

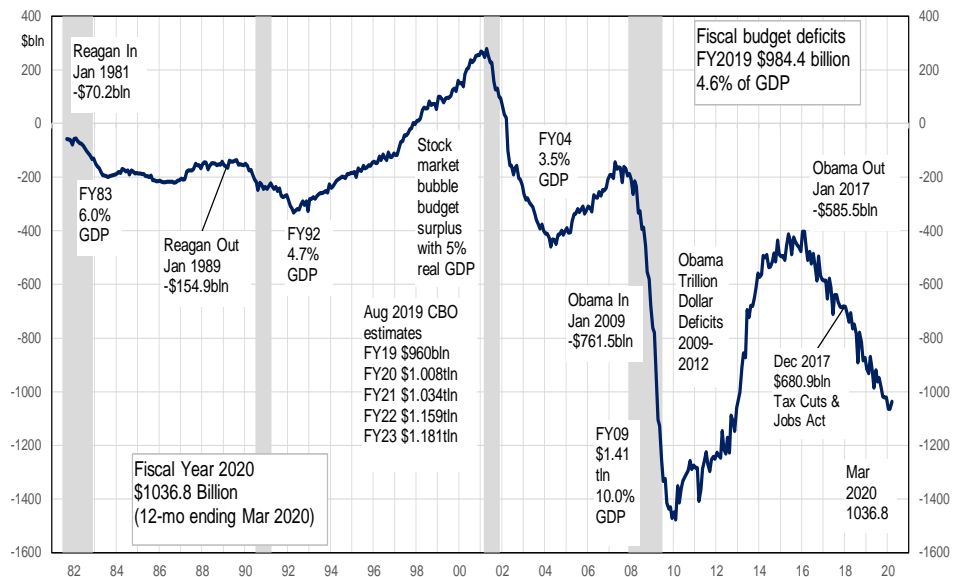
MUFG UNION BANK, N.A.
ECONOMIC RESEARCH (NEW YORK)
CHRISTOPHER S. RUPKEY, CFA
MANAGING DIRECTOR
CHIEF FINANCIAL ECONOMIST
(212) 782-5702
crupkey@us.mufg.jp

10 APRIL 2020

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

TRILLION DOLLAR FEDERAL BUDGET DEFICIT ON ITS WAY TO 3 TRILLION

It used to be hard to forecast the Federal budget deficit to within \$100 billion, but now it is going to be hard to forecast it within \$1 trillion. Remember those trillion dollar deficit years from 2009-12 that President Obama was criticized for? Stand back. Think big. At the halfway mark this year, the Federal budget deficit is running just \$1.036 trillion at an “annual rate” on a 12-month moving sum basis in March 2020. But the numbers



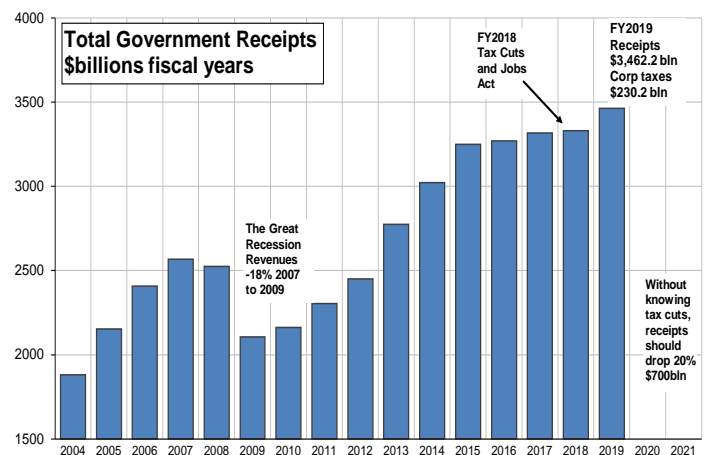
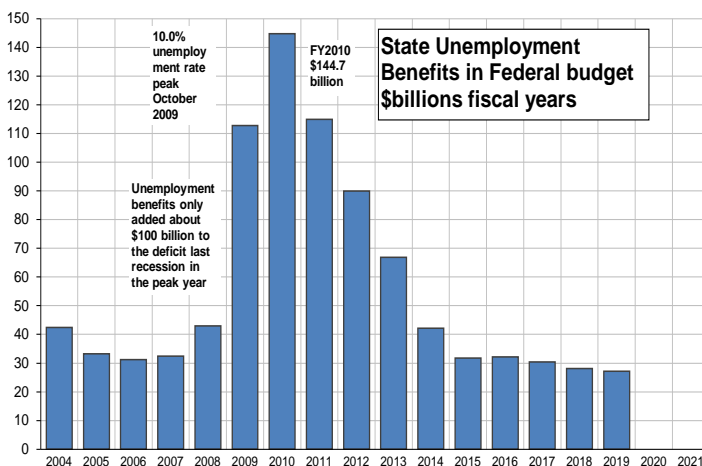
rapidly start to look scary. You can add to this just the biggest chunk of the money Washington is spending in the \$2.2 trillion fiscal stimulus (emergency relief really) package and add perhaps \$700 billion in lost tax collections from lost incomes and profits in the biggest recession since the Great Depression. The state governments want more money from Washington still. And who knows what else is out there the Federal government is on the hook for potentially adding to the budget deficit with those nine lending facilities Powell’s team has come up with to provide credit to the American economy. Hope everyone pays those loans back. By the way has anyone asked the markets yet if investors are willing and able to step up and buy all this onslaught of government debt? At the current low yields we mean.

When the President signed the Coronavirus Aid, Relief, And Economic Security (‘CARES’) Act at the White House on Friday, March 27 he said the economic relief package was \$2.2 trillion but it potentially goes up to \$6.2 trillion. No one disagreed. Another big number. The spending depends on the need in this crisis for some of the provisions. The Joint Committee on Taxation published the estimated

revenue effects of the revenue provisions and this costs almost \$1.8 trillion over the year 2020 through the year 2030. For fiscal year 2020 ending in September the cost is \$706 billion and in FY2021 it is \$254 billion. Yes, you'll get your money. The 2020 recovery rebate is \$1,200 for singles and \$2,400 for married filing jointly with a phase out for adjusted gross incomes above \$75,000 for singles and \$150,000 for married filing jointly. These rebates are estimated to cost the Federal government \$268 billion as part of the \$706 billion revenue effect this fiscal year. A drop in the bucket.

Federal government receipts dropped 20% in the last recession and are likely to again this recession. Unemployment benefits should shoot higher than the \$144.7 billion peak last recession as the unemployment rate is already at least 15%, which higher than 10.0% last time, and congress added \$600 to the weekly payments that the states pay out for unemployment compensation. The Federal budget deficit may not actually reach \$3 trillion, but it is going much higher.

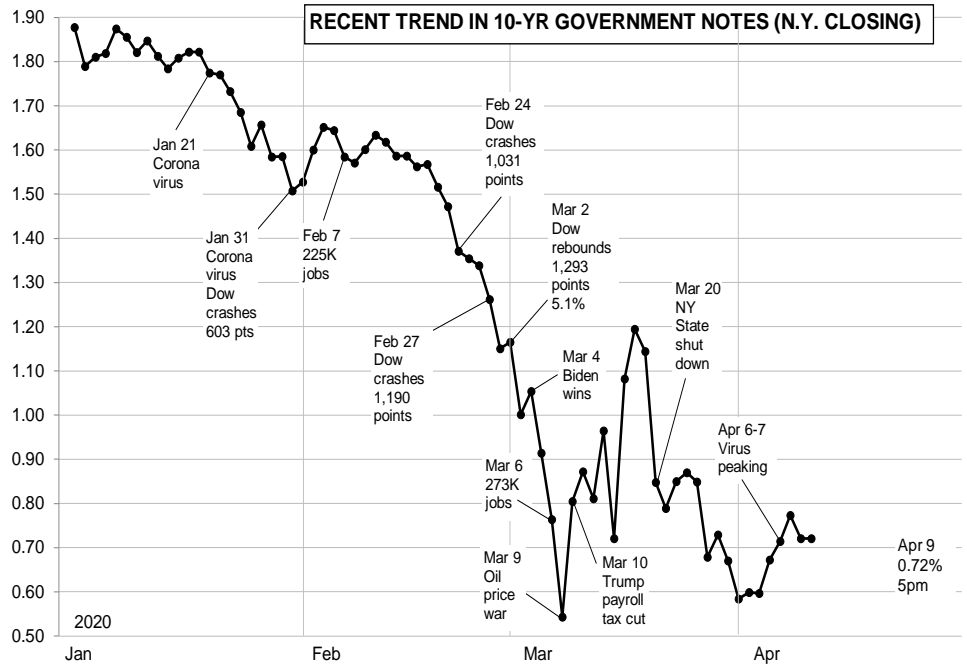
Federal Government Spending (\$bln) Where to cut?	2 Qtrs FY20		2 Qtrs FY19		Fiscal	Fiscal	Full Year FY 2019
	Q4 19-Q1 20		Q4 18-Q1 19		Year	Year	
					Changes	% chg	
TOTAL BUDGET OUTLAYS	2,347.107	2,198.468	148.639	6.8	4,446.584		
Legislative	2.694	2.422	0.272	11.2	4.957		
Judicial	4.188	3.940	0.248	6.3	7.959		
Agriculture	88.649	85.639	3.010	3.5	150.121		
Commodity Credit Corporation	19.522	18.370	1.152	6.3	21.389		
Food Stamps	31.174	32.640	-1.466	-4.5	63.465		
Child Nutrition	13.882	13.121	0.761	5.8	23.273		
Commerce	7.818	5.978	1.840	30.8	11.324		
Defense	348.178	325.525	22.653	7.0	653.979		
Military Personnel	86.544	84.324	2.220	2.6	156.270		
Operation Maintenance	136.557	130.025	6.532	5.0	271.695		
Procurement	70.243	59.888	10.355	17.3	124.698		
Research Development	48.222	43.987	4.235	9.6	89.281		
Military Construction	4.108	3.825	0.283	7.4	7.412		
Education	43.152	40.685	2.467	6.1	104.364		
Office of Federal Student Aid	22.615	21.224	1.391	6.6	69.397		
Energy	16.027	13.634	2.393	17.6	28.936		
Health Human Services	619.263	583.491	35.772	6.1	1213.805		
Medicare	398.282	373.155	25.127	6.7	782.548		
Medicaid States Grants	207.610	197.951	9.659	4.9	409.421		
Homeland Security	29.025	29.625	-0.600	-2.0	56.327		
Housing Urban Development	23.562	22.504	1.058	4.7	29.188		
Interior	7.362	6.551	0.811	12.4	13.907		
Justice	16.507	17.129	-0.622	-3.6	35.107		
Labor	19.022	16.988	2.034	12.0	35.810		
State Unemployment Benefits	16.300	14.533	1.767	12.2	27.205		
State	15.745	14.114	1.631	11.6	28.000		
Transportation	39.216	34.964	4.252	12.2	80.715		
FAA	8.459	7.951	0.508	6.4	16.670		
Federal Highway Admin.	21.315	19.194	2.121	11.1	45.712		
Treasury	383.625	358.325	25.300	7.1	689.496		
TARP	0.764	0.755	0.009	1.2	1.453		
IRS	113.825	110.114	3.711	3.4	166.004		
Earned Income Credit	47.271	49.022	-1.751	-3.6	59.209		
Child Tax Credit	23.321	24.138	-0.817	-3.4	28.898		
Interest on Public Debt	269.452	259.687	9.765	3.8	572.913		
Veterans Affairs	104.836	96.633	8.203	8.5	199.573		
Corps of Engineers	4.368	3.429	0.939	27.4	6.454		
Other Defense Civil Programs	32.567	32.599	-0.032	-0.1	60.931		
Environmental Protection	4.661	4.415	0.246	5.6	8.064		
Exec. Office of President	0.196	0.195	0.001	0.5	0.422		
International Assistance	12.374	6.598	5.776	87.5	23.578		
NASA	10.524	9.740	0.784	8.0	20.179		
National Science Foundation	3.474	3.358	0.116	3.5	7.255		
Personnel Management	53.654	50.851	2.803	5.5	103.138		
Small Business Admin.	-0.603	-0.096	-0.507	--	0.456		
Social Security Admin.	568.127	540.426	27.701	5.1	1101.833		
Retirement Benefits	463.846	436.576	27.270	6.2	888.080		
Federal Disability Payments	72.296	72.159	0.137	0.2	145.020		
Other Independent Agencies	14.474	12.625	1.849	14.6	19.610		



MARKETS OUTLOOK

	29-Mar 2019	28-Jun 2019	30-Sep 2019	31-Dec 2019	31-Mar 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
30-Yr Treasury	2.81	2.53	2.11	2.39	1.32	1.20	1.10	1.20	1.20	1.30
10-Yr Note	2.41	2.01	1.67	1.92	0.67	0.70	0.70	0.80	0.90	1.00
5-Yr Note	2.23	1.77	1.55	1.69	0.38	0.40	0.50	0.60	0.70	0.80
2-Yr Note	2.26	1.76	1.62	1.57	0.25	0.30	0.30	0.30	0.40	0.40
3-month Libor	2.60	2.32	2.09	1.90	1.45	1.10	1.00	0.80	0.60	0.50
Fed Funds Rate	2.50	2.50	2.00	1.75	0.25	0.25	0.25	0.25	0.25	0.25
2s/10s spread	15	25	5	35	42	40	40	50	50	60

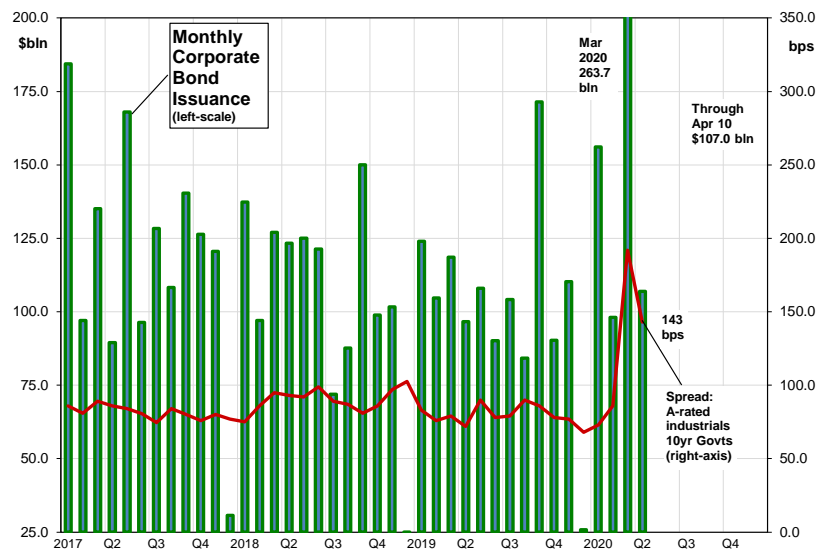
10-year Treasury yields moved higher starting on Monday and Tuesday following the stock market rally on the belief the number of new coronavirus cases was peaking. 10-year yields closed 0.72% versus 0.60% a week ago. The stock market rallied 2,666 points or 12.6% where the Dow industrials cut its losses for the year closing on Thursday this week down 16.9% for the year. Bond and stock markets were closed on Good Friday. The Fed announced it will buy \$30



billion Treasuries per day next week. Through Thursday, the Fed has bought \$1.158 trillion government securities for market functioning reasons which is somehow different than QE.

CORPORATES: NISOURCE, CATERPILLAR, HP ENTERPRISE, PHILLIPS 66

Corporate offerings were \$39.0 billion in the April 10 week versus \$97.8 billion in the April 3 week. On Tuesday, Mondelez International sold \$1.0 billion 3s/10s. It priced a \$500 million 2.75% 10-yr (m-w +35bp) at 212.5 bps (Baa1/BBB). One of the world's largest snack companies (Cadbury, Toblerone, Oreo) will use the proceeds for partial repayment of its \$2.5 billion Revolving Credit Agreement. Corporate bond yields (10-yr Industrials rated A2) were 143 bps above 10-yr Treasuries Thursday versus 204 bps last Friday.



FEDERAL RESERVE POLICY

The Fed meets April 28-29, 2020 to consider its monetary policy. Maybe it is just a coincidence, but they made a [major policy announcement](#) with additional measures on Thursday at 830am ET at the same time the jobless claims report was released detailing 6.606 million new applications for unemployment benefits. The data confirmed the unemployment rate is nearly 15%. Powell made remarks on [COVID-19 and the Economy](#) at 10 o'clock Thursday and took questions. He emphasized all these measures are to support the flow of credit in the economy. These are lending powers not spending powers he said.

Selected Fed assets and liabilities					Sep 10 2008**
Fed H.4.1 statistical release					
billions, Wednesday data					
	8-Apr	1-Apr	25-Mar	18-Mar	pre-LEH
Factors adding reserves					
U.S. Treasury securities	3634.386	3340.832	2978.372	2640.771	479.782
Federal agency debt securities	2.347	2.347	2.347	2.347	0.000
Mortgage-backed securities (MBS)	1459.701	1457.721	1384.563	1366.676	0.000
Repurchase agreements	192.751	263.050	352.355	441.945	126.750
Primary credit (Discount Window)	43.449	43.744	50.768	28.224	23.455
MMLF	53.171	52.667	30.634	0.000	
PDCF	33.018	33.050	27.718	0.000	
<u>Central bank liquidity swaps</u>	358.077	348.544	206.051	0.045	62.000
Federal Reserve Assets	6131.4	5859.6	5302.6	4716.5	961.7
3-month Libor %	1.31	1.44	1.27	1.12	2.82
Factors draining reserves					
Currency in circulation	1883.487	1879.230	1872.242	1843.254	834.477
Term Deposit Facility	0.000	0.000	0.000	0.000	0.000
Reverse repurchases w/others	53.483	207.828	97.411	0.477	0.000
Reserve Balances (Net Liquidity)	3356.860	2684.398	2347.747	1945.393	24.964
Treasuries within 15 days	47.112	36.238	44.037	35.806	14.955
Treasuries 16 to 90 days	233.415	233.009	221.051	211.429	31.549
Treasuries 91 days to 1 year	500.589	468.063	430.067	387.117	69.272
Treasuries over 1-yr to 5 years	1432.206	1298.345	1111.145	966.762	170.807
Treasuries over 5-yrs to 10 years	576.918	509.228	436.318	357.666	91.863
Treasuries over 10-years	844.146	795.949	735.754	681.991	101.337

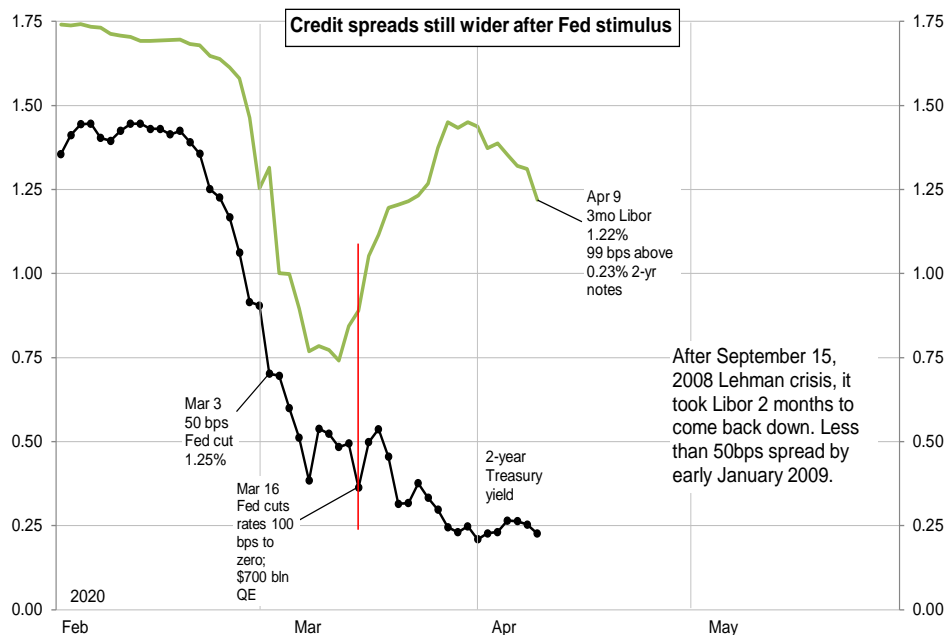
**September 10, 2008 is pre-Lehman bankruptcy of 9-15-08

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

We are more interested in spending powers or at least the amount of government securities purchases the Fed is making. More specifically, will Fed officials find a reason to buy more bonds if bond yields, 10-yr Treasury notes, rise back above 1%? We will find out at some point perhaps because it does not look like the market can finance a \$2.2 trillion fiscal stimulus package without sending yields soaring which would hurt the prospects for recovery from the recession that could bottom in Q2 2020 if the "stay at home" measures are lifted in the next four to eight weeks. Whew. Was that even a sentence? Stay tuned. We are living in interesting times. Be well.

FED QE Govts Purchases		
Week	Daily	\$bln
193.3	Apr 9	38.5
	Apr 8	52.8
	Apr 7	55.5
	Apr 6	46.5
334.3	Apr 3	58.5
	Apr 2	58.5
	Apr 1	72.9
	Mar 31	72.9
	Mar 30	71.5
358.910	Mar 27	71.500
	Mar 26	73.680
	Mar 25	70.948
	Mar 24	68.953
	Mar 23	73.829
272.137	Mar 20 Week	
1158.7	Grand Total	



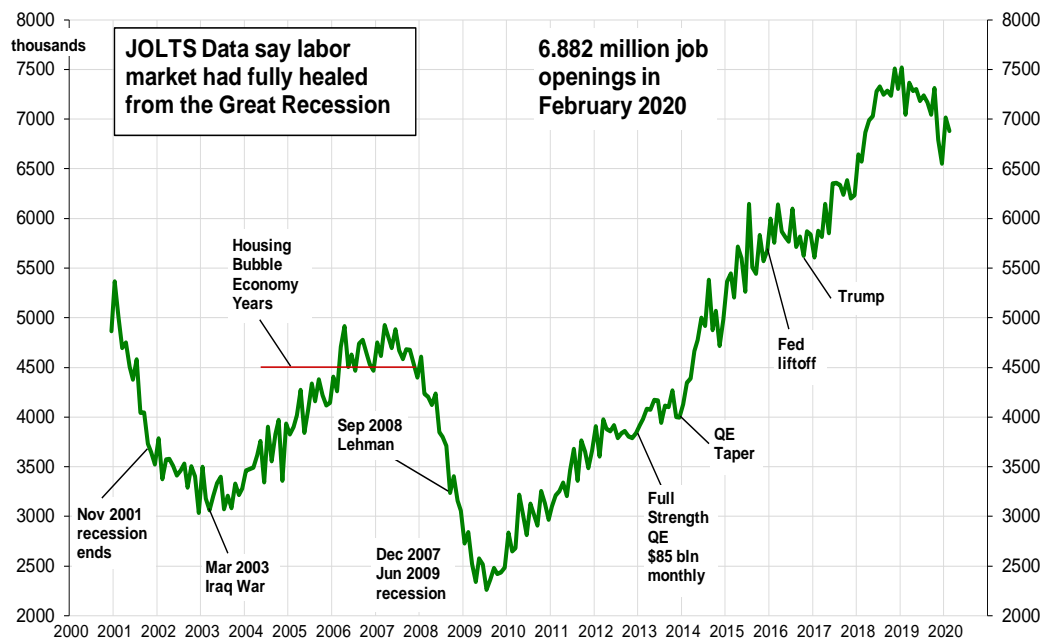
OTHER ECONOMIC NEWS THIS WEEK

6.882 million jobs out there: if only it were true (Tuesday)

Breaking economy news. The Jolts data, job openings and labor turnover survey, in February show the country had 6.882 million job openings out there which would be good news if only it were true. In March, the 4.4% unemployment rate made the biggest one-month jump since the 1970s from 3.5% in February and more job losses are coming.

The stock market is rallying like crazy and we mean crazy with investors thinking they are now medical doctors and buying up stock shares because they think the pandemic curve's number of new virus cases is peaking. Well, one thing that isn't peaking is the jobless count and this real economic data could yet rain on the stock market rally's parade. Companies are borrowing to stay afloat and how will they ever generate earnings in the future if they are still making debt payments once the economy, optimistically speaking, opens back up in the next 4 to 8 weeks. There are no help wanted signs up anywhere in the country that we can see with more people likely to be seen queuing up for jobless benefits and soup kitchens and standing in bread lines like the Great Depression if the Federal government can't get that money from the record fiscal stimulus package out the door in a hurry. There aren't enough people on the dole yet to keep the economy's ship from sinking.

Net, net, the job openings data in February are a cruel reminder of how the best economy in 50 years lies in ruins after the coronavirus shutdown of the economy in March led to mass layoffs with nearly ten million workers applying for unemployment compensation in the last two weeks after being sacked through no fault of their own. There were 783 thousand job



openings at hotels and restaurants and bars in February, but there are zero openings today. Retailers had 727 million job openings in February, but there are no jobs at the shops and malls today. Today's job openings report is a cruel hoax as the economy would be lucky to just be in a recession right now instead of what is looking more and more like the twilight-zone of depression if Washington policy makers aren't careful.

Massive layoffs are moving beyond the government's control (Thursday)

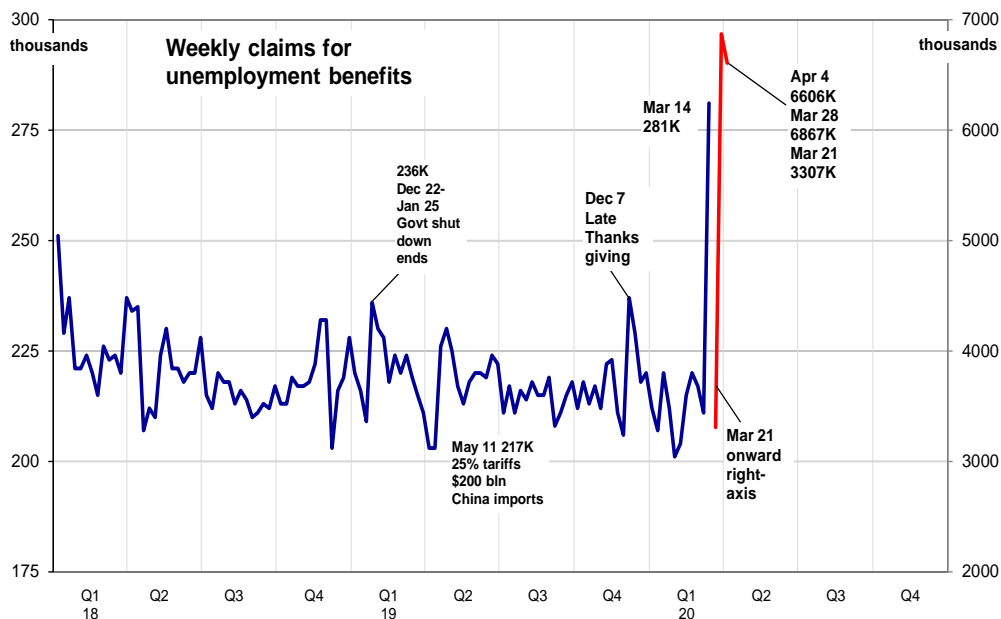
Breaking economy news. Jobless claims are soaring and the worst isn't over yet as state unemployment claims agencies are still being overwhelmed by the volume of filings. March 21 3.307 million, March 28 6.867 million, and April 4 6.606 million means 16.78 million workers have lost their jobs in the last three weeks. This isn't a recession it's the Great Depression II.

It looks like the unemployment rate is headed to 15% in next month's report based on the last three weeks of jobless filings. This would put the economy somewhere between a very bad recession, with 10% unemployment like the early 80s and again in the 2007-09 recession, and a Great Depression like the 1930s with 25% unemployment. The shutdown of the American economy continues and we expect Great Depression job losses before the worst is over.

Net, net, the longer the coronavirus shutdown of America lasts, the harder it will be for the economy to recover its footing and resume business as usual. The labor market is a game of musical chairs in recessions, and there will be less seats at the table for workers once the recession ends. Companies will realize they don't need to hire back everybody they let go, especially when orders and sales are not coming back a full 100%.

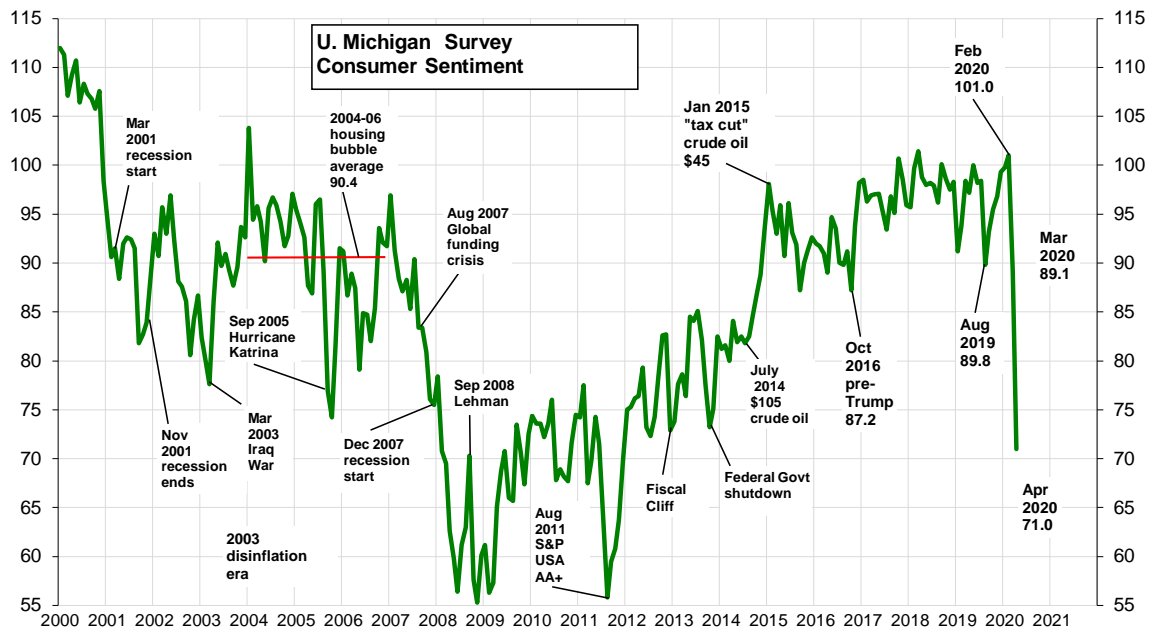
The risk is that these massive layoffs are swiftly moving beyond the government's control. You know it's bad when the Federal Reserve seemingly times its release of new steps to fight the coronavirus economic and market meltdown at the same 830 ET news release time of 6.6 million new unemployment claims this morning for the April 4 week. The Fed's move today although it looks a little desperate is welcome although lending facilities in general mean the loans will have to be paid back and there's no way the economic recovery can proceed at a moderate pace with the extra debt hanging around its neck.

We are trying to be hopeful that the quickest layoffs in history will soon turn to the quickest labor market recovery in history, but we may be just whistling in the dark here. Every economic recession in history takes time to heal and it can be years not months before the jobless rate comes back down. The fastest recovery in history was after the 1980 recession where nearly everyone had found work a year later. At a minimum, the labor market will not recover from this coronavirus recession for another year from today. Bet on it.



Now you tell us. Consumers say the recession is here. (Thursday)

Breaking economy news. Consumers threw in the towel with the last ray of hope extinguished with the Michigan sentiment survey plummeting 18.1 points to 71.0 in early April which says the recession is here. It's bad out there consumers are saying. What else would you expect the consumer to say with America's businesses shut down across America, and consumers themselves self-isolating at home, only venturing out to buy groceries or file for unemployment benefits. What else would you expect for consumer confidence when 16.78 million have applied for unemployment benefits the last three weeks. Heck, there's only 129.027 million private payroll jobs in the country as of March 2020. The consumers' world has literally been turned upside down and no one is certain how to get the economy back going again. Former Fed Chair Yellen is saying the economy could fall 30% this quarter. She is the one who popularized the term "Great Recession" during the last recession in 2007-09, so what's this recession going to be called: Great Depression II? Stay tuned. Story developing badly.



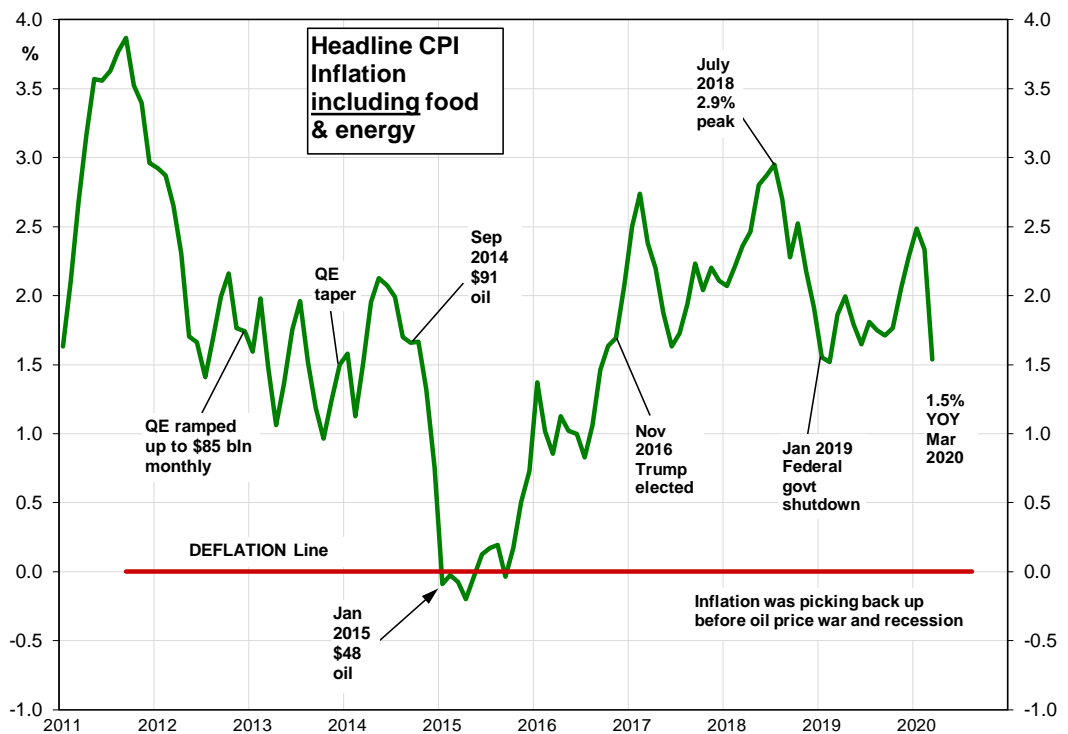
It can't be a depression without a little deflation (Friday)

Breaking economy news. CPI inflation. The bond market is just sitting there not trading on the news. Headline inflation fell 0.4% in March to a 1.5% year-year pace. Core inflation fell 0.1% in March to 2.1% year-to-year. The last time core consumer inflation fell in any month was back in January 2010 so you know there is a whiff of deflation in the air which can only herald the arrival of the second Great Depression. The bond market is just sitting there, stunned apparently, with bond prices unchanged. It can't be a depression without a little deflation and the consumer's got it.

There's bargain pricing out there if only consumers weren't locked in their homes. Airline fares, hotels/motels, clothing, new cars, all these prices are falling down falling down. And heaven forbid, even our home prices are falling, or were at least unchanged for shelter costs.

Net, net, there's deflation in the air and more downward pressure on prices is imminent with economic demand plummeting this quarter. We can't have an economic depression without falling prices and deflation and today we've got it. The downward spiral of deflation and deficient demand is here and it could be months before the economy sees daylight at the end of this long dark tunnel. This won't be a V-shaped recovery. Bet on it. The economy can't be opened back up like a Jersey shore beach community on Memorial Day after a long cold winter. Double-digit unemployment is here to stay. Permanently.

P.S. Just checking the trading screens and it looks like the bond market is closed today for the Good Friday holiday. The bond market is not ignoring today's deflation report, it is closed. Okay.



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>.