0 H	5.9	4.7 H	4.8	97.0	2.7	2.2	3.4 H	
Woodworth Holdings	1.2	4.3	1.3	1.2	1.1	1.2	1.3	1.5	2.1	2.6	3.4	4.4	5.3	4.0	4.4	95.5	2.5	1.4	1.8	
MJFG Union Bank	1.2	4.3	1.5	1.2	1.1	1.3	1.5	1.9	2.1	2.6	3.1	4.4	5.2	3.2	4.4	90.0	2.3	1.8	2.6	
DS Economics	1.1	4.4	1.6	1.2	1.1	1.2	1.4	1.5	2.0	2.5	3.3	4.1	4.9	4.0	4.2	94.9	1.6	2.3	2.5	
High Frequency Economics	1.1	4.3	na	na	1.0	1.2	1.3	1.6	2.0	2.5	3.2	na	na	na	na	na	2.7	2.8 H	2.8	
Naroff Economic Advisors	1.1	4.1	1.5	1.2	1.1	1.3	1.4	1.7	2.5	3.2	3.7	4.5	5.4	3.8	4.3	89.2 L	3.3 H	2.6	2.8	
DePrince & Assoc.	1.1	4.1	1.5	1.3	1.1	1.3	1.4	1.6	2.2	2.6	3.1	3.9	5.1	3.8	4.1	94.1	2.2	2.0	2.2	
Natl Assn. of Realtors	1.1	4.2	1.4	1.2	1.1	1.3	1.4	1.7	2.2	2.7	3.3	4.5	5.2	4.0	4.4	na	2.5	2.0	2.2	
Wells Fargo	1.1	4.1	1.3	1.1	1.0	1.1	1.2	1.4	1.8	2.2	3.0	4.0	5.0	3.6	4.1	96.8	2.1	2.1	2.6	
GLC Financial Economics	1.1	4.1	1.3	1.1	1.0	1.0	1.1	1.3	2.1	2.6	3.3	4.4	5.5	3.9	4.5	92.1	2.2	2.7	2.8	
Swiss Re	1.0	4.0	1.3	0.9 L	0.8	0.9	1.1	1.4	2.0	2.6	3.5	4.4	5.4	na	4.4	na	2.1	0.7 L	1.7 L	
Daiwa Capital Markets America	1.0	4.0	1.4	1.0	1.0	1.1	1.3	1.7	2.3	2.7	3.4	4.4	5.3	4.3	4.4	95.0	2.4	2.0	2.3	
Goldman Sachs & Co.	1.0	na	1.4	na	0.9	na	na	1.4	2.0	2.5	3.0	na	na	na	4.1	na	2.3	2.1	2.3	
J.P. Morgan Chase	1.0	na	1.4	na	na	na	na	1.4	1.9	2.4	3.1	na	na	na	na	na	1.8	2.0	2.6	
IHS Markit	1.0	3.8 L	1.1	na	0.7 L	0.9	1.0 L	1.2	1.6	na	na	na	na	na	na	na	na	na	na	
Action Economics	1.0	4.1	1.1	1.1	1.0	1.0	1.2	1.4	1.9	2.4	3.2	4.4	5.5	3.9	4.5	94.6	2.4	1.9	2.2	
Moody's Capital Markets Group	1.0	4.2	1.4	1.0	1.0	1.1	1.0 L	1.0 L	1.4 L	2.0 L	2.5	3.5	4.3 L	2.9 L	3.7 L	97.0	2.2	1.8	1.8	
Wells Capital Management	1.0	4.1	1.4	1.1	1.1	1.3	1.6	1.8	2.1	2.6	3.2	4.3	5.2	3.7	4.3	94.2	2.5	2.3	2.2	
Chase Wealth Management	0.9	4.0	1.2	0.9 L	0.9	1.0	1.1	1.4	2.1	2.6	3.3	4.4	5.4	4.0	4.4	95.3	2.3	2.0	2.2	
Cycledata Corp.	0.9	4.0	1.2	1.0	0.9	1.0	1.2	1.4	1.8	2.3	3.0	4.0	5.0	3.9	4.1	92.0	2.5	2.3	2.6	
Georgia State University	0.9	4.1	na	na	0.8	0.9	1.1	1.4	2.1	3.3	3.4	4.6	5.4	na	5.0	na	0.9 L	1.9	1.8	
Comerica Bank	0.9	3.9	1.3	na	0.8	0.9	1.1	1.5	1.9	2.3	3.2	na	na	na	4.2	na	2.4	1.9	1.8	
BMO Capital Markets	0.9	4.0	1.3	na	0.9	1.0	1.2	1.4	2.0	2.5	3.1	na	na	na	4.2	96.8	2.1	1.8	2.0	
Oxford Economics	0.9	3.8 L	1.1	na	0.7 L	0.9	1.0 L	1.3	1.8	2.4	na	na	na	na	3.9	93.1	1.7	1.7	2.0	
Loomis, Sayles & Company	0.9	4.0	1.4	0.9 L	0.9	1.0	1.3	1.7	2.2	2.5	3.3	4.3	5.1	3.5	4.0	95.8	1.9	2.2	2.1	
Nomura Securities, Inc.	0.9	4.0	1.4	na	na	na	na	1.3	1.8	2.3	2.9	3.9	4.9	na	4.3	na	1.7	1.6	2.2	
Economist Intelligence Unit	0.9	3.9	1.2	1.0	1.0	1.1	1.1	1.5	2.1	2.8	3.4	na	na	na	4.6	na	2.4	na	2.2	
The Northern Trust Company	0.9	4.0	1.2	0.9 L	0.9	1.1	1.3	1.7	2.1	2.8	3.6	4.3	5.4	4.1	4.4	95.0	1.6	1.8	2.3	
Regions Financial Corporation	0.9	3.9	1.2	0.9 L	0.9	1.0	1.1	1.4	2.0	2.5	3.2	4.2	5.2	4.1	4.4	96.3	2.2	2.0	2.3	
PNC Financial Services Corp.	0.9	4.0	1.2	na	0.9	1.0	1.0 L	1.3	1.8	2.3	3.0	na	4.7	3.3	3.9	91.3	2.3	2.0	2.3	
RBC Capital Markets	0.9	na	na	na	0.8	na	na	1.2	1.8	2.5	3.1	na	na	na	na	na	2.5	2.0	2.3	
UBS AG	0.9	na	1.6	na	1.0	na	na	na	na	2.3	na	na	na	na	na	na	2.7	2.0	2.3	
Societe Generale	0.9	4.0	na	na	na	na	na	1.4	1.4 L	2.7	2.5 L	na	na	na	na	na	2.1	2.1	2.3	
BNP Paribas Americas	0.9	na	0.9 L	na	na	na	na	1.8	2.5	2.8	na	na	na	na	na	na	2.7	na	2.3	
S&P Global	0.9	4.4	1.5	na	0.9	1.0	1.1	1.3	1.7	2.2	2.9	3.4 L	4.6	na	4.6	94.3	2.7	2.5	2.9	
Barclays Capital	0.9	4.0	1.3	na	na	na	na	1.4	1.9	2.4	3.2	na	na	na	na	na	2.5	2.4	2.4	
RidgeWorth Investments	0.9	4.0	1.3	0.9 L	0.7 L	0.9	1.1	1.3	1.8	2.4	3.0	4.0	4.9	4.0	4.1	93.0	2.3	2.2	2.2	
Stone Harbor Investment Partners	0.9	4.0	1.2	0.9 L	0.8	0.9	1.0 L	1.2	1.8	2.2	3.0	3.8	4.8	na	4.0	93.0	2.1	2.4	2.3	
RBS Securities	0.9	4.0	1.2	0.9 L	0.9	1.1	1.3	1.3	2.1	2.8	3.6	4.3	4.9	4.2	4.5	96.0	2.4	1.9	2.4	
Fannie Mae	0.7 L	3.8 L	na	na	1.0	1.1	1.2	1.5	2.1	2.5	3.1	na	na	na	4.1	na	1.8	2.2	2.3	
December Consensus	1.0	4.1	1.4	1.1	1.0	1.1	1.3	1.5	2.0	2.6	3.2	4.2	5.2	3.8	4.3	94.2	2.3	2.1	2.3	
Top 10 Avg.	1.2	4.3	1.6	1.3	1.2	1.4	1.6	1.8	2.4	3.0	3.6	4.6	5.6	4.1	4.6	96.4	2.8	2.5	2.8	
Bottom 10 Avg.	0.9	3.9	1.1	0.9	0.8	0.9	1.0	1.2	1.7	2.2	2.9	3.9	4.8	3.5	4.0	91.7	1.7	1.6	1.9	
November Consensus	0.9	4.0	1.3	1.0	0.9	1.0	1.2	1.3	1.7	2.2	2.9	4.0	5.0	3.5	4.1	92.6	2.2	2.1	2.2	
Number of Forecasts Changed From A Month Ago:																				
Down	3	3	6	4	3	2	2	3	2	1	1	4	6	4	4	0	8	9	3	
Same	29	25	16	13	16	12	14	16	8	6	6	3	4	4	7	5	18	26	22	
Up	13	12	15	10	21	22	20	25	34	37	34	21	19	15	25	21	18	7	19	
Diffusion Index	61 %	61 %	62 %	61 %	73 %	78 %	75 %	75 %	86 %	91 %	90 %	80 %	72 %	74 %	79 %	90 %	61 %	48 %	68 %	

Fourth Quarter 2017

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For ---Qtr--- A. Fed's Major Currency \$ Index	----(Q-Q % Change)---- ------(SAAR)----- B. C. D. GDP Price Price Real Price Price GDP Index Index						
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----						B.	C.	D.				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					Fed's Major Currency \$ Index	GDP	Price Index	Price Index
	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								
Chmura Economics & Analytics	2.0 H	5.0 H	2.4 H	2.1 H	1.8 H	2.1 H	2.4 H	2.6 H	3.2 H	3.8 H	4.6 H	na	na	na	5.3 H	88.6	3.6 H	1.8	2.5				
Scotiabank Group	1.5	4.5	na	na	1.3	na	na	1.5	2.0	2.5	3.3	na	na	na	na	na	2.3	2.0	2.3				
MacroFin Analytics	1.5	4.6	1.9	1.5	1.5	1.7	1.8	1.9	2.3	2.8	3.5	5.1	5.8	4.0	4.5	94.5	2.1	2.0	2.1				
Moody's Analytics	1.5	4.6	1.7	1.3	0.8 L	0.9 L	1.2	1.4	2.3	3.2	3.9	4.8	6.4 H	3.7	4.5	na	2.8	2.6	2.6				
GLC Financial Economics	1.4	4.4	1.7	1.5	1.3	1.4	1.5	1.7	2.4	3.0	3.6	4.9	6.1	4.4	5.0	92.0	2.8	2.7	2.7				
Amherst Pierpont Securities	1.4	4.6	1.9	1.5	1.5	1.8	2.1	2.1	2.6	3.3	4.3	5.2 H	6.2	4.9 H	5.1	97.5	2.8	2.3	3.4				
RDQ Economics	1.4	4.4	1.9	1.5	1.6	1.9	2.0	2.0	2.5	3.0	3.3	4.7	5.7	4.0	4.6	99.1 H	1.6 L	2.3	2.6				
MJFG Union Bank	1.4	4.5	1.7	1.5	1.4	1.6	1.8	2.1	2.3	2.7	3.2	4.6	5.5	3.4	4.5	90.0	2.3	1.8	2.7				
Woodworth Holdings	1.3	4.4	1.5	1.4	1.3	1.4	1.5	1.7	2.2	2.7	3.5	4.5	5.5	4.1	4.5	96.0	2.5	1.6	1.9				
DS Economics	1.3	4.5	1.8	1.4	1.3	1.4	1.6	1.7	2.1	2.7	3.3	4.1	4.9	4.2	4.3	94.5	1.7	2.3	2.4				
DePrince & Associates	1.3	4.3	1.8	1.5	1.3	1.4	1.5	1.8	2.2	2.6	3.2	4.1	5.2	4.0	4.2	93.8	2.2	2.3	2.4				
Goldman Sachs & Co.	1.3	na	1.7	na	1.2	na	na	1.6	2.3	2.7	3.1	na	na	na	4.2	na	2.3	2.0	2.2				
IHS Markit	1.3	4.0	1.3	na	0.9	1.1	1.3	1.4	1.9	2.3	3.0	4.0	4.9	3.8	4.2	na	2.0	2.2	2.2				
Daiwa Capital Markets America	1.3	4.3	1.7	1.3	1.2	1.4	1.5	1.9	2.5	2.9	3.5	4.5	5.4	4.4	4.5	95.0	2.5	2.1	2.4				
High Frequency Economics	1.3	4.4	na	na	1.2	1.4	1.6	1.7	2.1	2.6	3.3	na	na	na	na	na	2.7	2.8	2.8				
Naroff Economic Advisors	1.3	4.3	1.7	1.3	1.4	1.5	1.7	2.0	2.9	3.5	4.1	4.7	5.6	4.1	4.7	88.5 L	2.5	2.8	2.9				
Swiss Re	1.3	4.3	1.6	1.0	0.9	1.0	1.2	1.4	2.1	2.7	3.6	4.5	5.5	na	4.5	na	2.2	3.4 H	4.4 H				
Regions Financial Corporation	1.2	4.2	1.4	1.3	1.1	1.2	1.3	1.5	2.1	2.6	3.3	4.2	5.3	4.2	4.4	95.9	2.0	1.8	2.2				
Wells Capital Management	1.2	4.3	1.7	1.4	1.4	1.6	1.8	2.0	2.4	2.8	3.3	4.5	5.5	3.8	4.5	94.4	2.3	2.2	2.1				
Nat'l Assn. of Realtors	1.2	4.3	1.5	1.3	1.2	1.4	1.5	1.8	2.3	2.8	3.4	4.6	5.3	4.1	4.5	na	2.2	2.0	2.2				
Moody's Capital Markets Group	1.1	4.4	1.6	1.2	1.2	1.2	1.1 L	1.0 L	1.3 L	1.9 L	2.4 L	3.4 L	4.3 L	2.8 L	3.6 L	97.5	1.7	1.8	1.6 L				
Action Economics	1.1	4.3	1.3	1.2	1.1	1.2	1.3	1.5	2.0	2.4	3.2	4.4	5.6	3.9	4.5	94.7	2.2	1.8	2.2				
J.P. Morgan Chase	1.1	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.8	2.0	2.3				
BNP Paribas Americas	1.1	na	1.0 L	na	na	na	na	1.9	2.6	3.0	na	na	na	na	na	na	2.7	na	3.3				
UBS AG	1.1	na	1.7	na	1.2	na	na	na	na	2.3	na	na	na	na	na	na	2.7	2.0	4.2				
Barclays Capital	1.1	4.3	1.5	na	na	na	na	1.5	1.9	2.4	3.2	na	na	na	na	na	2.5	2.5	2.7				
Chase Wealth Management	1.1	4.3	1.5	1.1	1.2	1.3	1.4	1.7	2.4	2.9	3.6	4.7	5.7	4.3	4.7	95.2	2.3	2.3	2.4				
Wells Fargo	1.1	4.1	1.3	1.2	1.1	1.2	1.3	1.6	1.9	2.3	3.1	4.1	5.1	3.7	4.1	97.0	2.1	2.1	2.5				
RBC Capital Markets	1.0	na	na	na	0.9	na	na	1.4	2.0	2.6	3.3	na	na	na	na	na	2.5	2.1	1.6				
S&P Global	1.0	4.6	1.8	na	0.9	1.1	1.1 L	1.4	1.8	2.3	3.0	3.6	4.7	na	4.8	94.8	2.3	2.7	1.7				
BMO Capital Markets	1.0	4.1	1.4	na	1.0	1.1	1.3	1.5	2.1	2.6	3.2	na	na	na	4.2	97.0	2.0	1.9	2.0				
RidgeWorth Investments	1.0	4.1	1.4	1.0	0.8 L	1.0	1.2	1.4	1.9	2.5	3.1	4.1	5.0	4.2	4.2	92.0	2.3	2.2	2.2				
Loomis, Sayles & Company	0.9 L	4.0	1.4	0.9 L	0.9	1.1	1.4	1.8	2.2	2.5	3.3	4.3	5.1	3.5	4.0	95.8	1.8	2.3	2.2				
The Northern Trust Company	0.9 L	4.1	1.2	0.9 L	1.0	1.2	1.4	1.8	2.3	3.0	3.8	4.5	5.6	4.3	4.6	95.0	1.7	1.9	2.3				
Comerica Bank	0.9 L	3.9 L	1.3	na	0.9	1.0	1.2	1.5	2.0	2.5	3.2	na	na	na	4.3	na	2.1	2.0	2.0				
PNC Financial Services Corp.	0.9 L	4.1	1.3	na	1.0	1.1	1.1 L	1.4	1.8	2.4	3.0	na	4.7	3.1	3.9	91.3	2.2	2.0	2.3				
RBS Securities	0.9 L	4.0	1.3	0.9 L	1.0	1.2	1.4	1.5	2.3	2.8	3.7	4.2	4.9	4.3	4.5	97.0	2.5	2.1	2.8				
Societe Generale	0.9 L	4.1	na	na	na	na	na	1.4	1.6	3.0	2.6	na	na	na	na	na	2.2	2.1	4.1				
Cycledata Corp.	0.9 L	4.0	1.2	1.0	0.9	1.0	1.2	1.4	1.8	2.3	3.0	4.0	5.0	3.9	4.1	92.0	2.5	2.3	2.6				
Stone Harbor Investment Partners	0.9 L	4.0	1.2	0.9 L	0.8 L	0.9 L	1.1 L	1.2	1.7	2.1	2.9	3.8	4.8	na	3.9	90.0	2.0	2.1	2.7				
Oxford Economics	0.9 L	3.9 L	1.1	na	0.9	1.0	1.2	1.5	1.9	2.4	na	na	na	na	4.0	93.2	2.3	1.8	1.9				
Georgia State University	0.9 L	4.0	na	na	0.8 L	0.9 L	1.1 L	1.4	2.3	3.1	3.5	4.8	5.9	na	4.9	na	1.7	1.0 L	2.2				
Nomura Securities, Inc.	0.9 L	4.0	1.6	na	na	na	na	1.5	2.0	2.5	3.1	4.1	5.1	na	4.5	na	1.7	1.6	2.2				
Fannie Mae	0.9 L	4.0	na	na	1.2	1.2	1.4	1.6	2.2	2.5	3.1	na	na	na	4.1	na	1.8	2.3	2.2				
Economist Intelligence Unit	0.9 L	3.9 L	1.2	1.0	1.0	1.1	1.1 L	1.5	2.1	2.8	3.4	na	na	na	4.6	na	2.0	na	2.2				
December Consensus	1.1	4.2	1.5	1.3	1.1	1.3	1.4	1.6	2.2	2.7	3.3	4.4	5.3	3.9	4.4	94.2	2.2	2.1	2.5				
Top 10 Avg.	1.5	4.6	1.9	1.5	1.4	1.6	1.8	2.0	2.6	3.2	3.9	4.8	5.8	4.3	4.8	96.8	2.8	2.6	3.3				
Bottom 10 Avg.	0.9	4.0	1.2	1.0	0.9	1.0	1.1	1.3	1.8	2.3	2.9	3.9	4.8	3.6	4.0	91.1	1.8	1.7	1.9				
November Consensus	1.1	4.2	1.5	1.1	1.0	1.2	1.3	1.5	1.9	2.3	3.0	4.2	5.1	3.7	4.2	92.7	2.1	2.2	2.4				
Number of Forecasts Changed From A Month Ago:																							
Down	2	1	2	3	5	2	3	4	3	4	2	6	7	4	6	3	8	7	8				
Same	30	28	18	13	17	15	16	16	10	8	9	5	5	6	9	4	19	21	21				
Up	13	11	15	10	18	19	17	22	29	31	29	18	17	15	22	17	18	15	15				
Diffusion Index	62 %	63 %	69 %	63 %	66 %	74 %	69 %	71 %	81 %	81 %	84 %	71 %	67 %	72 %	72 %	79 %	61 %	59 %	58 %				

First Quarter 2018

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For ---Qtr.--- Fed's Major Currency \$ Index	----(Q-Q % Change)----- ----(SAAR)-----							
	Short-Term					Intermediate-Term					Long-Term						A.	B.	C.	D.				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15						Fed's Major Currency \$ Index	Real GDP	Price Index	Cons. Price Index
	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									
Chmura Economics & Analytics	2.5 H	5.5 H	3.0 H	2.6 H	2.2 H	2.6 H	2.9 H	3.0 H	3.6 H	4.1 H	4.9 H	na	na	na	5.6 H	86.9 L	4.1 H	2.3	2.4					
MacroFin Analytics	1.8	4.9	2.2	1.8	1.8	1.9	2.1	2.1	2.6	3.1	3.8	5.4 H	6.1	4.2	4.8	94.8	2.1	2.0	2.1					
Moody's Analytics	1.7	4.9	1.9	1.6	1.1	1.2	1.4	1.7	2.6	3.4	4.1	5.0	6.6 H	3.9	4.8	na	2.6	2.5	2.7					
Amherst Pierpont Securities	1.7	4.8	2.1	1.8	1.8	2.1	2.3	2.4	2.8	3.5	4.4	5.4 H	6.4	5.2 H	5.3	98.0	2.7	2.4	3.4 H					
MJFG Union Bank	1.6	4.8	2.0	1.7	1.6	1.9	2.1	2.3	2.4	2.8	3.2	4.7	5.7	3.5	4.6	88.0	2.3	1.8	2.5					
Woodworth Holdings	1.6	4.7	1.7	1.6	1.5	1.6	1.7	1.9	2.5	3.0	3.8	4.8	5.7	4.4	4.8	96.5	2.5	1.8	2.0					
Goldman Sachs & Co.	1.5	na	1.9	na	1.4	na	na	1.8	2.5	2.8	3.3	na	na	na	4.3	na	2.0	2.0	2.2					
Scotiabank Group	1.5	4.5	na	na	1.3	na	na	1.7	2.1	2.5	3.3	na	na	na	na	na	2.5	2.0	2.3					
Daiwa Capital Markets America	1.5	4.5	1.9	1.5	1.5	1.6	1.8	2.1	2.6	3.0	3.6	4.6	5.5	4.6	4.7	95.0	3.0	2.1	2.4					
Naroff Economic Advisors	1.5	4.5	1.9	1.6	1.7	1.9	2.2	2.5	3.1	3.7	4.2	5.0	5.9	4.2	5.2	87.0	3.0	2.5	2.4					
GLC Financial Economics	1.5	4.5	1.7	1.6	1.4	1.5	1.6	1.8	2.5	3.1	3.8	5.3	6.6 H	4.6	5.1	91.9	2.0	2.7	2.5					
High Frequency Economics	1.5	4.6	na	na	1.5	1.6	1.8	1.7	2.2	2.7	3.4	na	na	na	na	na	2.4	2.9	2.9					
DS Economics	1.5	4.7	2.0	1.5	1.4	1.6	1.7	1.8	2.2	2.8	3.4	4.1	4.9	4.3	4.4	94.3	1.9	2.5	2.5					
Wells Capital Management	1.5	4.6	1.9	1.7	1.7	1.8	2.0	2.2	2.5	2.9	3.5	4.6	5.8	3.9	4.6	94.5	2.2	2.1	2.2					
Nat'l Assn. of Realtors	1.4	4.5	1.7	1.5	1.4	1.6	1.7	2.0	2.5	3.0	3.6	4.8	5.5	4.3	4.6	na	2.2	2.0	2.2					
DePrince & Assoc.	1.4	4.4	1.9	1.6	1.4	1.6	1.6	1.8	2.3	2.6	3.2	4.2	5.3	4.0	4.3	93.6	2.3	2.2	2.4					
BNP Paribas Americas	1.4	na	1.6	na	na	na	na	2.0	2.6	3.1	na	na	na	na	na	na	2.9	na	2.1					
Regions Financial Corporation	1.4	4.4	1.5	1.4	1.3	1.3	1.4	1.7	2.2	2.7	3.3	4.3	5.4	4.3	4.5	95.2	1.7	2.1	2.2					
Swiss Re	1.4	4.4	1.7	1.1	1.0	1.1	1.2	1.4	2.2	2.8	3.7	4.6	5.5	na	4.6	na	2.2	2.2	2.2					
Action Economics	1.3	4.4	1.4	1.4	1.3	1.3	1.5	1.7	2.0	2.4	3.2	4.4	5.6	3.9	4.5	94.8	2.1	1.7	2.2					
IHS Markit	1.3	4.3	1.5	na	1.1	1.3	1.4	1.5	2.0	2.5	3.1	4.3	5.0	4.1	4.4	na	2.3	2.2	2.2					
Loomis, Sayles & Company	1.2	4.3	1.7	1.2	1.2	1.3	1.6	2.0	2.4	2.7	3.5	4.4	5.2	3.7	4.2	95.8	1.8	2.5	2.1					
Societe Generale	1.2	4.2	na	na	na	na	na	1.6	1.6	3.0	2.6	na	na	na	na	na	2.0	1.8	2.4					
Wells Fargo	1.2	4.3	1.4	1.2	1.2	1.3	1.4	1.7	2.0	2.4	3.2	4.2	5.2	3.7	4.2	99.0 H	2.1	2.1	2.5					
RBS Securities	1.2	4.3	1.5	1.2	1.2	1.4	1.6	1.8	2.5	2.9	3.7	4.2	4.8	4.3	4.6	98.0	2.7	1.8	2.1					
PNC Financial Services Corp.	1.2	4.3	1.5	na	1.2	1.2	1.3	1.5	1.9	2.4	3.0	na	4.7	3.0	4.0	91.2	2.3	2.0	2.2					
UBS AG	1.1	na	1.8	na	1.3	na	na	na	na	2.3	na	na	na	na	na	na	2.6	1.8	1.4 L					
Moody's Capital Markets Group	1.1	4.4	1.5	1.2	1.1	1.1	1.0 L	0.9 L	1.2 L	1.9 L	2.3 L	3.3 L	4.3 L	2.7	3.6 L	97.6	2.0	1.7	1.5					
S&P Global	1.1	4.8	2.0	na	1.1	1.2	1.3	1.6	2.0	2.4	3.1	3.8	4.8	na	5.0	94.9	1.7	3.2 H	1.8					
Comerica Bank	1.1	4.1	1.5	na	1.0	1.2	1.4	1.8	2.1	2.6	3.4	na	na	na	4.4	na	2.0	2.0	2.0					
The Northern Trust Company	1.1	4.3	1.4	1.1	1.2	1.4	1.6	2.0	2.5	3.2	4.0	4.7	5.8	4.5	4.8	95.0	1.7	2.1	2.1					
BMO Capital Markets	1.1	4.3	1.6	na	1.1	1.3	1.4	1.7	2.2	2.6	3.2	na	na	na	4.3	96.4	2.0	2.0	2.2					
RidgeWorth Investments	1.1	4.3	1.5	1.2	1.0	1.1	1.3	1.4	2.2	2.6	3.2	4.3	5.1	2.6 L	4.4	91.0	2.3	2.2	2.2					
Stone Harbor Investment Partners	1.1	4.3	1.4	1.1	1.0	1.1	1.3	1.5	1.9	2.4	3.1	4.0	5.0	na	4.2	88.0	2.3	2.4	2.8					
Chase Wealth Management	1.1	4.3	1.5	1.1	1.2	1.3	1.4	1.7	2.4	2.9	3.6	4.7	5.7	4.3	4.7	95.0	2.2	2.2	2.3					
Economist Intelligence Unit	1.0	4.0 L	1.4	1.1	1.1	1.2	1.3	1.7	2.3	3.0	3.6	na	na	na	4.8	na	2.1	na	2.2					
Nomura Securities, Inc.	0.9 L	4.1	1.6	na	na	na	na	1.5	2.0	2.5	3.1	4.1	5.1	na	4.6	na	1.6 L	1.6 L	2.1					
Oxford Economics	0.9 L	4.0 L	1.2 L	na	0.9	1.2	1.3	1.5	2.0	2.5	na	na	na	na	4.2	93.4	2.5	1.8	2.0					
Cycledata Corp.	0.9 L	4.0 L	1.2	1.0 L	0.9	1.0	1.2	1.4	1.8	2.3	3.0	4.0	5.0	3.9	4.1	92.0	2.5	2.3	2.6					
Georgia State University	0.9 L	4.1	na	na	0.8 L	0.9 L	1.0 L	1.3	2.2	3.0	3.5	4.9	6.0	na	5.0	na	2.0	1.8	2.1					
Fannie Mae	0.9 L	4.0 L	na	na	1.3	1.4	1.5	1.8	2.3	2.6	3.2	na	na	na	4.2	na	1.7	2.5	2.2					
December Consensus	1.3	4.4	1.7	1.4	1.3	1.4	1.6	1.8	2.3	2.8	3.4	4.5	5.5	4.0	4.6	93.8	2.3	2.2	2.3					
Top 10 Avg.	1.7	4.8	2.1	1.7	1.7	1.9	2.1	2.3	2.7	3.3	4.0	5.0	6.0	4.5	5.0	96.7	2.9	2.6	2.7					
Bottom 10 Avg.	1.0	4.1	1.4	1.1	1.0	1.1	1.2	1.4	1.8	2.3	3.0	4.0	4.9	3.5	4.1	90.3	1.8	1.8	1.9					
November Consensus	1.2	4.3	1.6	1.3	1.2	1.3	1.4	1.6	2.0	2.5	3.1	4.3	5.3	3.7	4.4	92.2	2.1	2.2	2.3					
<u>Number of Forecasts Changed From A Month Ago:</u>																								
Down	3	2	3	2	5	4	3	3	2	4	4	5	7	4	5	1	7	6	5					
Same	24	20	16	11	14	11	12	15	10	8	7	4	5	4	8	6	18	23	24					
Up	14	16	17	14	19	20	20	22	28	29	27	19	17	17	23	19	15	9	11					
Diffusion Index	63 %	68 %	69 %	72 %	68 %	73 %	74 %	74 %	83 %	80 %	80 %	75 %	67 %	76 %	75 %	85 %	60 %	54 %	58 %					

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	1.10	1.15	1.35
IHSMarkit	na	na	na
ING Financial Markets	0.93	0.95	1.40
Mizuho Research Institute	0.90	1.00	1.20
Moody's Analytics	1.09	1.21	1.48
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	1.05	1.25	1.50
December Consensus	1.01	1.11	1.39
High	1.10	1.25	1.50
Low	0.90	0.95	1.20
Last Months Avg.	0.94	1.06	1.18

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	0.00	0.00	0.00
IHSMarkit	na	na	na
ING Financial Markets	0.02	0.05	0.05
Mizuho Research Institute	0.06	0.06	0.06
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	-0.07	-0.08	-0.08
December Consensus	0.00	0.01	0.01
High	0.06	0.06	0.06
Low	-0.07	-0.08	-0.08
Last Months Avg.	-0.01	-0.19	-0.01

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	0.40	0.40	0.40
IHSMarkit	na	na	na
ING Financial Markets	0.40	0.35	0.20
Mizuho Research Institute	0.40	0.40	0.40
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	0.25	0.25	0.35
December Consensus	0.36	0.35	0.34
High	0.40	0.40	0.40
Low	0.25	0.25	0.20
Last Months Avg.	0.36	0.31	0.34

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	na	na	na
IHSMarkit	na	na	na
ING Financial Markets	-0.85	-0.85	-0.85
Mizuho Research Institute	na	na	na
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	na	na	na
December Consensus	-0.85	-0.85	-0.85
High	-0.85	-0.85	-0.85
Low	-0.85	-0.85	-0.85
Last Months Avg.	-0.85	-0.85	-0.85

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	na	na	na
IHSMarkit	na	na	na
ING Financial Markets	0.50	0.50	0.70
Mizuho Research Institute	na	na	na
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	0.90	0.90	1.15
December Consensus	0.70	0.70	0.93
High	0.90	0.90	1.15
Low	0.50	0.50	0.70
Last Months Avg.	0.70	0.70	0.93

United States			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
2.25	2.40	na	
2.35	2.40	2.55	
1.95	1.99	2.59	
1.60	1.70	1.90	
1.90	1.95	2.00	
2.16	2.37	2.88	
2.10	1.85	1.80	
2.05	2.60	2.50	
2.37	2.56	2.62	
2.00	2.40	2.50	
2.15	2.20	2.25	
1.88	1.91	1.99	
2.06	2.19	2.33	
2.37	2.60	2.88	
1.60	1.70	1.80	
1.76	1.86	2.06	

Japan			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.00	0.00	na	
0.00	0.00	0.00	
na	na	na	
0.00	0.00	0.00	
0.00	0.00	0.00	
0.01	0.03	0.14	
0.05	0.05	0.10	
0.00	0.00	0.00	
-0.03	-0.03	-0.03	
na	na	na	
-0.05	-0.05	0.00	
-0.02	0.00	0.05	
0.00	0.00	0.03	
0.05	0.05	0.14	
-0.05	-0.05	-0.03	
-0.03	-0.03	0.01	

United Kingdom			
10 Yr. Gilt Yields %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.15	1.55	na	
1.45	1.55	1.75	
na	na	na	
1.20	1.00	0.08	
1.20	1.20	1.25	
1.17	1.24	1.38	
1.25	1.20	1.25	
1.10	1.20	1.60	
1.47	1.52	1.68	
na	na	na	
1.20	1.25	1.40	
0.95	1.10	1.40	
1.21	1.28	1.31	
1.47	1.55	1.75	
0.95	1.00	0.08	
0.96	0.99	1.19	

Switzerland			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
na	na	na	
na	na	na	
na	na	na	
-0.40	-0.35	-0.15	
na	na	na	
-0.31	-0.22	-0.06	
-0.20	-0.15	-0.10	
na	na	na	
-0.25	-0.20	-0.03	
na	na	na	
-0.15	-0.15	-0.05	
na	na	na	
-0.26	-0.21	-0.08	
-0.15	-0.15	-0.03	
-0.40	-0.35	-0.15	
-0.39	-0.31	-0.05	

Canada			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
na	na	na	
1.65	1.65	1.75	
na	na	na	
1.30	1.40	1.70	
na	na	na	
1.73	1.96	2.65	
1.25	1.30	1.35	
1.60	1.70	1.90	
1.13	1.21	1.39	
1.50	1.75	1.85	
na	na	na	
1.35	1.55	1.85	
1.44	1.57	1.81	
1.73	1.96	2.65	
1.13	1.21	1.35	
1.24	1.36	1.69	

Fed's Major Currency \$ Index			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
na	na	na	
na	na	na	
na	na	na	
91.6	90.3	87.6	
91.0	92.0	93.0	
na	na	na	
95.5	96.3	97.4	
na	na	na	
93.4	93.2	93.2	
na	na	na	
na	na	na	
na	na	na	
92.9	92.9	92.8	
95.5	96.3	97.4	
91.0	90.3	87.6	
91.6	92.1	91.6	

Yen/USD			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
105.0	105.0	na	
na	na	na	
105.6	106.6	109.7	
102.0	102.0	105.0	
104.0	105.0	107.0	
105.3	105.3	105.3	
115.0	117.0	120.0	
106.0	108.0	112.0	
105.0	104.0	106.5	
110.0	115.0	117.0	
108.0	na	110.0	
na	na	na	
106.6	107.5	110.3	
115.0	117.0	120.0	
102.0	102.0	105.0	
104.6	105.8	109.6	

USD/Pound Sterling			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.24	1.26	na	
na	na	na	
1.18	1.14	1.17	
1.21	1.22	1.31	
na	na	na	
1.24	1.25	1.25	
1.24	1.25	1.28	
1.27	1.28	1.29	
1.25	1.25	1.27	
1.20	1.25	1.30	
1.21	na	1.13	
na	na	na	
1.23	1.24	1.25	
1.27	1.28	1.31	
1.18	1.14	1.13	
1.25	1.24	1.25	

CHF/USD			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.05	1.07	na	
na	na	na	
0.99	1.01	1.00	
1.07	1.08	1.10	
na	na	na	
1.00	1.00	1.02	
0.99	0.99	1.00	
1.08	1.09	1.11	
0.99	1.00	1.02	
1.09	1.07	1.00	
0.99	na	0.98	
na	na	na	
1.03	1.04	1.03	
1.09	1.09	1.11	
0.99	0.99	0.98	
1.01	1.03	1.02	

CAD/USD			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.39	1.40	na	
na	na	na	
1.34	1.31	1.28	
1.30	1.28	1.25	
na	na	na	
1.30	1.29	1.25	
1.35	1.34	1.32	
1.40	1.42	1.42	
1.33	1.32	1.31	
1.38	1.38	1.36	
1.36	na	1.38	
na	na	na	
1.35	1.34	1.32	
1.40	1.42	1.42	
1.30	1.28	1.25	
1.31	1.31	1.27	

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	na	na	na
IHSMarkit	na	na	na
ING Financial Markets	1.60	1.60	1.70
Mizuho Research Institute	na	na	na
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	na	na	na
December Consensus	1.60	1.60	1.70
High	1.60	1.60	1.70
Low	1.60	1.60	1.70
Last Months Avg.	1.60	1.60	1.70

Australia		
10 Yr. Gov't Bond Yield %		
In 3 Mo.	In 6 Mo.	In 12 Mo.
na	na	na
na	na	na
na	na	na
2.50	2.50	2.60
na	na	na
1.90	1.90	1.90
2.60	2.50	2.45
2.30	2.40	2.60
2.41	2.40	2.44
na	na	na
2.60	2.60	2.60
na	na	na
2.39	2.38	2.43
2.60	2.60	2.60
1.90	1.90	1.90
2.00	2.03	5.31

USD/AUD		
In 3 Mo.	In 6 Mo.	In 12 Mo.
0.75	0.74	na
na	na	na
0.73	0.72	0.70
0.74	0.78	0.80
na	na	na
0.72	0.72	0.72
0.74	0.73	0.72
0.74	0.73	0.72
0.76	0.76	0.75
0.76	0.75	0.75
0.76	na	0.78
na	na	na
0.74	0.74	0.74
0.76	0.78	0.80
0.72	0.72	0.70
0.73	0.73	0.73

Blue Chip Forecasters	3 Mo. Interest Rate %		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	-0.30	-0.30	-0.30
IHSMarkit	na	na	na
ING Financial Markets	-0.31	-0.31	-0.33
Mizuho Research Institute	-0.30	-0.30	-0.30
Moody's Analytics	na	na	na
Moody's Capital Markets	na	na	na
Nomura Securities	na	na	na
Oxford Economics	na	na	na
Scotiabank	na	na	na
UBS AG	na	na	na
Wells Fargo	-0.33	-0.33	-0.33
December Consensus	-0.31	-0.31	-0.32
High	-0.30	-0.30	-0.30
Low	-0.33	-0.33	-0.33
Last Months Avg.	-0.31	-0.31	-0.31

Eurozone

USD/EUR		
In 3 Mo.	In 6 Mo.	In 12 Mo.
1.02	1.01	na
na	na	na
1.08	1.07	1.08
1.10	1.12	1.18
1.10	1.08	1.07
1.09	1.08	1.06
1.04	1.02	0.99
1.05	1.04	1.03
1.07	1.07	1.06
1.02	1.05	1.12
1.09	na	1.13
na	na	na
1.07	1.06	1.08
1.10	1.12	1.18
1.02	1.01	0.99
1.09	1.07	1.10

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	0.35	0.45	na	na	na	na	na	na	na	na	na	na
BMO Capital Markets	0.30	0.45	0.75	na	na	na	na	na	na	na	na	na
ING Financial Markets	0.00	0.05	0.20	0.27	0.31	0.35	1.30	1.20	1.23	1.10	1.10	1.18
Mizuho Research Institute	0.15	0.15	0.20	na	na	na	na	na	na	na	na	na
Moody's Analytics	-0.16	-0.16	-0.07	0.19	0.19	0.37	1.32	1.23	1.20	1.02	1.03	1.09
Moody's Capital Markets	0.15	0.25	0.50	0.65	0.75	1.00	1.92	2.10	2.37	1.45	1.55	1.85
Nomura Securities	0.20	0.35	0.50	na	na	na	na	na	na	na	na	na
Oxford Economics	0.36	0.40	0.55	0.95	1.00	1.16	2.20	2.24	2.38	1.67	1.73	1.90
UBS	0.30	0.35	0.50	0.50	0.60	0.70	1.45	1.50	1.45	na	na	na
Wells Fargo	0.05	0.10	0.25	na	na	na	na	na	na	na	na	na
December Consensus	0.17	0.24	0.38	0.51	0.57	0.72	1.64	1.65	1.73	1.31	1.35	1.51
High	0.36	0.45	0.75	0.95	1.00	1.16	2.20	2.24	2.38	1.67	1.73	1.90
Low	-0.16	-0.16	-0.07	0.19	0.19	0.35	1.30	1.20	1.20	1.02	1.03	1.09
Last Months Avg.	0.07	0.14	0.27	0.36	0.42	0.57	1.37	1.42	1.51	1.15	1.17	1.31

Consensus Forecasts				
10-year Bond Yields vs U.S. Yield				
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-2.26	-2.07	-2.19	-2.30
United Kingdom	-0.83	-0.85	-0.91	-1.02
Switzerland	-2.44	-2.33	-2.41	-2.40
Canada	-0.75	-0.62	-0.63	-0.52
Australia	0.36	0.32	0.19	0.11
Germany	-2.03	-1.89	-1.96	-1.95
France	-1.58	-1.55	-1.62	-1.61
Italy	-0.16	-0.43	-0.54	-0.60
Spain	-0.76	-0.75	-0.84	-0.82

Consensus Forecasts				
3 Mo. Deposit Rates vs U.S. Rate				
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-0.98	-1.01	-1.12	-1.38
United Kingdom	-0.54	-0.65	-0.76	-1.05
Switzerland	-1.67	-1.86	-1.96	-2.24
Canada	-0.07	-0.31	-0.41	-0.46
Australia	1.29	0.59	0.49	0.31
Eurozone	-1.23	-1.32	-1.42	-1.70

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

Holding Up So Far

Timely data from surveys of businesses and consumers and initial claims for unemployment insurance continue to show little sign of any post-election disruption. November consumer sentiment in the Michigan survey improved notably from the flash reading, and the weekly Bloomberg consumer comfort index remained near expansion highs. On the business side, the November flash manufacturing PMI moved up, the services PMI was little changed, and the Richmond Fed survey was mixed. Meanwhile, initial claims increased from their holiday-distorted reading last week, but the four-week average moved down and remains just above October's expansion low.

The week's activity data for October were also somewhat favorable, on net, as new orders for durable goods beat expectations and existing home sales hit a new expansion high, though net exports and inventories were soft. Folding in all of these releases, our automated data trackers have both moved up. Our nowcaster for 4Q GDP increased to 2.2% from 1.8% early last week, and our tracker of 12-month recession risk is down to 28% from 31%.

The minutes from the November FOMC meeting echoed other recent Fed communication, and signaled that the committee is preparing to hike rates. We continue to look for the FOMC to raise the federal funds rate corridor by 25bp at its December 14 meeting, and we see little on the upcoming data calendar that is likely to change this call. In next week's releases, we look for 3Q GDP growth to be revised up to 3.0%, November auto sales at 17.7 million, and a 200,000 gain in payrolls. Numbers anywhere close to this solid should keep the committee on track for a December hike.

Weakness in the manufacturing sector persisted longer than we had expected, but recent signals suggest that activity in the sector has started to pick up. The passing of the inventory correction and fading drag from the earlier drop in oil prices should be favorable factors for the sector, although renewed dollar appreciation may prove to be a headwind. Many of the manufacturing surveys that have been reported so far for November have improved, including the Markit manufacturing PMI's headline rising to its highest level in about a year (53.9) with similar strength in its measures of new orders and output. The surveys contain a mixture of pre-election and post-election responses, but commentary from the PMI release indicated that demand picked up as election related uncertainty cleared.

In less timely data, the October durable goods report showed improving trends for its important series on core capital goods orders and shipments, along with a strong headline orders figure driven by a surge in aircraft orders. Core orders have now increased in four of the past five reported months while core shipments have increased in each of the most recent three. While recent growth has been muted and our expectations for 4Q equipment spending are modest (1.0% saar), we are gaining confidence that the weakness that persisted for much of the year is behind us.

The recent strengthening of the dollar, however, could still prove to be a headwind. In fact, a decline in exports pushed the goods trade deficit wider than we expected in this week's release for October, even before most of the dollar's recent rise.

After the decline in real residential investment across the middle two quarters of the year, we have forecast a resumption of growth in the housing sector beginning in 4Q. The recent data remain mixed, but have been strong enough to bolster our confidence in a rebound. Existing home sales increased 2.0% to 5.60mn saar in October, beating expectations and hitting a new high for the cycle. And earlier reports on home-

builder sentiment and housing starts were also relatively favorable. New home sales, however, disappointed recently, with a 1.9% decline in sales in October and downward revisions reported to data for prior months.

While fundamental factors will likely support continued strengthening in the housing markets, mortgage rates have jumped about 50bp since the election and could weigh on the sector. We do not see signs of a negative reaction in the limited post-election data we have so far, and mortgage purchase application volumes actually surged in the most recently reported week. But we suspect that this increase—which followed a downward trend lasting a few months—may reflect incomplete seasonal adjustment around the November holidays and likely does not signal a sudden surge in housing activity. Other news generally upbeat

We have also seen upbeat news from other recent indicators. The consumer confidence measures reported by the University of Michigan and Bloomberg have improved notably recently, with both moving up near the high end of the range seen over the last two years. And the trend in jobless claims has remained favorable even after a move up from the low level seen in the week ending November 12, which was likely distorted by the Veterans Day holiday.

Folding in all of these releases, our automated data trackers have been improving. Our nowcast of 4Q US GDP growth has moved up to 2.2% from 1.8% as recently as early last week. And our model estimate of 12-month recession risk has edged down to 28% from 31%.

The minutes to the November FOMC meeting suggest that the committee is preparing to raise rates in December, consistent with our call. The minutes echoed the message from the November FOMC statement and recent Fed speak, including testimony by Chair Yellen. The minutes stated that “many participants expressed a view that it could well be appropriate to raise the target range for the federal funds rate relatively soon, so long as incoming data provided some further evidence of continued progress toward the Committee's objectives.” While we think a December rate hike looks near-certain, the minutes also discussed debates about the extent of slack in the labor market as well as the potential costs and benefits of allowing the unemployment rate to fall below its natural rate. We think these debates will continue over time and expect a gradual pace of rate hikes going forward, with two in 2017.

There is a busy data calendar set for next week and the November employment report (Friday) is likely the last key economic release before the December FOMC meeting. We think the report will solidify the case for a December rate hike, with forecasts for a solid increase in payrolls (200,000) along with a steady unemployment rate (4.9%) and modestly firming trend for earnings (2.7% oya).

Jesse Edgerton and Daniel Silver, JPMorgan Chase Bank, New York, NY

U.S. Dollar: Smells Like Team Spirit

A classic textbook recipe for a stronger currency is the combination of tighter monetary policy (especially relative to other economies) and looser, more stimulative fiscal policy. That is precisely the cocktail that appears to be on offer for the U.S. economy over the next year, and the U.S. dollar is responding bigtime. Tighter monetary policy drives up interest rates and thus attracts capital inflows, the theory goes, and the Fed certainly seems poised to follow that part of the script—a rate hike on December 14 looks all but certain, with likely at least a couple more moves in 2017. This compares with much of the rest of the world where the debate is whether to cut rates further and/or add to QE. Looser fiscal policy tends to give a short-term bump to (*continued on next page*)

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

economic growth, again potentially attracting capital inflows or accentuating the need for even tighter monetary policies. While still very early in the planning stages, there seems little doubt that some form of U.S. tax relief is headed down the pike next year, with increased infrastructure spending an added potential bonus.

Adding even more rocket fuel to the dollar's post-election ascent is the very real prospect of a one-time tax break for repatriation of overseas earnings for U.S. companies. Many expect a tweaked reprise of the 2004 Homeland Investment Act, which provided a Black-Friday-type 85% off the usual corporate tax rate of 35% (i.e. a reduced rate of just 5.25%) for funds brought back to the U.S. for investment and hiring. Nearly \$300 billion was repatriated (or 2.3% of GDP), but the economic results were mixed, to put it charitably—business investment was solid in 2005 and 2006, as was job growth, but not markedly more so than in 2004. However, the U.S. dollar was a clear beneficiary, rising 7% in the 12 months after the Act took effect in October/04, compared with steady declines in both the three-year periods before and after the one-year bump from the Act. This time, the stakes are arguably much higher, as estimates of overseas retained earnings now run well above \$2 trillion.

This powerful combination of potential dollar-positive policies has worked its wonders, with the greenback on fire almost across the board. Just since Election Day, the currency is up 11% against the beleaguered Mexican peso, 7% against the yen, and about 4% against most European currencies and the Aussie dollar. While Canadian commentators are wringing their hands in anguish at a softer loonie—it fell to 74 cents, or \$1.35/US\$ this week—it's actually been one of the more resilient currencies, nudging up in trade-weighted terms. Only the U.K. pound has managed to buck the trend, rising slightly against the U.S. dollar in the past three weeks, but this follows a royal shellacking after the Brexit vote.

As well, the U.S. dollar has been quietly and steadily rising against the Chinese yuan, arguably the last thing the financial world needs to happen right now. The yuan has fallen almost 2% since the election, now down 6% in the past year and at its weakest level in more than eight years. Recall that markets were roiled at the start of the year by fears that China would aggressively devalue; turns out, those concerns were not completely unfounded. This depreciation comes at a time when China stands accused of manipulating its currency—i.e. keeping it artificially low to juice exports—and when its trade surplus has bulged to nearly \$600 billion. In fact, China has been aggressively intervening to keep its currency from weakening even more rapidly amid heavy duty capital outflows. But that subtle fact may well be lost amid the reality that China now alone accounts for half of the U.S. trade deficit and yet its currency has weakened in the past year.

Mr. Trump's other trade punching bag during the campaign—Mexico—may be in a deeper fix. The peso has been the weakest major currency in the world in 2016 despite the concerted efforts to defend it—the Bank of Mexico hiked rates 50 bps recently to 5.25%, bringing the total tightening to 225 bps over the past year (versus 25 bps from the Fed). With decent GDP growth (2.5% y/y), unremarkable inflation (3.1% y/y) and a medium-sized current account deficit (about 3% of GDP), Mexico's economic backdrop hardly justifies the devastating hit the peso has endured this year. No, instead, it largely reflects concerns about possible measures Trump may inflict on Mexico due to its bilateral trade surplus. That surplus with the U.S. now threatens to gap wider amid the deep sag in the peso and plummeting business confidence in Mexico (which could crush capital spending and thus imports).

This leads to perhaps the greatest irony of the market reaction to Trump's election victory. A surging U.S. dollar threatens to aggravate one of the core elements of Trump's platform—to rein in the trade deficit. In fact, the combination of a much stronger U.S. dollar and a stimulative fiscal policy is almost a textbook recipe for a wider U.S. trade deficit, as both will pump up imports. Fortunately, the early postelection signals on the trade file from the incoming Administration have focused mainly on scrapping TPP, which many believed was DOA in any event, and not on punishing Mexico and China. However, this could take a serious turn for the worse in 2017 if the U.S. trade deficit gaps wider, and it now appears that may well be the case.

Douglas Porter, BMO Capital Markets, Toronto, Canada

The Long Term Outlook Looks A Little Brighter

Back to the Future President-elect Donald Trump's ambitious economic agenda has led many forecasters to slightly bump up their expectations for short-term economic growth. The prospect of major tax cuts, increased defense spending, reduced regulation and the promise of more infrastructure spending may significantly impact the near-term and longer-term outlook. Of course plans need be formulated into legislation and that legislation needs to work its way through Congress and, once passed, new economic plans will take time to be enacted and work their way through the economy.

Trump's economic plans and the circumstances under which they are being introduced are reminiscent of the period President Reagan's economic plans were introduced. Reaganomics came about following a period of abnormally sluggish economic growth, heightened concerns about trade policy and what was then termed the Rust Belt, and a general sense of pessimism about the U.S. economy's long-term prospects. The rapid introduction of tax cuts, deregulation and increased defense spending brought about a dramatic transformation and produced stronger economic growth over the next two decades.

While the financial markets appear to be bracing themselves for a sequel to Reaganomics, important differences exist today that will likely limit the potential boost to economic growth from the pro-growth policies President Trump seeks to enact. For starters, debt-to-GDP is much higher today than it was back in the 1990s, which means it will be harder to enact as large of a fiscal stimulus as was done back then. The nation's demographic profile is also much different. The 1980s saw a deluge of baby boomers and women enter the workforce, providing more fuel for economic growth. Today, baby boomers, many of whom are highly skilled, are leaving the workforce placing constraints on how fast the economy can grow. The Reagan tax cuts also took place at a time when unemployment and inflation were high and inflation expectations were unhinged. Trump's plans would likely kick in when both unemployment and inflation are relatively low and inflation expectations are well contained.

While it is still early, we can make some general observations as to how Trump's economic plans would influence the long-term outlook. Economic growth is likely to be modestly stronger and inflation will likely be slightly higher. The increases would likely result from slightly stronger labor force growth, increased business investment, and slightly stronger productivity growth. Interest rates would also likely normalize at a slightly faster pace and the new normal neutral federal funds rate might be a little higher than the Fed's most recent Summary of Economic Projections, which has been repeatedly reduced over the past few years, currently has it.

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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 2018 through 2022 and averages for the five-year periods 2018-2022 and 2023-2027. 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	
		2018	2019	2020	2021	2022	2018-2022	2023-2027
Interest Rates								
1. Federal Funds Rate	CONSENSUS	1.8	2.4	2.8	3.0	3.0	2.6	3.0
	Top 10 Average	2.4	3.1	3.5	3.6	3.7	3.3	3.6
	Bottom 10 Average	1.3	1.5	2.0	2.2	2.2	1.9	2.2
2. Prime Rate	CONSENSUS	4.8	5.5	5.8	6.0	6.0	5.6	5.9
	Top 10 Average	5.4	6.2	6.6	6.7	6.7	6.3	6.6
	Bottom 10 Average	4.3	4.7	5.0	5.3	5.2	4.9	5.1
3. LIBOR, 3-Mo.	CONSENSUS	2.1	2.8	3.1	3.2	3.3	2.9	3.2
	Top 10 Average	2.7	3.4	3.8	3.9	3.9	3.5	3.8
	Bottom 10 Average	1.7	2.1	2.4	2.5	2.5	2.2	2.5
4. Commercial Paper, 1-Mo.	CONSENSUS	2.0	2.7	3.1	3.2	3.2	2.8	3.2
	Top 10 Average	2.5	3.2	3.6	3.7	3.8	3.4	3.7
	Bottom 10 Average	1.6	2.1	2.5	2.6	2.6	2.3	2.6
5. Treasury Bill Yield, 3-Mo.	CONSENSUS	1.7	2.4	2.8	2.9	2.9	2.6	2.9
	Top 10 Average	2.4	3.2	3.5	3.6	3.7	3.3	3.6
	Bottom 10 Average	1.3	1.7	2.0	2.1	2.1	1.8	2.1
6. Treasury Bill Yield, 6-Mo.	CONSENSUS	1.9	2.6	2.9	3.1	3.1	2.7	3.0
	Top 10 Average	2.6	3.3	3.7	3.8	3.8	3.4	3.7
	Bottom 10 Average	1.4	1.9	2.1	2.2	2.2	2.0	2.2
7. Treasury Bill Yield, 1-Yr.	CONSENSUS	2.1	2.7	3.0	3.1	3.2	2.8	3.2
	Top 10 Average	2.8	3.5	3.8	3.9	3.9	3.6	3.8
	Bottom 10 Average	1.5	1.9	2.2	2.3	2.3	2.1	2.3
8. Treasury Note Yield, 2-Yr.	CONSENSUS	2.2	2.9	3.2	3.3	3.3	3.0	3.3
	Top 10 Average	2.9	3.6	4.0	4.0	4.0	3.7	4.1
	Bottom 10 Average	1.7	2.1	2.4	2.5	2.5	2.2	2.4
10. Treasury Note Yield, 5-Yr.	CONSENSUS	2.7	3.2	3.5	3.6	3.6	3.3	3.6
	Top 10 Average	3.3	4.0	4.3	4.3	4.4	4.0	4.4
	Bottom 10 Average	2.2	2.4	2.6	2.8	2.8	2.6	2.8
11. Treasury Note Yield, 10-Yr.	CONSENSUS	3.1	3.5	3.8	3.9	3.9	3.6	3.9
	Top 10 Average	3.8	4.3	4.6	4.6	4.6	4.4	4.7
	Bottom 10 Average	2.5	2.7	2.9	3.1	3.1	2.8	3.1
12. Treasury Bond Yield, 30-Yr.	CONSENSUS	3.8	4.1	4.3	4.4	4.4	4.2	4.5
	Top 10 Average	4.5	5.0	5.2	5.2	5.3	5.0	5.3
	Bottom 10 Average	3.1	3.3	3.5	3.6	3.6	3.4	3.6
13. Corporate Aaa Bond Yield	CONSENSUS	4.8	5.2	5.4	5.5	5.5	5.3	5.5
	Top 10 Average	5.4	5.8	6.1	6.1	6.1	5.9	6.2
	Bottom 10 Average	4.3	4.6	4.8	4.8	4.8	4.7	4.9
13. Corporate Baa Bond Yield	CONSENSUS	5.9	6.2	6.4	6.4	6.4	6.3	6.4
	Top 10 Average	6.5	6.9	7.0	7.1	7.2	6.9	7.2
	Bottom 10 Average	5.3	5.5	5.8	5.8	5.7	5.6	5.7
14. State & Local Bonds Yield	CONSENSUS	4.3	4.6	4.5	4.8	4.8	4.6	4.8
	Top 10 Average	4.9	5.3	5.4	5.5	5.6	5.3	5.6
	Bottom 10 Average	3.8	3.8	3.5	4.0	4.0	3.8	4.0
15. Home Mortgage Rate	CONSENSUS	4.9	5.3	5.5	5.6	5.6	5.4	5.6
	Top 10 Average	5.5	6.0	6.2	6.3	6.3	6.0	6.3
	Bottom 10 Average	4.3	4.6	4.7	4.9	4.9	4.7	4.9
A. FRB - Major Currency Index	CONSENSUS	94.6	93.8	93.6	93.5	93.2	93.8	92.1
	Top 10 Average	97.6	97.9	98.3	98.4	98.4	98.1	97.4
	Bottom 10 Average	91.5	89.6	88.7	88.4	87.9	89.2	86.6
		-----Year-Over-Year, % Change-----					Five-Year Averages	
		2018	2019	2020	2021	2022	2018-2022	2023-2027
B. Real GDP	CONSENSUS	2.3	2.2	2.1	2.1	2.1	2.2	2.1
	Top 10 Average	2.7	2.5	2.4	2.4	2.4	2.5	2.5
	Bottom 10 Average	1.9	1.8	1.7	1.8	1.8	1.8	1.8
C. GDP Chained Price Index	CONSENSUS	2.1	2.1	2.1	2.1	2.0	2.1	2.0
	Top 10 Average	2.4	2.4	2.4	2.4	2.2	2.3	2.2
	Bottom 10 Average	1.8	1.8	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	2.4	2.3	2.3	2.3	2.3	2.3	2.3
	Top 10 Average	2.7	2.6	2.6	2.6	2.5	2.6	2.5
	Bottom 10 Average	2.1	2.1	2.2	2.1	2.0	2.1	2.1

2016 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-0.5	0.3	-0.3	1.2	0.2	0.7	0.0	0.0	1.0	0.8		
Auto & Light Truck Sales (b)	17.76	17.60	16.58	17.34	17.12	16.76	17.80	16.91	17.66	17.91		
Personal Income (a, current \$)	0.0	-0.1	0.3	0.5	0.3	0.3	0.4	0.2	0.3			
Personal Consumption (a, current \$)	0.1	0.2	0.0	1.1	0.3	0.5	0.3	-0.1	0.5			
Consumer Credit (e)	4.4	4.4	9.9	5.7	7.5	4.8	5.8	8.8	6.3			
Consumer Sentiment (U. of Mich.)	92.0	91.7	91.0	89.0	94.7	93.5	90.0	89.8	91.2	87.2	93..8	
Household Employment (c)	615	530	246	-316	26	67	420	97	354	-43		
Non-farm Payroll Employment (c)	168	233	186	144	24	271	252	176	191	161		
Unemployment Rate (%)	4.9	4.9	5.0	5.0	4.7	4.9	4.9	4.9	5.0	4.9		
Average Hourly Earnings (All, cur. \$)	25.38	25.39	25.45	25.53	25.59	25.62	25.71	25.74	25.82	25.92		
Average Workweek (All, hrs.)	34.6	34.4	34.4	34.4	34.4	34.4	34.4	34.3	34.4	34.4		
Industrial Production (d)	-1.4	-1.4	-2.0	-1.4	-1.2	-0.7	-0.9	-1.0	-1.0	-0.9		
Capacity Utilization (%)	75.7	75.6	74.9	75.2	75.1	75.4	75.7	75.6	75.4	75.3		
ISM Manufacturing Index (g)	48.2	49.5	51.8	50.8	51.3	53.2	52.6	49.4	51.5	51.9		
ISM Non-Manufacturing Index (g)	53.5	53.4	54.5	55.7	52.9	56.5	55.5	51.4	57.1	54.8		
Housing Starts (b)	1.128	1.213	1.113	1.155	1.128	1.195	1.218	1.164	1.054	1.323		
Housing Permits (b)	1.188	1.162	1.077	1.130	1.136	1.153	1.144	1.152	1.225	1.229		
New Home Sales (1-family, c)	526	525	537	572	572	579	629	567	574	563		
Construction Expenditures (a)	-0.3	1.4	1.6	-2.9	0.1	0.9	0.5	-0.5	-0.4			
Consumer Price Index (nsa., d)	1.4	1.0	0.9	1.1	1.0	1.0	0.8	1.1	1.5	1.6		
CPI ex. Food and Energy (nsa., d)	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.1		
Producer Price Index (n.s.a., d)	0.0	0.1	-0.1	0.2	0.0	0.2	-0.2	0.0	0.7	0.8		
Durable Goods Orders (a)	4.3	-3.3	2.0	3.2	-2.9	-4.3	3.6	0.2	0.4	4.8		
Leading Economic Indicators (g)	-0.2	0.1	0.1	0.5	-0.2	0.2	0.5	-0.2	0.2			
Balance of Trade & Services (f)	-43.0	-45.3	-36.9	-38.6	-42.0	-44.7	-39.5	-40.5	-36.4			
Federal Funds Rate (%)	0.34	0.38	0.36	0.37	0.37	0.38	0.39	0.40	0.40	0.40		
3-Mo. Treasury Bill Rate (%)	0.26	0.31	0.29	0.23	0.27	0.27	0.30	0.30	0.29	0.33		
10-Year Treasury Note Yield (%)	2.09	1.78	1.89	1.81	1.81	1.64	1.50	1.56	1.63	1.76		

2015 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jly	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-0.5	-0.5	1.5	0.1	0.9	0.1	0.6	-0.1	0.1	0.0	0.3	0.4
Auto & Light Truck Sales (b)	16.78	16.47	17.34	16.78	17.62	17.12	17.52	17.57	17.98	18.05	18.13	17.41
Personal Income (a, current \$)	0.2	0.3	0.0	0.6	0.6	0.5	0.3	0.3	0.1	0.3	0.2	0.3
Personal Consumption (a, current \$)	-0.4	0.2	0.5	0.3	0.9	0.3	0.3	0.3	0.2	0.2	0.3	0.2
Consumer Credit (e)	3.6	5.5	7.6	7.6	7.0	9.6	6.8	5.1	9.9	5.2	4.8	7.3
Consumer Sentiment (U. of Mich.)	98.1	95.4	93.0	95.9	90.7	96.1	93.1	91.9	87.2	90.0	91.3	92.6
Household Employment (c)	665	127	102	176	239	-26	144	177	-101	255	247	485
Non-Farm Payroll Employment (c)	221	265	84	251	273	228	277	150	149	295	280	271
Unemployment Rate (%)	5.7	5.5	5.5	5.4	5.5	5.3	5.3	5.1	5.1	5.0	5.0	5.0
Average Hourly Earnings (All, cur. \$)	24.76	24.80	24.87	24.91	24.97	24.96	25.03	25.12	25.14	25.21	25.27	25.26
Average Workweek (All, hrs.)	34.6	34.6	34.5	34.5	34.5	34.5	34.6	34.6	34.5	34.5	34.5	34.5
Industrial Production (d)	3.4	2.5	1.3	1.1	0.3	-0.2	0.4	0.4	-0.3	-0.4	-2.1	-2.3
Capacity Utilization (%)	78.0	77.7	77.3	76.9	76.6	76.4	76.7	76.7	76.4	76.3	75.7	75.4
ISM Manufacturing Index (g)	53.5	53.3	52.3	51.6	53.1	53.1	51.9	51.0	50.0	49.4	48.4	48.0
ISM Non-Manufacturing Index (g)	56.7	57.1	56.9	57.5	55.9	56.2	59.6	58.3	56.7	58.3	56.6	55.8
Housing Starts (b)	1.101	0.893	0.964	1.192	1.063	1.213	1.147	1.132	1.189	1.073	1.171	1.160
Housing Permits (b)	1.073	1.114	1.071	1.178	1.266	1.334	1.142	1.166	1.129	1.175	1.286	1.201
New Home Sales (1-family, c)	521	545	485	508	507	472	498	505	457	478	508	538
Construction Expenditures (a)	1.5	0.4	1.5	3.1	2.1	0.5	0.0	0.6	0.2	-0.1	-0.5	0.8
Consumer Price Index (s.a., d)	-0.1	0.0	-0.1	-0.2	0.0	0.1	0.2	0.2	0.0	0.2	0.5	0.7
CPI ex. Food and Energy (s.a., d)	1.6	1.7	1.8	1.8	1.7	1.8	1.8	1.8	1.9	1.9	2.0	2.1
Producer Price Index (n.s.a., d)	0.0	-0.5	-0.9	-1.1	-0.8	0.5	-0.7	-1.0	-1.1	-1.4	-1.3	-1.1
Durable Goods Orders (a)	1.9	-3.5	5.1	-1.7	-2.3	4.1	1.9	-2.9	-0.8	2.8	-0.5	-4.6
Leading Economic Indicators (g)	0.2	-0.2	0.4	0.6	0.6	0.6	0.0	-0.1	0.0	0.6	0.5	-0.3
Balance of Trade & Services (f)	-42.1	-36.3	-48.2	-40.9	-40.2	-43.0	-39.9	-44.6	-41.1	-41.6	-41.1	-41.5
Federal Funds Rate (%)	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.12	0.12	0.24
3-Mo. Treasury Bill Rate (%)	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.07	0.02	0.02	0.12	0.23
10-Year Treasury Note Yield (%)	1.88	1.98	2.04	1.94	2.20	2.36	2.32	2.17	2.17	2.07	2.26	2.24

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

Calendar Of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
November 28 Dallas Fed Survey ((Nov)	29 Real GDP (Q3, Second) S&P/Case-Shiller Home Price Index (Sep) Consumer Confidence (Conference Board, Nov)	30 ADP Employment (Nov) Personal Income and Consumption (Oct) Chicago PMI (Nov) Pending Home Sales (Oct) Beige Book EIA Crude Oil Stocks Mortgage Applications	December 1 Markit Manufacturing PMI (Nov, final) ISM Manufacturing (Nov) Vehicle Sales (Nov) Construction Spending (Oct) Weekly Jobless Claims Weekly Money Supply	2 Employment (Nov)
5 Markit Services PMI (Nov, Final) ISM Non-Manufacturing (Nov)	6 International Trade (Oct) Productivity and Costs (Q3, Advance) Factory Orders (Oct)	7 JOLTS (Oct) Consumer Credit (Oct) EIA Crude Oil Stocks Mortgage Applications	8 Quarter Services Spending (Q3) Weekly Jobless Claims Weekly Money Supply	9 Consumer Sentiment (University of Michigan, Dec, Preliminary) Wholesale Trade (Oct)
12 Federal Budget (Nov)	13 FOMC Meeting NFIB Survey (Nov) Import Prices (Nov)	14 FOMC Meeting Statement and projections (2:00 pm) Press conference (2:30) Retail Sales (Nov) Producer Price Index (Nov) Industrial Production (Nov) Business Inventories (Oct)	15 Consumer Price Index (Nov) Empire State survey (Dec) Philadelphia Fed Survey (Dec) Markit Manufacturing PMI (Dec, flash) NAHB survey (Dec) Current Account (Q3) TIC Data (Oct) Weekly Jobless Claims Weekly Money Supply	16 Housing Starts (Nov)
19 Markit Services PMI (Dec, Flash)	20	21 Existing Home Sales (Nov) EIA Crude Oil Stocks Mortgage Applications	22 Real GDP (Q3, Third Estimate) Durable Goods (Nov) Personal Income and Consumption (Nov) Kansas City Fed Survey (Dec) FHFA Home Price Index (Oct) Weekly Jobless Claims Weekly Money Supply	23 New Home Sales (Nov) Consumer Sentiment (Dec, Final, University of Michigan)
26 Christmas Day (Observed) U.S. Markets Closed	27 S&P/Case-Shiller Home Price Index (Oct) Consumer Confidence (Conference Board, Dec) Richmond Fed Survey (Dec) Dallas Fed Survey (Dec)	28 Pending Home Sales (Nov) EIA Crude Oil Stocks Mortgage Applications	29 International Trade (Nov, Advance) Weekly Jobless Claims Weekly Money Supply	30 Chicago PMI (Dec)
January 2 New Year's Day (Observed) U.S. Markets Closed	3 Markit Manufacturing PMI (Dec, Final) ISM Manufacturing (Dec) Construction Spending (Nov)	4 FOMC Minutes Vehicle Sales (Dec) EIA Crude Oil Stocks Mortgage Applications	5 ADP Employment (Dec) Markit Services PMI (Dec, Final) ISM Non-Manufacturing (Dec) Weekly Jobless Claims Weekly Money Supply	6 Employment (Dec) International Trade (Nov) Factory Orders (Nov)

BLUE CHIP FORECASTERS

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