

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

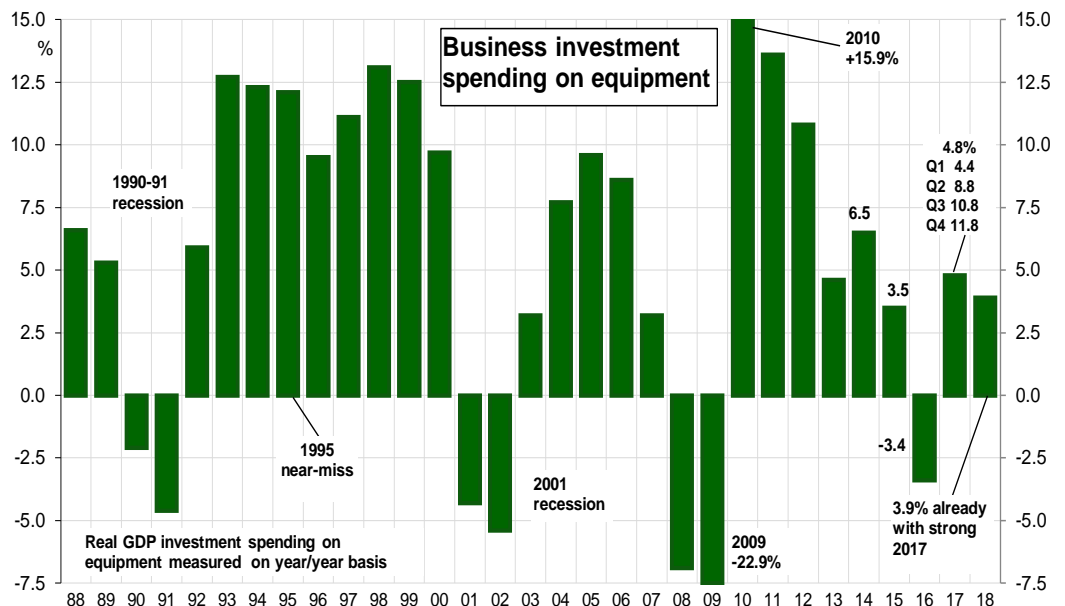
2 MARCH 2018

MUFG | 1251 Avenue of the Americas
 New York, New York 10020
 A member of MUFG, a global financial group

BUSINESS INVESTMENT ON EQUIPMENT STRONG THROUGH YEAR END

Fed Chair Powell testified Tuesday before the House, bringing down the House actually, when he said the Fed would raise rates four times this year. That's what the market heard. 4X not 3X. Dow industrials dropped 299 points on Tuesday.

He said the economy had strengthened since the December meeting. Not this week: January data released this week: New Home Sales -7.8%, Advance Report on the Exports of Goods -2.2%, Durable goods orders -3.7%, Real Consumption Expenditures -0.1%. He also said the Tax Cuts and Jobs Act would lead to greater investment, possibly/probably even more productivity, and those productivity gains would lead companies to increase wages for workers. Wages being something many in Congress are still worried about. Their constituents. They don't seem to approve of the Fed raising interest rates at all, "tapping the brakes on growth," until wages improve.



	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17p	Q1 17r
REAL GDP	1.8	1.2	3.1	3.2	2.6	2.5
REAL CONSUMPTION	2.9	1.9	3.3	2.2	3.8	3.8
CONSUMPTION	2.0	1.3	2.2	1.5	2.6	2.6
Durables	0.7	0.0	0.6	0.6	1.0	1.0
Nondurables	0.4	0.2	0.6	0.3	0.7	0.6
Services	1.0	1.2	1.1	0.5	0.8	1.0
INVESTMENT	1.3	-0.2	0.6	1.2	0.6	0.6
Business Plant & Equipment and Intellectual Property	-0.1	0.4	0.2	-0.2	0.0	0.1
Homes	0.1	0.2	0.5	0.6	0.6	0.6
Inventories	0.0	0.2	0.2	0.2	0.2	0.1
Homes	0.3	0.4	-0.3	-0.2	0.4	0.5
Inventories	1.1	-1.5	0.1	0.8	-0.7	-0.7
EXPORTS	-0.5	0.9	0.4	0.3	0.8	0.8
IMPORTS	-1.1	-0.6	-0.2	0.1	-2.0	-2.0
GOVERNMENT	0.0	-0.1	0.0	0.1	0.5	0.5
Federal defense	-0.1	-0.1	0.2	0.1	0.2	0.2
Fed nondefense	0.1	0.0	-0.1	0.0	0.0	0.0
State and local	0.1	0.1	-0.2	0.0	0.3	0.3

Below line: Percentage point contributions to Q4 17 2.5% real GDP
 Final estimate for Q4 is Wednesday, March 28

The irony here is that investment spending on equipment has picked up even before the tax cuts from Washington. Companies didn't need additional incentives to invest. Real business investment spending on equipment was 11.8% in Q4 2017 in the Wednesday second revision to the Q4 2017 real GDP data (now 2.5% overall) and rose at a faster pace throughout the year. While it is possible that some equipment purchases were made in the improving business climate last year after Trump's election, higher stock prices etc., much of the increase in equipment spending was a bounce back from the 3.4% downturn in 2016. Real business investment spending on equipment only declines in recessions which is why economists were worried about the outlook in 2016. Looking back, the 2016 trend was temporary, did not "bring down" the entire economy, where the full year 2016 weakness in equipment was driven by the commodity price crash. Equipment purchases of computers and industrial equipment were okay in 2016, the weakness was in autos, heavy trucks, aircraft, and machinery of various colors and stripes: agriculture, construction, mining & oilfield. Anyway, the point is that business equipment spending strengthened last year, and there is always the danger if that's

the word that companies and businesses have made all the equipment purchases they need for now in advance of the tax reform legislation and that investment spending will not add as much to economic growth this year as many are counting on.

\$BLN Nominal GDP expenditures	Q4 15 YOY%		Q1 16	Q2 16	Q3 16	Q4 16 YOY%		Q1 17	Q2 17	Q3 17	Q4 17 YOY%	
Equipment & Intellectual Property	1815.4	3.4	1786.6	1802.5	1803.4	1808.0	-0.4	1835.0	1870.5	1909.4	1945.9	7.6
EQUIPMENT	1083.5	3.0	1046.2	1044.3	1040.9	1044.3	-3.6	1057.6	1082.3	1111.0	1142.6	9.4
Information processing equipment	307.1	1.6	299.1	302.6	306.8	307.1	0.0	310.8	319.3	327.7	334.6	9.0
Computers	74.4	-9.4	73.2	73.9	73.4	72.1	-3.1	72.8	80.1	84.9	79.2	9.8
Other processing equipment 1	232.7	5.7	225.9	228.7	233.4	235.0	1.0	238.1	239.2	242.8	255.5	8.7
Industrial equipment	224.0	3.2	220.6	224.4	226.0	229.0	2.2	234.3	241.7	246.7	250.6	9.4
Transportation equipment	305.7	10.0	290.4	291.8	283.3	281.3	-8.0	282.6	283.5	292.8	302.5	7.5
Other equipment 2	246.7	-3.2	236.0	225.5	224.9	226.9	-8.0	229.9	237.8	243.8	254.8	12.3
INTELLECTUAL PROPERTY	731.9	4.0	740.4	758.2	762.5	763.7	4.3	777.4	788.2	798.4	803.3	5.2
Software	337.8	4.0	344.4	351.6	356.1	359.1	6.3	363.2	370.6	375.9	378.4	5.4
Research & Development (R&D)	312.8	3.2	314.3	324.6	323.6	320.8	2.6	329.5	332.2	335.7	335.7	4.6
Entertainment, literary, artistic	81.3	7.1	81.7	82.1	82.9	83.7	3.0	84.7	85.4	86.1	86.2	3.0
1 Communication, medical, photocopy, office and accounting equipment; nonmedical instruments												
2 Furniture; agriculture, construction, mining/oilfield, and service industry machinery; electrical equipment												

Brief Comment on Fed's Preferred Personal Consumption Expenditures (PCE) inflation measure

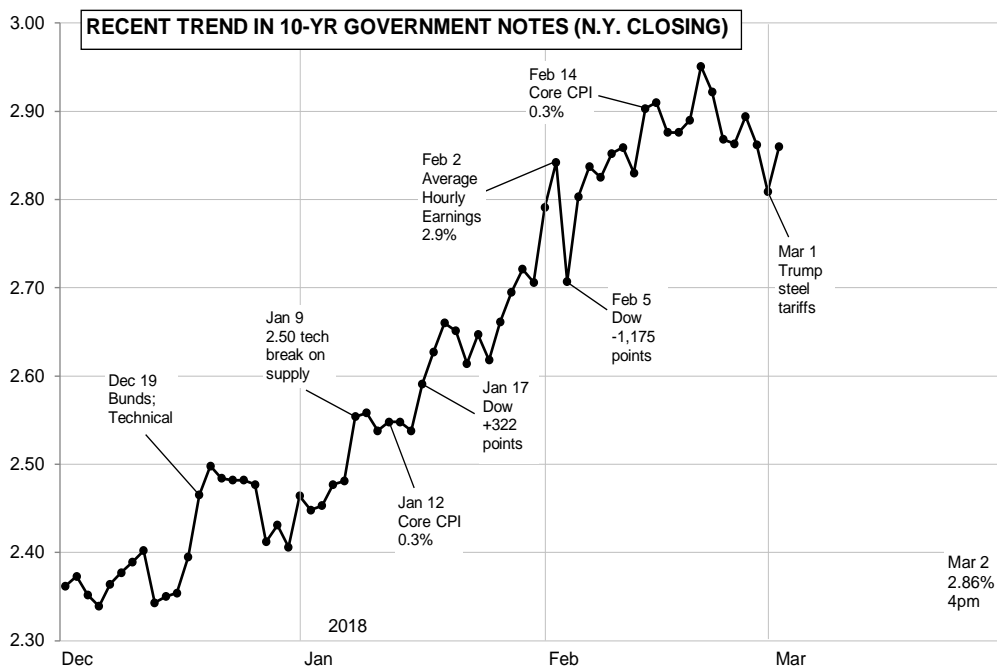
Core PCE inflation for January released on Thursday did indeed match the 0.3% increase in core CPI for January released two weeks earlier. 10-yr yields moved up a few basis points from 2.83%, although because core PCE inflation rose 0.3% in January 2017, the year-on-year rate remains at 1.5%. The target is 2.0% of course and the FOMC forecasts in December look for three rate hikes with core PCE inflation rising to 1.9% in Q4 2018, so the three rate hikes are contingent more or less on core PCE inflation moving up from 1.5 to 1.9 percent later this year. The March PCE inflation data will be key as the 0.2% decline in March 2017 from cheaper cell phone data will wash out and core PCE could jump back as high as 1.9%. Data are due out Monday, April 30.

Core PCE Inflation monthly and year-on-year changes					
2018	% chg	YOY	2017	% chg	YOY
Dec			Dec	0.2	1.5
Nov			Nov	0.1	1.5
Oct			Oct	0.2	1.5
Sep			Sep	0.2	1.4
Aug			Aug	0.1	1.3
Jul			Jul	0.1	1.4
Jun			Jun	0.1	1.5
May			May	0.1	1.5
Apr			Apr	0.2	1.6
Mar			Mar	-0.2	1.6
Feb			Feb	0.2	1.9
Jan	0.3	1.5	Jan	0.3	1.9

MARKETS OUTLOOK

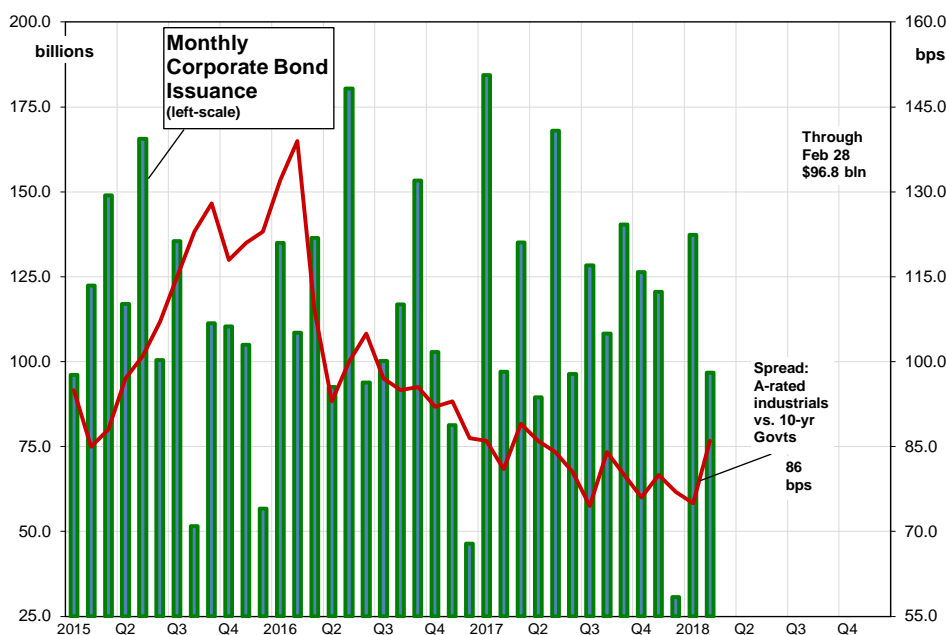
	29-Dec 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020
30-Yr Treasury	2.74	3.00	3.10	3.20	3.30	3.40	3.45	3.65	3.60	3.80	3.75
10-Yr Note	2.41	2.70	2.80	2.90	3.00	3.20	3.30	3.50	3.50	3.70	3.70
5-Yr Note	2.21	2.50	2.50	2.70	2.85	3.05	3.20	3.45	3.45	3.65	3.70
2-Yr Note	1.89	2.15	2.30	2.55	2.80	3.00	3.15	3.40	3.40	3.60	3.80
3-month Libor	1.69	2.05	2.20	2.45	2.70	2.95	3.10	3.35	3.35	3.60	3.85
Fed Funds Rate	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	52	55	50	35	20	20	15	10	10	10	(10)

No new high for yields this week as the bond yield rally is looking topy for now. The big 5 bps drop in yields on Thursday to 2.81% came on the Trump steel and aluminum tariffs news. Fed Chair Powell's Monetary Policy Report testimony on Tuesday got markets thinking the Fed would raise the forecast to four rate hikes in 2018, but bond yields only made it as high as 2.92% on the news. The employment report for February due out on Friday, March 9, along with the 2.9% average hourly earnings "wages" from last month is make or break for the upward trend in yields. Need more hot data to keep the inflation scare alive.



CORPORATES: ANTHEM, STARBUCKS, DUKE ENERGY, ENBRIDGE, STRYKER

Corporate offerings were \$36.7 billion in the March 2 week versus \$18.4 billion in the February 23 week. On Monday, Starbucks sold \$1.6 billion 5s/10s. It priced a \$600 million 3.5% 10-yr (m-w +15bp) at 67 bps (A3/A-). The specialty coffee retailer will use the proceeds for general corporate purposes, including share repurchases. Corporate bonds (10-yr Industrials rated A2) were 86 bps above 10-yr Treasuries this week versus 81 bps last Friday.



FEDERAL RESERVE POLICY

The Fed meets March 20-21 to consider its monetary policy. Despite Fed Chair Powell's two days of Monetary Policy Report testimony before the House and Senate and the stock market's 3.0% loss on the week, down 0.7% for the year, Fed funds futures odds of a 25 bps rate hike to 1.75% on March 21 remain green light go at 92% on Friday at the end of the week.

The market took Powell's comments in Tuesday's testimony before the House as if the FOMC might raise its interest rates forecast path from three hikes this year to four hikes. Here is the transcript of Powell's Q&A with Representative Carolyn Maloney (D-NY) that led to the 4 times per year speculation. [Just a note on Thursday, outgoing New York Fed President Dudley said a "gradual" pace of rate hikes this year could still be four times, even if the current December meeting median forecasts are three times.]

MALONEY: Chairman Powell, the Fed's median projection is for three interest rate increases in 2018. What would cause you to raise rates more than three times this year? Would you have to see a material increase in inflation, faster GDP growth, higher wage growth, what would cause you to raise rates more?

POWELL: Thank you, Ms. Maloney. You're right that every quarter each participant in the FOMC submits a projection of what they feel is going to happen in the economy, and also their projection for appropriate monetary policy. And at the December meeting, the median participant called for three rate increases in 2018.

Now, since then -- we will submit another projection, all of us, in three weeks. But since then, what we've seen is incoming data that suggests a strengthening in the economy. We've seen continuing strength in the labor market. We've seen some data that will, in my case, add some confidence to my view that inflation is moving up to target.

We've also seen continued strength around the globe. And we've seen fiscal policy become more stimulative. So I think each of us is going to be taking the developments between -- since the December meeting into account and writing down our new rate paths as we go into the March meeting, and I wouldn't want to prejudge that.

MALONEY: And as you know, the last time the Fed released its projections for the pace of interest rate increases was in mid-December. And since then, we've had two major financial events. One was the tax-reform legislation and the other was the major budget agreement.

Selected Fed assets and liabilities					Sep 10
Fed H.4.1 statistical release					2008**
billions, Wednesday data	28-Feb	21-Feb	14-Feb	7-Feb	pre-LEH
Factors adding reserves					
U.S. Treasury securities	2424.242	2432.066	2436.173	2436.192	479.782
Federal agency debt securities	4.391	4.391	4.391	4.391	0.000
Mortgage-backed securities	1759.972	1768.298	1771.927	1760.743	0.000
Primary credit (Discount Window)	0.013	0.018	0.002	0.019	23.455
Term auction credit (TAF auctions)	0.000	0.000	0.000	0.000	150.000
Asset-backed TALF	0.000	0.000	0.000	0.000	
Maiden Lane (Bear)	1.708	1.710	1.715	1.715	29.287
Maiden Lane II (AIG)	0.000	0.000	0.000	0.000	0.000
Maiden Lane III (AIG)	0.000	0.000	0.000	0.000	0.000
<u>Central bank liquidity swaps</u>	0.072	0.067	0.062	0.039	62.000
Federal Reserve Assets	4440.1	4458.9	4482.2	4468.0	961.7
3-month Libor %	2.02	1.92	1.85	1.80	2.82
Factors draining reserves					
Currency in circulation	1627.259	1621.652	1616.273	1612.559	834.477
Term Deposit Facility	0.000	0.000	0.000	0.000	0.000
Reverse repurchases w/others	44.510	45.171	38.518	48.120	0.000
Reserve Balances (Net Liquidity)	2208.308	2215.339	2226.188	2240.014	24.964
Treasuries within 15 days	0.000	32.047	48.610	16.563	14.955
Treasuries 16 to 90 days	92.002	92.002	92.002	97.821	31.549
Treasuries 91 days to 1 year	326.901	314.372	270.849	297.077	69.272
Treasuries over 1-yr to 5 years	1081.426	1069.165	1107.777	1081.307	170.807
Treasuries over 5-yrs to 10 years	297.846	300.215	295.684	322.161	91.863
Treasuries over 10-years	626.067	624.265	621.252	621.263	101.337

**September 10, 2008 is pre-Lehman bankruptcy of 9-15-08

So my question is, has your outlook for how quickly the Fed should tighten monetary policy changed in light of tax reform and -- and budget agreement?

POWELL: I would say that the -- my -- my personal outlook for the economy has -- has strengthened since December. And again, each member of the FOMC is going to be writing down a new set of projections and a new estimate of appropriate monetary policy as we go into the March meeting, which begins three weeks from today. And so I wouldn't want to prejudge that -- that new set of projections, but we'll be taking into account everything that's happened since December.

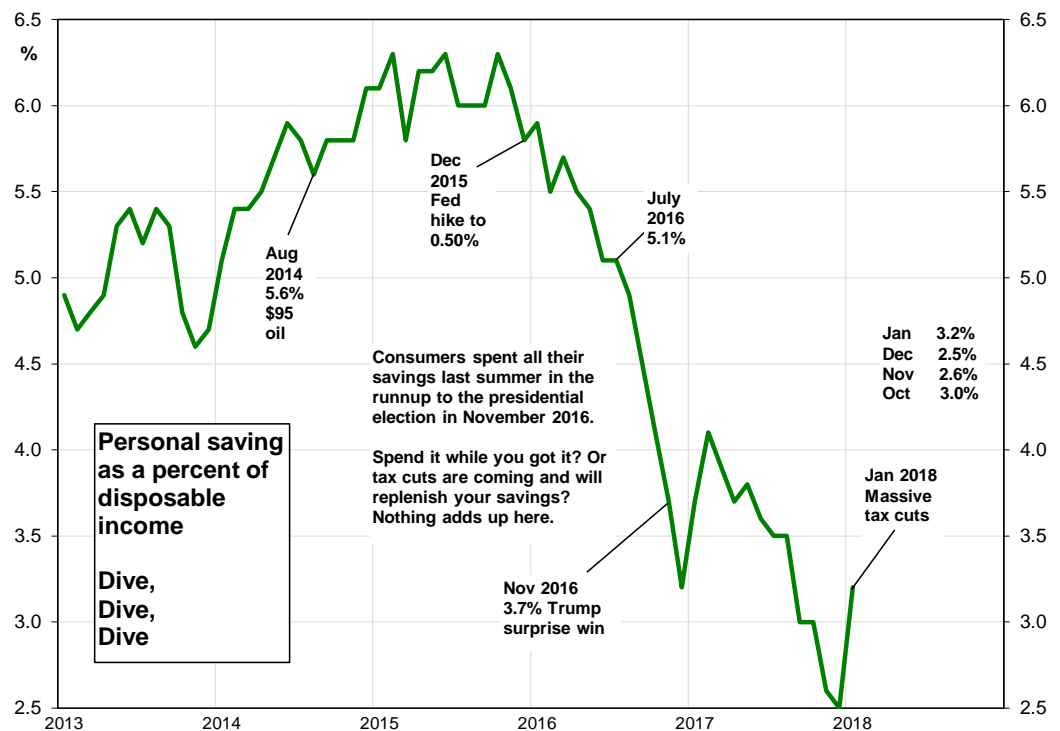
***** Where there's smoke, there's fire, but not sure there is enough smoke here to speculate on whether they will move to four rate hikes in 2018 when the new forecasts are published on March 21 at 2pm.**

OTHER ECONOMIC NEWS THIS WEEK

Inflation in holding pattern at 1.5%, while consumer spending drops

Breaking economy news. The consumer was AWOL in January, perhaps not noticing or receiving those massive tax cuts doled out by Congress. Economists have warned over the years that priming the pump for economic growth doesn't always work and today, consumer spending fell 0.1% in January, and the savings rate jumped from 2.5% in December to 3.2% in January. Consumers are saving those tax cuts at the moment, scarcely believing their eyes perhaps that the windfall will last, and as a result, real spending tumbled in January bringing down those first quarter real GDP estimates for economic growth as well. There's some momentum there given the big spending bash of 3.8%

real consumer expenditures in the fourth quarter. Real consumer purchases are running 0.7% in Q1 2018 even if the consumer doesn't buy any more goods and services in February and March, but this is still over a half-percentage point less than we thought a month ago, and makes us wonder how long we should hang onto our 2.5% Q1 2018 real GDP forecast.



Net, net, the economic outlook is one of darkening skies as consumers stayed at home in January and skipped those shopping trips to the malls. Inflation heated up a little this month, but is running at

the same year-to-year rates for headline inflation and core inflation of 1.7% and 1.5%, respectively. Inflation isn't going to run any hotter if economic demand does not pick back up this quarter, that's for sure. Companies continue to keep their workers close as layoffs fell to a new low this year of 210K in the February 24 week which may eventually lead to greater so-called wage inflation, but this is a story that will play out over the next few years and is unlikely to lead to a near-term burst of inflation that the bond market is so worried about.

Simply put, today's data do not back up incoming Fed Chair Powell's claims that the economy has strengthened since the December meeting. We doubt he will find many takers around the table in March for raising the rates path to four hikes this year instead of just three rate hikes. Hot or not, this economy would have to be described as not. Stay tuned. Story developing.

Durable goods orders not impressed with Jobs Act yet

Breaking economy news. Companies must be continuing to study the financial implications of the brand-new Tax Cuts and Jobs Act because they are sure taking their sweet time ordering up new equipment. Business investment will be a key driver of the extra economic growth necessary to get these massive tax cuts to pay for themselves, but companies are so far are leaving the Trump administration and Congress in the lurch. Maybe they are giving their hardworking employees bonuses instead. Past tax legislation aimed at the expensing and write-offs of capital equipment have led to a surge in new orders, but nothing yet when it comes to the ordering of additional capital equipment like machinery, electrical components or even appliances. Nondefense capital goods orders ex-aircraft rose just 0.1% in November before dropping 0.6% in December and 0.2% in January, showing the Tax Cuts and Jobs Act is so far a big fat dud.

Net, net, business orders for new equipment join with other statistics pointing the way down for the economy in January as the economy starts the year on a weak note. Time will tell whether this is just a temporary pause or whether companies and consumers are going to save more of the tax



cuts windfall rather than spend the money to help the economy grow. The economic expansion begins its tenth year this July and with the labor pool coming up dry increasingly, a key ingredient in whether

the economy sets new records for growth is whether consumers and businesses spend their tax cuts or whether yet another Washington package of stimulus for the economy ends up being a dud. We still have penciled in 2.5% GDP growth this quarter, but we are growing nervous about what is looking to be an overly optimistic forecast.

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 2018 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 vouch for 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.mufgamericas.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.