# 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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## Consensus Still Looks For A Rate Hike This Year, More In 2017

**Domestic Commentary** A bit more than 80% of our panelists continue to predict that the Federal Reserve's Open Market Committee (FOMC) will opt to raise interest rates prior to the end of this year, according to our August  $24^{th}$ - $25^{th}$  survey. Most anticipate only one 25 basis point increase, and that, not until the FOMC's last meeting of the year. Our panelists remain all over the map in predicting how much the FOMC might tighten in 2017. However, the largest percentage of the panelists, although not quite a majority, forecast that the FOMC will raise rates by 50 basis points next year.

According to a special question included as part of this month's survey, of our panelists anticipating a rate hike this year, 12.8% predict that the FOMC will raise interest rates by 25 basis points at its September 20<sup>th</sup>-21<sup>st</sup> meeting, none foresaw a rate hike at the November 1<sup>st</sup>-2<sup>nd</sup> meeting, and 66.0% said the first rate hike of this year will be enacted at the FOMC's December 13-14<sup>th</sup> meeting. Of those not expecting a rate hike until sometime later, 2.1% said it would come at the January 31<sup>st</sup>-February 1<sup>st</sup>, 2017 meeting, 6.4% said not until the March 14<sup>th</sup>-15<sup>th</sup>, 2017 meeting, and 12.8% said not until the FOMC's June 13<sup>th</sup>-14<sup>th</sup>, 2017 meeting, or even later.

Asked this month how many basis points the FOMC will raise rates in 2016, 19.1% of the panelists said zero, 76.6% said 25 basis points, and 4.3% said 50 basis points. In last month's survey the responses were 19.6% for no increase this year, 67.4% said 25 basis points, 10.9% predicted 50 basis points, and 2.2% said 75 basis points.

Asked this month how many basis points the FOMC will raise rates in 2017, 4.3% said zero, 10.9% said 25 basis points, 45.7% said 50 basis points, 23.9% said 75 basis points and 15.2% said 100 or more basis points. Last month, when asked how many basis points the FOMC would raise rates next year 2.2% of the panelists said zero, 10.9% said 25 basis points, 43.6% said 50 basis points, 23.9% said 75 basis points, and 19.6% said 100 or more basis points.

Federal Reserve Chairwoman Janet Yellen's speech at the Kansas City Fed's Jackson Hole conference the day following completion of this month's survey, and comments following her speech from Fed Vice Chairman Stanley Fischer during a CNBC interview, appear to buttress consensus expectations of a rate hike before year's end.

In her speech, Yellen noted that "In light of the continued solid performance of the labor market and our outlook for economic activity and inflation, I believe the case for an increase in the federal funds rate has strengthened in recent months." However, she did not provide any specificity about the timing of a rate hike and added the usual caveat that Fed policy moves remain "data dependent".

Fischer echoed Yellen's comments about the economy, saying "We're reasonably close to what is thought of as full employment," adding that the "inflation rate this year is higher than last year's. It's still not 2.0%. But it's been growing." While he reiterated that any move will depend on incoming data, he suggested that Yellen's comments were consistent with the possibility of as many as two rate hikes this year.

Comments during interviews on CNBC from St. Louis Fed President James Bullard and Cleveland Fed President Loretta Mester on the day of Yellen's speech also seemed to suggest the possibility of a rate hike before the end of this year. Bullard said that September's FOMC meeting "might" be a good time for a rate hike, but he declined to provide a firm timetable. However, in a Wall Street Journal interview the following day, Bullard countered Fischer's suggestion that the FOMC might hike rates twice before the end of this year, saying that two rate hikes this year were inconsistent with his forecast. "If we had a lot of good news and we got into the September meeting and other people wanted to go, I could support that—but again I'm talking about one increase and no planned increases after than", he told the paper. In the same Wall Street Journal article, Fed Bank President Dennis Lockhart said "If the economy in the next few weeks per-

forms consistent with my sense of the economy, then I think we ought to have a serious discussion (about raising rates) at the September meeting." However, Lockhart also downplayed the likelihood of two rate hikes before the end of 2016, noting "I wouldn't take (Fischer's) position today." Mester – who has repeatedly emphasized the need for the Fed to move gradually as it normalizes rates – told CNBC that the September meeting would be "live", meaning a move could happen, but strongly noted "data dependence" of the FOMC.

While Yellen's speech and Fischer's comments lifted odds of a September 21<sup>st</sup> rate hike, they remain below 50%, according to CME Group data, the odds of hike at the December meeting are now a bit more than 60%. Much will depend on upcoming data releases. Consensus forecasts suggest nonfarm payrolls increased by 180,000 in August and that the unemployment rate dipped by 0.1 of a percentage point to 4.8%. Actual figures close to those marks would likely further lift the odds of a Fed move at the September meeting. Other indicators of economic activity due out prior to the September FOMC meeting also are widely expected to show the pace of GDP growth rebounding nicely in Q3 following the soft performances registered over the prior three quarters. August data on inflation, however, will likely be less supportive of a September rate hike.

As for the panelists' outlook for the economy, the consensus predicts real GDP growth will rebound to a seasonally-adjusted annual rate of 2.7% (saar) in the current quarter and expand at a 2.4% (saar) pace in the final quarter of this year. The Q3 estimate rose 0.4 of a percentage point over the past month, while the Q4 forecast inched up 0.1 of a point. Real GDP still is forecast by the consensus to grow 2.2% (saar) in Q1 2017, 2.3% in Q2, and 2.2% in Q4. The forecast of its growth rate in Q3 of next year slipped 0.1 of a percentage point to 2.2% (saar) this month.

Consumer spending, residential investment and government spending are largely counted on by the consensus to underpin GDP growth over the forecast horizon. Business investment is likely to remain modest, but no longer remain a major drag on GDP. While net exports likely will continue to subtract from GDP as soft growth abroad and a strong U.S. dollar weighed on exports, inventory investment is expected to contribute to GDP after subtracting from it in each of the past five quarters.

With the exception of the current quarter consensus forecasts of inflation over the forecast horizon went unchanged this month. Due to softness in energy prices anticipated increases in the Consumer Price Index and the GDP price index were trimmed this month. In answer to a special question, the consensus forecasts that the personal consumption expenditures price index and the core PCE price index will register December-over-December increases of 1.5% and 1.8%, respectively, in 2016, followed by increases of 2.0% for both in 2017.

Consensus Forecast The FOMC is widely expected by our panelists to hike interest rates before the end of this year. While odds of a September rate hike have increased, most of our panelists only anticipate one 25 basis point increase this year and believe it will not be enacted until the FOMC's December meeting. Consensus forecasts suggest the 2-year/10-year Treasury curve will change little over the forecast horizon. Real GDP growth is predicted to grow 2.5% (saar) in the second half of this year versus average growth of about 0.9% (saar) in the prior three quarters. Its growth rate in 2017 still is expected to be around 2.3% (saar). Consumer price inflation is expected to average a little more than 2.0% over the forecast horizon (see page 2).

**Special Questions** The consensus puts the odds of a U.S. recession beginning this year at 13.8% versus 14.5% a month ago and 16.8% in July. The odds of a recession that begins in 2017 inched back up to 24.2% this month versus 24.1% last month and 24.6% the month before that. The consensus foresees a December 2016 unemployment rate of 4.7% and a December 2017 rate of 4.6% (*see page 14*)

## Consensus Forecasts Of U.S. Interest Rates And Key Assumptions<sup>1</sup>

				Histor	y				Cons	ensus l	Forecas	sts-Qua	arterly	Avg.
	Av	erage For	Week End	ing	Ave	erage For	Month	Latest Qtr	3Q	4Q	1Q	2Q	3Q	4Q
Interest Rates	Aug. 26	Aug. 19	Aug. 12	Aug. 5	<u>Jul</u>	<u>Jun</u>	May	2Q 2016	2016	<b>2016</b>	<b>2017</b>	2017	<b>2017</b>	2017
Federal Funds Rate	0.40	0.40	0.40	0.36	0.39	0.38	0.37	0.37	0.4	0.5	0.6	0.8	0.9	1.1
Prime Rate	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.5	3.6	3.7	3.9	4.0	4.2
LIBOR, 3-mo.	0.82	0.82	0.82	0.78	0.70	0.69	0.64	0.63	0.8	0.9	1.0	1.1	1.3	1.5
Commercial Paper, 1-mo.	0.38	0.37	0.36	0.37	0.35	0.38	0.35	0.36	0.4	0.5	0.7	0.9	1.0	1.2
Treasury bill, 3-mo.	0.30	0.30	0.29	0.28	0.30	0.27	0.28	0.28	0.3	0.5	0.6	0.8	0.9	1.1
Treasury bill, 6-mo.	0.45	0.45	0.44	0.42	040	0.40	0.42	0.43	0.4	0.6	0.7	0.9	1.1	1.3
Treasury bill, 1 yr.	0.58	0.58	0.56	0.52	0.51	0.55	0.59	0.54	0.6	0.7	0.9	1.1	1.2	1.4
Treasury note, 2 yr.	0.75	0.74	0.72	0.67	0.67	0.73	0.82	0.79	0.7	0.9	1.1	1.2	1.4	1.6
Treasury note, 5 yr.	1.14	1.15	1.12	1.07	1.07	1.17	1.30	1.30	1.1	1.3	1.5	1.6	1.8	2.0
Treasury note, 10 yr.	1.55	1.56	1.54	1.54	1.50	1.64	1.81	1.84	1.5	1.7	1.9	2.1	2.2	2.4
Treasury note, 30 yr.	2.25	2.28	2.26	2.28	2.23	2.45	2.63	2.64	2.3	2.5	2.6	2.8	2.9	3.1
Corporate Aaa bond	3.27	3.31	3.34	3.40	3.28	3.50	3.65	3.82	3.3	3.6	3.8	3.9	4.1	4.2
Corporate Baa bond	4.21	4.25	4.25	4.29	4.22	4.53	4.68	5.10	4.4	4.6	4.8	4.9	5.0	5.2
State & Local bonds	2.84	2.84	2.85	2.85	2.83	3.20	3.29	3.30	3.0	3.1	3.3	3.4	3.6	3.7
Home mortgage rate	3.43	3.43	3.45	3.43	3.44	3.57	3.60	3.70	3.5	3.7	3.8	4.0	4.2	4.3
				Histor	y				Co	nsenst	ıs Fore	casts-(	)uartei	:ly
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	<b>4Q</b>
Key Assumptions	<u>2014</u>	<u>2014</u>	2015	<u>2015</u>	2015	2015	2016	<u>2016</u>	2016	2016	<b>2017</b>	2017	2017	2017
Major Currency Index	77.8	82.6	89.4	89.9	91.8	93.1	93.3	89.6	90.4	91.2	91.8	91.9	92.0	92.0
Real GDP	5.0	2.3	2.0	2.6	2.0	0.9	0.8	1.1	2.7	2.4	2.2	2.3	2.2	2.2
GDP Price Index	1.7	0.5	-0.1	2.3	1.3	0.8	0.5	2.3	1.6	1.8	1.9	2.1	2.1	2.1
Consumer Price Index	0.9	-0.3	-2.9	2.4	1.4	0.8	-0.3	2.5	1.8	2.2	2.2	2.3	2.3	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 for interest rates except LIBOR is from Federal Reserve Release (FRSR) H.15. LIBOR quotes available from *The Wall Street Journal*. Interest rate definitions are same as those in FRSR H.15. Treasury yields are reported on a constant maturity basis. Historical data for Fed's Major Currency Index is from FRSR H.10 and G.5. 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).

### Week ended August 26, 2016 and Year Ago vs. 3Q 2016 and 4Q 2017 Consensus Forecasts 4.00 4.50 Year Ago 4 00 3.50 Week ended 8/26/2016 3.50 3.00 Consensus 4Q 2017 3.00 2.50 Consensus 3Q 2016 2.50 Percent 2.00 2.00 1.50 1.50 1.00 1.00 0.50 0.50 0.00 0.00

2yr

Maturities

1yr

5yr

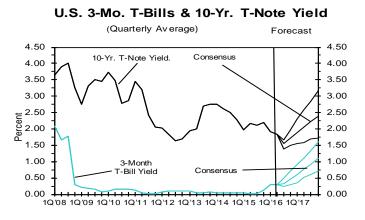
10yr

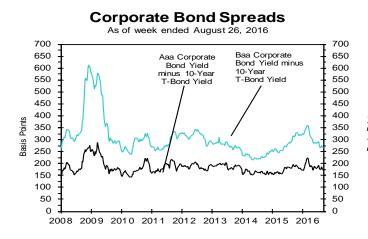
30yr

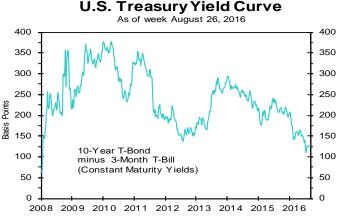
3mo

6mo

U.S. Treasury Yield Curve







3-	Mor	ıth	Inter	est	Rat	es <sup>1</sup> -

		-History		Cons	ensus For	ecasts
		Month	Year	Mon	ths From	Now:
	Latest:	Ago:	Ago:	3	6	12
U.S.	0.83	0.70	0.33	0.82	0.90	1.09
Japan	-0.03	-0.03	0.09	0.02	0.00	0.01
U.K.	0.46	0.55	0.57	0.33	0.28	0.29
Switzerland	-0.74	-0.76	-0.73	-0.80	-0.85	-0.85
Canada	0.83	0.81	0.67	0.75	0.70	0.88
Australia	2.02	2.23	2.25	1.80	1.60	1.60
Eurozone	-0.30	-0.30	-0.03	-0.32	-0.32	-0.30

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

		-History		Cons	ensus For	recasts
		Month	Year	Mon	ths From	Now:
	Latest:	Ago:	Ago:	3	6	12
U.S.	1.58	1.55	2.12	1.58	1.71	1.95
Germany	-0.09	-0.01	0.71	0.02	0.13	0.28
Japan	-0.06	-0.22	0.37	-0.07	-0.04	-0.06
U.K.	0.67	0.98	1.84	0.68	0.71	0.74
France	0.14	0.21	1.13	0.31	0.45	0.63
Italy	1.12	1.25	1.98	1.37	1.44	1.58
Switzerland	-0.50	-0.55	-0.15	-0.42	-0.31	-0.15
Canada	1.04	1.12	1.44	1.13	1.28	1.61
Australia	1.84	1.92	2.66	1.91	2.02	2.17
Spain	1.02	1.19	2.10	1.27	1.38	1.52

### -----Foreign Exchange Rates<sup>1</sup>-----

		-History-		Cons	ensus For	ecasts
		Month	Year	Mon	ths From	Now:
	Latest:	Ago:	Ago:	3	6	12
U.S.	89.042	91.783	90.926	91.3	92.2	91.7
Japan	100.24	106.22	122.11	102.2	103.4	107.9
U.K.	1.3061	1.3091	1.5698	1.28	1.29	1.31
Switzerland	0.9594	0.9888	0.9488	1.01	1.04	1.01
Canada	1.2878	1.3178	1.3146	1.31	1.31	1.27
Australia	0.7620	0.7453	0.7343	0.73	0.71	0.73
Euro	1.1326	1.0968	1.1356	1.09	1.07	1.10

		nsensus			sensus	
	3-Mo	nth Rates		10-Y	ear Gov't	
	vs. U	J.S. Rate		Yields v	s. U.S. Yie	ld
	Now	In 12 Mo.		Now	In 12	
Japan	-0.86	-1.08	Germany	-1.67	-1.67	
U.K.	-0.37	-0.80	Japan	-1.64	-2.00	
Switzerland	-1.57	-1.94	U.K.	-0.91	-1.21	
Canada	0.00	-0.22	France	-1.44	-1.32	
Australia	1.19	0.51	Italy	-0.46	-0.37	
Eurozone	-1.13	-1.39	Switzerland	-2.08	-2.10	
			Canada	-0.54	-0.34	
			Australia	0.26	0.22	
			Spain	-0.56	-0.43	

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: <sup>1</sup>Three month rate on interest-earning money market deposits denominated in selected currencies. <sup>2</sup>Government 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.

International Commentary In response to fears of a sharp deterioration in the economic outlook due to the surprising outcome of the Brexit referendum, the Bank of England's (BoE) Monetary Policy committee (MPC) enacted several easing steps at its August 4th meeting. It cut its benchmark policy rate by a quarter-point to a record low of 0.25%, expanded the size of its government bond buying program to £435 billion from £375 billion, and announced that it would expand its QE program to include up to £10 billion of corporate bonds. The MPC also announced the creation of a Term Funding Scheme that is intended to provide liquidity support to banks on a long-term basis. Real GDP grew a better-than-expected 2.4% (saar) in Q2 and was up 2.2% compared to a year earlier. The Q2 advance was supported by healthy consumer spending and business investment that offset a small decline in government spending and softness in exports of good s and services. So far, data has been mixed on the blow to the outlook resulting from the Brexit vote. Consumer spending remained strong in July and labor market conditions remain healthy. While PMI data suggests the manufacturing sector took a hit after the Brexit vote, export orders have picked up due to the weaker pound. Nonetheless, most analysts believe real GDP growth will slow sharply in the second half of this year, likely prompting the MPC into a further easing of policy by the end of this year. Prime Minister Theresa May has announced that the U.K. will forgo a vote in Parliament on leaving the European Union (EU) and is leaning toward beginning negotiations with EU leaders on the nation's departure from the currency union by April of next year.

It now seems more likely that the European Central Bank (ECB) will leave policy unchanged at its September 8th meeting. Earlier fears that the U.K. Brexit vote would produce immediate problems for the Eurozone's economy have dissipated. That is not to say that all is rosy. Economic growth remains modest and inflation essentially nonexistent. Eurozone real GDP growth in Q2 grew only 1.1% (saar), half its O1 pace. Growth in Germany slowed to 1.7% (saar) from 2.9% in O1, while France's economy contracted 0.2% (saar) in Q2 after growing 2.7% in the prior quarter. Real GDP in Italy showed no growth in Q2 after eking out a 1.1% (saar) advance in Q1. August flash PMI data for the Eurozone hints that real GDP growth in the currency zone will remain positive but subdued. However, a sharp fall in Germany's IFO business survey suggests growth in that nation - the Eurozone's largest - may soften more than expected. Harmonized consumer price inflation was up only 0.2% (y/y) in July). If the ECB were to ease policy further this year most believe it would take the form of an extension in its current OE program beyond the scheduled March 2017 end date. A move by the ECB to push interest rates further into negative territory seems unlikely. Contentious negotiations between Italy and the EU on a badly-needed recapitalization of Italian banks ahead of Italy's November referendum on constitutional reforms remains a major wild card for markets in the short run.

Real GDP in Japan grew only 0.2% (saar) in Q2, hurt by unexpected softness in exports as the Yen surged during the quarter. The weakness in Q2 followed upwardly revised real GDP growth of 2.0% in Q1. Real GDP growth of about 1.0% (saar) is expected during the second half of this year. Deflationary pressures intensified over the summer as the core consumer price index fell 0.5% (y/y) in July, marking the steepest y/y fall since March 2013. This will increase pressure on the Bank of Japan to announce additional easing steps at its September 20<sup>th</sup>-21<sup>st</sup> meeting. Those steps could include larger and more varied asset purchases and/or pushing its policy rate further into negative territory. The former seems more likely than the latter.

Real GDP in Canada likely contracted 1.5%-2.0% in Q2, but should bounce back to grow at a 2.5% (saar) or better clip in the second half of this year. Bank of Canada policy is expected to remain on hold through the first half of next year. The Reserve Bank of Australia, as expected, cut its policy rate by 25 basis points on August 16<sup>th</sup> to a record low of 1.5%. The lowest rate of inflation since 1999 prompted to move (see pages 10-11 for individual panying 1994).

# Third Quarter 2016 Interest Rate Forecasts

						Perc	ent Per A	nnum A	verage F	or Quarter						- Avg. For	(Q-	Q % Chan	ge)
Blue Chip			S	hort-Term					Intermed	diate-Term			Long	Term		Qtr		(SAAR)-	
Financial Forecasts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.	B.	C.	D.
Panel Members	Federal Funds	Prime Bank	LIBOR Rate	Com. Paper	Treas. Bills	Treas. Bills	Treas. Bills	Treas. Notes	Treas. Notes	Treas. Notes	Treas. Bond	Aaa Corp.	Baa Corp.	State & Local	Home Mtg.	Fed's Major Currency	Real	GDP Price	Cons. Price
	Rate	Rate	3-Mo.	1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index
BNP Paribas Americas	0.6 H	na	0.7	na	na	na	na	0.8	1.2	1.6	na	na	na	na	na	na	3.0	na	0.9
Scotiabank Group	0.5	3.5 L	na	na	0.3	na	na	0.5 L	0.9	1.2	2.0	na	na	na	na	na	2.6	2.0	1.3
J.P. Morgan Chase	0.5	na	8.0	na	na	na	na	0.6	1.0	1.5	2.3	na	na	na	na	na	2.0	1.8	1.5 2.2
Cycledata Corp. SunTrust Banks	0.5 0.5	3.5 L 3.5 L	0.8 0.7	0.5 H 0.4	0.4 0.4	0.5 0.5	0.7 0.6	0.9 0.7	1.3 1.1	1.7 H 1.5	2.5 2.2	3.5 2.4	4.5 4.9 H	3.2 3.6	3.6 4.8 H	91.0 na	2.8 2.8	1.9 1.3	1.1
RidgeWorth Investments	0.5	3.6	0.8	0.5 H	0.4	0.5	0.6	0.8	1.2	1.7 H	2.4	3.5	4.4	3.1	3.5	90.3	2.0	2.0	1.6
Moody's Analytics	0.5	3.6	0.7	0.4	0.2 L	0.3 L	0.5	0.7	1.1	1.7 H	2.4	3.3	4.5	2.9	3.5	na	3.4	0.9	1.8
Oxford Economics	0.4 L	3.5 L	na	na	0.3	0.4	0.6	0.7	1.2	1.6	na	na	na	na	3.5	90.9	2.7	0.6 L	1.8
Barclays Capital MacroFin Analytics	0.4 L 0.4 L	3.5 L 3.5 L	na 0.8	na 0.5 H	1.0 H 0.3	na 0.5	na 0.6	0.7 0.8	1.1 1.2	1.5 1.6	2.3 2.4	na 3.4	na 4.3	na 2.9	na 3.5	na 90.4	2.0 2.9	1.5 1.9	1.6 2.0
Woodworth Holdings	0.4 L	3.5 L	0.8	0.4	0.3	0.5	0.6	0.8	1.2	1.6	2.3	3.3	4.3	2.9	3.5	91.0	3.2	0.6	0.8 L
DePrince & Associates	0.4 L	3.5 L	0.7	0.4	0.3	0.4	0.6	0.7	1.1	1.6	2.3	3.3	4.3	2.9	3.5	89.9	1.9 L	1.1	1.1
Daiwa Capital Markets America	0.4 L	3.5 L	8.0	0.4	0.3	0.5	0.6	0.7	1.2	1.6	2.3	3.4	4.3	2.9	3.5	90.0	2.9	1.5	1.2
Wells Fargo	0.4 L	3.5 L	0.8	0.4	0.3	0.4	0.5	0.7	1.1	1.5	2.3	3.3	4.2 L	2.8 L	3.4	91.5	2.0	1.4	1.4
Loomis, Sayles & Company	0.4 L	3.5 L	0.7	0.4	0.3	0.4	0.6	0.7	1.2	1.6	2.3	3.4	4.3	2.9	3.5	89.8	2.7	1.4	1.5
MUFG Union Bank Amherst Pierpont Securities	0.4 L 0.4 L	3.5 L 3.5 L	0.8 0.8	0.4 0.4	0.3 0.3	0.5 0.4	0.6 0.6	0.8 0.7	1.1 1.2	1.6 1.6	2.3 2.3	3.3 3.4	4.2 L 4.3	2.9 2.9	3.5 3.5	90.0 90.5	2.5 3.9 H	0.9 1.7	1.7 1.8
Chmura Economics & Analytics	0.4 L	3.5 L	0.7	0.4	0.3	0.4	0.5	0.7	1.1	1.5	2.3	3.3	na	na	3.4	90.3 92.2 H	2.3	1.6	2.0
RDQ Economics	0.4 L	3.5 L	0.7	0.4	0.3	0.4	0.6	0.7	1.2	1.6	2.3	3.4	4.3	2.9	3.4	90.5	2.7	2.1	2.1
Naroff Economic Advisors	0.4 L	3.6	8.0	0.4	0.4	0.5	0.6	0.8	1.2	1.6	2.3	3.4	4.3	2.9	3.5	90.6	3.4	1.7	2.3
Chase Wealth Management	0.4 L	3.5 L	8.0	0.4	0.3	0.4	0.6	0.8	1.2	1.6	2.3	3.3	4.3	2.9	3.5	89.9	2.3	1.9	2.3
Nat'l Assn. of Realtors	0.4 L	3.5 L	0.7	0.4	0.3	0.4	0.6	0.7	1.1	1.7 H	2.4	3.4	4.4	3.1	3.5	na	2.8	2.1	2.3
Economist Intelligence Unit RBS Securities	0.4 L 0.4 L	3.5 L 3.5 L	0.7 0.8	0.5 H 0.4	0.3 0.3	0.5 0.4	0.6 0.6	0.8 0.6	1.2 1.0	1.6 1.5	2.3 2.3	na 3.3	na 4.4	na 3.0	3.5 3.3 L	na 90.0	3.6 3.5	na 1.1	2.3 2.4
Regions Financial Corporation	0.4 L	3.5 L	0.8	0.4	0.3	0.5	0.6	0.8	1.1	1.6	2.3	3.3	4.3	2.9	3.5	90.7	2.5	1.5	2.4
AIG	0.4 L	na	na	na	na	0.3 L	0.4 L	0.5	0.7 L	1.1 L	1.5 L	2.2 L	na	4.3 H	na	na	2.0	1.3	3.0 H
The Northern Trust Company	0.4 L	3.5 L	8.0	0.4	0.3	0.4	0.6	0.7	1.2	1.6	2.4	3.4	4.3	3.0	3.5	na	2.5	1.1	1.2
Societe Generale	0.4 L	3.5 L	0.6 L	na	na	na	na	0.7	1.1	1.6	2.4	na	na	na	na	na	3.2	1.9	1.2
Goldman Sachs & Co.	0.4 L	na	0.6 L	na	0.2 L	na	na	0.6	1.0	1.7 H	2.3	na	na	na	3.6	na oo r	2.6	1.5	1.3
Moody's Capital Markets Group Wells Capital Management	0.4 L 0.4 L	3.5 L 3.5 L	0.8 0.8	0.4 0.4	0.3 0.3	0.4 0.5	0.6 0.7	0.8 0.8	1.1 1.2	1.6 1.7 H	2.3 2.3	4.4 H 3.6	4.3 4.5	2.8 L 3.0	3.5 3.5	90.5 89.2 L	3.0 2.5	1.6 2.1	1.3 1.3
BMO Capital Markets	0.4 L	3.5 L	0.8	na	0.3	0.5	0.6	0.7	1.1	1.6	2.3	na	na	na	3.5	90.9	2.8	0.9	1.5
Nomura Securities, Inc.	0.4 L	3.5 L	0.9	na	na	na	na	0.7	1.0	1.6	2.3	3.4	4.3	na	3.5	na	2.1	1.6	1.5
Bank of America Merrill Lynch	0.4 L	na	0.9	na	0.3	na	na	0.7	0.9	1.3	2.0	na	na	na	na	na	2.4	1.7	1.5
Comerica Bank	0.4 L	3.5 L	8.0	na	0.3	0.4	0.6	0.7	1.1	1.6	2.3	na	na	na	3.4	na	2.5	1.9	1.6
PNC Financial Services Corp.	0.4 L	3.5 L	8.0	na	0.3	0.5	0.6	0.7	1.2	1.6	2.3	na	4.3	3.0	3.5	90.6	3.0	1.3 2.2	1.7
Fannie Mae GLC Financial Economics	0.4 L 0.4 L	3.5 L 3.5 L	na 0.7	na 0.4	0.3 0.3	0.5 0.4	0.6 0.5	0.7 0.7	1.1 1.1	1.5 1.5	2.3 2.3	na 3.3	na 4.2 L	na 2.9	3.4 3.4	na 90.1	2.6 2.3	1.6	2.0 2.2
High Frequency Economics	0.4 L	3.5 L	na	na	0.2 L	0.4	0.5	0.7 0.5 L	1.1	1.6	2.3	na	na na	na	na	na	2.3	2.3	2.3
UBS AG	0.4 L	na	1.0 H	na	1.0 H	na	na	na	na	1.4	na	na	na	na	na	na	2.2	2.3	2.4
Standard & Poor's Corp.	0.4 L	3.6 H	8.0	na	0.4	0.6 H	0.8 H	1.0 H	1.4 H	1.5	2.6 H	2.9	4.3	na	3.5	90.4	3.0	1.6	2.5
Swiss Re	0.4 L	3.5 L	0.6 L	0.3 L	0.2 L	0.3 L	0.6	0.8	1.1	1.6	2.5	3.5	4.5	na	3.3	na	3.9	1.9	2.9
RBC	0.4 L	na	na	na	0.2 L	na	na	0.6	1.0	1.5	2.4	na	na	na	na	na	3.0	1.4	1.4
Georgia State University Stone Harbor Investment Partners	0.4 L 0.4 L	3.5 L 3.5 L	na 0.6 L	na 0.5 H	0.3	0.4 0.5	0.5 0.6	0.7 0.7	1.1 1.2	1.6 1.6	2.4 2.4	3.6 3.5	4.9 H 4.8	na na	3.5 3.3	na 90.0	2.8 2.6	0.6 L 1.8	1.8 2.4
Action Economics	0.4 L		0.0 L	0.4	0.3	0.4	0.5	0.7	1.1	1.6	2.4	3.4	4.4	3.0	3.5	na	2.5	1.6	1.7
DS Economics	0.4 L	3.5 L	0.8	0.4	0.3	0.4	0.6	0.7	1.1	1.6	2.3	3.4	4.3	2.9	3.6	90.0	2.4	2.4 H	2.0
September Consensus	0.4	3.5	0.8	0.4	0.3	0.4	0.6	0.7	1.1	1.5	2.3	3.3	4.4	3.0	3.5	90.4	2.7	1.6	1.8
Top 10 Avg.	0.5	3.5	0.8	0.5	0.5	0.5	0.6	0.8	1.2	1.7	2.4	3.6	4.6	3.2	3.7	91.0	3.4	2.1	2.5
Bottom 10 Avg.	0.4	3.5	0.7	0.4	0.2	0.4	0.5	0.6	1.0	1.4	2.1	3.1	4.2	2.8	3.4	89.9	2.1	0.9	1.1
August Consensus	0.4	3.5	0.7	0.4	0.3	0.4	0.6	0.7	1.1	1.6	2.4	3.4	4.5	3.1	3.5	91.0	2.3	1.8	2.2
Number of Forecasts Changed Fron	n A Month	Ago:																	
Down	5	2	5	9	17	10	13	17	18	24	24	17	20	17	18	15	9	16	27
Same	31	36	8	14	17	16	12	17	18	15	14	8	5	5	11	6	9	19	17
Up	11	2	27	7	8	12	13	12	10	8	6	7	7	6	10	7	29	10	3
Diffusion Index	56 %	50 %	78 %	47 %	39 %	53 %	50 %	45 %	41 %	33 %	30 %	34 %	30 %	30 %	40 %	36 %	71 %	43 %	24 %

# Fourth Quarter 2016 Interest Rate Forecasts

						Perc	ent Per A	nnum A	verage F	or Quarter						Avg. For	`	2 % Chanç	<i>,</i>
Blue Chip	 F		S								·		•			Qtr		-(SAAR)-	
Financial Forecasts	1 Fordered	2 Drives	3	4	5 Trace	6	7	8	9	10 Trace	11	12	13	14	15	A.	B.	C. GDP	D.
Panel Members	Federal Funds	Prime Bank	LIBOR Rate	Com. Paper	Treas. Bills	Treas. Bills	Treas. Bills	Treas. Notes	Treas. Notes	Treas. Notes	Treas. Bond	Aaa Corp.	Baa Corp.	State & Local	Home Mtg.	Fed's Major Currency	Real	Price	Cons. Price
	Rate	Rate	3-Mo.	1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index
SunTrust Banks	0.7 H	3.7	0.8	0.5	0.6	0.6	0.7	0.9	1.2	1.6	2.3	3.7	5.1 H	3.7	5.1 H	na	2.8	1.4	1.2
RidgeWorth Investments	0.7 H	3.8	1.0	0.7	0.6	0.8 H	0.9	1.2	1.6	2.2 H	2.9	4.0	5.0	3.3	4.0	91.0	2.5	2.0	2.2
Naroff Economic Advisors	0.7 H	3.9	1.1	0.8 H	0.7	0.8 H	1.0	1.2	1.6	2.1	3.0 H	3.8	4.8	3.2	3.9	90.0	2.9	2.0	2.4
Woodworth Holdings	0.7 H	3.8	8.0	0.7	0.6	0.7	0.8	1.0	1.4	1.9	2.5	3.6	4.5	4.1 H	3.7	91.5	3.0 H	0.8 L	0.9 L
MUFG Union Bank	0.7 H	3.8	0.9	0.7	0.6	0.8 H	0.9	1.3 H	1.7 H	2.2 H	2.9	3.7	4.6	3.0	4.0	92.0	2.4	1.1	2.7
Oxford Economics	0.6	3.8	na	na	0.6	0.7	8.0	0.9	1.4	1.8	na	na	na	na	3.7	91.8	2.4	1.4	2.3
Goldman Sachs & Co.	0.6	na	0.9	na	0.4	na	na	0.9	1.3	1.9	2.6	na	na	na	3.6	na	2.3	2.0	2.4
UBS AG	0.6	na	1.3 H	na	1.3 H	na	na	na	na	1.4	na	na	na	na	na	na	2.2	2.3	2.8
J.P. Morgan Chase Nomura Securities, Inc.	0.6 0.6	na 3.8	1.1 1.0	na na	na na	na na	na na	0.8 0.8	1.2 1.1	1.5 1.8	2.2 2.4	na 3.5	na 4.5	na na	na 3.6	na na	2.0 2.0	2.4 1.6	2.8 3.2
BNP Paribas Americas	0.6	na	0.9	na	na	na	na	0.9	1.3	1.6	na	na	na	na	na	na na	1.5 L	na	1.4
Barclays Capital	0.6	3.8	na	na	1.0	na	na	0.8	1.2	1.6	2.4	na	na	na	na	na	2.0	2.1	3.6
Bank of America Merrill Lynch	0.6	na	1.0	na	0.4	na	na	0.8	1.0 L	1.5	2.3	na	na	na	na	na	2.7	2.1	4.1 H
Loomis, Sayles & Company	0.6	3.8	0.9	0.6	0.5	0.6	0.7	0.8	1.3	1.6	2.3	3.4	4.3 L	2.8 L	3.5	89.6	2.1	1.5	2.2
Cycledata Corp.	0.6	3.7	0.9	0.6	0.5	0.6	0.8	1.0	1.4	1.9	2.7	3.7	4.7	3.4	3.7	91.0	2.0	2.0	2.2
Chase Wealth Management	0.6	3.7	1.0	0.6	0.5	0.6	8.0	1.0	1.4	1.8	2.5	3.5	4.5	3.1	3.6	90.0	2.1	1.8	2.3
DePrince & Assoc.	0.6	3.6	0.9	0.6	0.5	0.7	8.0	1.0	1.3	1.7	2.5	3.5	4.4	3.2	3.6	89.4	2.0	1.5	1.5
Moody's Analytics	0.6	3.7	8.0	0.5	0.2	0.3 L	0.6 L	1.0	1.3	2.0	2.8	3.7	5.1 H	3.1	3.6	na	3.0 H	0.9	1.8
Scotiabank Group	0.5	3.5 L	na	na	0.3	na	na	0.7	1.0 L	1.3 L	2.1 L	na	na	na	na	na	2.0	2.0	1.8
Swiss Re	0.5	3.6	0.7	0.5	0.4	0.4	0.9	1.2	1.2	1.7	2.8	3.7	4.7	na	3.5	na	2.5	1.1	2.1
MacroFin Analytics	0.5 0.5	3.6 3.6	0.9 0.9	0.5	0.4	0.5	0.6 L	0.8 0.9	1.2 1.3	1.6 1.7	2.4	3.5	4.4	3.0	3.6	91.6	2.5 2.4	1.8	1.9 2.5
BMO Capital Markets Standard & Poor's Corp.	0.5	3.9 H	1.1	na na	0.4 0.7	0.5 0.8	0.7 1.1 H	1.2	1.3 1.7 H	1.8	2.4 2.9	na 3.3 L	na 4.6	na na	3.6 3.9	93.1 91.7	2.4	1.9 1.8	2.5
Daiwa Capital Markets America	0.5	3.6	0.9	0.5	0.4	0.5	0.6 L	0.8	1.3	1.6	2.3	3.4	4.3 L	3.0	3.5	91.0	2.5	1.8	2.0
Action Economics	0.5	3.6	0.7	0.5	0.5	0.5	0.7	0.9	1.3	1.7	2.5	3.5	4.6	3.2	3.6	na	3.0 H	1.7	2.3
Regions Financial Corporation	0.5	3.5 L	0.9	0.5	0.4	0.6	0.7	0.9	1.2	1.6	2.4	3.4	4.3 L	2.9	3.5	92.2	2.0	1.9	2.5
GLC Financial Economics	0.4 L	3.5 L	8.0	0.5	0.4	0.5	0.6 L	0.7	1.2	1.6	2.4	3.4	4.3 L	3.0	3.6	90.1	2.7	2.5 H	2.9
The Northern Trust Company	0.4 L	3.6	0.8	0.4 L	0.4	0.5	0.7	0.9	1.4	1.8	2.6	3.5	4.5	3.1	3.6	na	2.4	1.9	2.0
Moody's Capital Markets Group	0.4 L	3.5 L	8.0	0.5	0.5	0.6	8.0	1.0	1.4	1.7	2.4	4.5 H	4.4	2.8 L	3.6	91.5	2.1	1.7	2.0
PNC Financial Services Corp.	0.4 L	3.6	0.9	na	0.5	0.6	0.7	0.9	1.3	1.8	2.4	na	4.4	3.2	3.6	90.6	2.3	1.7	2.0
Comerica Bank	0.4 L	3.5 L	0.8	na	0.3	0.6	0.7	0.9	1.3	1.7	2.4	na	na	na	3.5	na	2.4	2.0	2.3
Amherst Pierpont Securities	0.4 L	3.6	1.0	0.5	0.4	0.6	0.7	1.0	1.3	1.9	2.7	3.7	4.7	3.2	3.8	91.5	2.5	2.0	3.3
High Frequency Economics Chmura Economics & Analytics	0.4 L 0.4 L	3.5 L 3.5 L	na 0.7	na 0.4 L	0.5 0.3	0.6 0.4	0.8 0.6 L	0.9 0.7	1.4 1.2	1.9 1.7	2.6 2.4	na 3.4	na	na	na 3.5	na 91.9	2.3 2.8	2.4 1.3	2.4 1.7
Wells Fargo	0.4 L	3.6 L	0.7	0.4 L	0.3	0.4	0.6 L	0.7	1.2	1.7	2.4	3.4 3.3 L	na 4.3 L	na 2.9	3.4	93.3 H	2.0	2.0	2.1
Nat'l Assn. of Realtors	0.4 L	3.5 L	0.8	0.5	0.4	0.5	0.7	0.8	1.2	1.8	2.5	3.5	4.5	3.2	3.6	na	2.3	2.0	2.1
Economist Intelligence Unit	0.4 L	3.5 L	0.7	0.5	0.3	0.5	0.6 L	0.8	1.3	1.6	2.4	na	na	na	3.6	na	2.8	na	2.2
RDQ Economics	0.4 L	3.5 L	0.7	0.5	0.4	0.6	0.8	0.9	1.4	1.9	2.5	3.5	4.6	3.2	3.6	92.6	1.8	2.2	2.5
Stone Harbor Investment Partners	0.4 L	3.5 L	0.6 L	0.4 L	0.5	0.6	0.7	0.9	1.3	1.7	2.5	3.4	4.5	na	3.5	92.0	2.7	1.7	2.6
AIG	0.4 L	na	na	na	0.3	0.5	0.7	1.0	1.3	1.7	2.4	na	4.3 L	na	na	na	2.0	1.5	1.5
Fannie Mae	0.4 L	3.5 L	na	na	0.6	0.6	0.7	8.0	1.2	1.6	2.3	na	na	na	3.5	na	2.5	1.0	1.6
RBS Securities	0.4 L	3.5 L	0.9	0.4	0.3	0.4	0.6 L	0.6 L	1.0 L	1.6	2.4	3.4	4.6	3.1	3.3 L	92.0	2.4	1.9	2.3
Societe Generale	0.4 L	3.5 L		na	na	na	na	0.7	1.2	1.6	2.4	na	na	na	na	na	2.4	2.1	2.5
RBC	0.4 L	na	na	na	0.1 L	na	na	0.7	1.1	1.6	2.5	na	na	na	na	na	3.0 H	1.9	1.9
Wells Capital Management Georgia State University	0.4 L	3.5 L 3.5 L		0.4 L na	0.3 0.3	0.5 0.5	0.8 0.6 L	0.8 0.7	1.3 1.2	1.7 1.7	2.4 2.5	3.8 3.8	4.8 4.9	3.1	3.6 3.6	89.2	2.3 2.0	1.9 2.5	1.8 2.2
DS Economics	0.4 L 0.4 L		na 0.7	0.4 L	0.3	0.5	0.6 L	0.7	1.3	1.7	2.5	3.5	4.9	na 3.0	3.6	na 89.0 L	2.0	1.4	1.6
D3 Economics	0.4 L	J.J L	0.7	0.4 L	0.5	0.5	0.0 L	0.0	1.0	1.7	2.0	3.3	7.7	3.0	3.0	09.0 L	2.2	1.4	1.0
September Consensus	0.5	3.6	0.9	0.5	0.5	0.6	0.7	0.9	1.3	1.7	2.5	3.6	4.6	3.1	3.7	91.2	2.4	1.8	2.2
Top 10 Avg.	0.7	3.8	1.0	0.6	0.7	0.7	0.9	1.1	1.5	2.0	2.8	3.8	4.8	3.4	3.9	92.3	2.9	2.3	3.1
Bottom 10 Avg.	0.4	3.5	0.7	0.4	0.3	0.4	0.6	0.7	1.1	1.5	2.3	3.4	4.3	2.9	3.5	90.0	1.9	1.2	1.5
August Consensus	0.5	3.6	8.0	0.5	0.4	0.6	0.7	0.9	1.3	1.8	2.5	3.6	4.6	3.2	3.7	91.8	2.3	1.8	2.2
Number of Forecasts Changed From																			
Down	5	4	2	6	9	7	8	12	14	19	21	17	16	11	18	15	8	11	9
Same	35	31	11	15	24	17	15	22	21	20	15	7	4	7	13	8	20	25	24
Up	7	4	26	7	9	13	14	12	11	8	8	6	5	3	6	2	19	9	14
Diffusion Index	52 %	50 %	81 %	52 %	50 %	58 %	58 %	50 %	47 %	38 %	35 %	32 %	28 %	31 %	34 %	24 %	62 %	48 %	55 %

# First Quarter 2017 Interest Rate Forecasts

						Perc	ent Per A	nnum A	verage F	or Quarter						Avg. For	(Q-0	Q % Chan	ge)
Blue Chip	· · · · · · · · · · · · · · · · · · ·		SI	nort-Term					Intermed	diate-Term			Long-	Term		Qtr		-(SAAR)-	
Financial Forecasts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.	B.	C.	D.
Panel Members	Federal	Prime	LIBOR	Com.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home	Fed's Major		GDP	Cons.
	Funds	Bank	Rate	Paper	Bills	Bills	Bills	Notes	Notes	Notes	Bond	Corp.	Corp.	Local	Mtg.	Currency	Real	Price	Price
	Rate	Rate	3-Mo.	1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index
Naroff Economic Advisors	1.1 H	4.1 H	1.5 H	1.2 H	1.2	1.3 H	1.5 H	1.7 H	2.1 H	2.6 H	3.2 H	4.2	5.2	3.6	4.3	89.2 L	2.3	2.6	2.7
Woodworth Holdings	0.9	4.0	1.1	1.0	0.9	1.0	1.1	1.3	1.7	2.1	2.8	3.8	4.8	3.4	4.0	92.0	2.5	1.0	1.2
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	3.7	4.0	91.0	2.0	2.1	2.4
MUFG Union Bank	0.9	4.0	1.1	1.0	8.0	1.0	1.2	1.7 H	1.9	2.4	3.0	4.0	5.0	3.1	4.2	90.0	2.5	0.7 L	2.6
J.P. Morgan Chase	0.9	na	1.3	na	na	na	na	1.0	1.4	1.6	2.3	na	na	na	na	na	2.0	2.0	2.4
RidgeWorth Investments	0.9	4.0	1.2	0.9	0.7	0.9	1.1	1.3	1.8	2.4	3.2 H	4.1	5.1	4.2 H	4.2	92.0	2.5	2.0	2.2
SunTrust Banks	0.9	3.9	1.0	0.6	0.7	0.7	8.0	0.9	1.3	1.7	2.3	3.7	5.1	3.8	5.4 H	na	3.0	1.5	1.4
DePrince & Associates	8.0	3.8	1.1	0.9	0.7	8.0	1.0	1.2	1.5	1.9	2.6	3.7	4.6	3.5	3.8	89.6	2.2	1.8	1.9
Chmura Economics & Analytics	8.0	3.8	1.1	8.0	0.6	8.0	1.0	1.2	1.8	2.2	2.9	3.9	na	na	4.0	91.9	2.7	2.0	2.1
High Frequency Economics	8.0	3.9	na	na	0.7	0.9	1.0	1.3	1.7	2.2	2.9	na	na	na	na	na	2.3	2.6	2.6
MacroFin Analytics	0.7	3.8	1.2	8.0	0.7	8.0	0.9	1.1	1.5	1.9	2.7	3.7	4.6	3.2	3.8	91.9	2.3	1.9	2.0
Standard & Poor's Corp.	0.7	3.9	1.2	na	0.9	1.0	1.2	1.4	1.8	2.1	3.1	3.5	4.7	na	4.2	92.2	1.7	2.2	1.5
Wells Fargo	0.7	3.7	1.0	0.7	0.5	0.6	0.7	0.9	1.3	1.6	2.3	3.4 L	4.3 L	2.9	3.5	94.8	1.8	2.2	2.0
RDQ Economics	0.7	3.7	1.0	8.0	8.0	1.0	1.1	1.2	1.7	2.1	2.6	3.6	4.7	3.3	3.7	95.6 H	1.9	2.2	2.5
Moody's Analytics	0.7	3.8	1.0	0.6	0.2 L	0.4 L	0.6	1.1	1.8	2.3	3.1	4.1	5.6 H	3.3	3.8	na	3.3 H	1.7	2.6
Amherst Pierpont Securities	0.7	3.8	1.2	0.7	0.7	0.9	1.1	1.3	1.7	2.3	3.2 H	4.2	5.3	3.5	4.1	92.5	2.3	2.3	3.1 H
Oxford Economics	0.7	3.8	na	na	0.6	0.7	0.9	1.1	1.5	2.0	na	na	na	na	3.9	92.7	1.8	2.8 H	2.7
Regions Financial Corporation	0.7	3.8	1.0	0.7	0.5	0.7	8.0	0.9	1.3	1.7	2.4	3.5	4.4	3.0	3.6	93.2	2.2	1.8	1.7
Daiwa Capital Markets America	0.7	3.7	1.1	0.7	0.6	0.7	8.0	1.0	1.4	1.8	2.4	3.5	4.5	3.0	3.6	92.0	2.2	1.9	2.2
GLC Financial Economics	0.7	3.7	0.9	0.7	0.6	0.7	8.0	1.0	1.5	2.0	2.7	3.7	4.8	3.3	4.3	90.3	1.8	1.9	2.5
UBS AG	0.6	na	1.4	na	1.4 H	na	na	na	na	1.4	na	na	na	na	na	na	2.7	2.3	1.4
Comerica Bank	0.6	3.6	1.0	na	0.5	8.0	0.9	1.1	1.4	1.8	2.6	na	na	na	3.7	na	2.6	1.9	2.0
The Northern Trust Company	0.6	3.8	0.9	0.6	0.6	0.7	8.0	1.1	1.6	2.0	2.8	3.6	4.6	3.3	3.7	na	2.0	2.0	2.1
Action Economics	0.6	3.8	8.0	0.7	0.6	0.7	8.0	1.0	1.4	1.8	2.6	3.5	4.6	3.3	3.7	na	1.8	1.6	2.2
PNC Financial Services Corp.	0.6	3.8	1.0	na	0.6	8.0	8.0	1.0	1.4	1.9	2.5	na	4.5	3.2	3.7	91.1	2.2	1.9	2.2
Nomura Securities, Inc.	0.6	3.8	1.0	na	na	na	na	1.0	1.3	1.9	2.5	3.7	4.6	na	3.8	na	1.8	1.6	2.4
Goldman Sachs	0.6	na	0.9	na	0.5	na	na	1.1	1.5	2.1	2.7	na	na	na	3.8	na	2.0	2.0	2.5
Swiss Re	0.6	3.8	0.8	0.6	0.5	0.6	1.0	1.3	1.4	1.9	3.0	3.9	4.9	na	3.7	na oo 4	2.1 2.0	2.5	2.5
BMO Capital Markets Loomis, Sayles & Company	0.6 0.6	3.8 3.8	1.1 0.9	na 0.6	0.6 0.5	0.7 0.7	0.9 0.8	1.0 1.0	1.4 1.4	1.8 1.6	2.4 2.3	na 3.4 L	na 4.3 L	na 2.8 L	3.7 3.4	93.4 89.6	2.0	2.3 2.4	2.7 2.9
BNP Paribas Americas	0.6	na	0.9	na	na	na	na	na	1.4 1.0 L	1.0 1.3 L	2.5 1.6 L	na	na na	na L	na	na	1.3 L	na	1.8
Barclays Capital	0.6	3.8	na	na	1.0	na	na	0.8	1.2	1.6	2.4	na	na	na	na	na	2.5	2.2	2.4
Bank of America Merrill Lynch	0.6	na	1.0	na	0.5	na	na	0.9	1.3	1.8	2.5	na	na	na	na	na	2.1	1.8	1.9
Chase Wealth Management	0.6	3.7	1.0	0.6	0.5	0.6	0.8	1.0	1.4	1.8	2.5	3.5	4.5	3.1	3.7	90.1	1.6	1.8	2.2
Nat'l Assn. of Realtors	0.6	3.5 L	0.8	0.7	0.6	0.7	0.9	1.0	1.4	2.0	2.7	3.7	4.7	3.4	3.8	na	2.1	1.9	2.2
Stone Harbor Investment Partners	0.6	3.7	0.8	0.6	0.6	0.7	0.8	1.0	1.4	1.8	2.6	3.5	4.5	na	3.6	94.0	2.1	1.6	2.3
Scotiabank Group	0.5	3.5 L	na	na	0.4	na	na	0.9	1.1	1.4	2.2	na	na	na	na	na	2.3	2.0	2.3
DS Economics	0.5	3.6	0.8	0.6	0.5	0.6	0.8	1.0	1.5	2.0	2.8	3.5	4.4	3.2	3.7	91.0	2.1	2.3	2.4
Moody's Capital Markets Group	0.5	3.5 L	0.9	0.6	0.5	0.7	0.9	1.1	1.6	1.8	2.5	4.5 H	5.5	2.8 L	3.7	92.0	2.0	1.8	2.1
Wells Capital Management	0.5	3.6	0.9	0.5	0.5	0.7	0.9	1.0	1.4	1.8	2.6	3.9	4.9	3.2	3.7	89.6	2.4	2.0	2.0
Economist Intelligence Unit	0.5	3.5 L	0.7 L	0.5	0.4	0.6	0.7	0.9	1.4	1.8	2.5	na	na	na	3.7	na	1.8	na	2.2
Georgia State University	0.4 L	3.5 L	na	na	0.4	0.5	0.5 L	0.8	1.6	2.2	2.9	4.2	5.4	na	3.9	na	2.7	1.2	2.5
AIG	0.4 L	na	na	na	0.3	0.6	1.0	1.2	1.6	1.9	2.6	na	4.3 L	na	na	na	1.6	2.0	2.3
Societe Generale	0.4 L	3.5 L	0.7 L	na	na	na	na	0.9	1.3	1.7	2.4	na	na	na	na	na	2.3	2.0	1.7
RBS Securities	0.4 L	3.5 L	0.9	0.4 L	0.3	0.5	0.7	0.7 L	1.1	1.6	2.5	3.4 L	4.6	3.2	3.4 L	93.0	2.0	2.0	2.2
Fannie Mae	0.4 L	3.5 L	na	na	0.7	0.7	8.0	0.9	1.3	1.6	2.3	na	na	na	3.5	na	2.3	2.0	2.4
RBC	0.4 L	na	na	na	0.2 L	na	na	8.0	1.3	1.8	2.6	na	na	na	na	na	2.7	1.3	1.1 L
September Consensus	0.6	3.7	1.0	0.7	0.6	0.7	0.9	1.1	1.5	1.9	2.6	3.8	4.8	3.3	3.8	91.8	2.2	1.9	2.2
Top 10 Avg.	0.9	3.9	1.2	0.9	0.9	1.0	1.1	1.4	1.8	2.3	3.0	4.1	5.2	3.6	4.3	93.3	2.7	2.4	2.7
Bottom 10 Avg.	0.4	3.5	0.8	0.5	0.4	0.6	0.7	0.8	1.2	1.5	2.2	3.4	4.4	3.0	3.5	90.2	1.7	1.4	1.6
August Consensus	0.6	3.7	0.9	0.7	0.6	0.7	0.9	1.1	1.5	1.9	2.7	3.8	4.8	3.3	3.8	92.4	2.2	1.9	2.2
Number of Forecasts Changed From			0.0	0.1	0.0	0.1	0.0		1.0	1.5	2.1	0.0	1.0	0.0	0.0	02.7		1.0	۷.۷
Down	5	6	4	8	8	8	8	10	11	16	18	17	18	15	14	13	9	5	6
Same	36	29	15	15	24	16	13	23	21	23	19	8	8	7	16	9	30	34	33
Up	6	4	20	4	10	13	16	12	14	8	8	4	4	3	7	4	8	6	8
Diffusion Index	51 %	47 %	71 %	43 %	52 %	57 %	61 %	52 %	53 %	41 %	39 %	28 %	27 %	26 %	41 %	33 %	49 %	51 %	52 %

# Second Quarter 2017 Interest Rate Forecasts

Shee Chip   Pinancial Droceasts   Panel Members   Federal   Pina   LBOR   Con.   Tess.   Tes	D. Cons. Price Index 2.9 1.3 L 3.8 H 2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 2.5
Panel Members   Federal   Prince   LeOR   Corn.   Treas.   Treas	Cons. Price Index 2.9 1.3 L 3.8 H 2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 2.5
Narolf Economic Advisors   13 H   43 H   17 H   13 H   14 H   15 H   17 H   20 H   25 H   26 H   37 H   37 H   38 H   48 H   58 H   5	Price Index  2.9 1.3 L 3.8 H 2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 2.5
Naroff Economic Advisors  1.3 H 4.3 H 1.7 H 1.3 H 1.4 I 1.5 H 1.7 H 2.0 H 2.5 H 3.7 H 4.7 H 4.5 T 3.7 H 4.7 H 2.5 H 3.7 H 4.7 H 3.7 H 3.7 H 4.7 H 3.7	ndex 2.9 1.3 L 3.8 H 2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 2.5
Naroff Economic Achisors  1.3 H 4.3 H 1.7 H 1.3 H 1.4 H 1.5 H 1.5 H 1.7 H 2.0 H 2.5 H 3.7 H 4.4 5.5 3.9 4.7 88.5 L 2.6 2.4 Woodworth Holdings  1.2 4.3 H 1.3 1.2 1.1 1.2 1.3 1.5 1.9 2.4 3.0 4.1 5.0 3.6 4.2 92.5 2.5 1.2 Millor Blank  1.2 4.3 H 1.4 1.2 1.1 1.3 1.5 1.9 2.1 2.6 3.0 4.1 5.0 3.6 4.2 92.5 2.5 1.2 Millor Blank  1.1 4.3 H 1.5 1.2 1.0 1.1 1.3 1.5 1.9 2.0 2.6 3.4 4.3 5.3 4.6 H 4.4 92.0 2.5 2.5 RidgeWorth Investments  1.1 4.3 H 1.5 1.2 1.0 1.1 1.3 1.5 1.9 2.0 2.6 3.4 4.3 5.3 4.6 H 4.4 92.0 2.5 2.5 2.2 J.P. Morgan Chase  1.0 4.1 1.4 1.1 1.0 9. 1.1 1.2 1.4 1.8 2.2 3.3 0.0 40 4.9 3.5 4.1 92.4 2.2 2.0 J.P. Morgan Chase  1.0 1.0 1.1 1.2 1.4 1.0 9. 1.1 1.2 1.4 1.8 2.2 3.3 0.0 40 4.9 3.5 4.1 92.4 92.4 2.2 2.0 J.P. Morgan Chase  1.0 1.1 1.4 1.0 1.0 1.1 1.2 1.4 1.5 E.2 2.3 3.0 40 4.9 3.5 4.1 92.4 2.2 2.0 J.P. Morgan Chase  1.0 4.1 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.3 3.0 40 4.9 3.5 4.1 9.2 4.2 2.2 2.0 J.P. Morgan Chase  1.0 4.1 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.3 3.0 40 4.9 3.5 4.1 9.3 5.4 1.9 2.4 2.2 2.0 J.P. Morgan Chase  1.0 4.1 1.0 1.0 1.2 1.4 1.6 2.0 2.7 3.3 1.0 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.3 3.0 1.0 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.0 2.7 3.1 H 4.7 H 5.8 3.9 4.5 93.5 2.6 2.2 Sun Trust Banks  0.9 3.9 1.1 0.7 0.8 0.8 0.9 1.1 1.3 1.7 2.1 2.3 1.3 3.8 5.1 3.8 5.8 H 1.0 3.1 H 1.5 E.2 2.0 2.2 2.0 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.0 2.7 3.0 1.0 1.4 1.7 2.3 L 3.8 5.1 3.8 5.8 H 1.0 3.1 H 1.5 E.2 2.0 2.4 1.0 9.0 2.1 1.9 9.0 1.0 1.2 1.4 1.5 E.2 2.2 2.0 2.4 3.3 0.0 4.0 4.0 5.0 3.5 4.0 90.0 2.1 1.9 9.0 1.0 1.0 1.2 1.4 1.5 E.2 2.2 2.0 2.4 3.4 4.4 3.0 3.5 9.0 0.2 2.2 2.1 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.2 2.0 2.4 2.3 3.0 4.0 4.0 5.0 3.5 9.0 0.2 2.2 2.1 1.0 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.2 2.8 3.9 4.9 3.5 4.0 9.0 3.5 4.0 9.0 2.2 1.1 1.9 1.0 1.0 1.0 1.2 1.4 1.5 E.2 2.2 2.8 3.9 4.9 3.5 4.0 9.0 3.5 4.0 9.0 2.2 1.1 1.9 1.0 1.0 1.0 1.0 1.2 1.4 1.5 1.2 1.4 1.5 2.0 2.4 2.8 3.9 4.9 3.5 4.0 9.0 3.1 1.9 2.3 1.0 1.0 1.2 1.4 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	2.9 1.3 L 3.8 H 2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 2.5
Mode with Holdings   12	1.3 L 3.8 H 2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 2.5
MERIGAP Worth Investments 12 4.3 H 1.4 12 1.0 1.1 1.3 1.5 1.9 2.1 2.6 3.1 4.2 5.2 3.2 4.4 8.90 2.5 2.5 2.5 MacroFin Analysins 11 4.3 H 1.5 1.2 1.0 1.1 1.3 1.5 1.9 2.1 2.6 3.1 4.2 5.2 3.0 4.0 4.9 3.5 4.1 92.0 2.5 2.2 2.2 2.2 3.0 4.0 4.9 3.5 4.1 92.4 2.2 2.2 2.0 3.0 4.0 4.9 3.5 4.1 92.4 2.2 2.0 3.0 4.0 4.9 3.5 4.1 92.4 2.2 2.0 3.0 4.0 4.9 3.5 4.1 92.4 2.2 2.0 3.0 4.0 4.9 3.5 4.1 92.4 2.2 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	3.8 H 2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 2.5
RidgeWorth Investments	2.2 2.1 2.4 2.7 3.2 1.5 2.1 2.1 2.4 2.7 1.6 2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3
Memorphi Analytics   1,0   4,1   1,4   1	2.1 2.4 2.7 3.2 1.5 2.1 2.1 2.4 2.7 1.6 2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 3.0 2.5
J.P. Morgan Chase	2.4 2.7 3.2 1.5 2.1 2.1 2.4 2.7 1.6 2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 3.0 1.8 2.5 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
High Frequency Economics 1.0 4.1 na na na 1.0 1.1 1.2 1.4 1.9 2.3 3.0 na	3.2 1.5 2.1 2.4 2.7 1.6 2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 3.0 1.8 2.2 2.3 3.6
SunTrust Banks 0.9 3.9 1.1 0.7 0.8 0.8 0.9 1.0 1.4 1.7 2.3 L 3.8 5.1 3.8 5.8 H na 3.1 H 1.6 Chase Wealth Management 0.9 4.0 1.3 0.9 0.8 0.9 1.1 1.3 1.7 2.1 2.8 3.8 4.8 3.4 4.0 90.0 2.1 1.9 1.2 Cycledata Corp.  Q9 4.0 1.2 1.0 0.9 0.7 0.8 0.9 1.1 1.3 1.7 2.1 2.8 3.8 4.8 3.4 4.0 3.0 3.5 96.0 2.2 2.1 1.9 1.2 Cycledata Corp.  Q19 4.0 1.2 1.0 0.9 1.0 1.2 1.4 1.8 2.3 3.0 4.0 5.0 3.7 4.1 91.0 91.0 1.2 1.4 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8	1.5 2.1 2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Chase Wealth Management         0.9         4.0         1.3         0.9         0.8         0.9         1.1         1.3         1.7         2.1         2.8         3.8         4.8         3.4         4.0         90.0         2.1         1.9         9.0         1.0         0.9         1.1         0.9         0.7         0.8         0.9         1.1         1.3         1.6         2.4         3.4         4.4         3.0         3.5         96.0         2.2         2.1           Cycledata Corp.         0.9         3.9         1.2         1.0         0.9         1.0         1.2         1.4         1.5         2.0         2.4         2.8         3.9         4.9         3.5         4.0         97.3         H         1.9         2.2         2.1           RDG Economics         0.9         1.0         1.2         1.4         1.5         0.0         2.1         1.8         2.3         3.0         4.0         97.3         H         1.9         2.0         2.2         2.1         1.0         1.0         1.1         1.3         1.6         2.1         1.0         4.0         1.0         2.2         2.1         1.0         1.0         1.0         1.2	2.1 2.4 2.7 1.6 2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Wells Fargo 0.9 3.9 1.1 0.9 0.7 0.8 0.9 1.1 1.3 1.6 2.4 3.4 4.4 3.0 3.5 96.0 2.2 2.1 1.5 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 3.7 4.1 91.0 2.0 2.1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	2.1 2.4 2.7 1.6 2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Cycledata Corp.  Cycledata Cycledata Corp.  Cycledata Cycledata Corp.  Cycledata Cycledata Corp.  Cycledata	2.4 2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
RDQ Economics   Q.9   3.9   1.2   1.0   1.0   1.2   1.4   1.5   2.0   2.4   2.8   3.9   4.9   3.5   4.0   97.3   H   1.9   2.3   1.9   1.5   1	2.7 1.6 2.1 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
UBS AG         0.9         na         1.5         na         1.5         na	1.6 2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Oxford Economics         0.9         3.9         na         na         0.9         1.0         1.0         1.0         1.3         1.6         2.1         na         na         na         q.2         93.1         2.6         2.2         2.0         Nomura Securities, Inc.         0.9         4.0         1.3         na         na         na         1.0         1.3         1.0         1.0         1.3         1.0         1.0         1.0         1.0         1.3         1.0         2.0         2.6         3.8         4.7         na         4.0         na         2.0         1.6         0.0         1.0         1.0         1.0         1.2         1.4         1.7         2.2         2.8         3.9         4.8         3.7         4.0         8.0         2.2         2.0         0.0         1.0         1.0         1.0         1.1         1.3         1.5         1.9         2.4         3.2         3.7         4.9         na         4.3         9.9         2.7         2.5         2.0         2.0         2.4         3.2         3.7         4.9         na         4.3         9.9         2.7         2.5         2.2         2.2         2.2         2.0         0.0 <td>2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5</td>	2.1 2.2 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Nomura Securities, Inc.    Nomura Securities, Inc.   Nomura Securities	2.2 2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
DePrince & Assoc.  0.9 3.9 1.3 1.1 0.9 1.0 1.2 1.4 1.7 2.2 2.8 3.9 4.8 3.7 4.0 89.8 2.2 2.0 Coldman Sachs & Co.  0.9 na 1.1 na 0.7 na na na 1.3 1.8 2.2 2.7 na na na na 4.0 na 2.0 2.0 Standard & Poor's Corp.  0.9 3.8 1.3 na 0.9 1.1 1.3 1.5 1.9 2.4 3.2 3.7 4.9 na na 4.3 92.9 2.7 2.5 Bardsy Capital  Bank of America Merrill Lynch  0.9 na 1.2 na na 0.7 na na na 0.9 1.1 1.3 1.7 2.4 na na na na na na 1.9 1.8 Chmura Economics & Analytics  0.8 3.8 1.1 0.9 0.7 0.9 1.1 1.3 2.1 2.4 3.2 1.2 4 3.2 1.3 1.4 1.5 1.5 1.9 2.4 1.5 1.8 1.5 1.9 1.5 1.8 1.5 1.9 1.8 1.5 1.9 1.8 1.5 1.9 1.8 1.5 1.9 1.8 1.5 1.9 1.5 1.8 1.5 1.5 1.8 1.5 1.5 1.8 1.5 1.5 1.8 1.5 1.5 1.8 1.5 1.5 1.8 1.5 1.5 1.8 1.5 1.5 1.8 1.5 1.5 1	2.2 2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Goldman Sachs & Co.  0.9  0.9  0.9  0.9  0.9  0.9  0.9  0	2.3 3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Standard & Poor's Corp.  0.9 3.8 1.3 na 0.9 1.1 1.3 1.5 1.9 2.4 3.2 3.7 4.9 na 4.3 92.9 2.7 2.5 Barclays Capital  0.9 4.0 na	3.6 2.8 1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Bank of America Merrill Lynch  0.9  na  1.2  na  0.7  na  na  na  0.9  1.4  2.0  2.6  na  na  na  na  na  na  na  na  na  n	1.9 2.5 2.5 3.0 1.8 2.2 2.3 2.5
Chmura Economics & Analytics 0.8 3.8 1.1 0.9 0.7 0.9 1.1 1.3 2.1 2.4 3.2 4.2 na na na 4.3 89.9 2.5 2.4 Moody's Analytics 0.8 3.9 1.1 0.7 0.4 L 0.5 L 0.7 L 1.0 2.0 2.8 3.6 4.5 6.1 H 3.6 4.2 na 2.9 2.1 GLC Financial Economics 0.8 3.8 1.0 0.9 0.7 0.8 0.9 1.1 1.7 2.2 2.9 3.9 5.0 3.5 4.2 90.6 2.9 3.0 H Swiss Re 0.8 3.9 1.0 0.7 0.6 0.7 1.0 1.3 1.5 2.1 3.1 4.0 5.0 na 3.9 na 2.1 0.8 L Daiwa Capital Markets America 0.8 3.8 1.3 0.8 0.7 0.9 1.0 1.2 1.6 1.9 2.5 3.6 4.6 3.1 3.7 92.0 2.3 1.9 Scotiabank Group 0.8 3.8 na na na 0.6 na na 1.0 1.3 1.5 2.3 L na na na na na na na na na 0.5 Stone Harbor Investment Partners 0.8 3.9 0.9 L 0.8 0.8 0.9 1.0 1.2 1.6 1.9 2.5 3.6 4.6 3.1 3.7 93.0 2.3 2.1 Action Economics 0.7 3.8 0.9 L 0.8 0.8 0.9 1.0 1.2 1.5 1.8 2.5 na na na 3.7 93.0 2.4 2.1 Natl Assn. of Realtors 0.7 3.8 0.9 L 0.8 0.8 0.9 1.1 1.2 1.6 1.9 2.7 3.5 1.8 2.5 na na na 3.6 4.0 na 2.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	2.5 2.5 3.0 1.8 2.2 2.3 2.5
Moody's Analytics         0.8         3.9         1.1         0.7         0.4         L         0.5         L         0.7         L         1.0         2.0         2.8         3.6         4.5         6.1         H         3.6         4.2         na         2.9         2.1           GLC Financial Economics         0.8         3.8         1.0         0.9         0.7         0.8         0.9         1.1         1.7         2.2         2.9         3.9         5.0         3.5         4.2         90.6         2.9         3.0         H           Swiss Re         0.8         3.9         1.0         0.7         0.6         0.7         1.0         1.3         1.5         2.1         3.1         4.0         5.0         na         3.9         na         2.1         0.8         1.0         0.8         1.0         0.8         0.8         0.8         0.7         0.9         1.0         1.2         1.6         1.9         2.5         3.6         4.6         3.1         3.7         92.0         2.3         1.9         2.2         2.0         2.8         3.7         4.7         na         na         na         na         na         na         na	2.5 3.0 1.8 2.2 2.3 2.5
GLC Financial Economics 0.8 3.8 1.0 0.9 0.7 0.8 0.9 1.1 1.7 2.2 2.9 3.9 5.0 3.5 4.2 90.6 2.9 3.0 H Swiss Re 0.8 3.9 1.0 0.7 0.6 0.7 1.0 1.3 1.5 2.1 3.1 4.0 5.0 na 3.9 na 2.1 0.8 L Daiwa Capital Markets America 0.8 3.8 1.3 0.8 0.7 0.9 1.0 1.2 1.6 1.9 2.5 3.6 4.6 3.1 3.7 92.0 2.3 1.9 Scotiabank Group 0.8 3.8 na na na 0.6 na na na 1.0 1.3 1.5 2.3 L na	3.0 1.8 2.2 2.3 2.5
Swiss Re         0.8         3.9         1.0         0.7         0.6         0.7         1.0         1.3         1.5         2.1         3.1         4.0         5.0         na         3.9         na         2.1         0.8         L         0.8         L         0.8         1.3         0.8         0.7         0.9         1.0         1.2         1.6         1.9         2.5         3.6         4.6         3.1         3.7         92.0         2.3         1.9         2.5         3.6         4.6         3.1         3.7         92.0         2.3         1.9         2.5         3.6         4.6         3.1         3.7         92.0         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         1.9         2.3         4.0         3.4         3.7         93.0         2.3         2.1         4.0         2.2         2.9         3.5         4.6<	1.8 2.2 2.3 2.5
Daiwa Capital Markets America  0.8 3.8 1.3 0.8 0.7 0.9 1.0 1.2 1.6 1.9 2.5 3.6 4.6 3.1 3.7 92.0 2.3 1.9  Scotiabank Group  0.8 3.8 na na na 0.6 na na 1.0 1.3 1.5 2.3 L na	2.2 2.3 2.5
Scotiabank Group         0.8         3.8         na         na         0.6         na         na         1.0         1.3         1.5         2.3         L         na         na         na         2.3         2.0           Stone Harbor Investment Partners         0.8         3.9         0.9         L         0.8         0.9         1.0         1.2         1.6         2.0         2.8         3.7         4.7         na         3.5         93.0         2.3         2.1           Action Economics         0.7         3.8         0.9         L         0.8         1.0         1.2         1.6         1.9         2.7         3.5         4.6         3.4         3.7         na         2.3         2.7           BMO Capital Markets         0.7         3.8         1.1         na         0.6         0.8         1.0         1.2         1.5         1.8         2.5         na         na         na         2.3         2.4         2.1           Nat'l Assn. of Realtors         0.7         3.8         1.1         0.8         0.6         0.8         0.9         1.0         1.4         1.8         2.5         3.6         4.6         3.1         3.6         93.3<	2.3 2.5
Stone Harbor Investment Partners         0.8         3.9         0.9         L         0.8         0.9         1.0         1.2         1.6         2.0         2.8         3.7         4.7         na         3.5         93.0         2.3         2.1           Action Economics         0.7         3.8         0.9         L         0.8         0.7         0.8         1.0         1.2         1.6         1.9         2.7         3.5         4.6         3.4         3.7         na         2.3         2.7           BMO Capital Markets         0.7         3.8         1.1         na         0.6         0.8         1.0         1.2         1.5         1.8         2.5         na         na         3.7         93.0         2.4         2.1           Nat'l Assn. of Realtors         0.7         3.8         1.1         0.8         0.6         0.8         0.9         1.1         1.2         1.6         2.2         2.9         3.9         4.9         3.6         4.0         na         2.1         2.0           Regions Financial Corporation         0.7         3.8         1.1         0.8         0.6         0.8         0.9         1.0         1.3         1.9         2.3	2.5
Action Economics 0.7 3.8 0.9 L 0.8 0.7 0.8 1.0 1.2 1.6 1.9 2.7 3.5 4.6 3.4 3.7 na 2.3 2.7 BMO Capital Markets 0.7 3.8 1.1 na 0.6 0.8 1.0 1.2 1.5 1.8 2.5 na na na na na 3.7 93.0 2.4 2.1 Nat'l Assn. of Realtors 0.7 3.8 0.9 L 0.8 0.8 0.9 1.1 1.2 1.6 2.2 2.9 3.9 4.9 3.6 4.0 na 2.1 2.0 Regions Financial Corporation 0.7 3.8 1.1 0.8 0.6 0.8 0.9 1.0 1.4 1.8 2.5 3.6 4.6 3.1 3.6 93.3 2.1 1.8 The Northern Trust Company 0.7 3.8 0.9 L 0.7 0.7 0.8 1.0 1.3 1.9 2.3 3.0 3.8 4.9 3.6 3.9 na 2.0 2.0 Loomis, Sayles & Company 0.7 4.0 0.9 L 0.7 0.6 0.7 0.9 1.2 1.5 1.8 2.3 L 3.4 4.4 2.8 L 3.6 89.6 2.0 2.3 PNC Financial Services Corp. 0.7 3.8 1.1 na 0.7 0.9 0.9 1.1 1.5 2.0 2.6 na 4.5 3.1 3.7 91.4 2.2 2.0	
BMO Capital Markets 0.7 3.8 1.1 na 0.6 0.8 1.0 1.2 1.5 1.8 2.5 na na na na 3.7 93.0 2.4 2.1 Nat'l Assn. of Realtors 0.7 3.8 0.9 L 0.8 0.8 0.9 1.1 1.2 1.6 2.2 2.9 3.9 4.9 3.6 4.0 na 2.1 2.0 Regions Financial Corporation 0.7 3.8 1.1 0.8 0.6 0.8 0.9 1.0 1.4 1.8 2.5 3.6 4.6 3.1 3.6 93.3 2.1 1.8 The Northern Trust Company 0.7 3.8 0.9 L 0.7 0.7 0.8 1.0 1.3 1.9 2.3 3.0 3.8 4.9 3.6 3.9 na 2.0 2.0 Loomis, Sayles & Company 0.7 4.0 0.9 L 0.7 0.6 0.7 0.9 1.2 1.5 1.8 2.3 L 3.4 4.4 2.8 L 3.6 89.6 2.0 2.3 PNC Financial Services Corp. 0.7 3.8 1.1 na 0.7 0.9 0.9 1.1 1.5 2.0 2.6 na 4.5 3.1 3.7 91.4 2.2 2.0	2.1
Nat'l Assn. of Realtors 0.7 3.8 0.9 L 0.8 0.8 0.9 1.1 1.2 1.6 2.2 2.9 3.9 4.9 3.6 4.0 na 2.1 2.0 Regions Financial Corporation 0.7 3.8 1.1 0.8 0.6 0.8 0.9 1.0 1.4 1.8 2.5 3.6 4.6 3.1 3.6 93.3 2.1 1.8 The Northern Trust Company 0.7 3.8 0.9 L 0.7 0.7 0.8 1.0 1.3 1.9 2.3 3.0 3.8 4.9 3.6 3.9 na 2.0 2.0 Loomis, Sayles & Company 0.7 4.0 0.9 L 0.7 0.6 0.7 0.9 1.2 1.5 1.8 2.3 L 3.4 4.4 2.8 L 3.6 89.6 2.0 2.3 PNC Financial Services Corp. 0.7 3.8 1.1 na 0.7 0.9 0.9 1.1 1.5 2.0 2.6 na 4.5 3.1 3.7 91.4 2.2 2.0	2.3
The Northern Trust Company 0.7 3.8 0.9 L 0.7 0.8 1.0 1.3 1.9 2.3 3.0 3.8 4.9 3.6 3.9 na 2.0 2.0 Loomis, Sayles & Company 0.7 4.0 0.9 L 0.7 0.6 0.7 0.9 1.2 1.5 1.8 2.3 L 3.4 4.4 2.8 L 3.6 89.6 2.0 2.3 PNC Financial Services Corp. 0.7 3.8 1.1 na 0.7 0.9 0.9 1.1 1.5 2.0 2.6 na 4.5 3.1 3.7 91.4 2.2 2.0	2.2
Loomis, Sayles & Company 0.7 4.0 0.9 L 0.7 0.6 0.7 0.9 1.2 1.5 1.8 2.3 L 3.4 4.4 2.8 L 3.6 89.6 2.0 2.3 PNC Financial Services Corp. 0.7 3.8 1.1 na 0.7 0.9 0.9 1.1 1.5 2.0 2.6 na 4.5 3.1 3.7 91.4 2.2 2.0	1.9
PNC Financial Services Corp. 0.7 3.8 1.1 na 0.7 0.9 0.9 1.1 1.5 2.0 2.6 na 4.5 3.1 3.7 91.4 2.2 2.0	2.1
	2.2
	2.2
Comerica Bank 0.7 3.7 1.0 na 0.6 0.7 0.9 1.1 1.4 1.8 2.6 na na na 3.7 na 2.6 2.0	2.3
Economist Intelligence Unit 0.7 3.7 0.9 L 0.7 0.6 0.8 0.9 1.1 1.6 2.0 2.7 na na na 4.0 na 2.4 na	2.3
AIG 0.6 na na na 0.5 0.9 1.1 1.3 1.7 2.2 2.9 na 4.3 L na na na 2.0 2.0	2.0
Georgia State University 0.6 3.6 na na 0.6 0.6 0.7 L 0.9 1.7 2.3 3.0 4.4 5.5 na 4.2 na 2.3 2.0	2.4
BNP Paribas Americas 0.6 na 0.9 L na na na na 1.1 1.3 1.6 na	1.8 2.1
DS Economics 0.6 3.7 0.9 L 0.7 0.6 0.8 1.0 1.2 1.7 2.2 2.9 3.4 4.3 L 3.4 3.8 91.0 2.2 2.3	2.1
Moody's Capital Markets Group 0.6 3.8 1.0 0.7 0.6 0.8 1.0 1.2 1.6 1.9 2.5 4.6 4.6 2.8 3.8 92.5 2.3 2.0	1.9
Societe Generale 0.5 3.7 0.9 L na na na na 1.2 1.3 1.7 2.5 na na na na na 2.1 2.1	2.1
RBC 0.5 na na na 0.4 L na na 0.9 1.4 1.9 2.7 na na na na na la 2.6 1.8	1.9
Fannie Mae 0.4 L 3.5 L na na 0.7 0.8 0.8 1.0 1.4 1.7 2.3 L na na na 3.5 na 2.1 2.1	2.4
RBS Securities 0.4 L 3.5 L 0.9 L 0.4 L 0.4 L 0.6 0.8 0.6 L 0.9 L 1.4 L 2.4 3.1 L 4.3 L 3.1 3.2 L 94.0 2.2 1.7	2.9
September Consensus 0.8 3.9 1.1 0.9 0.8 0.9 1.1 1.2 1.6 2.1 2.8 3.9 4.9 3.4 4.0 91.9 2.3 2.1	2.3
Top 10 Avg. 1.0 4.1 1.4 1.1 1.1 1.2 1.4 1.6 2.0 2.6 3.3 4.3 5.4 3.8 4.5 93.9 2.7 2.5	3.0
Bottom 10 Avg. 0.6 3.7 0.9 0.7 0.5 0.7 0.8 0.9 1.3 1.6 2.4 3.5 4.4 3.1 3.6 89.9 1.9 1.6	1.8
	2.3
Number of Forecasts Changed From A Month Ago:	
Down 6 6 6 7 8 9 11 13 13 16 16 15 17 13 15 14 11 7	6
Same 35 27 13 16 26 17 14 21 21 21 9 10 9 14 10 29 29	
Up 6 6 20 5 8 11 12 12 10 7 6 4 4 8 2 7 9	35
Diffusion Index 50 % 50 % 68 % 46 % 50 % 53 % 51 % 49 % 49 % 44 % 40 % 35 % 29 % 33 % 41 % 27 % 46 % 52 %	35 6

# Third Quarter 2017 Interest Rate Forecasts

						Perc	ent Per A	num A	verage F	or Quarter	·					Avg. For	(Q-	Q % Chang	je)
Blue Chip			S	hort-Term					Intermed	diate-Term	·		Long-	Term		Qtr		(SAAR)	
Financial Forecasts	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.	B.	C.	D.
Panel Members	Federal	Prime	LIBOR	Com.	Treas.	Aaa	Baa	State &	Home	Fed's Major		GDP	Cons.						
	Funds	Bank	Rate	Paper	Bills	Bills	Bills	Notes	Notes	Notes	Bond	Corp.	Corp.	Local	Mtg.	Currency	Real	Price	Price
Did a Wasth law a top a sta	Rate	Rate	3-Mo.	1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index
RidgeWorth Investments Naroff Economic Advisors	1.5 H 1.5 H	4.6 H 4.5	1.9 H 1.9 H	1.5 1.6 H	1.4 1.7 H	1.5 1.9 H	1.7 2.2 H	1.9 2.5 H	2.5 3.0 H	3.1 3.6 H	3.9 4.1 H	4.8 4.7	5.8 5.7	5.3 H 4.1	4.9 5.2	91.0 87.0 L	2.5 1.8	2.2 2.6	2.2 3.1
MUFG Union Bank	1.5 H	4.5	1.9 П	1.5	1.7 11	1.9 П	2.2 n 1.8	2.5 n	3.0 n	2.7	4.1 П 3.2	4.7	5.7	3.4	4.5	88.0	2.3	1.8	2.4
High Frequency Economics	1.3	4.4	na	na	1.2	1.4	1.4	1.5	2.0	2.4	3.1	na	na	na	na	na	2.3	2.8	2.8
MacroFin Analytics	1.2	4.3	1.7	1.3	1.2	1.3	1.4	1.6	2.0	2.4	3.2	4.2	5.1	3.7	4.3	93.0	2.1	2.0	2.1
RDQ	1.2	4.2	1.5	1.3	1.3	1.5	1.7	1.8	2.2	2.6	3.0	4.1	5.1	3.7	4.2	98.3 H	1.7	2.3	2.7
Amherst Pierpont Securities	1.2	4.3	1.7	1.3	1.3	1.5	1.8	1.9	2.3	3.0	4.0	5.1 H	6.1	4.2	4.9	94.5	2.7	2.3	3.4
Woodworth Holdings	1.2	4.3	1.3	1.2	1.1	1.2	1.3	1.5	1.9	2.4	3.0	4.1	5.0	3.6	4.2	93.0	2.5	1.4 L	1.5
Moody's Capital Markets Group	1.1	4.1	1.5	1.2	1.1	1.2	1.2	1.3	1.6	1.8	2.4	4.5	4.9	2.8 L	3.8	92.1	1.5 L	2.0	1.4 L
Goldman Sachs & Co.	1.1	na	1.4	na	0.9	na	na	1.5	2.0	2.3	2.8	na	na	na	4.1	na	2.0	2.0	2.2
DePrince & Assoc.	1.1	4.1	1.6	1.4	1.2	1.3	1.4	1.7	2.0	2.4	3.0	4.1	5.1	3.9	4.3	90.2	2.2	2.3	2.5
J.P. Morgan Chase Wells Fargo	1.1 1.1	na 4.1	na 1.3	na 1.1	na 0.8	na 0.9	na 1.0	na 1.2	na 1.4	na 1.7	na 2.4	na 3.5	na 4.4	na 3.0	na 3.6	na 97.3	1.5 L 2.0	2.0 2.1	2.5 2.0
SunTrust Banks	1.1	4.1	1.2	0.8	0.8	0.9	0.9	1.0	1.4	1.8	2.4	3.8	5.2	3.8	5.9 H	na na	3.2 H	1.7	1.7
GLC Financial Economics	1.0	4.0	1.3	1.1	1.0	1.0	1.1	1.3	2.0	2.5	3.2	4.3	5.4	3.8	4.4	90.9	2.6	2.8	2.7
Scotiabank Group	1.0	4.0	na	na	0.9	na	na	1.3	1.5	1.8	2.3	na	na	na	na	na	2.3	2.0	2.3
Stone Harbor Investment Partners	1.0	4.1	1.2	1.0	0.9	1.0	1.2	1.4	1.8	2.2	3.0	3.8	4.8	na	4.0	93.0	1.8	2.2	2.3
Chmura Economics & Analytics	1.0	4.0	1.3	1.0	8.0	1.1	1.3	1.5	2.3	2.8	3.5	4.5	na	na	4.6	88.7	2.8	2.0	2.4
Swiss Re	1.0	4.1	1.2	0.9	8.0	0.9	1.1	1.4	1.8	2.3	3.3	4.2	5.2	na	4.1	na	2.0	3.3 H	4.3 H
Standard & Poor's Corp.	1.0	4.0	1.6	na	1.2	1.4	1.5	1.7	2.1	2.5	3.2	3.8	4.9	na	4.5	93.0	2.6	2.4	2.9
Moody's Analytics	0.9	4.1	1.2	8.0	0.4	0.6 L	8.0	1.1	2.2	3.2	3.9	4.8	6.4 H	3.9	4.6	na	2.7	2.2	2.6
The Northern Trust Company	0.9	4.1	1.2	0.9	0.9	1.1	1.2	1.5	2.1	2.5	3.3	4.0	5.1	3.8	4.1	na	2.0	2.1	2.2
Oxford Economics	0.9	4.0	na	na	0.9	1.1	1.1	1.3	1.7	2.2	na	na	na 4.7	na	4.4	93.5	2.5	2.1	1.8
Regions Financial Corporation Nat'l Assn. of Realtors	0.9 0.9	4.0 3.8	1.2 1.1	1.0 1.0	0.7 1.0	0.9 1.1	1.0 1.3	1.1 1.4	1.5 1.8	1.9 2.4	2.6 3.1	3.6 4.1	4.7 5.0	3.2 3.8	3.7 4.2	92.7 na	2.1 2.0	1.6 2.0	1.8 2.2
Chase Wealth Management	0.9	4.0	1.3	0.9	0.8	1.0	1.1	1.4	1.7	2.4	2.8	3.8	4.8	3.4	4.0	90.3	2.3	2.0	2.2
PNC Financial Services Corp.	0.9	4.0	1.3	na	0.9	1.0	1.1	1.3	1.7	2.1	2.7	na	4.7	3.1	3.8	91.6	2.3	2.0	2.3
Daiwa Capital Markets America	0.9	3.9	1.4	0.9	0.8	1.0	1.1	1.4	1.7	2.0	2.6	3.7	4.6	3.2	3.8	92.0	2.3	2.0	2.3
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	3.7	4.1	91.0	1.9	2.1	2.4
Comerica Bank	0.9	3.9	1.2	na	8.0	0.9	1.1	1.3	1.6	2.0	2.7	na	na	na	3.9	na	2.3	2.0	1.8
BMO Capital Markets	0.9	4.0	1.3	na	8.0	0.9	1.1	1.3	1.6	1.9	2.5	na	na	na	3.8	92.5	2.1	1.9	2.1
Loomis, Sayles & Company	0.9	4.0	1.1	0.9	8.0	0.9	1.1	1.3	1.5	1.8	2.3 L	3.4	4.4	2.8 L	3.6	89.6	1.9	2.3	2.1
Action Economics UBS AG	0.9	4.0	1.0	0.9	0.9	1.0	1.2	1.3	1.7	2.0	2.7	3.5	4.6	3.3	3.7	na	2.4	2.0	2.2
Nomura Securities, Inc.	0.9 0.9	na 4.0	1.6 1.3	na	1.6	na	na	na 1.0	na 1.3	1.5 L 2.0	na 2.6	na 3.8	na 4.7	na	na 4.0	na	2.3 1.9	2.3 1.6	2.2 2.3
Barclays Capital	0.9	4.0	na	na na	na na	na na	na na	na	na	na	na	na	na	na na	na	na na	2.5	2.3	2.3
Wells Capital Management	0.7	3.8	1.1	0.8	0.8	1.0	1.2	1.3	1.7	2.1	2.8	4.2	5.3	3.4	4.0	90.1	2.5	2.2	2.1
DS Economics	0.7	3.8	1.0	0.7	0.6	0.9	1.1	1.3	1.8	2.4	3.1	3.5	4.4	3.6	4.0	92.0	2.0	2.4	2.5
Economist Intelligence Unit	0.7	3.7	0.9 L	0.7	0.6	8.0	0.9	1.1	1.6	2.0	2.9	na	na	na	4.0	na	2.8	na	2.2
AIG	0.6	na	na	na	0.5	0.9	1.2	1.5	2.0	2.3	3.1	na	4.3 L	na	na	na	2.2	2.1	2.0
Societe Generale	0.6	3.8	0.9 L	na	na	na	na	1.3	1.3	1.7	2.5	na	na	na	na	na	2.1	2.1	2.2
Fannie Mae	0.6	3.8	na	na	8.0	8.0	0.9	1.0	1.4	1.7	2.4	na	na	na	3.5	na	1.8	2.2	2.5
Georgia State University	0.6	3.6	na	na	0.6	0.6 L	0.7 L	1.1	1.8	2.5	3.2	4.5	5.6	na	4.4	na	2.2	1.7	2.7
BNP Paribas Americas RBC	0.6 0.6	na	1.0	na	na 0.5	na	na	1.5 1.1	na 1.5	2.0 2.0	na 2.8	na	na	na	na	na	1.5 L 2.5	na 2.4	2.0
RBS Securities	0.6 0.4 L	na 3.5 L	na 0.9 L	na 0.4 L	0.5 0.4 L	na 0.6 L	na 0.7 L	0.6 L	1.0 L	2.0 1.5 L	2.5	na 3.2 L	na 4.4	na 3.2	na 3.3 L	na 95.0	2.5	1.9	2.3 2.4
September Consensus	0.9	4.0	1.3	1.0	0.9	1.1	1.2	1.4	1.8	2.2	2.9	4.1	5.0	3.6	4.2	92.0	2.2	2.1	2.3
Top 10 Avg.	1.3	4.3	1.6	1.3	1.3	1.5	1.6	1.8	2.3	2.9	3.5	4.6	5.6	4.0	4.8	94.3	2.7	2.6	3.0
Bottom 10 Avg.	0.6	3.8	1.0	0.8	0.6	0.8	0.9	1.0	1.4	1.7	2.4	3.6	4.5	3.1	3.6	89.7	1.7	1.8	1.8
August Consensus	1.0	4.0	1.3	1.1	0.9	1.1	1.2	1.4	1.8	2.3	3.0	4.1	5.1	3.6	4.2	92.5	2.3	2.1	2.3
Number of Forecasts Changed From	n A Month A	Ago:																	
Down	5	5	5	5	7	8	8	11	13	15	16	13	16	14	14	14	12	8	8
Same	34	27	14	19	28	19	16	20	17	20	19	13	11	7	16	7	29	28	31
Up	7	7	18	4	6	10	13	12	12	9	6	4	4	3	7	4	5	8	7
Diffusion Index	52 %	53 %	68 %	48 %	49 %	53 %	57 %	51 %	49 %	43 %	38 %	35 %	31 %	27 %	41 %	30 %	42 %	50 %	49 %
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# Fourth Quarter 2017 Interest Rate Forecasts

						Perc	ent Per A	nnum A	verage F	or Quarter						Avg. For	(Q-	Q % Chang	je)
Blue Chip													Long-			Qtr		(SAAR)	
Financial Forecasts	1	2	3	4	5	6	7	- 8	9	10	11	12	13	14		Α.	B.	C.	D.
Panel Members	Federal	Prime	LIBOR	Com.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home	Fed's Major	5 .	GDP	Cons.
	Funds Rate	Bank Rate	Rate 3-Mo.	Paper 1-Mo.	Bills 3-Mo.	Bills 6-Mo.	Bills 1-Yr.	Notes 2-Yr.	Notes 5-Yr.	Notes 10-Yr.	Bond 30-Yr.	Corp. Bond	Corp. Bond	Local Bonds	Mtg. Rate	Currency \$ Index	Real GDP	Price Index	Price Index
Noroff Economic Advisors			2.4 H		2.2 H														,
Naroff Economic Advisors RidgeWorth Investments	2.0 H 1.9	5.0 H 5.0 H	2.4 H	2.1 H 1.9	2.2 H	2.5 H 1.9	2.7 H 2.1	3.0 H 2.3	3.6 H 2.8	4.3 H 3.5	4.7 H 4.3	5.2 5.1	6.1 6.1	4.2 5.9 H	5.9 H 5.2	86.2 90.0	3.0 H 2.5	2.8 H 2.2	2.8 2.2
MUFG Union Bank	1.6	4.8	1.9	1.7	1.6	1.9	2.1	2.3	2.4	2.8	3.2	4.6	5.7	3.5	4.6	86.0 L	2.3	1.8	2.6
RDQ Economics	1.6	4.6	2.0	1.7	1.7	1.9	2.1	2.2	2.6	2.9	3.2	4.4	5.4	3.9	4.5	99.1 H	1.6	2.3	2.8
High Frequency Economics	1.5	4.6	na	na	1.4	1.6	1.5	1.6	2.1	2.5	3.2	na	na	na	na	na	2.3	2.8 H	2.8
MacroFin Analytics	1.5	4.6	1.9	1.6	1.4	1.5	1.7	1.8	2.2	2.7	3.4	4.5	5.4	4.0	4.6	93.5	2.1	2.1	2.1
Amherst Pierpont Securities	1.4	4.6	1.9	1.5	1.5	1.8	2.1	2.1	2.6	3.2	4.2	5.3 H	6.4	4.4	5.1	95.5	2.7	2.4	3.4
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	91.2	2.6	2.8 H	2.6
Woodworth Holdings	1.4	4.5	1.6	1.5	1.4	1.5	1.6	1.8	2.2	2.6	3.3	4.3	5.3	3.9	4.5	93.5	2.5	1.6	1.7
Goldman Sachs & Co.	1.4	na	1.6	na	1.2	na	na	1.7	2.3	2.5	2.9	na	na	na	4.2	na	2.0	2.0	2.3
J.P. Morgan Chase DePrince & Associates	1.4 1.3	na 4.3	na 1.8	na 1.6	na 1.4	na 1.5	na 1.6	na 1.9	na 2.2	na 2.6	na 3.1	na 4.3	na 5.3	na 4.1	na 4.5	na 90.4	1.5 L 2.3	2.0 2.2	2.5 2.5
Chmura Economics & Analytics	1.3	4.3	1.5	1.3	1.1	1.3	1.6	1.8	2.6	3.2	3.9	4.8	na	na	4.8	87.3	3.0 H	1.7	1.9
Swiss Re	1.3	4.4	1.5	1.0	0.9	1.0	1.2	1.4	2.0	2.5	3.5	4.3	5.3	na	4.3	na	1.8	1.7 1.3 L	2.3
Scotiabank Group	1.3	4.3	na	na	1.1	na	na	1.6	1.8	2.0	2.4	na	na	na	na	na	2.2	2.0	2.3
Stone Harbor Investment Partners	1.3	4.4	1.4	1.3	1.2	1.3	1.4	1.6	2.0	2.4	3.2	4.1	5.1	na	4.2	92.0	2.0	1.9	2.5
Standard & Poor's Corp.	1.2	4.2	1.8	na	1.4	1.6	1.7	1.9	2.2	2.7	3.3	4.0	5.0	na	4.6	93.4	2.2	2.7	1.6
The Northern Trust Company	1.2	4.3	1.4	1.2	1.2	1.3	1.5	1.8	2.4	2.8	3.5	4.3	5.4	4.1	4.4	na	2.0	2.1	2.2
PNC Financial Services Corp.	1.2	4.3	1.5	na	1.2	1.3	1.3	1.6	1.9	2.3	2.9	na	4.9	3.1	4.0	91.6	2.2	2.0	2.3
Oxford Economics	1.1	4.1	na	na	1.1	1.3	1.3	1.5	1.9	2.4	na	na	na	na	4.6	93.8	2.4	2.1	2.1
Action Economics	1.1	4.3	1.2	1.2	1.1	1.2	1.4	1.5	1.8	2.0	2.8	3.6	4.6	3.4	3.7	na	2.3	1.7	2.2
UBS AG Barclays Capital	1.1 1.1	na 4.3	1.7	na	1.7	na	na	na	na	1.5	na	na	na	na	na	na	2.3 2.0	2.3 2.3	4.0 H 3.0
Wells Fargo	1.1	4.1	na 1.3	na 1.2	na 0.9	na 1.0	na 1.1	na 1.3	na 1.5	na 1.7	na 2.4	na 3.5	na 4.4	na 3.1	na 3.6	na 98.0	1.8	2.0	1.9
Chase Wealth Management	1.1	4.2	1.5	1.1	1.0	1.2	1.3	1.5	1.9	2.3	3.0	4.0	5.0	3.6	4.2	90.5	2.3	2.3	2.4
Moody's Capital Markets Group	1.1	4.1	1.6	1.2	1.0	1.1	1.0	0.9	1.2	1.8	2.2 L	4.4	4.8	2.5 L	3.7	91.9	1.6	1.7	1.5 L
SunTrust Banks	1.1	4.1	1.3	1.0	0.9	0.9	1.0	1.1	1.5	1.8	2.4	3.9	5.2	3.8	5.9 H	na	2.9	1.8	1.9
Moody's Analytics	1.1	4.2	1.3	1.0	0.5	0.6 L	0.9	1.2	2.3	3.4	4.1	5.0	6.6 H	4.0	4.8	na	2.8	2.6	2.6
Daiwa Capital Markets America	1.0	4.0	1.6	1.1	1.0	1.2	1.3	1.6	1.9	2.2	2.8	3.9	4.8	3.3	4.0	92.0	2.2	2.0	2.3
DS Economics	1.0	4.1	1.3	1.0	0.9	1.1	1.3	1.5	2.0	2.6	3.3	3.5	4.4	3.8	4.1	92.0	1.8	2.5	2.5
BMO Capital Markets	1.0	4.1	1.4	na	0.9	1.0	1.2	1.4	1.7	2.0	2.6	na	na	na	3.9	92.1	2.0	1.9	2.0
Wells Capital Management	1.0 0.9	4.1 4.3	1.4 1.1	1.1 0.9	1.0 0.8	1.2 1.0	1.4 1.2	1.5 1.4	1.8 1.6	2.2 1.8	2.9 2.3	4.4 3.4 L	5.6 4.4 L	3.5 2.8	4.1 3.6	90.2 89.6	2.3 1.8	2.2 2.3	2.1 2.1
Loomis, Sayles & Company Comerica Bank	0.9	3.9	1.2	na	0.8	0.9	1.1	1.4	1.6	2.0	2.8	na	na	2.o na	3.9	na	2.4	2.0	2.0
Regions Financial Corporation	0.9	4.0	1.2	1.0	0.8	1.0	1.0	1.2	1.5	1.9	2.7	3.7	4.7	3.3	3.7	92.4	1.9	1.5	1.9
Nat'l Assn. of Realtors	0.9	4.0	1.2	1.1	1.1	1.3	1.5	1.6	2.0	2.6	3.3	4.3	5.2	4.0	4.4	na	2.0	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	3.7	4.1	91.0	1.9	2.1	2.4
AIG	0.9	na	na	na	8.0	1.3	1.5	1.8	2.2	2.5	3.2	na	4.5	na	na	na	2.1	2.2	2.0
Nomura Securities, Inc.	0.9	4.0	1.3	na	na	na	na	1.0	1.5	2.0	2.6	3.8	4.7	na	4.0	na	1.9	1.6	2.2
Economist Intelligence Unit	8.0	3.8	1.0	8.0	8.0	1.0	1.1	1.4	1.8	2.2	3.0	na	na	na	4.1	na	2.0	na	2.3
Societe Generale	0.8	3.9	1.2	na	na	na	na	1.4	1.4	1.8	2.6	na	na	na	na	na	1.5	2.1	2.0
RBC	0.8	na	na	na	0.6	na	na	1.2	1.6	2.1 2.6	2.9	na 4.5	na	na	na	na	2.5	1.8	1.5
Georgia State University Fannie Mae	0.7 0.6	3.7 3.8	na na	na na	0.7 0.9	0.9 0.9	1.0 1.0	1.4 1.1	2.0 1.5	2.0 1.7	3.2 2.4	4.5 na	5.6 na	na na	4.5 3.6	na na	2.0 1.5 L	1.4 2.3	2.3 2.5
BNP Paribas Americas	0.6	na	1.0	na	na	na	na	1.3	1.4	1.7 1.5 L	na	na	na	na	na	na	1.6	na	1.9
RBS Securities	0.4 L	3.5 L	0.9 L	0.4 L	0.4 L	0.6 L	0.7 L	0.8 L	1.2 L	1.7	2.6	3.4 L	4.6	3.3	3.5 L	96.0	2.5	2.1	2.5
September Consensus	1.1	4.2	1.5	1.2	1.1	1.3	1.4	1.6	2.0	2.4	3.1	4.2	5.2	3.7	4.3	92.0	2.2	2.1	2.3
Top 10 Avg.	1.6	4.6	1.9	1.6	1.6	1.8	1.9	2.1	2.6	3.2	3.8	4.8	5.9	4.3	5.1	94.7	2.7	2.5	2.9
Bottom 10 Avg.	0.7	3.9	1.1	0.9	0.7	0.9	1.0	1.1	1.4	1.7	2.4	3.7	4.6	3.2	3.7	89.2	1.7	1.6	1.8
August Consensus	1.1	4.2	1.5	1.3	1.1	1.3	1.4	1.6	2.0	2.4	3.1	4.2	5.3	3.8	4.3	92.3	2.2	2.1	2.3
Number of Forecasts Changed From	n A Month A	go:																	
Down	6	6	6	6	9	9	10	13	14	13	15	12	13	12	12	13	11	8	5
Same	34	29	14	16	28	20	16	19	19	21	17	12	10	8	15	8	23	30	37
Up Diffusion Indov	6	4	16	5	4	8	11	11	10	10	9	6	7	5	10	3	12	6	4
Diffusion Index	50 %	47 %	64 %	48 %	44 %	49 %	51 %	48 %	45 %	47 %	43 %	40 %	40 %	36 %	47 %	29 %	51 %	48 %	49 %

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

	3 Mo.	3 Mo. Interest Rate %			
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.		
Barclays	na	na	na		
BMO Capital Markets	na	na	na		
ING Financial Markets	0.70	0.70	0.80		
Mizuho Research Institute	0.85	1.00	1.20		
Moody's Analytics	0.79	0.96	1.17		
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	0.95	0.95	1.20		
August Consensus	0.82	0.90	1.09		
High	0.95	1.00	1.20		
Low	0.70	0.70	0.80		
Last Months Avg	0.75	0.84	0.85		

	3 Mo. Interest Rate %		
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	na	na	na
ING Financial Markets	0.04	0.02	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	-0.05	-0.07	-0.08
August Consensus	0.02	0.00	0.01
High	0.06	0.06	0.06
Low	-0.05	-0.07	-0.08
Last Months Avg.	-0.01	-0.02	-0.02

	3 Mo. Interest Rate %			
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.	
Barclays	na	na	na	
BMO Capital Markets	na	na	na	
ING Financial Markets	0.35	0.20	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	0.28	
August Consensus	0.33	0.28	0.29	
High	0.40	0.40	0.40	
Low	0.25	0.20	0.20	
Last Months Avg.	0.32	0.28	0.28	

	3 Mo. Interest Rate %			
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.	
Barclays	na	na	na	
BMO Capital Markets	na	na	na	
ING Financial Markets	-0.80	-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	
August Consensus	-0.80	-0.85	-0.85	
High	-0.80	-0.85	-0.85	
Low	-0.80	-0.85	-0.85	
Last Months Avg.	-0.80	-0.85	-0.85	

	3 Mo. Interest Rate %		
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	na	na	na
BMO Capital Markets	na	na	na
ING Financial Markets	0.60	0.50	0.60
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
August Consensus	0.75	0.70	0.88
High	0.90	0.90	1.15
Low	0.60	0.50	0.60
Last Months Avg.	0.75	0.70	0.88

United States					
10 Yr. Gov't Bond Yield %					
In 3 Mo.	In 6 Mo.	In 12 Mo.			
1.50	1.55	na			
1.65	1.75	1.90			
1.30	1.40	1.70			
1.50	1.60	1.70			
1.95	2.31	3.19			
1.72	1.85	1.80			
1.75	1.90	2.00			
1.87	2.00	2.27			
1.30	1.40	1.75			
1.35	1.45	1.50			
1.53	1.57	1.68			
1.58	1.71	1.95			
1.95	2.31	3.19			
1.30	1.40	1.50			
1.56	1.67	1.92			

1.00	1.07	1.02
	Japan	
10 Yr. 0	Sov't Bond	Yield %
In 3 Mo.	In 6 Mo.	In 12 Mo.
-0.10	-0.10	na
-0.10	-0.05	0.05
-0.15	-0.10	-0.02
-0.10	-0.10	-0.10
-0.12	-0.10	-0.60
0.00	0.05	0.08
-0.08	-0.05	-0.10
-0.10	-0.10	-0.05
na	na	na
0.20	0.25	0.30
-0.15	-0.12	-0.05
-0.07	-0.04	-0.06
0.20	0.25	0.30
-0.15	-0.12	-0.60
-0.14	-0.10	-0.03

United Kingdom							
10 \	10 Yr. Gilt Yields %						
In 3 Mo.	In 6 Mo.	In 12 Mo.					
0.75	0.80	na					
0.65	0.75	0.95					
0.60	0.40	0.40					
0.65	0.65	0.70					
0.90	0.98	1.06					
0.62	0.73	0.75					
0.90	1.00	na					
0.80	0.84	0.97					
na	na	na					
0.20	0.20	0.20					
0.70	0.75	0.90					
0.68	0.71	0.74					
0.90	1.00	1.06					
0.20	0.20	0.20					
0.84	0.86	0.93					

Switzerland							
10 Yr. 0	10 Yr. Gov't Bond Yield %						
In 3 Mo.	In 6 Mo.	In 12 Mo.					
na	na	na					
na	na	na					
-0.55	-0.50	-0.25					
na	na	na					
-0.51	-0.48	-0.40					
-0.45	-0.30	-0.35					
na	na	na					
-0.20	0.00	0.37					
na	na	na					
-0.40	-0.25	-0.10					
na	na	na					
-0.42	-0.31	-0.15					
-0.20	0.00	0.37					
-0.55	-0.50	-0.40					
-0.46	-0.38	-0.18					

Canada							
10 Yr. 0	10 Yr. Gov't Bond Yield %						
In 3 Mo.	In 6 Mo.	In 12 Mo.					
na	na	na					
1.10	1.20	1.30					
1.00	1.20	1.70					
na	na	na					
1.58	1.96	2.98					
1.15	1.25	1.25					
1.20	1.30	1.50					
1.04	1.20	1.51					
0.90	1.00	1.20					
na	na	na					
1.05	1.10	1.45					
1.13	1.28	1.61					
1.58	1.96	2.98					
0.90	1.00	1.20					
1.13	1.27	1.56					

Fed's Ma	jor Currenc	cy \$ Index
In 3 Mo.	In 6 Mo.	In 12 Mo.
na	na	na
92.3	93.4	92.4
91.9	90.7	87.6
89.0	92.0	93.0
na	na	na
91.5	92.0	92.0
na	na	na
91.8	92.7	93.5
na	na	na
na	na	na
na	na	na
91.3	92.2	91.7
92.3	93.4	93.5
89.0	90.7	87.6
91.8	92.3	91.6

Yen/USD								
In 3 Mo.	In 6 Mo.	In 12 Mo.						
92.0	87.0	na						
104.0	106.0	108.0						
95.0	98.0	102.0						
100.0	102.0	104.0						
109.0	110.0	110.0						
103.0	105.0	105.0						
104.0	106.0	na						
105.2	106.4	108.8						
105.0	110.0	115.0						
105.0	na	110.0						
na	na	na						
102.2	103.4	107.9						
109.0	110.0	115.0						
92.0	87.0	102.0						
102.7	103.9	109.4						

USD/Pound Sterling						
In 3 Mo.	In 6 Mo.	In 12 Mo.				
1.27	1.28	na				
1.34	1.36	1.38				
1.23	1.25	1.35				
na	na	na				
1.29	1.30	1.30				
1.32	1.32	1.33				
1.27	1.27	na				
1.26	1.27	1.29				
1.25	1.27	1.30				
1.29	na	1.20				
na	na	na				
1.28	1.29	1.31				
1.34	1.36	1.38				
1.23	1.25	1.20				
1.29	1.29	1.31				

CHF/USD						
In 3 Mo.	In 6 Mo.	In 12 Mo.				
0.96	1.08	na				
na	na	na				
0.99	0.98	0.96				
na	na	na				
1.00	1.01	1.02				
1.03	1.01	1.00				
1.07	1.08	na				
1.02	1.04	1.07				
1.05	1.06	1.02				
0.97	na	0.98				
na	na	na				
1.01	1.04	1.01				
1.07	1.08	1.07				
0.96	0.98	0.96				
1.02	1.04	1.02				

	CAD/USD						
In 3 Mo.	In 6 Mo.	In 12 Mo.					
1.33	1.36	na					
1.32	1.30	1.28					
1.34	1.30	1.25					
na	na	na					
1.29	1.29	1.26					
1.30	1.30	1.30					
1.34	1.33	na					
1.30	1.30	1.30					
1.30	1.28	1.25					
1.25	na	1.23					
na	na	na					
1.31	1.31	1.27					
1.34	1.36	1.30					
1.25	1.28	1.23					
1.32	1.31	1.28					

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

	3 Mo	3 Mo. Interest Rate %				
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.			
Barclays	na	na	na			
BMO Capital Markets	na	na	na			
ING Financial Markets	1.80	1.60	1.60			
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			
August Consensus	1.80	1.60	1.60			
High	1.80	1.60	1.60			
Low	1.80	1.60	1.60			
Last Months Avg.	1.80	1.60	1.60			

Australia							
10 Yr. Gov't Bond Yield %							
In 3 Mo.	In 3 Mo. In 6 Mo. In 12 Mo.						
na	na	na					
na	na	na					
1.90	2.10	2.70					
na	na	na					
1.93	183	1.80					
2.02	2.11	2.13					
2.20	2.50	2.70					
1.64	1.64	1.92					
na	na	na					
1.75	1.75	1.75					
na	na	na					
1.91	2.02	2.17					
2.20	2.50	2.70					
1.64	1.64	1.75					
2.03	2.03 2.12 2.37						
E	urozor	ne					

	USD/AUD						
In 3 Mo.	In 6 Mo.	In 12 Mo.					
0.70	0.65	na					
0.74	0.73	0.74					
0.72	0.70	0.75					
na	na	na					
0.73	0.72	0.70					
0.76	0.75	0.75					
0.70	0.70	na					
0.74	0.73	0.73					
0.75	0.73	0.72					
0.70	na	0.70					
na	na	na					
0.73	0.71	0.73					
0.76	0.75	0.75					
0.70	0.65	0.70					
0.72	0.71	0.73					

	3 Mo. Interest Rate %			
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.	
Barclays	na	na	na	
BMO Capital Markets	na	na	na	
ING Financial Markets	-0.30	-0.30	-0.30	
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	-0.35	-0.35	-0.30	
August Consensus	-0.32	-0.32	-0.30	
High	-0.30	-0.30	-0.30	
Low	-0.35	-0.35	-0.30	
Last Months Avg.	-0.31	-0.31	-0.29	

	USD/EUR							
In 3 Mo.	In 6 Mo.	In 12 Mo.						
1.07	1.00	na						
1.06	1.04	1.06						
1.08	1.10	1.15						
1.13	1.10	1.09						
1.09	1.08	1.06						
1.12	1.10	1.10						
1.05	1.05	na						
1.08	1.07	1.05						
1.05	1.05	1.10						
1.16	na	1.20						
na	na	na						
1.09	1.07	1.10						
1.16	1.10	1.20						
1.05	1.00	1.05						
1.07	1.07	1.09						

	10 Yr. Gov't Bond Yields %											
		Germany			France			Italy			Spain	
Blue Chip Forecasters	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.05	0.10	na	na	na	na	na	na	na	na	na	na
BMO Capital Markets	-0.05	0.05	0.20	na	na	na	na	na	na	na	na	na
ING Financial Markets	-0.10	-0.05	0.15	0.15	0.20	0.40	1.30	1.20	1.30	1.15	1.15	1.25
Mizuho Research Institute	-0.05	0.00	0.05	na	na	na	na	na	na	na	na	na
Moody's Analytics	-0.04	-0.02	0.09	0.31	0.29	0.36	1.30	1.21	1.21	1.37	1.29	1.28
Moody's Capital Markets	-0.01	0.15	0.20	0.25	0.43	0.53	1.23	1.41	1.54	1.02	1.21	1.35
Nomura Securities	0.20	0.35	0.50	na	na	na	na	na	na	na	na	na
Oxford Economics	0.30	0.60	0.90	0.61	0.93	1.27	1.67	2.00	2.34	1.53	1.85	2.19
UBS	-0.05	0.15	0.35	0.25	0.40	0.60	1.35	1.40	1.50	na	na	na
Wells Fargo	-0.10	-0.05	0.10	na	na	na	na	na	na	na	na	na
August Consensus	0.02	0.13	0.28	0.31	0.45	0.63	1.37	1.44	1.58	1.27	1.38	1.52
High	0.30	0.60	0.90	0.61	0.93	1.27	1.67	2.00	2.34	1.53	1.85	2.19
Low	-0.10	-0.05	0.05	0.15	0.20	0.36	1.23	1.20	1.21	1.02	1.15	1.25
Last Months Avg.	0.05	0.13	0.39	0.36	0.44	0.66	1.36	1.35	1.56	1.43	1.43	1.63

	Consensus Forecasts						
	10-year	10-year Bond Yields vs U.S. Yield					
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.			
Japan	-1.64	-1.65	-1.75	-2.00			
United Kingdom	-0.91	-0.91	-1.00	-1.21			
Switzerland	-2.08	-2.01	-2.01	-2.10			
Canada	-0.54	-0.46	-0.43	-0.34			
Australia	0.26	0.22					
Germany	-1.67 -1.57			-1.67			
France	-1.44	-1.27	-1.26	-1.32			
Italy	-0.46 -0.21 -0.26						
Spain	-0.56	-0.32	-0.33	-0.43			

	Consensus Forecasts 3 Mo. Deposit Rates vs U.S. Rate					
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.		
Japan	-0.86	-0.81	-0.91	-1.08		
United Kingdom	-0.37	-0.49	-0.62	-0.80		
Switzerland	-1.57	-1.62	-1.75	-1.94		
Canada	0.00	-0.07	-0.20	-0.22		
Australia	1.19	0.98	0.70	0.51		
Eurozone	-1.13	-1.14	-1.22	-1.39		

# Viewpoints:

### A Sampling of Views on the Economy, Financial Markets and Government Policy Excerpted from Recent Reports Issued by our Blue Chip Panel Members and Others

### The Message From Jackson Hole

Markets were largely flat into this morning's start of the annual Jackson Hole gathering of central bankers. But then with Fed Chair's Yellen's talk, followed by Vice-Chair's Fisher's comments, markets gyrated between asset bullish and bearish interpretations, not knowing really which way to go. At day close, both bond and equities are down, after big rallies midday. What really is the message from Jackson Hole and what are the implications for markets?

Our take, in our language, is that they are threefold: (1) a rate hike by year end is in the bag, unless the economy underperforms expectations of around 2% growth; (2) ignore the dots as there is so much uncertainty about what is the right level for policy rates over the next few years; and (3) QE stays as a potential tool for a long time.

What does this mean for markets? This analyst's take is that the message is broadly medium-term bullish for financial assets, both safe and riskier ones, but bearish for the short end of safer assets. It shows a Fed sufficiently bullish about the US economy, and we think in this case realistically so, that it can take one more modest step towards rate normalization. Consensus forecasters have the economy moving from its only 1% growth pace of the last three quarters to just over 2% in H2. We are at 2%, and the data flow of the last few months give us confidence in reaching that pace.

But probably of more importance are the messages on what the Fed thinks it should do beyond this year. Chair Yellen spent a lot of time highlighting how much uncertainty there is about economic activity and inflation and thus about what policy rates should be, as well about how uncertain the right level of policy rates is even if you know what the economy is doing. We think her wide band around the future development of policy rate is effectively telling us to ignore the FOMC dots.

The message to us is not that uncertainty is huge and we thus need to price in higher risk premia, but more that the Fed is not beholden to the bearish message from the dots, which remain way above market forwards, but is willing to think flexibly, and at the margin, one decision at the time, about what it should do to Fed funds. This approach gives us more confidence on the economy, rather than less.

Similarly, in discussing how it will react to the eventual recession, Yellen makes it clear that the Fed will have to retain asset purchases (QE) as a tool of stabilization, and could consider a broader QE, subject to Congressional approval. Her pledge that the Fed does not think itself out of ammo, especially through more QE, also provides support to longerterm assets.

Today's sell off in both bonds and equities, with EM hit especially hard, is to us largely a knee-jerk short-term reaction to the coming second rate hike which we still think is more likely in December than in September.

Jan Loeys, JPMorgan Chase Bank, New York, NY

### Yellen Sees Stronger Case For Rate Hike

Fed Chair Janet Yellen set the scene for a rate hike later this year, when she spoke on Friday at the Kansas City Fed's annual economic symposium in Jackson Hole, Wyoming. As long as "data continue to confirm the Committee's outlook," as Ms Yellen said, we think the FOMC will deliver a rate hike as soon as September.

Ms Yellen's speech, "The Federal Reserve's Monetary Policy Toolkit", gave insights into both short-term and long-term policy. She argued that the case for raising rates had risen in recent months, emphasizing that

the Fed has the necessary tools to support the economy in the next downturn.

Most on the FOMC believe the US economy is at or near full employment, and Chair Yellen is, unsurprisingly, on board with that characterization. She noted that the labor market is performing solidly at the moment and that broader measures of labor utilization have improved. Ms Yellen listed some additional tools that future policymakers might want to consider, including "purchasing a broader range of assets" and alternative monetary-policy frameworks, such as price-level or nominal-GDP targeting. Chair Yellen noted that the Fed is not actively considering any of these options.

Historically, the Fed has cut interest rates by about 550bp in recessions, but in those instances, the fed funds rate started out "appreciably above the level consistent with the economy operating at potential in the longer run". In other words, a portion of the Fed's easing response reflected the "undoing of the earlier tight stance of monetary policy". Policy may not be tight the next time a recession hits, so less easing could be needed.

While Chair Yellen gave no clear signs that a September rate hike was imminent, she noted that in light of the current labor-market situation and the outlook for economic activity and inflation, the case for raising rates had strengthened.

In our view, with payrolls growing at an impressive clip (we forecast a 215,000 increase in August's nonfarm payrolls), we expect the Fed to deliver a rate hike as soon as September.

U.S. Economics Team, BNP Paribas, New York, NY

### Policy and Theory from Jackson Hole

Fed Chair Janet Yellen's much awaited speech on August 26 had two segments – a short discussion of near-term Fed monetary policy and an extended reflection of longer-term issues. The former is of greater interest for markets.

Yellen mentioned that the "case for an increase in the federal funds rate has strengthened in recent months." She noted that the U.S. economy is on the cusp of meeting The Fed's goals of "maximum employment and price stability." But her remarks did not allude to timing of the next move. She added the usual caveat that Fed policy actions are data dependent.

The federal funds futures market raised expectations about rate increases by only a small measure soon after. The August employment report will likely play a big role at the September Fed meeting, after which the Fed's new economic forecasts will be available and a press conference will take place. Whether members of the Federal Open Market Committee (FOMC) have changed their near-term and long-term expectations of monetary policy will be visible from the dot chart.

The second part of the speech was a comprehensive discussion of the longer run policy issues. Doubts about the course of near-term monetary policy, caused by the article John Williams published last week, were removed. He suggested a higher inflation target (see comments above) should replace the current one. Chair Yellen noted: "I should stress, however, that the FOMC is not actively considering these additional policy tools and frameworks, although they are important subjects of research." She expressed complete faith in The Fed's current policy tool kit and its effectiveness.

There is a lively debate underway about the long-run equilibrium interest rate. Members of the FOMC view the (continued on next page)

# Viewpoints

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long-term federal funds rate as 3%, down 125 basis points from the Fed's first-published forecasts in 2012. After adjusting for the Fed's inflation target, the real rate would be 1%.

Yellen opined on this issue and mentioned that the real rate is close to zero by some calculations. She indicated "it could remain at this low level if we were to continue to see slow productivity and high saving." This implies the Fed believes the path of monetary policy tightening will be gradual.

Slow and steady Fed remains our conclusion. A September move is possible but a December change is more likely.

Carl R. Tannenbaum, Asha Bangalore and Ankit Mital, Northern Trust, Chicago

### **Jackson Hole: Comments On The Near Term**

Fed Chair Janet Yellen, like several other Fed officials, noted that the US economy was close to meeting its mandates for employment and inflation, implying that she would be supportive of additional tightening in monetary policy. Indeed, we viewed her signal of higher interest rates as strong, as she indicated that the case for a policy change had strengthened in recent months.

Market participants reacted favorably to her comments, as stock prices rose and interest rates inched lower immediately after her comments. We suspect the positive reaction occurred because Ms. Yellen did not highlight September as a possible date for the next change. However, market participants were probably reading too much between the lines. The failure to highlight September does not mean that Chair Yellen has taken a near-term shift off the table. A strong employment report or surprisingly firm inflation figures could put the Fed in play at the next meeting of the Federal Open Market Committee. Similarly, a change could occur at the November meeting. To be sure, the bar is higher for a tightening in November because of the presidential election, but we believe the Fed would move if the economy were performing well. Comments from Vice Chair Stanley Fischer after Chair Yellen's speech were in line with ours, and markets reversed direction after he indicated that tightening in September was possible.

Chair Yellen suggested that the Fed would be raising interest rates this year, but she also suggested, as she usually does, that changes would be modest and gradual. Modest changes are likely to be needed because neutral interest rates are lower than in the past and therefore policy is only moderately stimulative. Changes can be gradual because Fed officials do not expect inflation to pick up quickly. In fact, Chair Yellen noted in her speech that it would probably take a "few years" for inflation to return to two percent.

The title of this year's Jackson Hole conference was "Designing Resilient Monetary Policy Frameworks for the Future" -- a subject with a long-run focus and dealing with issues such as policy targets, time frames for meeting targets, and the tools best suited for meeting those targets. Such issues are not deeply interesting to most market participants; investors and traders can adapt to whatever framework officials decide to adopt. However, there are a few aspects of the framework touched on by Chair Yellen that will be of interest.

The optimal size of the Fed's balance is an important consideration because officials are likely to seek something considerably smaller than assets of \$4.5 trillion now held by the Fed. As the balance sheet shrinks, investors will need to absorb more securities. Chair Yellen hinted that this process will not start soon and will not proceed quickly.

She noted that the process of paring assets would not begin until policy normalization (i.e. raising interest rates) was well underway. In addition, reducing assets will occur gradually, by ending reinvestment of maturing securities rather than selling outright in the market. Such a process could take several years.

The composition of the Fed's portfolio certainly supports the notion of gradual adjustment. The process is not likely to start until sometime next year at the earliest, and as shown in the table on page 1, only 10 percent of total holdings of Treasury and agency securities mature in 2017; more than 50 percent does not mature until 2020 or later. Thus, a slow process.

Market participants also might be curious about how the Fed might respond to a shock that derails the expansion. Certainly, the Fed would reduce short-term interest rates, quite likely back to the zero lower bound. In addition, Chair Yellen noted that the Fed could implement additional quantitative easing and it would use forward guidance as well. Her comments indicated that QE and forward guidance are now standard tools of policy rather than special features of a unique environment.

Chair Yellen mentioned other avenues that might be explored, such as broadening the range of assets purchased by the Fed, raising the two percent inflation target, or targeting nominal GDP. However, she did not seem keen to pursue them, as she noted that "future policymakers" might wish to consider these matters. Interestingly, in listing possible tools for "future" policymakers, Chair Yellen did not mention negative interest rates. Fed officials apparently have a dim view of pushing rates below zero. Stanley Fischer was emphatic in his latest speech that negative interest rates were not under consideration by the FOMC.

Michael Moran, Daiwa Capital Market America, New York, NY

### Janet Yellen At Jackson Hole

For investors, three themes come out of Federal Reserve Chair Janet Yellen's presentation at the Kansas City Fed's Jackson Hole conference. First, inflation "rising to 2 percent over the next two years." Second, "some estimates show real neutral rate close to zero." Finally, "our asset purchases and forward rate guidance put appreciable downward pressure on long-term interest rates."

The behavior of the inflation benchmark, the core PCE deflator, has remained below the FOMC's two percent benchmark since 2012 and, in our projections, is not likely to hit the 2 percent target until the latter part of 2017 at the earliest. So our outlook corresponds to Chair Yellen's. For us, this inflation projection is consistent with a FOMC move in December but also a more modest, lower, path for the funds rate as portrayed in the FOMC's own dot-plot.

Sentiment along the lines of a zero or low neutral rate would indicate that the long-run funds rate in the dot-plot will also come down. This lower neutral rate fits into President Bullard's comments about a regime change in economics such that productivity, and thereby potential GDP, has moderated compared to the past. President Bullard has also commented that the expected rates of return in the economy have also declined. This leaves us with lower rates over time as well as a flatter yield curve as lower returns are consistent with lower rates over time.

Chair Yellen argued today that asset purchases were effective in lowering long-term interest rates and that this tool can be used in the future. For us, this indicates that the FOMC is willing to act on the long end of the yield curve in the future. This alters investor expectations to favor a flatter yield curve relative to the pre-2008 period.

Economics Group, Wells Fargo Securities, Charlotte, NC

# **Special Questions:**

1. What will be the Federal Open Market Committee's NEXT move?

2. If you believe the NEXT policy move by the FOMC will be an interest rate INCREASE at what meeting will it be announced?

Sep. 20-21, 2016 (Percentage of those responding)
Nov. 1-2, 2016 Dec. 13-14, 2017
0.0% 66.0%

**3. A**. How many basis points will the FOMC hikes interest rates by in 2016?

(Percentage of those responding)

 0 basis points
 25 basis points
 50 basis points
 75 basis points
 100 basis points

 19.1%
 76.6%
 4.3%
 0.0%
 0.0%

**B.** How many basis points will the FOMC hike interest rates by in 2017?

(Percentage of those responding)

 0 basis points
 25 basis points
 50 basis points
 75 basis points
 100 or more basis points

 4.3%
 10.9%
 45.7%
 23.9%
 15.2%

4. What are the odds that a U.S. recession will begin during 2016? If not in 2016, what are the odds that a recession will begin in 2017?

### (Between 0% and 100%)

	Odds that a U.S.	Odds that a U.S.
	recession begins in 2016	recession begins in 2017
Consensus	13.8%	24.2%
Top 10 Average	23.2%	36.4%
Bottom 10 Average	7.0%	14.2%

5. Nonfarm payrolls registered average monthly increases of 186,000 during the first SEVEN months of this year. What will be the average monthly increase during the last FIVE months of 2016 and all 12 months of 2017?

Average monthly change in nonfarm payrolls during:

Last	five months of 2016	All 12 months of 2017
Consensus	174.1 thousand	152.6 thousand
Top 10 Average	197.8 thousand	180.2 thousand
Bottom 10 Average	145.1 thousand	122.6 thousand

**6.** The price index for personal consumption expenditures (PCE) and the PCE price index excluding food and energy prices (core PCE price index) were up 0.9% and 1.6%, respectively, on a y/y basis in June 2016. How much will they be up on a December-over-December basis in 2016 and 2017?

December-over-December, percent change

	PCE price index	Core PCE price index	PCE price index	Core PCE price i
	<u>2016</u>	<u>2016</u>	<u>2017</u>	<u>2017</u>
Consensus	1.5%	1.8%	2.0%	2.0%
Top 10 Average	1.7%	2.0%	2.5%	2.4%
Bottom 10 Average	e 1.1%	1.5%	1.6%	1.7%

7. The unemployment rate stood at 4.9% in June. What will be the unemployment rate in December 2016 and December 2017?

Unemployment rate in

	December 2016	December 201
Consensus	4.7%	4.6%
Top 10 Average	4.9%	5.0%
Bottom 10 Average	4.5%	4.2%

**8.** Do you suspect that we will see a major infrastructure spending package approved by Congress in 2017?

(Percentage of those responding

<u>Yes</u> <u>No</u> 43.5%

# Databank:

2016 Historical Data												
2016 Historical Data Monthly Indicator	Ion	Feb	Mon	A nm	Mov	Inn	Πv	Ana	Sep	Oct	Nov	Dog
Retail and Food Service Sales (a)	-0.5	0.3	-0.3	Apr 1.2	May 0.2	<u>Jun</u> 0.8	1ly 0.0	Aug	Sep	Oct	NOV	Dec
Auto & Light Truck Sales (b)	17.40	17.54	16.73	17.46	17.22	16.69	17.77					
Personal Income (a, current \$)	0.0	-0.1	0.3	0.4	0.2	0.2	17.77					
Personal Consumption (a, current \$)	0.1	0.2	0.0	1.0	0.4	0.4						
Consumer Credit (e)	4.4	4.4	9.9	5.7	6.0	4.1						
Consumer Sentiment (U. of Mich.)	92.0	91.7	91.0	89.0	94.7	93.5	90.0	89.8				
Household Employment (c)	615	530	246	-316	26	67	420	07.0				
Non-farm Payroll Employment (c)	168	233	186	144	24	292	255					
Unemployment Rate (%)	4.9	4.9	5.0	5.0	4.7	4.9	4.9					
Average Hourly Earnings (All, cur. \$)	25.38	25.39	25.45	25.53	25.59	25.61	25.69					
Average Workweek (All, hrs.)	34.6	34.4	34.4	34.4	34.4	34.4	34.5					
Industrial Production (d)	-1.4	-1.4	-2.0	-1.3	-1.2	-0.8	-0.6					
Capacity Utilization (%)	75.7	75.6	74.9	75.2	75.1	75.4	75.9					
ISM Manufacturing Index (g)	48.2	49.5	51.8	50.8	51.3	53.2	52.6					
ISM Non-Manufacturing Index (g)	53.5	53.4	54.5	55.7	52.9	56.5	55.5					
Housing Starts (b)	1.128	1.213	1.113	1.155	1.128	1.186	1.211					
Housing Permits (b)	1.188	1.162	1.077	1.130	1.136	1.153	1.152					
New Home Sales (1-family, c)	526	525	537	572	572	592						
Construction Expenditures (a)	-0.3	1.4	1.6	-2.9	-0.1	-0.6						
Consumer Price Index (nsa., d)	1.4	1.0	0.9	1.1	1.0	1.0	0.8					
CPI ex. Food and Energy (nsa., d)	2.2	2.3	2.2	2.1	2.2	2.3	2.2					
Producer Price Index (n.s.a., d)	0.0	0.1	-0.1	0.0	-0.1	0.3	-0.2					
Durable Goods Orders (a)	4.3	-3.3	2.0	3.2	-2.9	-4.2	4.4					
Leading Economic Indicators (g)	-0.2	0.1	0.1	0.5	-0.2	0.3						
Balance of Trade & Services (f)	-42.3	-44.0	-35.5	-37.4	-41.0	-44.5						
Federal Funds Rate (%)	0.34	0.38	0.36	0.37	0.37	0.38	0.39					
3-Mo. Treasury Bill Rate (%)	0.26	0.31	0.29	0.23	0.27	0.27	0.30					
10-Year Treasury Note Yield (%)	2.09	1.78	1.89	1.81	1.81	1.64	1.50					
2015 Historical Data												
Monthly Indicator					N. C	T	T1			•		D
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
Retail and Food Service Sales (a) Auto & Light Truck Sales (b)	-0.5 16.63	-0.5 16.32	1.5 17.06	0.1 16.70	0.9 17.63	0.1 16.95	0.6 17.47	-0.1 17.73	0.1 18.07	0.0 18.13	0.3 18.06	0.4 17.22
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$)	-0.5 16.63 0.2	-0.5 16.32 0.3	1.5 17.06 0.0	0.1 16.70 0.6	0.9 17.63 0.6	0.1 16.95 0.5	0.6 17.47 0.3	-0.1 17.73 0.3	0.1 18.07 0.1	0.0 18.13 0.3	0.3 18.06 0.2	0.4 17.22 0.3
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$)	-0.5 16.63 0.2 -0.4	-0.5 16.32 0.3 0.2	1.5 17.06 0.0 0.5	0.1 16.70 0.6 0.3	0.9 17.63 0.6 0.9	0.1 16.95 0.5 0.3	0.6 17.47 0.3 0.3	-0.1 17.73 0.3 0.3	0.1 18.07 0.1 0.2	0.0 18.13 0.3 0.2	0.3 18.06 0.2 0.3	0.4 17.22 0.3 0.2
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e)	-0.5 16.63 0.2 -0.4 3.6	-0.5 16.32 0.3 0.2 5.5	1.5 17.06 0.0 0.5 7.6	0.1 16.70 0.6 0.3 7.6	0.9 17.63 0.6 0.9 7.0	0.1 16.95 0.5 0.3 9.6	0.6 17.47 0.3 0.3 6.8	-0.1 17.73 0.3 0.3 5.1	0.1 18.07 0.1 0.2 9.9	0.0 18.13 0.3 0.2 5.2	0.3 18.06 0.2 0.3 4.8	0.4 17.22 0.3 0.2 7.3
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.)	-0.5 16.63 0.2 -0.4 3.6 98.1	-0.5 16.32 0.3 0.2 5.5 95.4	1.5 17.06 0.0 0.5 7.6 93.0	0.1 16.70 0.6 0.3 7.6 95.9	0.9 17.63 0.6 0.9 7.0 90.7	0.1 16.95 0.5 0.3 9.6 96.1	0.6 17.47 0.3 0.3 6.8 93.1	-0.1 17.73 0.3 0.3 5.1 91.9	0.1 18.07 0.1 0.2 9.9 87.2	0.0 18.13 0.3 0.2 5.2 90.0	0.3 18.06 0.2 0.3 4.8 91.3	0.4 17.22 0.3 0.2 7.3 92.6
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c)	-0.5 16.63 0.2 -0.4 3.6 98.1 665	-0.5 16.32 0.3 0.2 5.5 95.4 127	1.5 17.06 0.0 0.5 7.6 93.0 102	0.1 16.70 0.6 0.3 7.6 95.9 176	0.9 17.63 0.6 0.9 7.0 90.7 239	0.1 16.95 0.5 0.3 9.6 96.1 -26	0.6 17.47 0.3 0.3 6.8 93.1 144	-0.1 17.73 0.3 0.3 5.1 91.9 177	0.1 18.07 0.1 0.2 9.9 87.2 -101	0.0 18.13 0.3 0.2 5.2 90.0 255	0.3 18.06 0.2 0.3 4.8 91.3 247	0.4 17.22 0.3 0.2 7.3 92.6 485
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221	-0.5 16.32 0.3 0.2 5.5 95.4 127 265	1.5 17.06 0.0 0.5 7.6 93.0 102 84	0.1 16.70 0.6 0.3 7.6 95.9 176 251	0.9 17.63 0.6 0.9 7.0 90.7 239 273	0.1 16.95 0.5 0.3 9.6 96.1 -26 228	0.6 17.47 0.3 0.3 6.8 93.1 144 277	-0.1 17.73 0.3 0.3 5.1 91.9 177 150	0.1 18.07 0.1 0.2 9.9 87.2 -101 149	0.0 18.13 0.3 0.2 5.2 90.0 255 295	0.3 18.06 0.2 0.3 4.8 91.3 247 280	0.4 17.22 0.3 0.2 7.3 92.6 485 271
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545 0.4	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201 538 0.8
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (s.a., d)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485 1.5	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508 3.1 -0.2	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507 2.1	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472 0.5	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498 0.0	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505 0.6	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129 457 0.2	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478 -0.1	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508 -0.5	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (s.a., d) CPI ex. Food and Energy (s.a., d)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521 1.5 -0.1	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545 0.4 0.0	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485 1.5 -0.1	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508 3.1 -0.2 1.8	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507 2.1 0.0	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472 0.5 0.1	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498 0.0 0.2	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505 0.6 0.2	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129 457 0.2	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478 -0.1 0.2	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508 -0.5	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201 538 0.8 0.7 2.1
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (s.a., d)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521 1.5 -0.1 1.6	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545 0.4 0.0 1.7	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485 1.5 -0.1	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508 3.1 -0.2	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507 2.1 0.0	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472 0.5 0.1 1.8	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498 0.0 0.2 1.8	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505 0.6	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129 457 0.2 0.0 1.9	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478 -0.1 0.2 1.9	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508 -0.5 0.5 2.0	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201 538 0.8
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (s.a., d) Producer Price Index (n.s.a., d) Durable Goods Orders (a)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521 1.5 -0.1 1.6 0.0 1.9	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545 0.4 0.0 1.7 -0.5	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485 1.5 -0.1 1.8 -0.9 5.1	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508 3.1 -0.2 1.8 -1.1	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507 2.1 0.0 1.7 -0.8 -2.3	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472 0.5 0.1 1.8	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498 0.0 0.2 1.8 -0.7	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505 0.6 0.2 1.8 -1.0	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129 457 0.2 0.0 1.9 -1.1	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478 -0.1 0.2 1.9 -1.4	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508 -0.5 0.5 2.0 -1.3	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201 538 0.8 0.7 2.1
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (s.a., d) Producer Price Index (n.s.a., d)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521 1.5 -0.1 1.6 0.0	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545 0.4 0.0 1.7 -0.5 -3.5	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485 1.5 -0.1 1.8 -0.9 5.1	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508 3.1 -0.2 1.8 -1.1	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507 2.1 0.0 1.7 -0.8	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472 0.5 0.1 1.8 0.5 4.1	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498 0.0 0.2 1.8 -0.7	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505 0.6 0.2 1.8 -1.0 -2.9	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129 457 0.2 0.0 1.9 -1.1 -0.8	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478 -0.1 0.2 1.9 -1.4 2.8	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508 -0.5 0.5 2.0 -1.3 -0.5 0.5	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201 538 0.8 0.7 2.1
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (s.a., d) Producer Price Index (n.s.a., d) Durable Goods Orders (a) Leading Economic Indicators (g)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521 1.5 -0.1 1.6 0.0 1.9 0.2	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545 0.4 0.0 1.7 -0.5 -3.5 -0.2	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485 1.5 -0.1 1.8 -0.9 5.1	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508 3.1 -0.2 1.8 -1.1 -1.7	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507 2.1 0.0 1.7 -0.8 -2.3 0.6	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472 0.5 0.1 1.8 0.5 4.1 0.6	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498 0.0 0.2 1.8 -0.7 1.9	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505 0.6 0.2 1.8 -1.0 -2.9 -0.1	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129 457 0.2 0.0 1.9 -1.1 -0.8 0.0	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478 -0.1 0.2 1.9 -1.4 2.8 0.6	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508 -0.5 0.5 2.0 -1.3 -0.5	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201 538 0.8 0.7 2.1 -1.1 -4.6 -0.3
Retail and Food Service Sales (a) Auto & Light Truck Sales (b) Personal Income (a, current \$) Personal Consumption (a, current \$) Consumer Credit (e) Consumer Sentiment (U. of Mich.) Household Employment (c) Non-Farm Payroll Employment (c) Unemployment Rate (%) Average Hourly Earnings (All, cur. \$) Average Workweek (All, hrs.) Industrial Production (d) Capacity Utilization (%) ISM Manufacturing Index (g) ISM Non-Manufacturing Index (g) Housing Starts (b) Housing Permits (b) New Home Sales (1-family, c) Construction Expenditures (a) Consumer Price Index (s.a., d) CPI ex. Food and Energy (s.a., d) Producer Price Index (n.s.a., d) Durable Goods Orders (a) Leading Economic Indicators (g) Balance of Trade & Services (f)	-0.5 16.63 0.2 -0.4 3.6 98.1 665 221 5.7 24.76 34.6 3.4 78.0 53.5 56.7 1.101 1.073 521 1.5 -0.1 1.6 0.0 1.9 0.2 -42.1	-0.5 16.32 0.3 0.2 5.5 95.4 127 265 5.5 24.80 34.6 2.5 77.7 53.3 57.1 0.893 1.114 545 0.4 0.0 1.7 -0.5 -3.5 -0.2 -36.3	1.5 17.06 0.0 0.5 7.6 93.0 102 84 5.5 24.87 34.5 1.3 77.3 52.3 56.9 0.964 1.071 485 1.5 -0.1 1.8 -0.9 5.1 0.4	0.1 16.70 0.6 0.3 7.6 95.9 176 251 5.4 24.91 34.5 1.1 76.9 51.6 57.5 1.192 1.178 508 3.1 -0.2 1.8 -1.1 -1.7 0.6 -40.9	0.9 17.63 0.6 0.9 7.0 90.7 239 273 5.5 24.97 34.5 0.3 76.6 53.1 55.9 1.063 1.266 507 2.1 0.0 1.7 -0.8 -2.3 0.6 -40.2	0.1 16.95 0.5 0.3 9.6 96.1 -26 228 5.3 24.96 34.5 -0.2 76.4 53.1 56.2 1.213 1.334 472 0.5 0.1 1.8 0.5 4.1 0.6 -43.0	0.6 17.47 0.3 0.3 6.8 93.1 144 277 5.3 25.03 34.6 0.4 76.7 51.9 59.6 1.147 1.142 498 0.0 0.2 1.8 -0.7 1.9 0.0 -39.9	-0.1 17.73 0.3 0.3 5.1 91.9 177 150 5.1 25.12 34.6 0.4 76.7 51.0 58.3 1.132 1.166 505 0.6 0.2 1.8 -1.0 -2.9 -0.1	0.1 18.07 0.1 0.2 9.9 87.2 -101 149 5.1 25.14 34.5 -0.3 76.4 50.0 56.7 1.189 1.129 457 0.2 0.0 1.9 -1.1 -0.8 0.0 -41.1	0.0 18.13 0.3 0.2 5.2 90.0 255 295 5.0 25.21 34.5 -0.4 76.3 49.4 58.3 1.073 1.175 478 -0.1 0.2 1.9 -1.4 2.8 0.6 -41.6	0.3 18.06 0.2 0.3 4.8 91.3 247 280 5.0 25.27 34.5 -2.1 75.7 48.4 56.6 1.171 1.286 508 -0.5 0.5 2.0 -1.3 -0.5 0.5 -41.1	0.4 17.22 0.3 0.2 7.3 92.6 485 271 5.0 25.26 34.5 -2.3 75.4 48.0 55.8 1.160 1.201 538 0.8 0.7 2.1 -1.1 -4.6 -0.3 -41.5

(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		
29 Personal Income and Consumption (Jul) Dallas Fed Survey (Aug)	S&P/Case-Shiller Home Price Index (Jun) Consumer Confidence (Aug, Conference Board)	31 ADP Employent (Aug) Chicago PMI (Aug) Pending Home Sales (Jul) EIA Crude Oil Stocks Mortgage Applications  September 1 Markit Manufacturing PMI (Aug, Final) ISM Manufacturing (Aug) Light Vehicle Sales (Aug) Construction Spending (Jul) Productivity and Costs (Q2, Revised) Weekly Jobless Claims Weekly Money Supply		ADP Employent (Aug) Chicago PMI (Aug) Pending Home Sales (Jul) EIA Crude Oil Stocks Mortgage Applications  Markit Manufacturing PMI (Aug, Final) ISM Manufacturing (Aug) Light Vehicle Sales (Aug) Construction Spending (Jul Productivity and Costs (Q2 Revised) Weekly Jobless Claims		Employment (Aug) International Trade (Jul) Factory Orders (Jul))
5 Labor Day U.S. Markets Closed	Markit Services PMI (Aug, Final) ISM Non-Manufacturing PMI (Aug)	7 JOLTS (Jul) Beige Book EIA Crude Oil Stocks Mortgage Applications	8 Quarterly Services Survey (Q2) Consumer Credit (Jul) Weekly Jobless Claims Weekly Money Supply	9 Wholesale Trade (Jul)		
12	13 NFIB Survey (Aug) Federal Budget (Aug)	14 Import Prices (Aug) EIA Crude Oil Stocks Mortgage Applications	Retail Sales (Aug) Industrial Production (Aug) Producer Price Index (Aug) Business Inventories (Jul) Empire State Survey (Sep)Philadelphia Fed Survey (Sep) Current Account ((Q2) Weekly Jobless Claims Weekly Money Supply	16 Consumer Price Index (Aug) Consumer Sentiment (Sep, Preliminary, University of Michigan) TIC Data (Jul)		
19 NAHB Survey (Sep)	FOMC Meeting Housing Starts (Aug)	FOMC Meeting Statement and project- tions (2:00 pm) Press Conference 2:30 EIA Crude Oil Stocks Mortgage Applications	FHFA Home Price survey (Jul) Existing Home Sales (Aug) Kansas City Fed Survey (Sep) Weekly Jobless Claims Weekly Money Supply	Markit Manufacturing PMI (Sep, Flash)		
26 New Home Sales (Aug) Dallas Fed Survey (Sep)	27 S&P/Case-Shiller Home Price Index (Jul) Markit Services PMI (Sep, Flash) Consumer Confidence (Sep, Conference Board) Richmond Fed Survey (Sep)	28 Durable Goods (Aug) EIA Crude Oil Stocks Mortgage Applications	Real GDP (Q2, Third Estimate) International Trade (Aug, Advance) Pending Home Sales (Aug) Weekly Jobless Claims Weekly Money Supply	30 Personal Income and Consumption (Aug) Chicago PMI (Sep) Consumer Sentiment (Sep, Final, University of Michigan		
October 3  Markit Manufacturing PMI (Sep, Final) ISM Manufacturing (Sep) Markit Manufacturing PMI (Sep, Final) Vehicle Sales (Sep) Construction Spending (Aug)	4	5 ADP Employment (Sep) International Trade (Aug) Markit Services PMI (Sep, Final) ISM Non-Manufacturing (Sep) Factory Orders (Aug) EIA Crude Oil Stocks Mortgage Applications	6 Weekly Jobless Claims Weekly Money Supply	7 Employment (Sep) Wholesale Trade (Aug) Consumer Credit (Aug)		

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