

Financial Market Weekly

CHRISTOPHER S. RUPKEY, CFA
 MANAGING DIRECTOR
 CHIEF FINANCIAL ECONOMIST
 ECONOMIC RESEARCH OFFICE (NEW YORK)
 (212) 782-5702
 crupkey@us.mufg.jp

13 OCTOBER 2017

MUFG Union Bank
 A member of MUFG, a global financial group

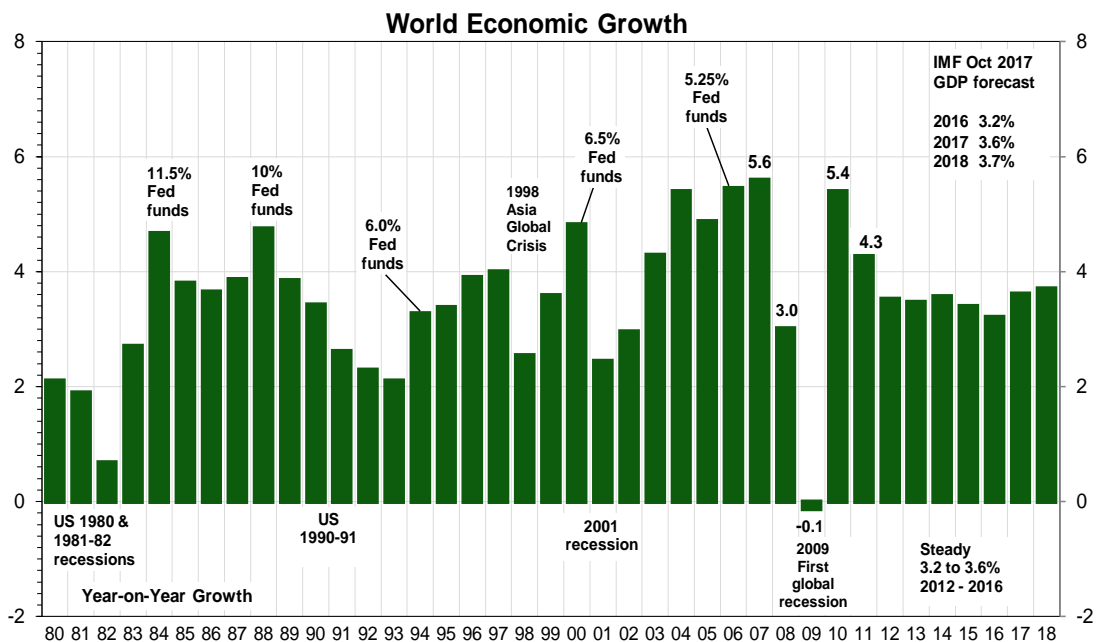
LIFE IS GOOD. WHEN'S THE NEXT RECESSION?

The market is so obsessively risk focused anymore. Always looking at what might go wrong in the future. But the U.S. economy is in its ninth year of expansion from the 2007-2009 recession. Things have been going right for quite a long time now. It must be time to stop and ask: when's the music going to stop for the economy?

It was the best of times, it was the worst of times.

Always looking for what can go wrong even Madame [Lagarde at the IMF](#) said this week that the world economy is in a better place and growth is more balanced, but the recovery was not complete. It will never be complete in the minds of some. There's always more work that the economy can do to help its citizens.

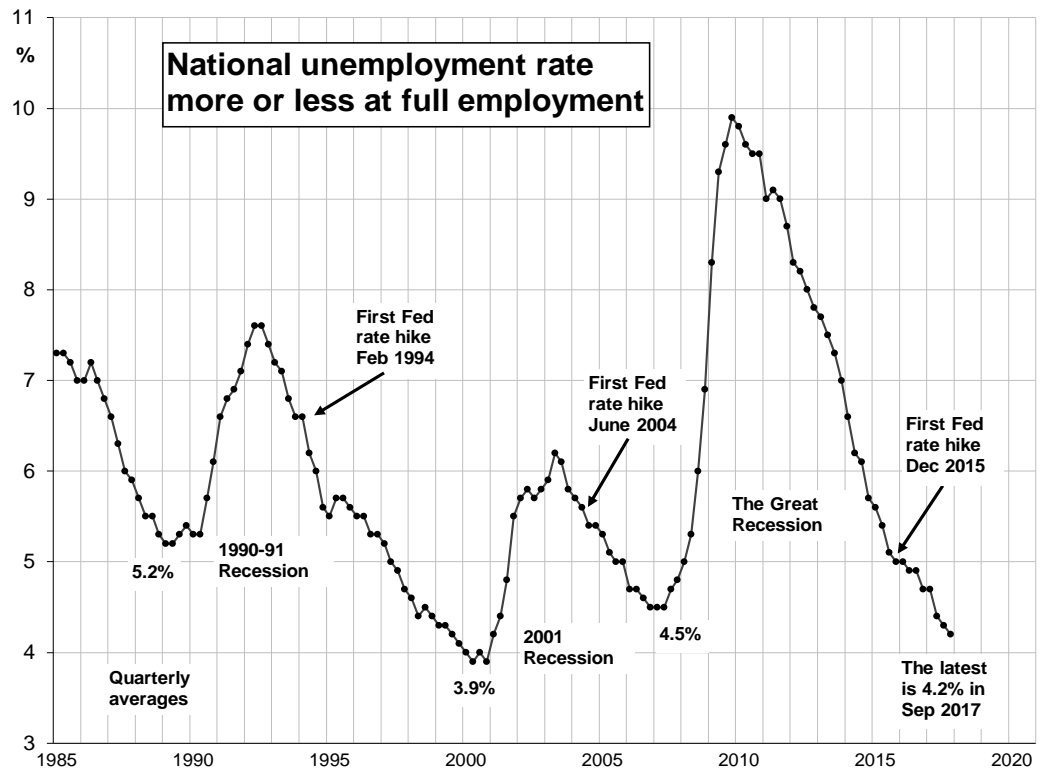
Recession? All the Fed's models have been unable to predict one over the years: "all of a sudden, things go vertical;" we can't see it coming. There can be warning signs and a buildup of imbalances that worry economists for years, and yet the economy's



sudden decline and soaring job losses are still unexpected when they suddenly appear. The world is in a better place certainly as the IMF said, although the world growth forecasts for this year and next year were only revised up one-tenth: 3.6% in 2017 and 3.7% next year in 2018 to look forward to. Growth has been fairly steady overall, the weakest year recently being 3.2% in 2016.

But things can change quickly from the best of times to the worst of times. We thought we would look at the record of the last three cycles, using the lowest unemployment rate as the measure of the best of best times during the upswing in economic growth. As the unemployment rate moves lower and lower, the odds seem to go up that things can only go wrong, with little improvement left to be had.

We don't know how low the unemployment rate can go each cycle of course, but we know we are getting closer to the end with the unemployment rate falling to 4.2% in September 2017. On a quarterly average basis, the low in unemployment before the 1990-91 recession was 5.2%, and the economy was in recession 6 quarters later. In the 2001 recession, unemployment fell to 3.9% for the first time in Q2 2000, and four



quarters later the economy was in recession. Before the latest 2007-09 recession, unemployment fell as low as 4.5% in Q4 2006, and the economy was in recession five quarters later. Four, five, or six... a year to a year and a half after the best of times for the economic expansion, the economy had fallen into recession. Without thinking about the “why” of the next recession, statistically we are close with the unemployment rate falling down between the 4.5 and 3.9 percent low points the last two times out. Getting closer. Get ready.

Unemployment Rate low timing before recession

Recession	Low	Low	Recession starts	Lead Time	
1990-91	Q1 1989	5.2%	Q3 1990	5.7%	6 quarters
2001	Q2 2000	3.9%	Q2 2001	4.4%	4 quarters
2007-09	Q4 2006	4.5%	Q1 2008	5.0%	5 quarters

IMF October 2017 World Economic Outlook The global upswing in economic activity is strengthening, with global growth projected to rise to 3.6 percent in 2017 and 3.7 percent in 2018. Broad-based upward revisions in the euro area, Japan, emerging Asia, emerging Europe, and Russia more than offset downward revisions for the United States and the United Kingdom. But the recovery is not complete: while the baseline outlook is strengthening, growth remains weak in many countries, and inflation is below target in most advanced economies. Commodity exporters, especially of fuel, are particularly hard hit as their adjustment to a sharp stepdown in foreign earnings continues. And while short-term risks are broadly balanced, medium-term risks are still tilted to the downside. For policymakers, the welcome cyclical pickup in global activity provides an ideal window of opportunity to tackle key challenges—namely to boost potential output while ensuring its benefits are broadly shared, and to build resilience against downside risks.

MARKETS OUTLOOK

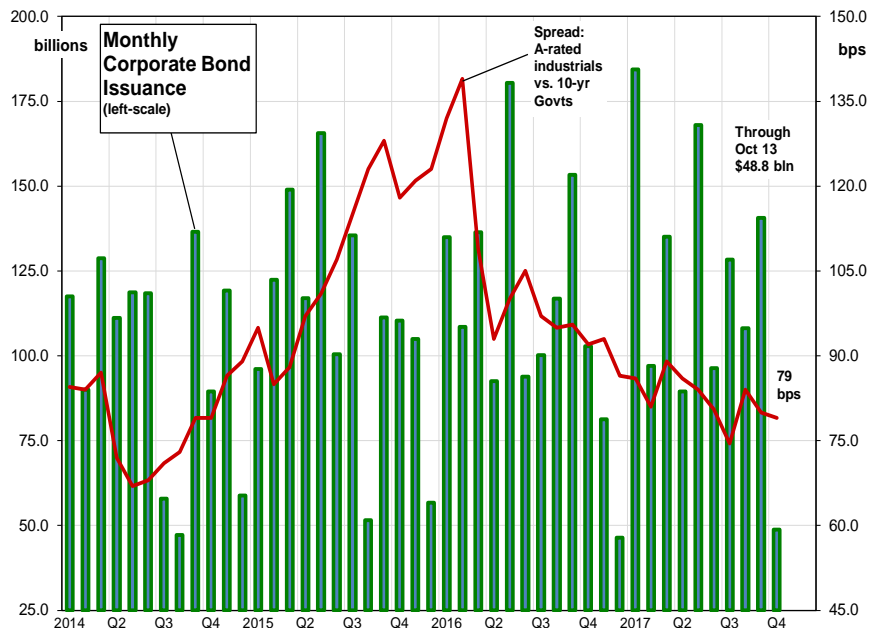
	29-Sep 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q1 2020
30-Yr Treasury	2.86	3.10	3.20	3.40	3.60	3.70	3.80	4.00	4.10	4.10	4.10	4.20
10-Yr Note	2.33	2.50	2.70	3.00	3.20	3.40	3.50	3.70	3.80	3.90	3.90	4.00
5-Yr Note	1.94	2.10	2.40	2.70	3.00	3.20	3.30	3.50	3.60	3.70	3.70	3.90
2-Yr Note	1.48	1.60	1.85	2.10	2.40	2.60	2.85	3.10	3.35	3.35	3.60	3.85
3-month Libor	1.33	1.65	1.90	2.20	2.45	2.70	2.95	3.20	3.45	3.35	3.70	3.95
Fed Funds Rate	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.25	3.50	3.75
2s/10s spread	85	90	85	90	80	80	65	60	45	55	30	15

10-year Treasury yields closed lower at 2.27% this week versus 2.36% last Friday. The year-on-year core CPI inflation rate held in Friday's report for September, but the market did not like the 0.1% monthly change. 10-yr yields were 2.33% before CPI on Friday and fell instantly to 2.28% on the weaker inflation news. The odds of a December Fed rate hike came down to 72% at Friday's close from 78% before the CPI report.



CORPORATES: WAL-MART, BROADCOM, SEMPRA ENERGY, PHILLIPS 66

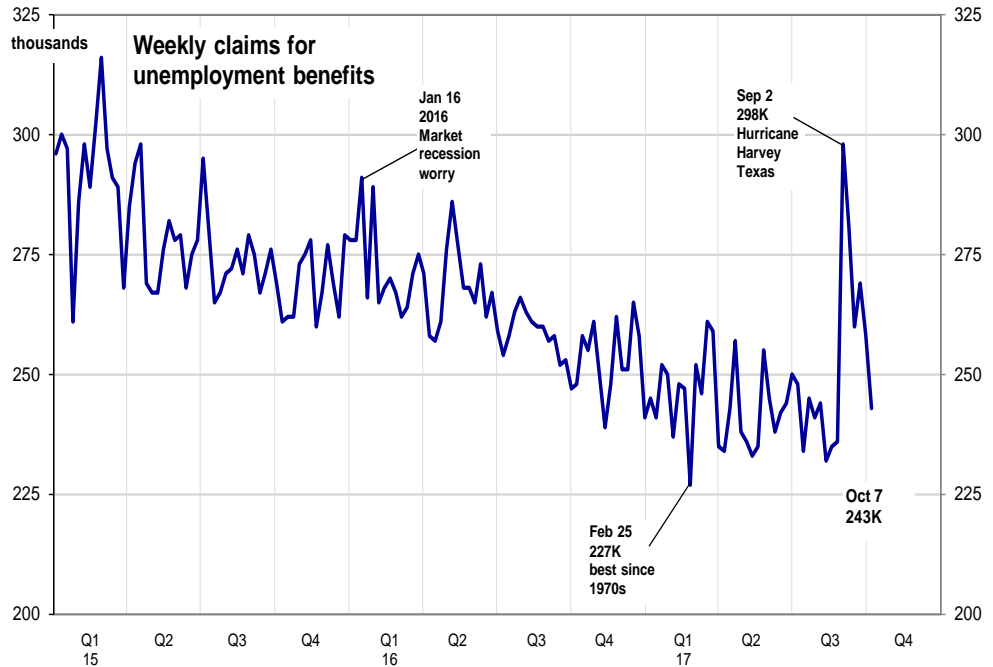
Corporate offerings were \$33.0 billion in the October 13 week versus \$15.5 billion in the October 6 week. On Tuesday, Northrop Grumman sold \$8.25 billion 3s/5s/7s/10s/30s. It priced \$2.0 billion 3.25% 10-yrs (m-w +15bp) at 90 bps (Baa2/BBB). The aerospace defense company will use the proceeds to finance its acquisition of Orbital ATK, Inc. Corporate bonds (10-yr Industrials rated A2) were 79 bps above 10-yr Treasuries this week versus 79 bps last Friday.



OTHER ECONOMIC NEWS THIS WEEK

Unemployment claims normalize further after the storms

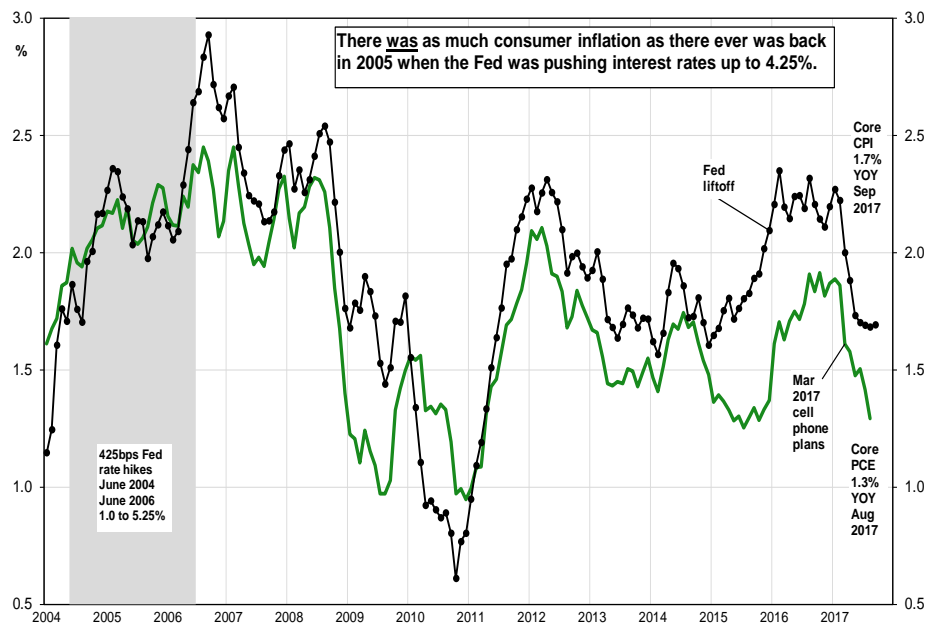
Unemployment claims fell further by 15K to 243K in the October 7 week. Hurricane Harvey hit Texas sending claims to 298K in the September 2 week, but that was it. Hurricane Irma, hitting Florida on Sunday, September 10, had very little impact on the jobless claims data.



Some inflation, spending, not enough to shake Fed policy to its core

Breaking economy news. Retail sales exploded out of the blocks, rebounding up 1.6% in September after falling 0.1% in August. But if we draw back the curtain, retail spending without autos and gasoline sales was respectable, but not a sign of an overheating economy and 3% growth, with a 0.5% rise in September and August was revised from -0.1% to +0.1%. Similarly, inflation jumped 0.5% in September, but core inflation less energy and food prices rose a tepid 0.1%. Fed officials are looking for core inflation to run 0.2% each month if it is ever going to get to the 2% target.

Net, net, the economy's headlines are showing a strong rebound in consumer spending and inflation, but we cannot bump up our outlook for a stronger economy later this year because there are questions about just how durable the spending and inflation numbers are. Spending on autos went through the roof in September, jumping from 16.0 million in August to 18.5 million in September, putting some last minute, summer sizzle in the



spending picture as car dealers gave buyers incentives to clear the lots. Similarly, gasoline stations pumped all month long at hurricane-inflation prices as well that won't last.

Inflation is heating up but at the core level it is slightly cooler with just a 0.1% rise. What's a poor Fed official to do? Well, first off who will be the Fed officials in the future and we don't just mean the naming of the next Fed Chair which is coming within the next month according to the Treasury secretary if he is not overruled again by the President. If we were running the Federal Reserve we would have the committee vote to raise rates at a measured pace to a level 100 bps above September's 2.2% headline CPI inflation number today. Greenspan did it, why can't the current Federal Reserve?

We expect today's data will not win over the more reluctant wing of the Federal Reserve who thinks rate hikes slow growth and are concerned inflation remains short of target. The Federal Reserve is likely to move cautiously at the gradual pace they have laid out over the next two years. One more rate hike this year and three more in 2018 is the speed limit for interest rate normalization and today's data certainly will not make them proceed any faster. Stay tuned. Story developing.

The economy finished the quarter with a bang, but the outlook for the fourth quarter remains a question mark. The question for this is economy is sure, you can win a couple of games, but can you win the series. Let's see what all the President's Men and the fractured Congress can do to jumpstart the economy and make America great again. Tax cuts are coming for all, and will raise the tide for all the boats, won't they? Anyone, anyone?

Several Fed official chickens clucking about too low inflation in Minutes

Breaking economy news. The Fed meeting minutes from the September 12-13 meeting were released on Wednesday, October 11 at 2pm EDT. Yellen gave a press conference after the meeting and one would think surely all the market's questions had been answered. We also have the Fed forecasts from the meeting saying 12 out of 16 Fed officials expect another rate hike this year. "Many" the minutes refer to the just-do-it gang of 12. The question then we want answered if at all possible is just how firm those 12 out of 16 votes for a 1.5% Fed funds rate later this year really are?

Well the minutes read dovishly in our view and that shallow path of rates may yet be brought down lower this year and next if core inflation does not pick back up. Many Fed members still question if the current soft inflation picture is somehow tied to a weakening economy. No growth, then no inflation. The path of rates is not very steep as it is where one more rate hike is seen this year, and three in 2018 based on the median consensus forecast. But those hikes may be one or two too many for many Fed officials if inflation doesn't show signs of picking up at the core level. The Committee is already assuming headline inflation will pick up temporarily due to higher energy prices after the recent hurricanes. But underlying or core inflation is the worrying trend for several Fed officials.

Net, net, the Fed is clearly inching closer to pulling the trigger for a third rate hike this year, but that doesn't seal the deal as inflation is a growing concern the September meeting minutes say. In fact core PCE inflation actually fell another notch after this September 12-13 meeting with core PCE inflation of 1.3% in August now, down from 1.4% in July, which is too far away from target for many

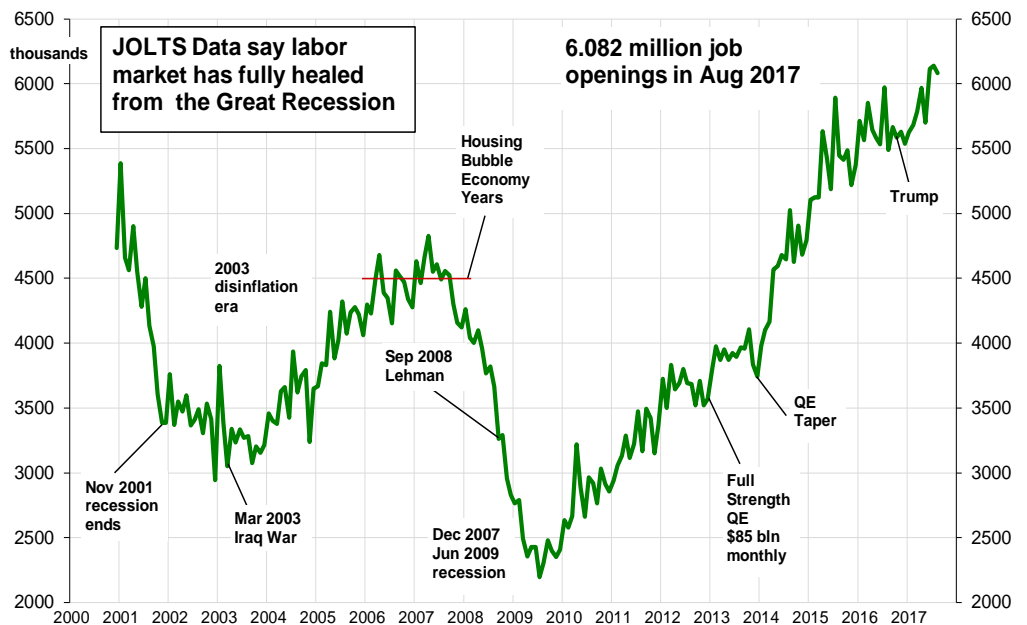
of the Doves on the Committee. At the moment the minutes say several members say the outlook is uncertain and another rate hike this year will depend importantly on whether inflation shows signs of strengthening. Indeed, these several uncertain members could increase to many more members if inflation doesn't pick back up.

We still expect another rate hike this year as theory trumps the actual data when it comes to the inflation outlook in Yellen's mind. The Fed's models tell them that an economy at full employment eventually produces more inflation down the road and they want the Fed funds rate to be back to normal levels before that happens. Stay tuned. Story developing. We get PPI and CPI inflation reports later this week. Core CPI inflation should be closely monitored as a second monthly 0.2 percent increase could start pushing core PCE inflation back higher after the declines from 1.9% year-on-year began in earnest with the drop in cell phone prices (data plans) in March. The CPI report Friday could make or break the Fed's confidence that inflation indeed is going to return to target over the next couple of years.

Number of job openings steady near record highs

Breaking economy news. The number of job openings out there on August 31, the last day of the month, as Hurricane Harvey struck Texas, remained near record levels showing the labor market is the strongest in decades. 6.082 million jobs were available in August, the third highest in history, and down just a fraction from 6.140 million in July and 6.116 million in June. We haven't heard any tweets yet from the Oval Office, but clearly there are new jobs created, one measure, and there are jobs available which cannot be turned into the new jobs, jobs, jobs promised during the presidential election because there is no one to fill them.

The good news is the economy is strong enough to need new workers to keep going but the bad news is that the job openings are increasingly going unfilled. The well has gone dry for many companies looking for help. Makes you wonder what the point of tax reform is at this point of the economic cycle as jobs creation starts to



sputter naturally with workers in short supply. When Trump was inaugurated in January, job openings were 5.625 million so here is another economic stat showing a strengthening labor market that Washington can take credit for.

The number of quitters out there is also fairly normal. Fed Chair Yellen (fact check this, is she still in the position?) thinks the number of quitters out there shows confidence in the economy and the outlook. As an employee you have to be pretty confident to quit a job; you must be confident that there is other work out there if and when you need it. Anyway the quits level was 3.124 million in August and it has been 3.1 to 3.2 million since May this year. The August 3.124 million quits level is higher than anytime during 2006-07, the final two years of the housing bubble economy. The labor market is tighter than it was during the go-go economy years over a decade ago so Fed officials will grow more concerned that inflation indeed is surely right around the corner. Twelve of sixteen Fed officials look for another rate hike this year and today's data will confirm that the economy is on track and that a gradual pace of rate hikes is still needed.

Net, net, jobs are everywhere with 6.1 million positions that need to be filled. It is interesting how so many of the openings are needed in the South, lots of quitters down there as well, though it has nothing to do with the hurricanes. 1.236 quitters in August down South and 2.129 million job openings, the most jobs available in the country, Texas and Florida where the hurricanes struck included. The Fed can continue to withdraw the stimulus it provided during the financial crisis and recession as the labor market clearly doesn't need any support.

There is talk of bringing factory jobs back to America, but manufacturing job openings are 397 thousand in August up from 339 thousand in August 2016. Manufacturing is alive and well in the country and could actually be even better off if they could find the skilled labor to run the machines on the factory floors. For policy we don't need more factories brought back to the USA, we need people to work in the ones we have.

Another day, another piece of data showing the Fed that the economy is normal, and that their policy needs to return to normal as well. The Fed funds rate should be at their definition of normal, 2.75% today, not three or four years from now. The economy is stronger than Fed officials think. Bet on it.

Analyst Certification

The views expressed in this report accurately reflect the personal views of **Christopher S. Rupkey**, the primary analyst responsible for this report, about the subject securities or issuers referred to herein, and no part of such analyst's compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed herein.

The information herein is provided for information purposes only, and is not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. Neither this nor any other communication prepared by The Bank of Tokyo-Mitsubishi UFJ, Ltd. (collectively with its various offices and affiliates, "BTMU") or should be construed as investment advice, a recommendation to enter into a particular transaction or pursue a particular strategy, or any statement as to the likelihood that a particular transaction or strategy will be effective in light of your business objectives or operations. Before entering into any particular transaction, you are advised to obtain such independent financial, legal, accounting and other advice as may be appropriate under the circumstances. In any event, any decision to enter into a transaction will be yours alone, not based on information prepared or provided by BTMU. BTMU hereby disclaims any responsibility to you concerning the characterization or identification of terms, conditions, and legal or accounting or other issues or risks that may arise in connection with any particular transaction or business strategy. While BTMU believes that any relevant factual statements herein and any assumptions on which information herein are based, are in each case accurate, BTMU makes no representation or warranty regarding such accuracy and shall not be responsible for any inaccuracy in such statements or assumptions. Note that BTMU may have issued, and may in the future issue, other reports that are inconsistent with or that reach conclusions different from the information set forth herein. Such other reports, if any, reflect the different assumptions, views and/or analytical methods of the analysts who prepared them, and BTMU is under no obligation to ensure that such other reports are brought to your attention.

Copyright 2017 MUFG All Rights Reserved

The articles and opinions in this publication are for general information only, are subject to change, and are not intended to provide specific investment, legal, tax or other advice or recommendations. The information contained herein reflects the thoughts and opinions of the noted authors only, and such information does not necessarily reflect the thoughts and opinions of MUFG or its management team. We are not offering or soliciting any transaction based on this information. We suggest that you consult your attorney, accountant or tax or financial advisor with regard to your situation. Although information has been obtained from sources we believe to be reliable, neither the authors nor MUFG guarantee its accuracy, and such information may be incomplete or condensed. Neither the authors nor MUFG shall be liable for any typographical errors or incorrect data obtained from reliable sources or factual information.

About MUFG Americas Holdings Corporation

Headquartered in New York, MUFG Americas Holdings Corporation is a financial holding company and bank holding company with total assets of \$148.1 billion at December 31, 2016. Its main subsidiaries are MUFG Union Bank, N.A. and MUFG Securities Americas Inc. MUFG Union Bank, N.A. provides an array of financial services to individuals, small businesses, middle-market companies, and major corporations. As of December 31, 2016, MUFG Union Bank, N.A. operated 365 branches, comprised primarily of retail banking branches in the West Coast states, along with commercial branches in Texas, Illinois, New York and Georgia, as well as two international offices. MUFG Securities Americas Inc. is a registered securities broker-dealer which engages in capital markets origination transactions, private placements, collateralized financings, securities borrowing and lending transactions, and domestic and foreign debt and equities securities transactions. MUFG Americas Holdings Corporation is owned by The Bank of Tokyo-Mitsubishi UFJ, Ltd. and Mitsubishi UFJ Financial Group, Inc., one of the world's leading financial groups. The Bank of Tokyo-Mitsubishi UFJ, Ltd. is a wholly owned subsidiary of Mitsubishi UFJ Financial Group, Inc. Visit <http://www.unionbank.com/> or <http://www.mufgamerica.com/> for more information.

About MUFG (Mitsubishi UFJ Financial Group, Inc.)

MUFG (Mitsubishi UFJ Financial Group, Inc.) is one of the world's leading financial groups, with total assets of approximately \$2.6 trillion (USD) as of December 31, 2016. Headquartered in Tokyo and with approximately 350 years of history, MUFG is a global network with more than 2,200 offices in nearly 50 countries. The Group has more than 140,000 employees and about 300 entities, offering services including commercial banking, trust banking, securities, credit cards, consumer finance, asset management, and leasing. The Group's operating companies include Bank of Tokyo-Mitsubishi UFJ, Mitsubishi UFJ Trust and Banking Corporation (Japan's leading trust bank), and Mitsubishi UFJ Securities Holdings Co., Ltd., one of Japan's largest securities firms.

Through close partnerships among our operating companies, the Group aims to "be the world's most trusted financial group," flexibly responding to all of the financial needs of our customers, serving society, and fostering shared and sustainable growth for a better world. MUFG's shares trade on the Tokyo, Nagoya, and New York (MTU) stock exchanges. Visit www.mufg.jp/english/index.html.