

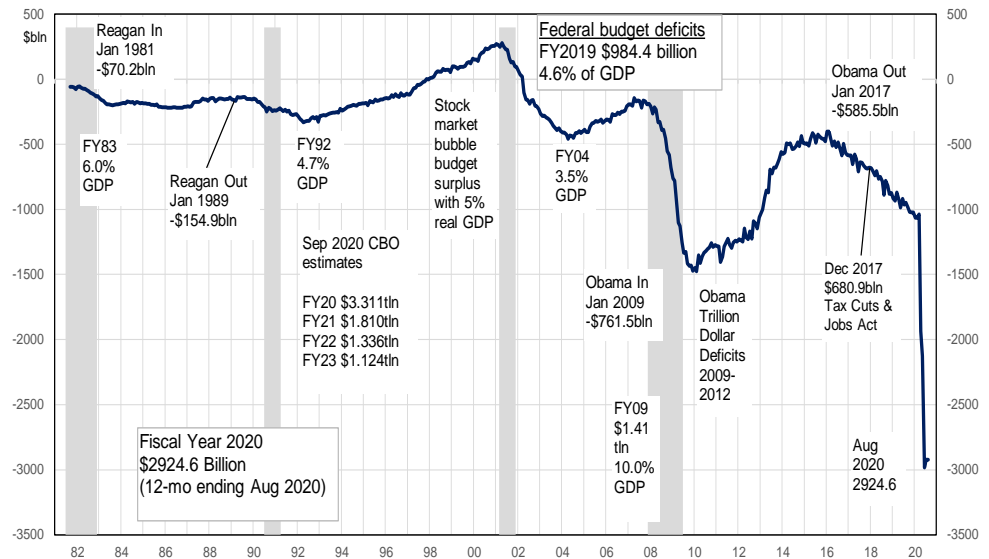
MUFG UNION BANK, N.A.
ECONOMIC RESEARCH (NEW YORK)
CHRISTOPHER S. RUPKEY, CFA
MANAGING DIRECTOR
CHIEF FINANCIAL ECONOMIST
(212) 782-5702
crupkey@us.mufg.jp

11 SEPTEMBER 2020

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

FEDERAL BUDGET DEFICIT REACHES \$3 TRILLION WITH ONE MONTH LEFT IN FISCAL YEAR

The Federal budget deficit reached \$3 trillion through August in the fiscal year (FY) ending in September. Some in Congress are unhappy with the size of the national debt, even if they voted for it during the pandemic, but it can't be too much of a worry for the public and the markets as the Federal Reserve's QE has bought \$2.3 trillion of Treasuries so far this fiscal year with two and a half weeks to go. Why not buy it all? The corporate tax date is September 15 which means the FY2020 Federal budget deficit may slip slightly below \$3 trillion; on the other hand, the Treasury is not collecting payroll taxes which could boost the deficit although many companies have said they would not pass this "tax cut" onto their workers because the money would still be due next year.

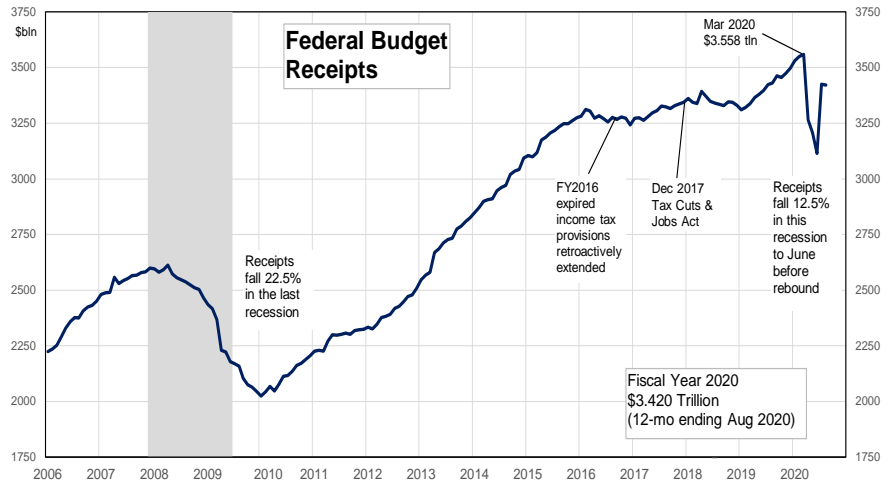


Pandemic Fiscal Stimulus

\$Billions	Mar	Apr	May	Jun	Jul	Aug	Cumulative
<u>Unemployment compensation</u>	4.165	48.128	93.861	115.619	109.487	53.649	424.909
State	4.165	21.220	29.676	35.212	36.103	31.176	157.552
Federal additional	--	26.908	64.185	80.407	73.384	22.473	267.357
Economic Impact Payments		217.000	51.000	3.000	3.000	0.757	274.757
Coronavirus Relief Fund		142.000	4.700	2.800	--	--	149.500
Food Stamps	5.273	7.094	8.551	10.639	10.229	9.271	

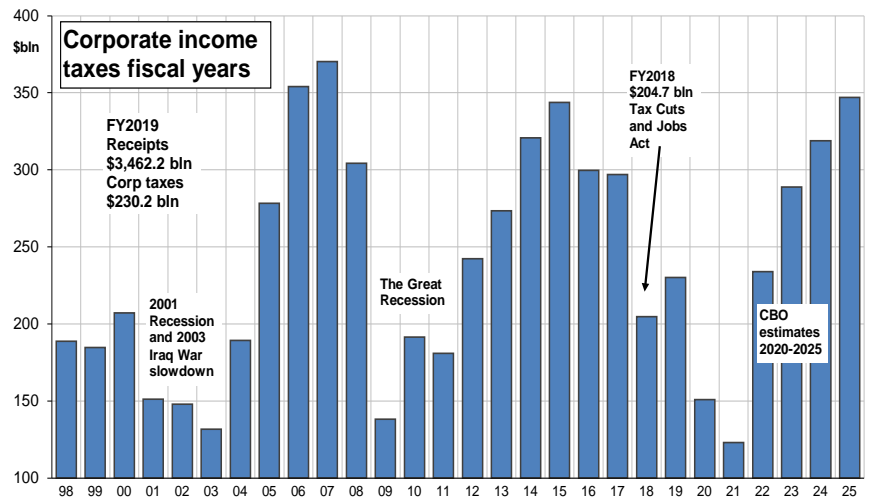
The pandemic stimulus was a budget buster, the prior record year was \$1.4 trillion under President Obama in FY2009. One change this month is the \$600 weekly unemployment checks have ended and monies paid out under the special pandemic claims "Federal additional" dropped from \$73 billion in July to \$22 billion in August.

We wonder what this loss of \$50 billion will do to August retail sales when they are reported Wednesday, September 16 at 830am ET. \$50 billion is 9.3% of July's \$535.982 billion retail sales. Other pandemic stimulus programs are over. Economic Impact Payments, the \$1,200 checks were mostly sent out in April. The Coronavirus Relief Fund payments



to state and local governments were mostly April as well. Food stamps have increased, the CARES Act made it easier to qualify and more people need it in the recession. Food stamps totaled \$9.271 billion in August where in FY2019 the total was \$63.4 billion or roughly \$5.3 billion monthly.

Federal government revenues are doing better where part of the weakness was the delayed due date for income and corporate taxes from April 15 to July 15. Income tax receipts fell as much as 12.5% from March to the low in June, but have now recovered. Income tax collections fell as much as 22.5% in the 2007-09 Great Recession. Corporate taxes took a hit from the



biggest tax cut in history. Taxes fell 31.1% from \$297 billion in 2017 to \$204.7 billion in 2018. For FY2020, corporate tax collections are running \$162 billion. S&P 500 earnings are down in the double-digits this year as many companies saw a sharp reduction in revenues and sales when the economy was closed for months on pandemic lockdown. The Congressional Budget Office (CBO) is not sanguine about a profits recovery from corporations looking at their latest forecast over the next several years.

Finally, the China-U.S. trade talks are going nowhere beyond phase one which rolled back

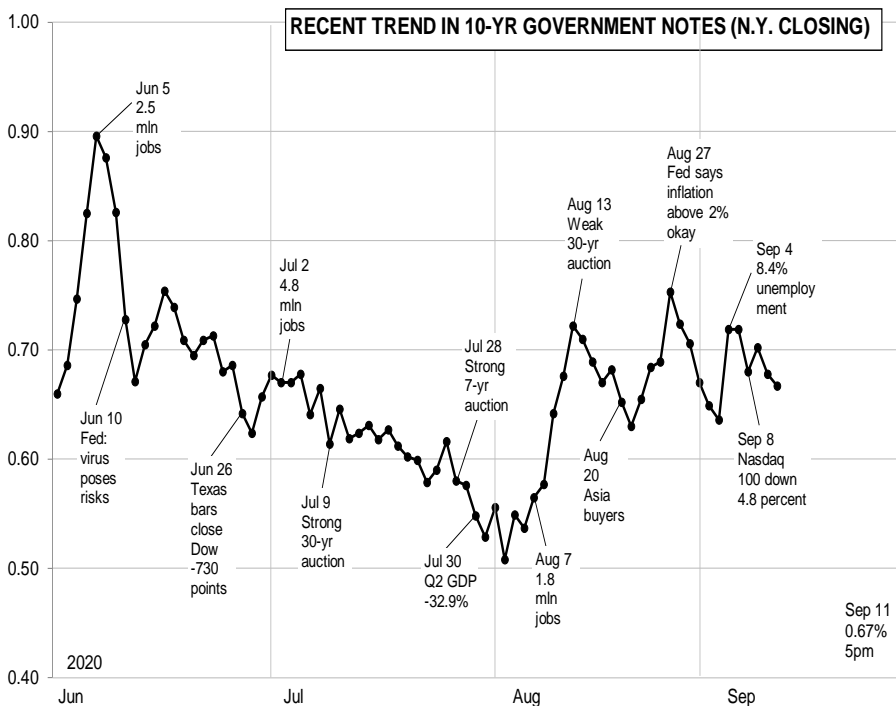
Quarterly Customs Duties \$billions							
2018		2019			2020		
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3*
17.828	16.867	15.777	20.311	21.146	18.019	12.427	10.909
*Q3 is July and August							

some planned tariff increases. There are still 25% tariffs on \$250 billion of China goods coming into the country. Customs duties are lower during the recession at \$5.9 billion in August and total \$62.5 billion so far in FY2020. Customs duties in FY2019 were \$70.8 billion. The CBO estimate for the FY2021 Federal budget deficit is back down to a more normal level after the recession passes. CBO sees the budget deficit next year at \$1.810 trillion, and the Fed's QE purchases are currently running \$80 billion per month or \$960 billion per year. The Fed announces next month's QE purchases on Monday, September 14 at 3pm ET. We are assuming no change in their purchase amount.

MARKETS OUTLOOK

	28-Jun 2019	30-Sep 2019	31-Dec 2019	31-Mar 2020	30-Jun 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
30-Yr Treasury	2.53	2.11	2.39	1.32	1.41	1.40	1.40	1.50	1.60	1.70
10-Yr Note	2.01	1.67	1.92	0.67	0.66	0.70	0.70	0.80	0.90	1.00
5-Yr Note	1.77	1.55	1.69	0.38	0.29	0.30	0.30	0.40	0.50	0.60
2-Yr Note	1.76	1.62	1.57	0.25	0.15	0.20	0.20	0.20	0.30	0.30
3-month Libor	2.32	2.09	1.90	1.45	0.30	0.30	0.30	0.20	0.20	0.20
Fed Funds Rate	2.50	2.00	1.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
2s/10s spread	25	5	35	42	51	50	50	60	60	70

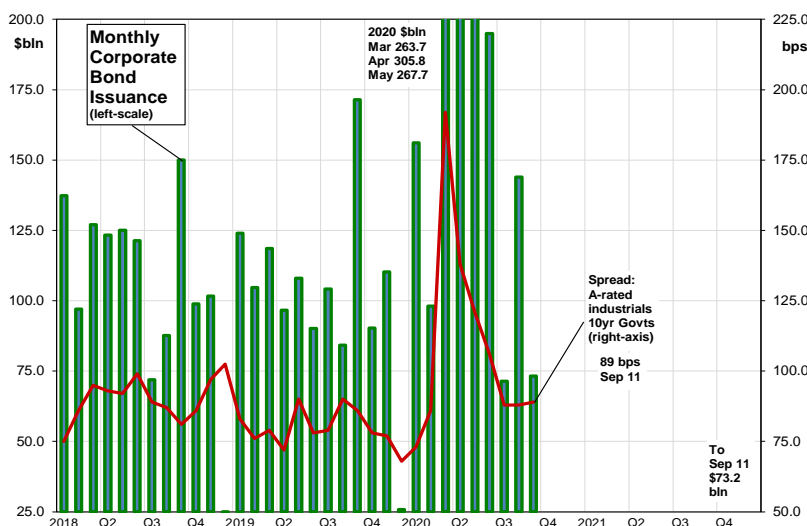
Bond yields finished on the low side of a 0.66 to 0.72 percent range this week. Bond yields followed stocks for the most part. Tech shares were down Tuesday after the Labor Day holiday with Tesla down 10% already before 5am ET. Bond yields bounced with stocks only to fall again Thursday when Wednesday's rebound in stocks got reversed. The Nasdaq 100 at Friday's close is now down 10.7% from September 2's record. The top 5 tech stocks, Apple, Alphabet, Amazon, Microsoft, Facebook, are about 40% of the Nasdaq 100 market cap. Looking ahead, Wednesday's retail sales report for August may be weaker than expected from the loss of those \$600 weekly unemployment checks. It's a strong quarter for GDP nonetheless and Powell may say as much at the press conference Wednesday at 230pm ET.



Looking ahead, Wednesday's retail sales report for August may be weaker than expected from the loss of those \$600 weekly unemployment checks. It's a strong quarter for GDP nonetheless and Powell may say as much at the press conference Wednesday at 230pm ET.

CORPORATES: CATERPILLAR FIN, VALERO ENERGY, BAE SYSTEMS, NESTLE

Corporate bond offerings were \$67.8 billion in the September 11 week versus \$5.7 billion in the September 4 week. On Tuesday, Unilever sold \$1.0 billion 10s/30s. It priced a \$500 million 1.375% 10-yr (m-w +15bp) at 70 bps (A1/A+). The packaged consumer goods manufacturer (food, detergent, personal care) will use the proceeds for general corporate purposes, including the redemption of its \$550 million 1.375% 2021 notes. Corporate bond yields (10-yr Industrials rated A2) were 89 bps above 10-yr Treasuries Friday versus 86 bps last week.



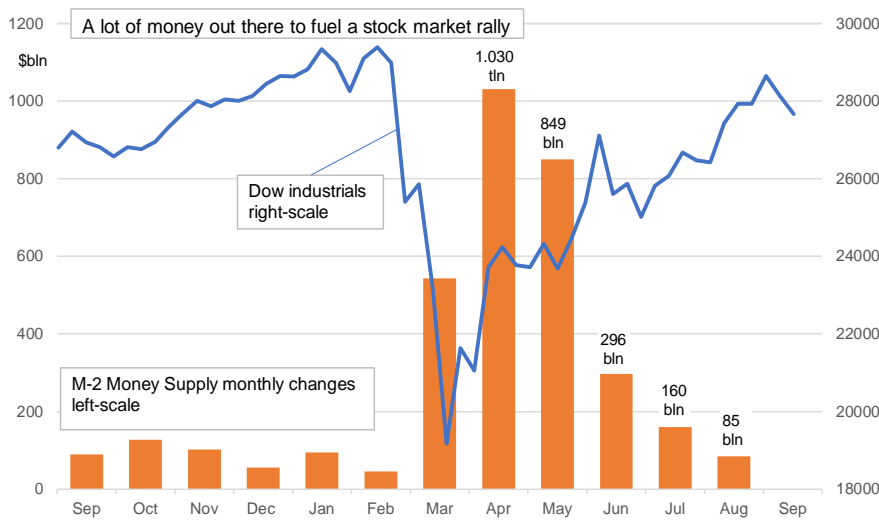
FEDERAL RESERVE POLICY

The Fed meets September 15-16, 2020 to consider its monetary policy. The big day is here. Wish we were excited. They made a change to their statement of principles, some employment goals chatter, and inflation-averaging was added, which means inflation can rise above the 2% target for a number of years to offset the years of underperformance. Glad Volcker is no longer here to see that Fed officials are worrying about inflation's underperformance and the central bank is trying to get more inflation so they can raise interest rates higher so they cut rates further in the next recession to help us. Whew. That is quite a lot of words about what Fed Chair Powell called one of the major challenges of our time: inflation. Despite the Fed talk and all the mission statement changes, we expect interest rates to stay at zero for seven years again just like they did after the 2007-09 Great Recession. If bond yields tick up above 1%, we expect the Fed to increase their monthly QE purchases from the current \$80 billion per month (\$960 billion per year) to keep bond yields down low to help the housing market. The \$80 billion of high-powered money from the Fed isn't creating bank deposits and money supply growth like it was. Not sure what this means for the stock market. Stocks think the Fed is there for them when and if the going gets rough again.

Fed Policy-key variables				Long Term
	2020	2021	2022	
Fed funds	0.1	0.1	0.1	2.5
PCE inflation	0.8	1.6	1.7	2.0
Unemployed	9.3	6.5	5.5	4.1
GDP	-6.5	5.0	3.5	1.8
June 2020 median Fed forecasts				

If the Fed can't do anything about the economy at least they can freshen up their forecasts. They will add another year, 2023, to the forecasts next week. It should be clearer then what is going on right now. The June forecast for real GDP falling 6.5% in 2020 is too bearish if Treasury Secretary Mnuchin is right and Q3 GDP is up 25-35%. If you're not going to raise interest rates for seven years, maybe change the longer run Fed funds forecast of 2.5% to the long, long, long run we're dead forecast.

Selected Fed assets and liabilities					Sep 10 2008**
Fed H.4.1 statistical release					
billions, Wednesday data					
	9-Sep	2-Sep	26-Aug	19-Aug	pre-LEH
Factors adding reserves					
U.S. Treasury securities	4393.621	4386.637	4358.559	4345.544	479.782
Federal agency debt securities	2.347	2.347	2.347	2.347	0.000
Mortgage-backed securities (MBS)	1949.599	1949.236	1949.228	1977.897	0.000
Repurchase agreements	0.000	0.000	0.000	0.000	126.750
Primary credit (Discount Window)	2.710	2.956	2.704	2.818	23.455
Factors draining reserves					
MMLF	7.889	9.141	9.961	10.839	
PDCF	0.243	0.243	0.243	0.693	
Commerical Paper Funding Facility	8.588	8.588	8.588	8.588	
Paycheck Protection Facility	67.489	68.090	68.158	67.800	
Corporate Credit Facility (CCF)	44.790	44.756	44.604	44.480	
Municipal Liquidity Facility	16.543	16.541	16.541	16.089	
Main Street Lending Program	38.899	38.687	38.371	37.983	
Term Asset-Backed Facility (TALF II)	11.147	11.146	10.771	10.771	
Central bank liquidity swaps	72.069	88.967	92.140	95.780	62.000
Federal Reserve Assets	7059.2	7065.5	7039.0	7059.3	961.7
3-month Libor %	0.25	0.25	0.26	0.25	2.82
Factors draining reserves					
Currency in circulation	2030.151	2021.810	2013.961	2009.715	834.477
Term Deposit Facility	0.000	0.000	0.000	0.000	0.000
Treasury credit facilities contribution	114.000	114.000	114.000	114.000	
Reverse repurchases w/others	0.001	0.014	0.009	0.112	0.000
Reserve Balances (Net Liquidity)	2906.853	2850.600	2875.399	2821.849	24.964
Treasuries within 15 days	42.916	51.692	64.117	62.806	14.955
Treasuries 16 to 90 days	279.463	263.002	237.185	237.795	31.549
Treasuries 91 days to 1 year	656.032	663.688	663.816	664.486	69.272
Treasuries over 1-yr to 5 years	1662.166	1662.079	1648.650	1647.558	170.807
Treasuries over 5-yr to 10 years	770.951	766.933	771.901	762.621	91.863
Treasuries over 10-years	982.093	979.243	972.889	970.278	101.337
**September 10, 2008 is pre-Lehman bankruptcy of 9-15-08					
MMLF: Money Market Mutual Fund Liquidity Facility; loans secured by assets bought by banks from money market funds					
PDCF: Primary Dealer Credit Facility; o/n and term funding with maturities to 90 days					
CCF: Corporate credit facility; Primary market (PMCCF) and Secondary Market (SMCCF)					



U.S. Treasury New Cash Needs and Fed Treasury Purchases (QE)													
Monthly Changes (\$ billions)													
Fiscal Year (FY) Ending September 2020													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total FY 2020
Fed QE	67.808	73.007	80.364	80.246	64.952	504.312	993.047	138.093	87.892	96.159	64.996	35.062	2,285.9
New Cash	166.8	112.5	50.9	38.5	199.8	238.7	1368.6	699.2	685.2	102.2	175.6	66.6	3,904.6
Bills	79.1	59.0	-98.2	-12.5	160.3	92.8	1344.3	628.2	449.7	-0.7	-2.2	-21.8	2,677.9
Coupons	87.6	53.4	149.2	51.1	39.5	145.8	24.2	71.0	235.5	102.9	177.6	88.4	1,226.2
Federal Reserve's 11 Lending Facilities (month-end outstanding)					0	58.352	94.641	136.343	204.607	203.100	197.237	195.588	
Central bank liquidity swaps (month-end outstanding)					0.044	206.051	438.953	448.946	274.963	117.473	92.140	72.069	

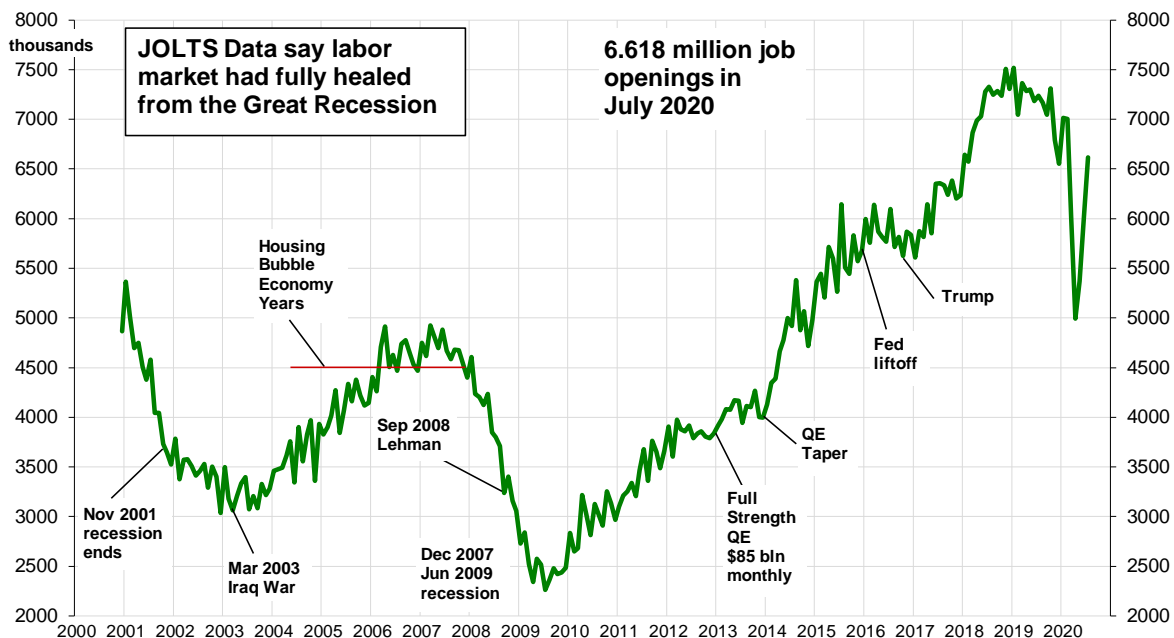
OTHER ECONOMIC NEWS THIS WEEK

6.6 million job openings for the 13.5 million unemployed (Wednesday)

Breaking economy news. Job openings are still recovering with the data for July reaching 6.618 million where the low-point was just 4.996 million for-hire signs at the downturn's worst point in April. These data are as of the end of the month and on the face of it, there are quite a lot of opportunities for the 16.338 million unemployed behind the 10.2 percent unemployment rate in July. It looks like some of the jobless workers applied for these positions as the number of unemployed Americans fell to 13.55 million in August for an unemployment rate of 8.4%. The job openings data are confusing and don't always line up with our view of current economic conditions just taking a look at early 2019 as just one example. January 2019 was the all-time peak in job openings at 7.520 million which was during a trade war with China, Federal government shutdown and Fed funds rate of 2.5%.

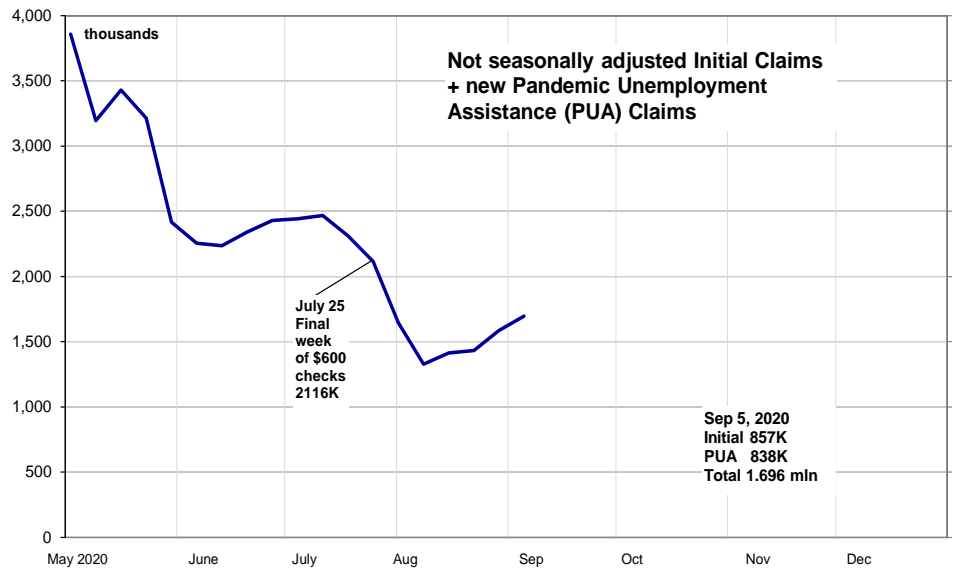
We don't need to bring factory jobs back to America because companies are ready to hire right now. Durable goods manufacturers still need 213 thousand workers in July versus 282 million in July 2019. Nondurable goods manufacturers require 195 thousand workers versus 195 thousand workers in July 2019. Incredibly, retail stores need 841 thousand workers about the same as their 838 thousand job posting positions in July 2019. We haven't been to the mall since February, we don't know about you.

Net, net, the economy has strengthened enough from the Federal government's stimulus during the pandemic recession's worst days to require more help as job openings jumped in July by 617 thousand to 6.618 million. July is the month where a second wave of the coronavirus spread to more states in the country, so the increase in job postings is remarkable if it can be believed. Today's surge in help wanted signs is additional evidence that the worst is over for the labor market downturn even if it is also true that millions more Americans remain out of work and without paychecks. Time will tell if Washington weighs in with additional stimulus spending or sit backs and watches as the economy gradually rehires all those who lost their jobs in the biggest recession since the Great Depression. The labor market recovery will be measured in years, not months. Bet on it.



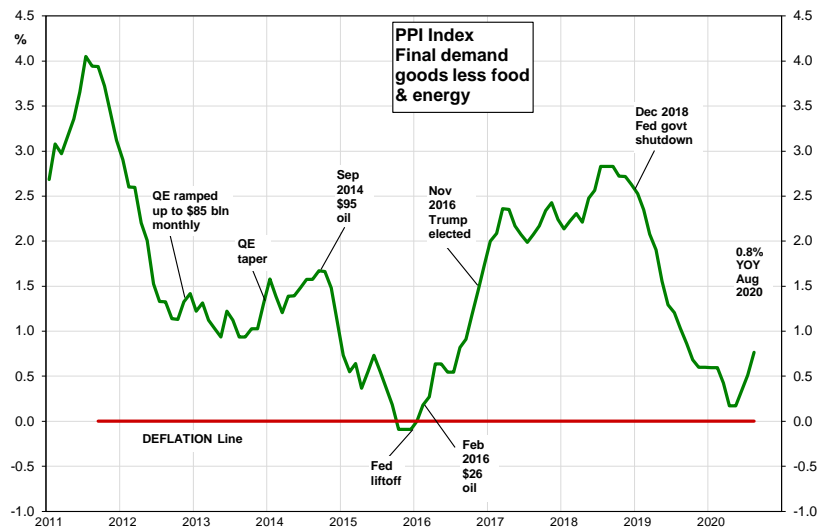
Labor market not sinking, but not getting any better either. Some PPI inflation. (Thursday)

Breaking economy news. Don't be fooled by seasonally adjusted first-time jobless claims remaining below 1 million for the second consecutive week. There were 884 thousand applicants in the September 5 week. The labor market may not be sinking, but it sure isn't getting any better either. In a second report, PPI inflation was more than we expected. The Fed isn't going



to raise interest rates until consumer inflation runs above 2% for some time to offset the years of being below 2%, so inflation does not need to be monitored as closely. PPI is well down the list of important Fed inflation indicators, with PCE inflation number 1, and CPI inflation number two, which means producer prices are number 3. Anyway, in the PPI report today, final demand goods prices ex-food and energy rose 0.3% in August after rising 0.3% in July, so inflation isn't completely dead. Plastic resins and materials jumped 4.0% and nonferrous scrap metals moved higher.

Net, net, joblessness in the country remains at severe recession levels even as the pandemic virus lockdowns have started to ease in many states. The \$600 weekly unemployment checks are history, but no one is going back to work and even more workers lost their jobs this week. There's simply no work out there. Over one and a half million more workers filed for unemployment in the first week of September which means the economy is still in the grip of the worst downturn since the Great Recession.

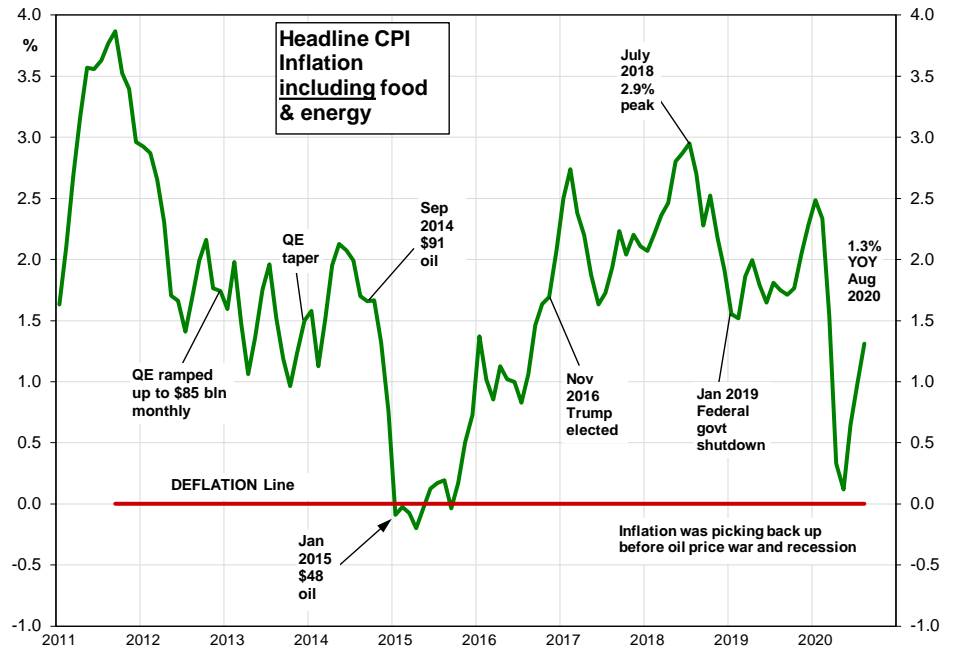


The labor market is not getting any better despite the claims made by some. It is a complete falsehood that the country has turned the corner and better days lie ahead if work cannot be found for the millions of unemployed made redundant by the worst recession in almost a century. There may be some double-counting but the latest data show 13.0 million receiving benefits in the regular state programs, 14.5 million are getting unemployment checks from the Pandemic Unemployment Assistance program and 1.4 million are getting benefits under the Pandemic Emergency program. Once pent-up consumer demand gets exhausted and the work-from-home purchases made by those lucky to still have a job are completed, the economic recovery is in danger of stalling out as millions remain without paychecks and are unable to spend the dollars that make the economy grow.

Inflation is back after the pandemic if you are in the market for a used truck (Friday)

Breaking economy news. CPI inflation rose 0.4% in August and is up 1.3% year-to-year. Core CPI inflation rose 0.4% in August and is up 1.7% year-to-year. Deflation from the worst downturn since the Great Depression is gone with the wave of a wand as the economy continues to surprise on the upside even with millions of jobless workers in tow. Core CPI fell 0.1% in March, 0.4% in April and 0.1% in May, but the deflation run is now officially over with core prices in a textbook recovery bouncing back 0.2% in June, 0.6% in July, and 0.4% in August.

The price trend is not all completely understandable. Used car and truck prices jumped 5.4% in August the most since the best year of our life in 1969. Heck, you can still buy my Ford truck it's just sitting in the driveway and hasn't moved for months. Give me your best offer and I will give you my best price. Anyway, 40 percent of the 0.4% jump in core CPI was due to my truck's increased value. Meanwhile, housing costs are going nowhere, even though prices of homes in my town outside NYC are up 20%. Shelter costs rose 0.1% in August and are up 2.3% year-on-year. Finally, medical care services rose just 0.1% this month which is good news for the 10,000 baby boomers retiring every day.



Net, net, the resurgence in economic demand following the pandemic lock down has turned the direction of consumer prices on its head with pent-up purchases from the consumer dramatically changing the deflation trend to an inflation trend in just a few months. This inflation outbreak will test the resolve of Fed officials who say they are not at all concerned about inflation and will continue to pour gas on the fire with the QE of \$80 billion monthly purchases of Treasury securities and they won't rein in the economy with interest rate hikes until inflation averages above the 2 percent target to offset the years of inflation underperformance. Stay tuned. Story developing.

Weight	CPI inflation	Monthly Percent Changes			YOY %
		Jun 2020	Jul 2020	Aug 2020	
100.0	Total	0.6	0.6	0.4	1.3
14.2	Food	0.6	-0.4	0.1	4.1
7.9	Food at home	0.7	-1.1	-0.1	4.6
5.7	Energy	5.1	2.5	0.9	-9.0
79.0	Ex-food & energy	0.2	0.6	0.4	1.7
3.7	New vehicles	0.0	0.8	0.0	0.7
2.5	Used cars/trucks	-1.2	2.3	5.4	4.0
2.7	Clothing	1.7	1.1	0.6	-5.9
1.6	Medical care goods	0.2	0.0	-0.1	0.8
33.5	Shelter	0.1	0.2	0.1	2.3
4.9	Transportation	2.1	3.6	0.0	-4.0
7.3	Medical care services	0.5	0.5	0.1	5.3

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 2020 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 Mitsubishi UFJ Financial Group, Inc.'s U.S. Operations including MUFG Americas Holdings Corporation

The U.S. operations of Mitsubishi UFJ Financial Group, Inc. (MUFG), one of the world's leading financial groups, has total assets of \$341.4 billion at December 31, 2019. As part of that total, MUFG Americas Holdings Corporation (MUAH), a bank holding company and intermediate holding company, has total assets of \$170.8 billion at December 31, 2019. MUAH's main subsidiaries are MUFG Union Bank, N.A. and MUFG Securities Americas Inc. MUFG Union Bank, N.A. provides a wide range of financial services to consumers, small businesses, middle-market companies, and major corporations. As of December 31, 2019, MUFG Union Bank, N.A. operated 349 branches, consisting primarily of retail banking branches in the West Coast states, along with commercial branches in Texas, Illinois, New York and Georgia. 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. MUAH is owned by MUFG Bank, Ltd. and Mitsubishi UFJ Financial Group, Inc. MUFG Bank, Ltd., a wholly owned subsidiary of Mitsubishi UFJ Financial Group, Inc., has offices in Argentina, Brazil, Chile, Colombia, Peru and Canada as well as branches, agencies and representative offices in the U.S. Visit <https://www.unionbank.com/> or <https://www.mufgamericas.com/> for more information.

About MUFG

Mitsubishi UFJ Financial Group, Inc. (MUFG) is one of the world's leading financial groups. Headquartered in Tokyo and with over 360 years of history, MUFG has a global network with over 3,000 locations in more than 50 countries. The Group has over 180,000 employees and offers services including commercial banking, trust banking, securities, credit cards, consumer finance, asset management, and leasing. The Group aims to "be the world's most trusted financial group" through close collaboration among our operating companies and flexibly respond 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 stock exchanges. For more information, visit <https://www.mufg.jp/english>.