

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

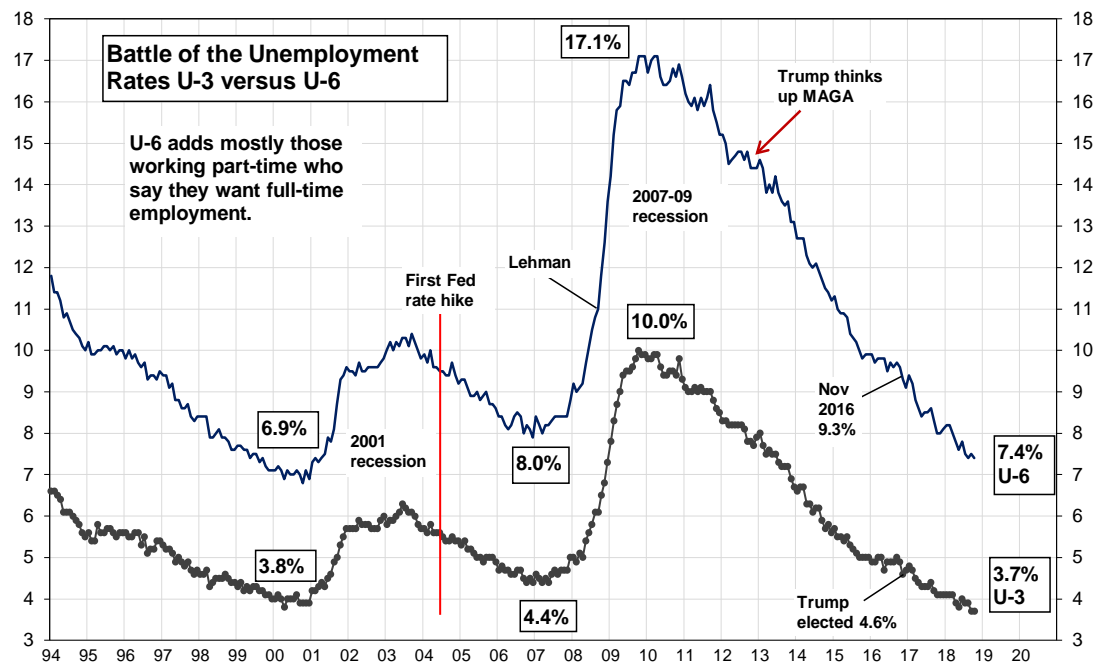
2 NOVEMBER 2018

MUFG Bank, Ltd.
 A member of MUFG, a global financial group

BOOMING, WINNING, THRIVING JOBS REPORT, SEES BOOST FOLLOWING HURRICANE

The economy gets knocked down and comes back even stronger. Like everything else coming out of Washington lately. And what happened to the battle with China over supremacy and worldwide domination, forced technology transfer, noneconomic licensing agreements, cyberwar, deleterious trade agreements ripping off America for years? Gone, poof! Overnight. Trump is said to instruct his Cabinet to craft a trade agreement with China that he and his good friend Xi can sign down in Buenos Aires at the end of the month. Trump has an

excellent personal relationship with his good friend Xi, and recent polling shows the China trade battle is going nowhere with voters, so hopes for an agreement can help the downtrodden stock market too.



	Oct	Sep	Aug	Jul	Jun	May
Payroll jobs (000s)	250	118	286	165	208	268
Unemployment rate %	3.7	3.7	3.9	3.9	4.0	3.8
Unemployment (3 decimal)	3.735	3.683	3.853	3.871	4.048	3.755
Participation rate %	62.9	62.7	62.7	62.9	62.9	62.7
Average hourly earnings	\$27.30	\$27.25	\$27.17	\$27.07	\$26.99	\$26.94
MTM % Chg	0.2	0.3	0.4	0.3	0.2	0.3
YOY % Chg	3.1	2.8	3.0	2.8	2.8	2.8
Production Worker earnings	\$22.89	\$22.82	\$22.76	\$22.67	\$22.63	\$22.58
MTM % Chg	0.3	0.3	0.4	0.2	0.2	0.3
YOY % Chg	3.2	2.8	2.9	2.8	2.8	2.7

250K payroll job in October, exactly 250K with no revisions, just the sort of doctored number that one would expect going into the midterm elections, although seriously, the statisticians at the Bureau of

Labor Statistics (BLS) would never compromise themselves and do such a political thing. No matter who asked. We are sure.

Hurricane Michael that hit Florida on October 10 had no impact on the data, but the 250K jobs count in October did bounce from last month's weak 118K jobs report when Hurricane Florence hit the Carolinas in September. Leisure and hospitality jobs rose 42K in October from a revised 0K jobs in September (originally reported as -17K).

The economy has had a crazy seesaw pattern on new payroll jobs ever since July, slower, faster, slower, faster, 165, 286, 118, 250 thousand jobs, July, August, September, October, averaging 205K per month, if we subtract out the highs and lows just like your Meds do. People are going to need them too with just a handful of days left before the all-important midterm

Payroll jobs in year ten following the recession

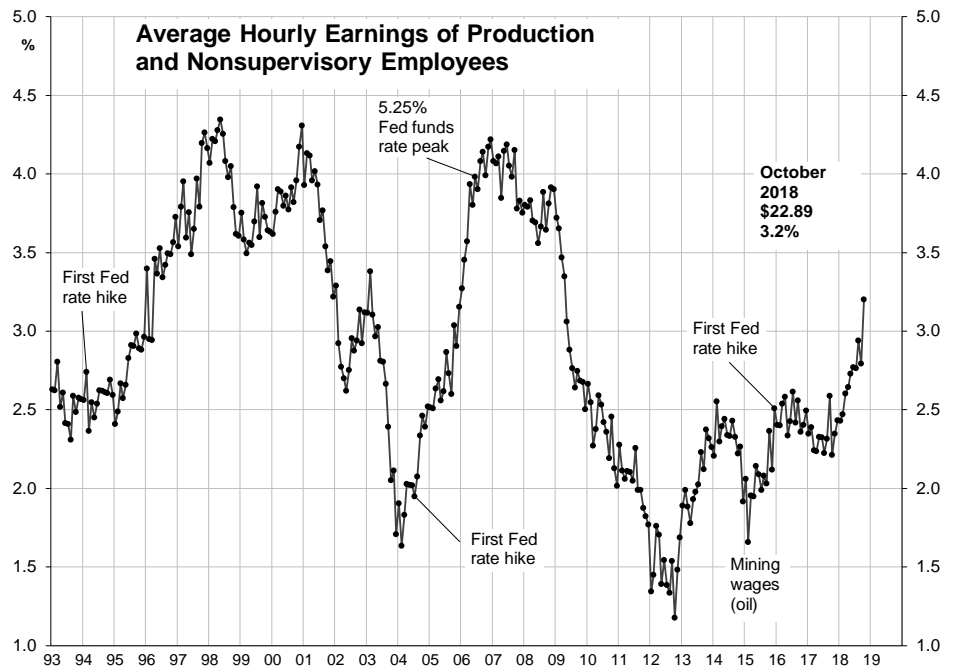
Dec. 2017		Oct 18	Sep 18	Aug 18	10 months Dec 17 to Oct 18	12 months Dec 16 to Dec 17
Totals	millions					
147.625	Nonfarm Payroll Employment	250	118	286	2125	2188
125.294	Total Private (ex-Govt)	246	121	267	2059	2163
20.328	Goods-producing	67	42	49	531	509
0.648	Mining	5	5	8	60	53
12.558	Manufacturing	32	18	11	227	207
0.956	Motor Vehicles & parts	7	1	3	13	4
7.072	Construction	30	20	31	246	250
104.966	Private Service-providing	179	79	218	1528	1654
27.593	Trade, transportation, utilities	37	-8	54	272	169
15.861	Retail stores	2	-32	9	35	-29
3.122	General Merchandise	2	-13	16	19	-51
3.100	Food & Beverage stores	3	-3	3	1	3
5.236	Transportation/warehousing	25	21	23	163	135
1.460	Truck transport	2	6	7	32	9
0.708	Couriers/messengers	8	5	4	57	39
1.011	Warehousing and storage	8	9	5	47	43
0.554	Utilities	1	0	1	-2	-3
2.776	Information	7	-4	-4	-7	-36
8.511	Financial	7	15	9	98	142
2.664	Insurance	2	1	2	18	38
2.220	Real Estate	9	12	5	57	60
1.323	Commercial Banking	-2	0	-4	-6	5
0.951	Securities/investments	-3	1	4	17	20
20.677	Professional/business	35	46	54	469	458
2.998	Temp help services	3	8	11	60	96
2.308	Management of companies	2	3	3	31	38
1.456	Architectural/engineering	7	-1	7	36	45
2.065	Computer systems/services	6	5	4	62	47
1.137	Legal services	1	1	-1	1	5
0.982	Accounting/bookkeeping	2	-1	3	32	-3
23.380	Education and health	44	26	67	431	458
5.124	Hospitals	13	11	10	92	70
3.696	Educational services	-3	-9	14	58	77
16.207	Leisure and hospitality	42	0	30	203	354
2.014	Hotel/motels	-1	-4	3	22	31
11.844	Eating & drinking places	34	-10	24	158	261
22.331	Government	4	-3	19	66	25
2.182	Federal ex-Post Office	3	1	2	12	-12
5.129	State government	1	1	3	10	-16
2.462	State Govt Education	1	1	5	13	-1
14.407	Local government	2	-5	15	52	56
7.938	Local Govt Education	0	-5	10	31	28

elections. Remember, November 8, 2016? Okay, okay, the payroll jobs trend of 200K is intact, and Yellen's eventual slowing to just 80-120K per month as the economic expansion matures and America runs out of workers (stuck at the Border) is still in the future. Make no mistake about though. This labor market is the strongest since the 1960s in terms of putting people to work with the unemployment rate unchanged at 3.7% in October.

What else? Wages. Well we already got two other reports of wages this week in the Employment Cost Index (ECI) and Productivity reports for the third quarter. Third quarter wages in the ECI report are up 3.1% the last year which is basically as good a report as we got in 2006 (3.2%) and 2007 (3.3%) during the strong economic conditions of the housing bubble years. Well, average hourly earnings today rose 3.1% in October from year-earlier levels to \$27.30 (last month they were rising 2.8% year-

year). If you are a working man, the news is even better with wages running 3.2% now up from 2.8% last month on an annual basis even if your paycheck is less than your boss at \$22.89 per hour, that would be 84 percent less, but who is counting. You are still just as valued by your company. Bet on it.

Net, net, it has been a bumpy ride for new jobs the last several months but the trend is showing the aging economy can still produce more work for Americans. That's a good thing, folks. Factory jobs are also strong showing the trade war is working if that's your political belief. Factories streaming back to the USA, USA, USA. Manufacturing jobs rose 32K in October which is the most this year with more jobs in machinery (4,800), motor vehicles (6,800), food manufacturing (6,800), and plastics (2,600) just like you were told in The Graduate, Benjamin.



The economy really cranked it up a notch in October and this will give Fed officials the confidence to keep raising interest rates to normal levels because this economy does not need the support of monetary policy to continue to grow. There's no serious inflation yet, but with wages starting to rise faster as the labor market tightens up, the Fed cannot afford to sit back and relax as inflation pressures build. This report shows it's just about time to take the punch bowl away from the party before things get too fun. The Fed doesn't want to go too fast nor too slow, but they have to raise interest rates at a gradual pace or they risk having to spoil the party and raise rates too high and send the economy into a recession. Stay tuned. Story developing. We see another rate hike to 2.5% in December. Bet on it.

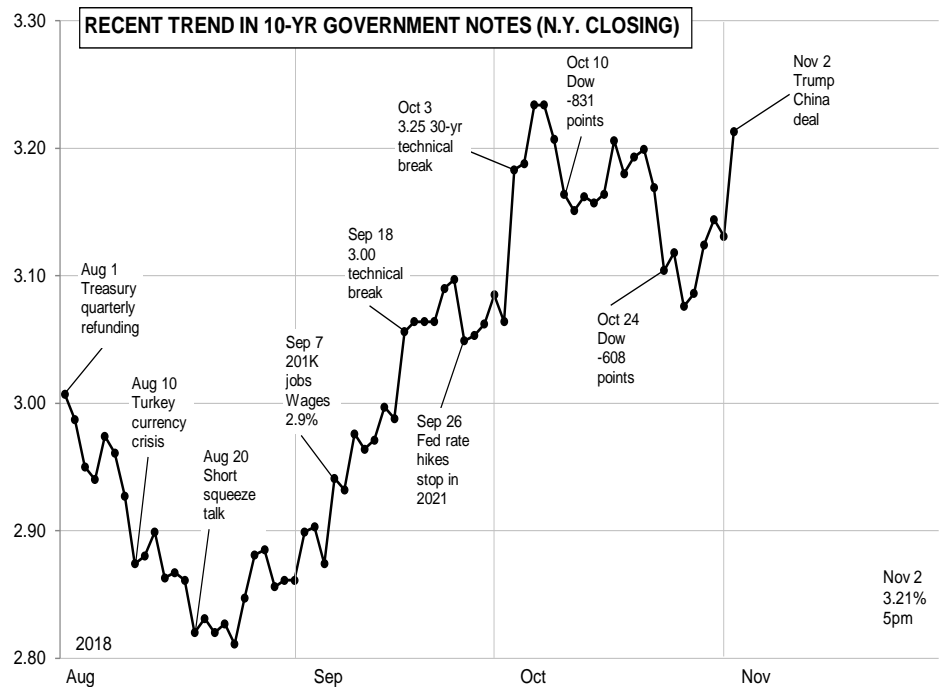
Trade deficit widened to \$54.0 billion in September
What can we sell to the rest of the world? Soybeans?

	U.S. Goods Exports			
	2018 Year-to-date Totals (through September)			
	2018	2017	Change	Percent Change
\$ Millions				
Total	1,256,583	1,146,376	110,207	9.6
Foods, feeds, beverages	110,082	100,646	9,436	9.4
Soybeans	23,131	17,819	-2,653	29.8
Industrial supplies/materials	402,130	339,159	62,971	18.6
Fuel oil	31,266	28,035	3,231	11.5
Crude oil	32,529	14,037	18,492	131.7
Coal and fuels, other	5,796	4,483	1,313	29.3
Natural gas	7,266	6,008	1,258	20.9
Petroleum products, other	47,490	35,419	12,071	34.1
Capital goods, ex-auto	419,958	396,036	23,922	6.0
Drilling & oilfield equip	3,166	2,706	460	17.0
Excavating machinery	8,594	7,271	1,323	18.2
Civilian aircraft	40,471	42,264	-1,793	-4.2
Automotive vehicles, parts	121,334	117,880	3,454	2.9
Consumer goods	154,491	147,737	6,754	4.6
Other goods	48,589	44,918	3,671	8.2

MARKETS OUTLOOK

	28-Sep 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021
30-Yr Treasury	3.21	3.25	3.40	3.45	3.65	3.60	3.80	3.85	3.85	3.95	3.95
10-Yr Note	3.06	3.10	3.20	3.30	3.50	3.50	3.70	3.80	3.80	3.95	3.95
5-Yr Note	2.95	3.00	3.10	3.20	3.40	3.45	3.65	3.75	3.80	3.95	3.95
2-Yr Note	2.82	2.90	3.00	3.15	3.40	3.40	3.60	3.75	3.80	4.00	4.00
3-month Libor	2.40	2.70	2.95	3.20	3.45	3.45	3.70	3.90	3.90	4.20	4.15
Fed Funds Rate	2.25	2.50	2.75	3.00	3.25	3.25	3.50	3.75	3.75	4.00	4.00
2s/10s spread	24	20	20	15	10	10	10	5	0	(5)	(5)
Libor/funds spd	15	20	20	20	20	20	20	15	15	20	15

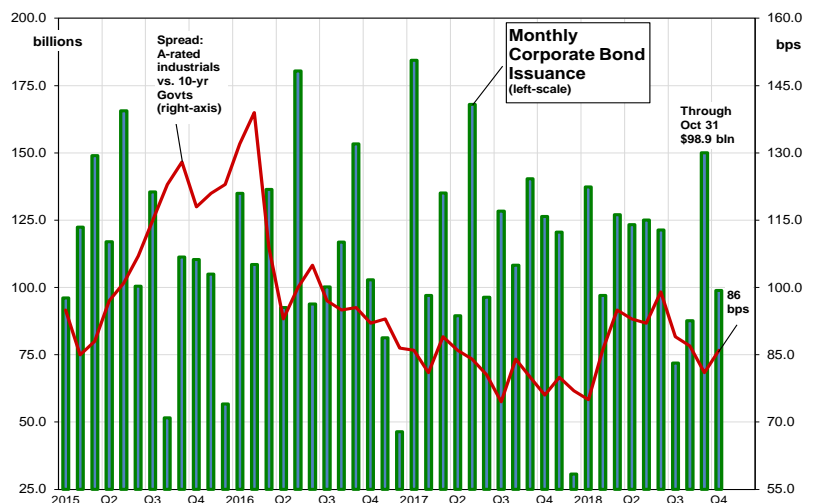
Bond yields jumped to 3.21% at Friday's close from as low as 3.06% early on Monday. The rise started a little after midnight Thursday night, Friday morning, from 3.14% on a Bloomberg story saying Trump had asked his Cabinet to draw up a trade agreement that he and Xi could sign at G20 in Buenos Aires at the end of the month. Yields moved up higher still after the 250K jobs number at 830am along with 3.2% mouth-watering wages for workers (2.8 vs. 3.2 what's the difference). Then finally at 230pm Friday



afternoon Trump said he thought the US would reach a trade deal with China. 10-yr yields were about 3.19% when he said this from the White House and moved as high as 3.22% near the 3.26% yield high for 2018. With Treasury quarterly refunding auctions next week, yields should move higher.

CORPORATES: AMEX, DAIMLER, CORNING, EASTMAN CHEMICAL, BOEING

Corporate offerings were \$22.3 billion in the November 2 week versus \$6.0 billion in the October 26 week. On Tuesday, Stanley Black & Decker sold \$1.0 billion 10s/30s. It priced a \$500 million 4.25% 10-yr (m-w +20bp) at 115 bps (Baa1/A). The power and hand tools company will use the proceeds to repay maturing debt. Corporate bond yields (10-yr Industrials rated A2) were 84 bps above 10-yr Treasuries this week versus 84 bps last Friday.



FEDERAL RESERVE POLICY

The Fed meets November 7-8 to consider its monetary policy. (That's right: Fed decision announced 2pm EST Thursday, November 8... not a Wednesday.) Twelve of sixteen Fed officials see a fourth rate hike this year to 2.5%. In December. Market odds for a December hike are 76% on Friday versus 68% a week ago.

Next year, 4 out of 16 Fed officials see three rate hikes to 3.25%, 7 see two or fewer rate hikes, and 5 see more than three hikes. The Committee seems less certain on the path of rates in 2019 as there are different opinions about where neutral rates for the economy are. President Trump sees no rate hikes next year.

Not a lot of Fed speakers ahead of next week's meeting of course. Yellen spoke Tuesday in Washington saying that at least a couple more rate hikes were necessary. That means 2.75%. It sounds like she would be in favor of continuing to move interest rates up even higher as long as the unemployment rate, currently 3.7%, continues to drop. Falling unemployment may signal an economy that is heating up even if economic growth doesn't pick up (besides the last two quarters of real GDP that is, 4.2% Q2 and 3.5% Q3). Fed Chair Powell also spoke this week in a written response (August letter) to Congress. Senator Catherine Cortez Masto (D-Nevada) asked him whether he agreed with Minneapolis Fed President Kashkari's pro-immigration view. Immigration is roughly half of population growth Powell said, so if immigration is reduced it will lead to slower economic growth.

Year-ends for Interest Rates				
Percent %	2018	2019	2020	2021
Eurodollar futures	2.775	3.24	3.25	3.22
Fed's Sept forecast	2.5	3.25	3.5	3.5
Eurodollar futures price where 3-month Libor will be in the future. Friday, November 2, 2018 3-month Libor 2.59%				

Selected Fed assets and liabilities					Sep 10 2008**
Fed H.4.1 statistical release	31-Oct	24-Oct	17-Oct	10-Oct	pre-LEH
Factors adding reserves					
U.S. Treasury securities	2270.399	2294.215	2294.245	2294.227	479.782
Federal agency debt securities	2.409	2.409	2.409	2.409	0.000
Mortgage-backed securities	1668.989	1676.956	1680.109	1681.778	0.000
Primary credit (Discount Window)	0.061	0.048	0.010	0.013	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)	0.007	0.007	0.007	0.007	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	
<u>Central bank liquidity swaps</u>	0.080	0.080	0.089	0.090	62.000
Federal Reserve Assets	4186.8	4220.8	4223.2	4224.6	961.7
3-month Libor %	2.56	2.51	2.45	2.43	2.82
Factors draining reserves					
Currency in circulation	1696.031	1690.508	1691.479	1692.975	834.477
Term Deposit Facility	0.000	0.000	0.000	0.000	0.000
Reverse repurchases w/others	4.815	6.444	0.174	2.390	0.000
Reserve Balances (Net Liquidity)	1771.541	1825.009	1831.618	1878.887	24.964
Treasuries within 15 days	34.357	23.886	23.833	0.026	14.955
Treasuries 16 to 90 days	45.211	79.515	79.615	101.337	31.549
Treasuries 91 days to 1 year	324.193	308.510	308.510	310.595	69.272
Treasuries over 1-yr to 5 years	985.372	999.360	999.357	999.355	170.807
Treasuries over 5-yrs to 10 years	264.095	265.781	265.775	265.769	91.863
Treasuries over 10-years	617.170	617.162	617.154	617.146	101.337

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

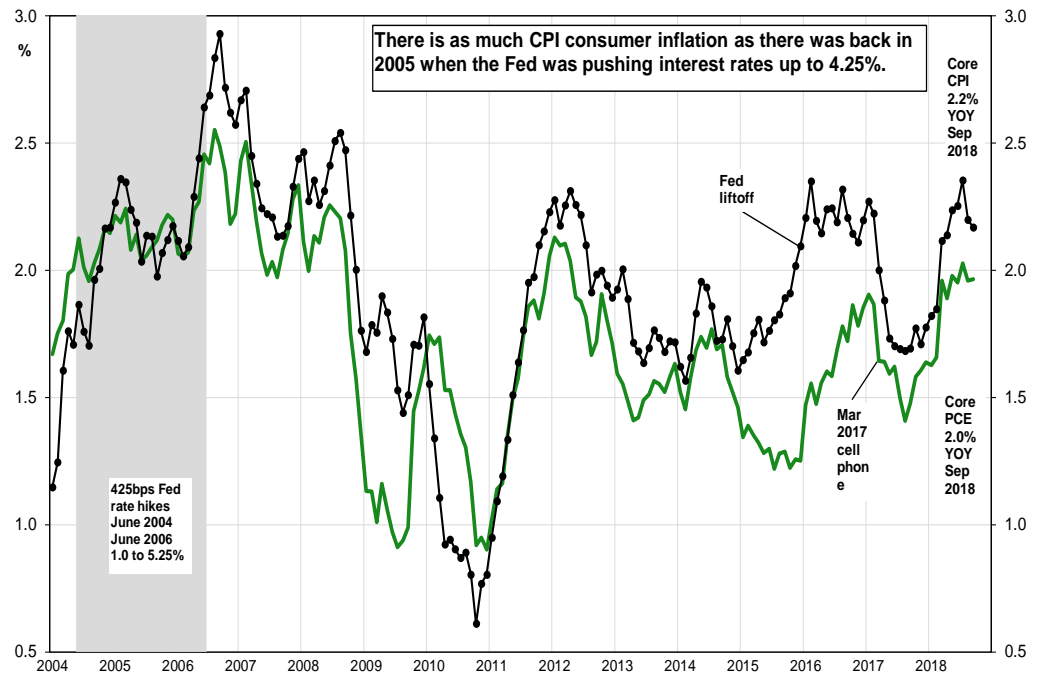
Fed Individual Forecasts					
Fed funds rate by year-end					Longer
Votes	2018 End	2019 End	2020 End	2021 End	run
1	2.125	2.125	2.125	2.125	2.500
2	2.125	2.375	2.625	2.625	2.500
3	2.125	2.625	2.875	2.875	2.500
4	2.125	2.875	3.125	2.875	2.750
5	2.375	2.875	3.125	2.875	2.750
6	2.375	2.875	3.125	3.000	2.750
7	2.375	2.875	3.125	3.125	2.750
8	2.375	3.125	3.375	3.375	3.000
9	2.375	3.125	3.375	3.375	3.000
10	2.375	3.125	3.625	3.375	3.000
11	2.375	3.125	3.625	3.375	3.000
12	2.375	3.375	3.625	3.500	3.000
13	2.375	3.375	3.625	3.625	3.000
14	2.375	3.375	3.625	3.625	3.250
15	2.375	3.375	3.625	3.875	3.500
16	2.375	3.625	3.875	4.125	
17					
Median	2.375	3.125	3.375	3.375	3.000
Meeting	Sep 2018	Sep 2018	Sep 2018	Sep 2018	Sep 2018

OTHER ECONOMIC NEWS THIS WEEK

Consumers the driving force for growth for now... inflation on target (Monday)

Breaking economy news. The September monthly Personal Income report. We kind of had a heads up already after Friday's GDP data which gave us the average level of activity for the quarter. But the economy looks strong from the consumer's perspective, 3.8% real spending in the second quarter, 4.0% spending in the third quarter, and a lot of momentum into the fourth quarter with spending already rising 1.2% with October, November, September data yet to report.

Consumer inflation a similar story with the GDP report letting us know core PCE inflation was still on its 2.0% target for three consecutive months now. We are not sure how high core inflation has to go to get the Fed to move faster and higher on interest rates, especially with the White House watching. The import tariffs are still going to 25% on January 1st (10% now) for the final \$200 billion of China



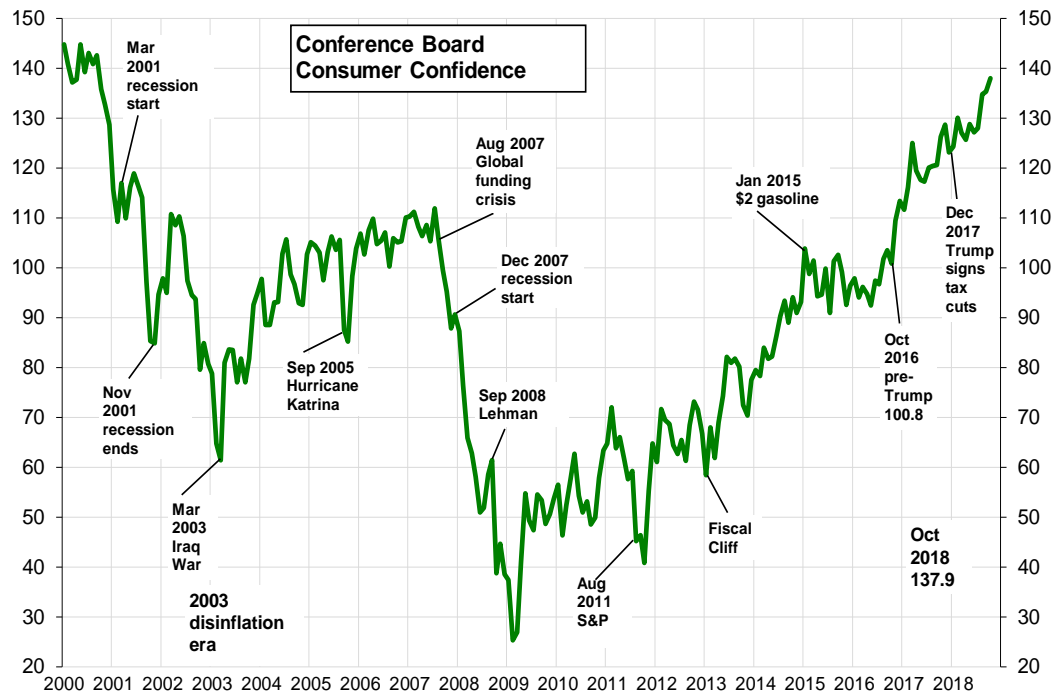
imports. Although today's personal income report should remind us that Americans on both coasts and the flyover states in the middle bought \$1.479 trillion durable goods and \$2.907 trillion of nondurable goods, so what's an extra 25% tariff on \$200 billion from China going to mean? (Yes, lots of the \$200 billion are "supply chain" inputs to manufacturing and not fully-finished consumer goods.)

Net, net, this long economic expansion isn't over yet if the consumer has anything to say about it. Consumers still got it when it comes to the pile of money given them from the Tax Cuts and Jobs Act. They are spending what Washington has given them with abandon, and the economy is good to go until the money is gone. Keep your eye on the consumer as they will point the way ahead for the economic outlook next year. The economy is fully employed and there are 2.468 million more employees on private payrolls (an increase of 2.0%) than there were a year ago with paychecks to spend, and as long as the economy can continue to crank out new jobs, the prospects for continued growth will remain bright. Maybe not sustainable 3% growth that the Trump economics team is forecasting, but 2% acceptable growth nonetheless. Sustainable, Acceptable, Sustainable, Acceptable, at least the economy is moving ahead, keeping those 2020 recession forecasts at bay. Stay tuned. Story developing. Growth looks good today, and we will see if consumer sentiment continues to hold up with the 10 percent correction in the stock market and the midterm elections ahead.

New high for American confidence (after downward revision last month) (Tuesday)

Breaking economy news. Conference Board consumer confidence rose to 137.9 in October, a new high since Trump was elected President. The measure had been higher in September at 138.4 a month ago, but that got revised down to a less-happy 135.3 today. Americans are winning. They always do. Those under 35 years old were less confident, while everyone else thought things were going swimmingly. Those making more than \$125,000 a year saw confidence rise from 155.4 in September to 160.8 in October. The rich are always happier than you or me. Confidence is up if you live in California, Texas, New York, and confidence is down if you are living in Florida, Illinois, Michigan, Pennsylvania. If you are thinking of moving, go to where the happy people are.

Net, net, the consumer is clearly elated and brimming with the highest confidence reading in 18 years, and they are putting their money where their mouths are by buying up a storm of goods and services in the third quarter that helps make the economy go. We don't know how long this is going to hold up, but the consumer is bullish on the outlook and this means the economy is going to continue to advance in this long economic expansion from the last recession that is almost ready to be written into the record books.

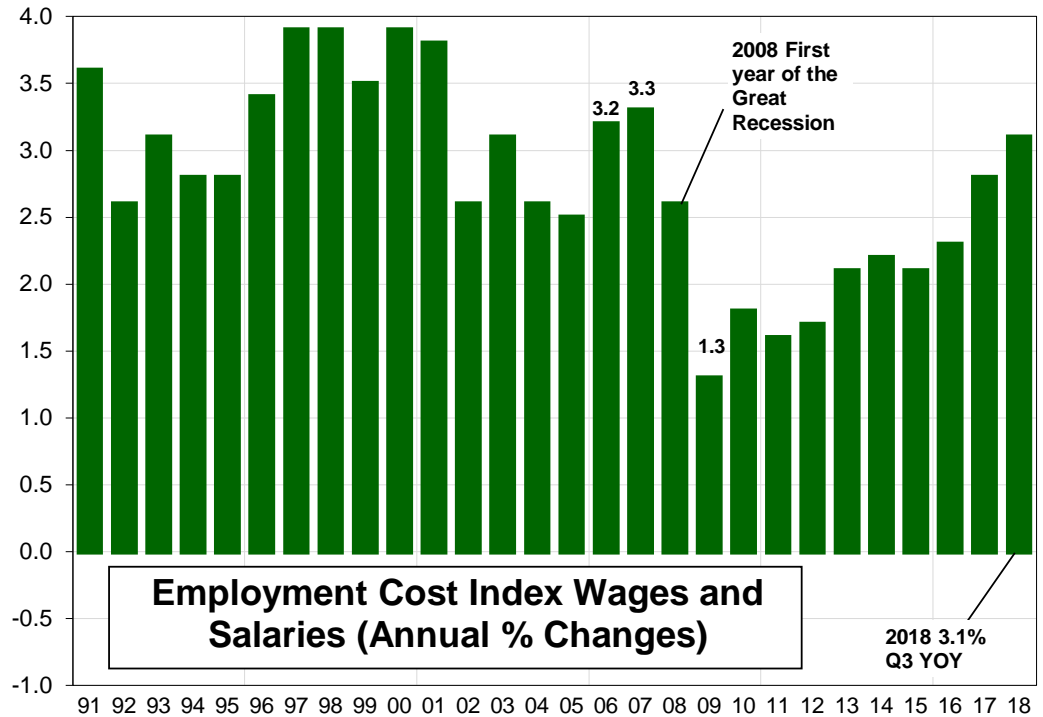


The reason consumers are all bulled up is clearly the over-the-top labor market conditions where jobs are more plentiful than ever this month, and survey readings on jobs being hard to get are falling. It's all about jobs, jobs, jobs, the consumer says, there are plenty of them and this is causing consumer spirits to soar. Stay tuned. Story developing. It remains to be seen whether the stock market sell-off and the midterm election results spoil the party for the economy in coming days. For now, the economy is great, let's see what happens in the next couple of weeks.

Lots of jobs and more cold hard cash too (Wednesday)

Breaking economy news. Maybe some fake news, or at least an alternative reality to the real BLS payroll jobs report on Friday. The ADP jobs report said the economy created 227K more private payroll jobs in October. Hmm, we will see Friday in the real jobs report. Last month ADP said there were 230K jobs in September and the BLS two days later said, no, just 121K more private payroll jobs, a 109K swing and a miss, sounds like the LA Dodgers sadly, my hometown team. To be fair, last month had some hurricane dampening effects, where bar and restaurant jobs dropped 18K, which never normally happens. Restaurants are always looking for help, even more now that the borders are closed.

How hot is the labor market? Hot enough for employers to pony some more cash to get workers to come work for them. The employment cost report today for Q3 2018 says compensation, wages and benefits, jumped 0.8%, which is 3.2% if it continues over the next three quarters, about as good as it gets unless greater inflation fans it a little higher. Wages are running at the fastest



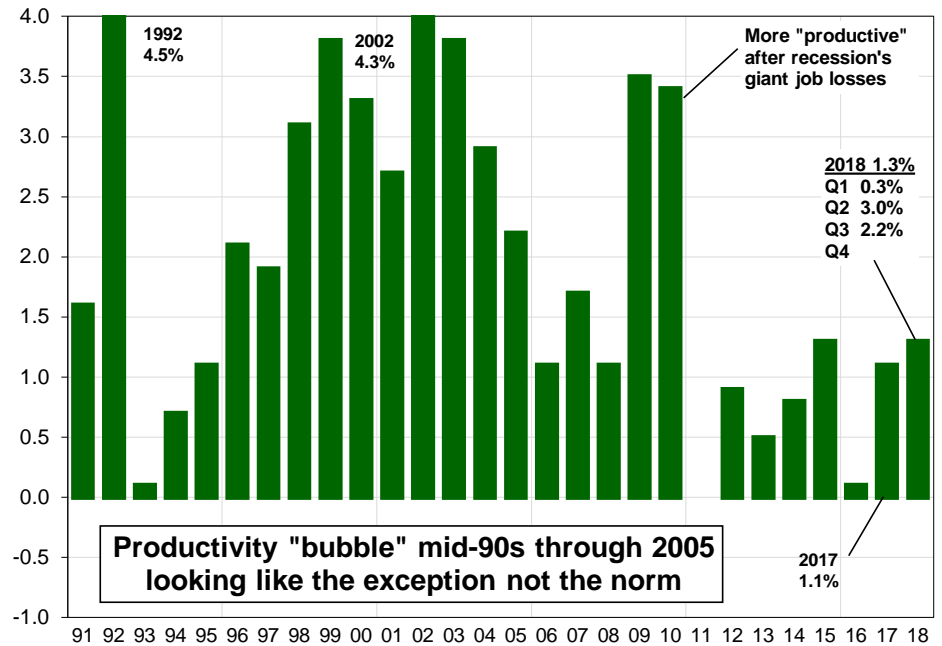
pace yet for this nearly ten year long expansion from the recession, a sure sign that the economy is completely back to normal. We no longer need jobs, jobs, jobs, we need workers, workers, workers to fill the jobs that companies have posted online everywhere. Where's my help? There isn't a lot out there. Time will tell if this economy eventually runs out of steam because there is no one out there to man the factory shop floors, or load and drive the trucks in America.

Net, net, the economy is in great shape with lots of jobs and more money in workers' paychecks and this should help bolster the outlook as the financial markets stumble. Wall Street's problems have not hit Main Street yet, and there are still lots of for hire signs up in the stores in most of the towns and cities in America. No wonder consumer confidence is sky high, private industry wages in the third quarter are rising 3.1% the last year, about the same as the housing bubble economy years with wages of 3.2% in 2006 and 3.3% in 2007. Living large America's workers are. This is as good as it gets. The Tax Cuts and Jobs Act helped workers get more money in their paychecks. That's a good thing, not a bad thing. One of the few. Bet on it.

Americans aren't just lying around either, they are very productive (Thursday)

Breaking economy news. Productivity for the third quarter and another measure of "wages" tucked away in there as well.

Who says Americans don't do anything for their paychecks but just stand around waiting to be told what to do? Workers are motivated and very much more productive with productivity up 2.2% in the third quarter following on 3.0% in the second quarter. We don't know what or who is making America great again, but workers are doing their part to make the economic future bright again by working harder and smarter in ways that contribute to long-term growth.



Wages? Workers are increasingly seeing the rewards promised them by companies streamlining their operations and seeking greater productivity. Hourly compensation this year was 3.4% in 2017 and this year Q1 is 3.8%, Q2 is 1.9% and Q3 released today is running 3.5% at an annual rate. To the victor comes the spoils or something like that is putting more corporate profits into employee compensation and rewards for work.

Net, net, the economy looks good going forward based on a solid foundation of improving productivity which will allow workers to see more of the fruits of their labor and will lead to more investment that leads to faster, sustainable growth in the long run. Productivity is having a renaissance after years of lackluster readings following the recession and this will pump new life into the economy's growth prospects and certainly make this long economic expansion one destined to be the longest in modern economic history. Bet on it. Buy more stocks. 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 MUFG Bank, Ltd. (collectively with its various offices and affiliates, "MUFG Bank") 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 MUFG Bank. MUFG Bank 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 MUFG Bank believes that any relevant factual statements herein and any assumptions on which information herein are based, are in each case accurate, MUFG Bank makes no representation or warranty regarding such accuracy and shall not be responsible for any inaccuracy in such statements or assumptions. Note that MUFG Bank 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 MUFG Bank 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 MUFG Bank, Ltd. and Mitsubishi UFJ Financial Group, Inc., one of the world's leading financial groups. MUFG Bank, 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 MUFG Bank, 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 (MUFG) stock exchanges. Visit www.mufg.jp/english/index.html.