

# Coronavirus Impact

## US Economic Outlook & Policy Response

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# Coronavirus (COVID-19) Is a Global Pandemic

## Key Facts

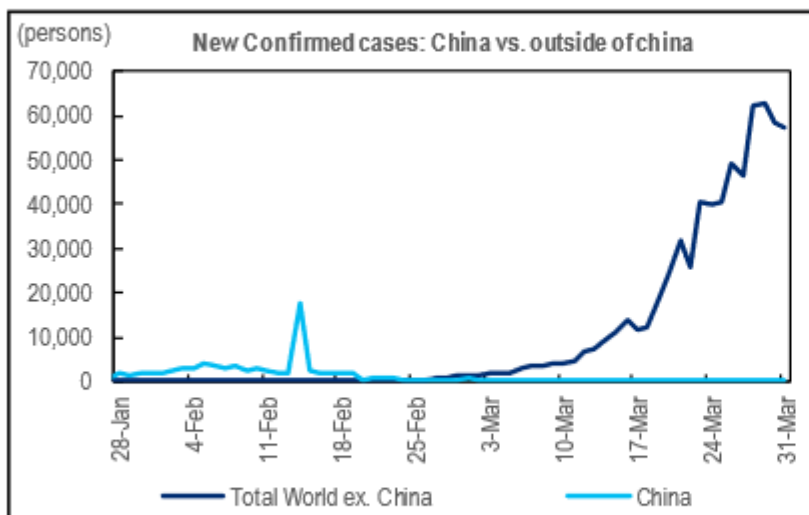
**Cases Worldwide: 876,318**

**Recoveries: 184,952**

**Deaths: 43,518**

**Economies: 205**

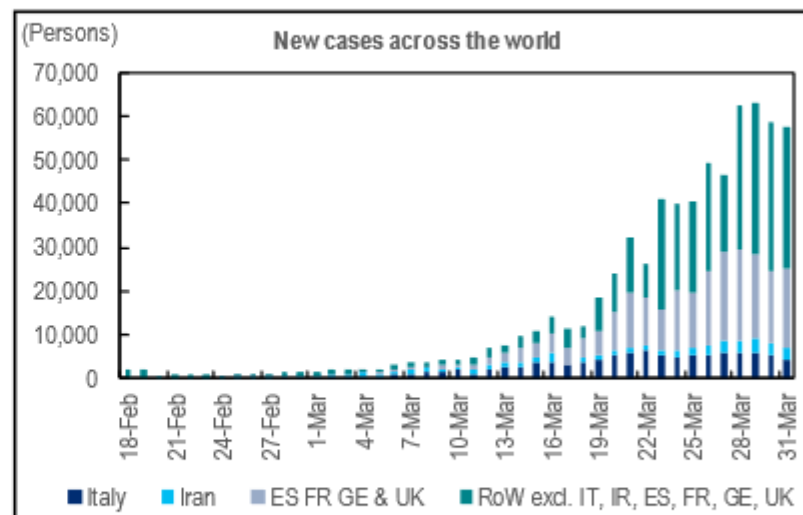
Figure 2. New cases outside of China slightly declined



Note: Data updated with WHO's 31<sup>st</sup> Mar situation report

Source: WHO, CEIC, Citi Research

Figure 3. New cases across the world slightly moderated on 31<sup>st</sup> Mar



Note: Data updated with WHO's 31<sup>st</sup> Mar situation report

Source: WHO, CEIC, Citi Research

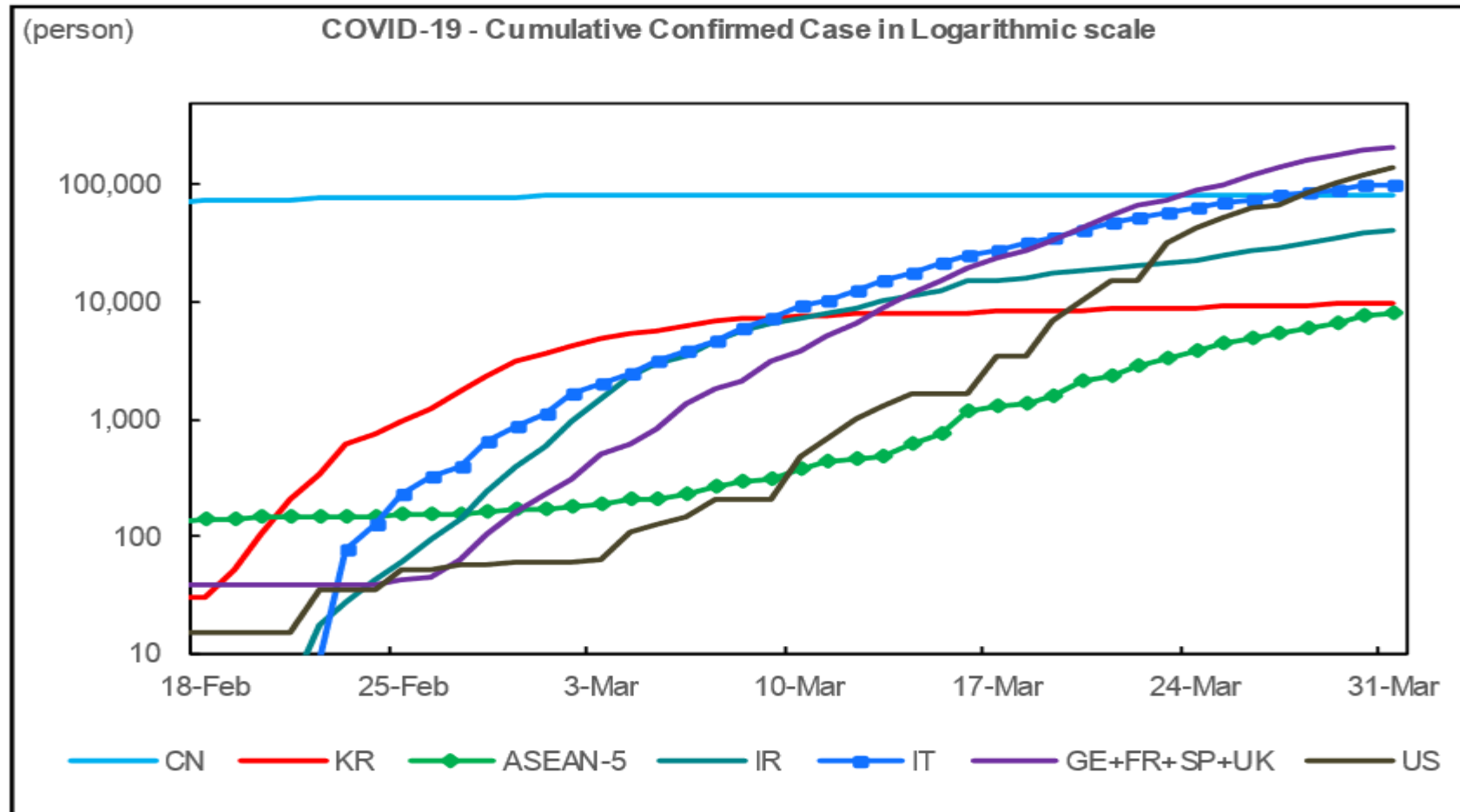
# Coronavirus Cases are Being Reported Throughout the US

New York	75,795	Wisconsin	1,351	New Hampshire	367
New Jersey	18,696	Missouri	1327	Delaware	319
Michigan	7,615	Arizona	1289	New Mexico	315
California	6,932	Virginia	1250	Maine	303
Florida	6,732	Nevada	1113	Vermont	293
Massachusetts	6,620	South Carolina	1083	Puerto Rico	239
Illinois	5,994	Alabama	999	Hawaii	224
Louisiana	5,237	Mississippi	937	Montana	198
Washington	5,222	Utah	887	Nebraska	177
Pennsylvania	4,843	Oregon	690	West Virginia	162
Georgia	4,117	Minnesota	629	Alaska	133
Texas	3,266	Kentucky	591	North Dakota	126
Connecticut	3,128	Oklahoma	565	Wyoming	120
Colorado	2,966	Arkansas	564	South Dakota	108
Tennessee	2,239	Idaho	525	Guam	69
Ohio	2,199	Iowa	497	US Virgin Islands	30
Indiana	2159	District of Columbia	495	Northern Mariana Islands	6
Maryland	1,660	Rhode Island	488	American Samoa	0
North Carolina	1,498	Kansas	428		

Source: CNN News as of 1 Apr 2020.

# The US Has Yet To Achieve Peak Cases

Figure 4. Covid-19 - Cumulative Confirmed Cases in Logarithmic Scale



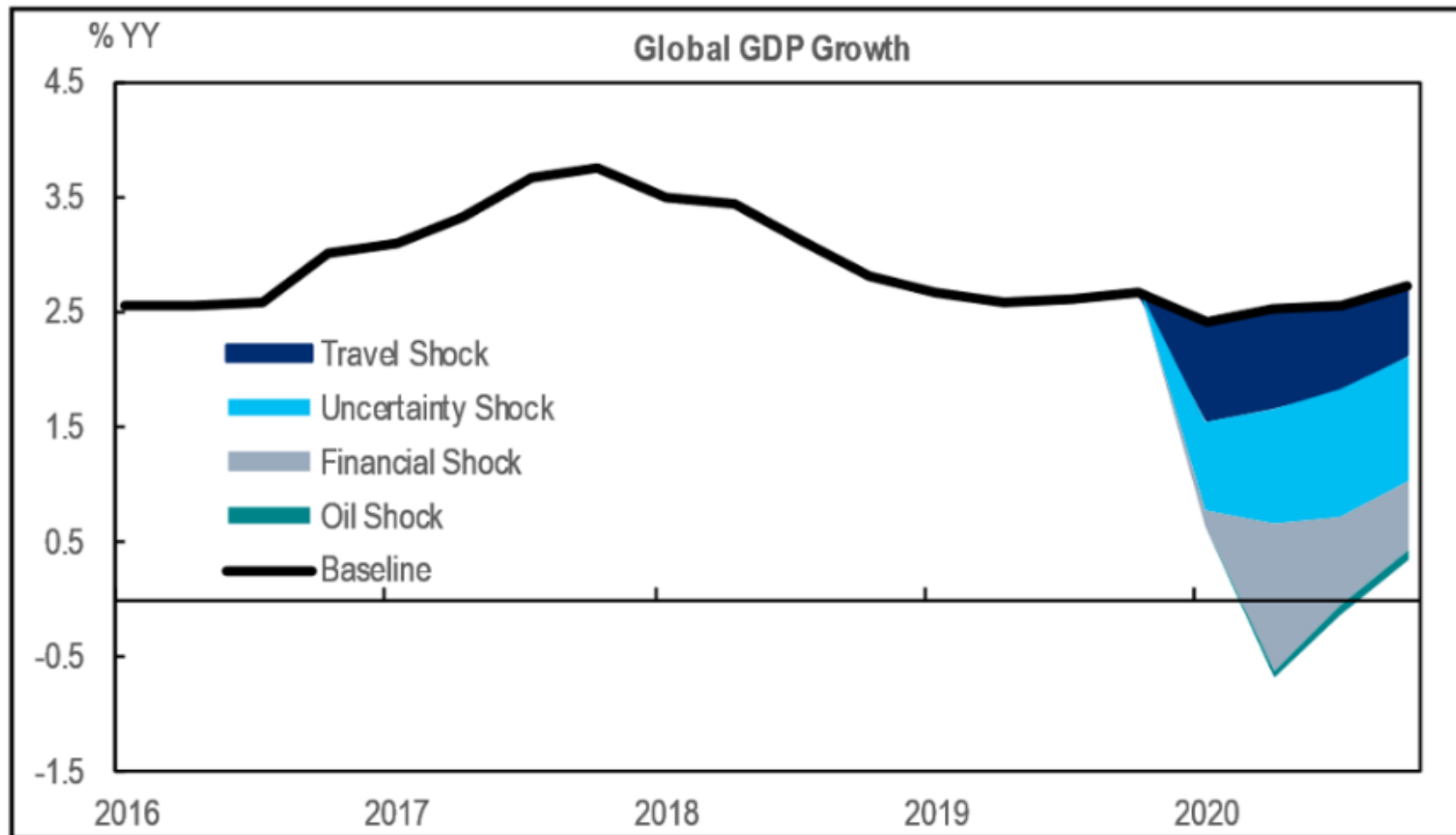
Note: Data updated with WHO's 31<sup>st</sup> Mar situation report

Source: WHO, CEIC, Citi Research

Source: WHO, CEIC, and Citi Research.

# Coronavirus Is a Major Shock to the Global Economy

Figure 35. Global GDP --- Drag from shocks to consumption, investment, financial markets, oil



Note: The baseline uses Oxford Economics January baseline. Source: Citi Research

Source: Citi Research Estimates.

# US 2020 Growth, Jobs, and Inflation Outlooks Are Weak

		2019	2020F	2020			
		YoY	YoY	Q1	Q2	Q3	Q4
				QoQ	QoQ	QoQ	QoQ
GDP	%	2.3	-0.5	-0.5	-12.0	7.3	5.6
Consumption	%	2.6	-1.3	-2.2	-16.9	10.2	8.3
Business Equip. Investment	%	4.0	-0.2	-4.7	-13.0	3.0	-5.0
Business IPP	%	7.9	5.5	6.8	5.5	5.5	5.5
Business Structures	%	-4.4	-8.9	-7.8	-10.0	-7.0	-5.0
Residential Investment	%	-1.5	3.7	3.1	2.2	6.1	5.4
Final Private Domestic Demand	%	2.3	-0.6	-1.3	-11.8	7.5	5.7
Government	%	2.3	2.3	1.8	2.7	2.0	1.4
Exports	%	0.0	-1.9	-7.7	-15.2	26.1	3.5
Imports	%	1.0	-6.9	-19.0	-16.2	22.9	4.7
Inventories	pp cont.	0.1	-1.2	-2.8	-0.8	0.0	0.0
Core PCE Deflator	% YoY EOP	1.5	1.5	1.7	1.2	1.4	1.6
Core CPI	% YoY EOP	2.3	1.6	2.2	1.9	1.8	1.9
Headline CPI	% YoY EOP	2.3	0.9	0.4	0.6	0.7	1.1
Average Hourly Earnings	% YoY EOP	3.0	3.3	3.0	3.1	3.2	3.3
Unemployment Rate	% EOP	3.5	4.9	3.6	6.4	5.2	4.8
Monthly payroll growth	(1,000s) avg.	178	132	190	-1200	600	300
ISM Manf	EOP	48	53	50	35	50	48
Policy Range	% EOP	1.5-1.75	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25

Source: Citi Research Estimates.

# Rebound Expected in 2021 As Activity Normalizes

		2019	2020F	2021F	2019 Q4	2020 Q1	Q2	Q3	Q4	2021 Q1	Q2	Q3	Q4
GDP	SAAR				2.1	-0.5	-12.0	7.3	5.6	1.4	1.7	1.7	1.6
	YoY	2.3	-0.5	2.1	2.3	1.4	-2.3	-1.0	-0.2	0.3	4.0	2.6	1.6
Domestic Demand	SAAR				1.6	-1.3	-11.8	7.5	5.7	1.8	2.1	2.1	2.1
	YoY	2.3	-0.6	2.4	2.3	1.5	-2.5	-1.3	-0.3	0.5	4.2	2.9	2.0
Consumption	SAAR				1.8	-2.2	-16.9	10.2	8.3	1.4	2.0	2.0	2.0
	YoY	2.6	-1.3	2.7	2.6	1.8	-3.9	-2.3	-0.8	0.1	5.4	3.4	1.9
Business Investment	SAAR				-1.5	-1.3	-6.0	2.1	-1.1	4.2	4.3	4.4	4.4
	YoY	2.1	-1.9	2.3	-0.1	-1.5	-2.8	-1.7	-1.6	-0.2	2.4	2.9	4.3
Housing Investment	SAAR				5.8	3.1	2.2	6.1	5.4	3.9	1.9	1.9	1.9
	YoY	-1.5	3.7	3.6	1.5	2.6	3.9	4.3	4.2	4.4	4.3	3.3	2.4
Government	SAAR				2.7	1.8	2.7	2.0	1.4	0.7	0.7	0.7	0.7
	YoY	2.3	2.3	1.1	3.0	2.7	2.2	2.3	2.0	1.7	1.2	0.8	0.7
Exports	SAAR				1.4	-7.7	-15.2	26.1	3.5	4.2	4.2	4.2	4.2
	YoY	0.0	-1.9	5.2	0.2	-2.8	-5.4	0.0	0.5	3.6	9.1	4.0	4.2
Imports	SAAR				-8.7	-19.0	-16.2	22.9	4.7	5.6	6.4	6.4	6.4
	YoY	1.0	-6.9	6.2	-2.2	-6.9	-10.9	-6.6	-3.3	3.3	9.7	5.8	6.2
PCE Deflator	YoY	1.4	0.7	2.1	1.5	1.7	0.2	0.4	0.6	0.9	2.5	2.5	2.3
Core PCE Deflator	YoY	1.6	1.5	2.0	1.6	1.7	1.2	1.4	1.6	1.7	2.2	2.0	2.0
Unemployment Rate	%	3.7	4.9	4.0	3.5	3.6	6.4	5.2	4.8	4.2	4.0	3.9	3.8
Federal Gov't Balance (Fiscal Year)	US\$bn	-984	-1422	-1288									
	% of GDP	-4.6	-6.6	-5.8									
General Gov't Balance (Cal Year)	% of GDP	-4.7	-6.7	-5.5									
Federal Debt (Fiscal Year)	% of GDP	79	85	88									
General Gov't Debt (Calendar Year)	% of GDP	107	110	116									
Current Account	US\$bn	-496	-406	-555	-442	-323	-281	-500	-520	-540	-550	-560	-570
	% of GDP	-2.3	-1.9	-2.5	-2.0	-1.5	-1.3	-2.3	-2.4	-2.4	-2.5	-2.5	-2.5
S&P 500 Profits (US\$ Per Share)	YoY	2.0	4.8		5.7	7.7	4.7	4.3	2.9				

	2019	2020	2021	2022	2023	2024
Real GDP (%)	2.3	-0.5	2.1	1.6	1.8	1.8
Consumer Inflation (%)	1.4	0.7	2.1	2.0	2.0	2.0
Short-Term Interest Rates (%)	2.3	0.5	0.4	1.4	1.8	1.8
Current Account (% of GDP)	-2.3	-1.9	-2.5	-2.7	-2.7	-2.6
Fiscal Balance (% of GDP)	-4.7	-6.7	-5.5	-5.5	-5.5	-5.5
Gen Govt Debt (% of GDP)	107.0	110.0	116.0	113.0	115.0	116.0
Federal Budget % of GDP	-4.6	-6.6	-5.8	-5.3	-5.3	-5.2
Federal Govt Debt % of GDP	79	85	88	91	93	95

Source: Citi Research Estimates.

# Fiscal Policy Actions

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## **Phase 1 – \$8.3bln**

The US Congress approved, and President Trump signed a bill offering spending on COVID-19 related health items.

## **Stafford Act – ~\$50bln**

The President declared a national emergency, freeing up about \$50 billion of FEMA and other emergency spending.

## **Phase 2 – \$104bln** H.R. 6201 The Families First Coronavirus Response Act

Passed last week, the bill provides for paid-sick leave, expanded unemployment, food assistance and covers some COVID-19 related medical costs.

**Phase 3 – \$2.2 trillion “price tag” about \$1.3trln in direct stimulus.** Forgivable loans to small business, expanded unemployment benefits, direct payments to individuals, aid to state & local, new capital for the Fed to lever and direct lending (see below for what’s in the bill).

“**Phase 4**” is possible especially if it should become clear that the disruption will likely last beyond mid-May. Treasury Secretary Mnuchin continues to talk about a second round of stimulus checks and that the current stimulus is appropriate for only one month of reduced business activity. We could also see the small business lending program (which assumes an 8 week disruption) extended and upsized. House Democrat leader Pelosi suggested more spending might already be in the works focused on direct aid to state and local governments.

**\$2 trillion in infrastructure is possible** – but we would be cautious that a program of loan guarantees and tax credits may be billed as \$2 trillion but not include that much direct spending. While infrastructure spending is usually afforded a high “multiplier” between dollars spent and economy effect, it typically takes longer for the stimulus to be delivered.



# Fiscal Policy Actions – Phase 3 Contents

Figure 1. What's in the Phase 3 stimulus

What's in the "Phase 3" stimulus		
Category	Allocation	Description
Direct payments and tax cuts for individuals	\$300bln	\$1,200 checks to individuals, \$500 per child, Phased out for income \$75-99K Direct deposit w/ in 3 weeks
Other tax changes		
Unemployment benefits	\$300bln	\$600/week additional UI benefits for 4mths Up to 13 weeks additional benefits (extending to 39 weeks for many states) Eligibility expanded including self employed
Nutritional aid (SNAP)	\$25bln	
Aid to small business	Up to \$350bln	Tsy guarantees loans to <500 employee business made through a broad range of financial institutions. Forgivable if used for payroll, rent etc.
Healthcare & hospitals	\$120bln	Direct grants to hospitals to top-up revenue lost by cancelling elective surgeries. Increased medicare payments for COVID treatment.
State and local aid	\$150bln	
Grants to airlines	\$29bln	
Infrastructure		
Other	\$50bln	
<b>Total direct stimulus</b>	<b>\$1.3trln</b>	
Direct loans to airlines	\$29bln	
Credit extension	\$454bln Tsy capital	This acts as equity capital put up by the Treasury and can be levered 10x by Fed lending through it's 13(3) authority (the "alphabet soup" of facilities)
Deferral of payroll tax	\$200bln	
Delay of April 15 tax date	\$200bln	
<b>Total loans, capital, tax deferral</b>	<b>\$900bln</b>	
<b>Total "price tag"</b>	<b>\$2.2trln</b>	

Source: Citi Research

# Monetary Policy Actions

Announce Time	Action	Details	Our View
15-Mar-20	Expanded Discount Window	Provides depository institutions 90 day funding at 25bp against a broad range of collateral and encourages them to use it. discount window.	US Economics Flash - Fed pulls out all the stops as rates cut to ZLB
17-Mar-20	CPFF	The Commercial Paper Funding Facility (CPFF) backstops the CP market. The Fed has created an SPV that will buy commercial paper at OIS+200bp.	US Economics Flash: CP funding facility – Solves for liquidity, not for economy
17-Mar-20	PDCF	The Primary Dealer Credit Facility functions like a discount window for dealers, providing 90 day loans against a broad range of collateral..	
18-Mar-20	MMLF	The Money Market Fund Liquidity Facility absorbs prime money fund assets by making 1non-recourse loans to banks collateralized by assets (including commercial paper) bought from money funds.	US Economics Flash - Fed money-market facilities – comparing the MMLF, CPFF
18-Mar-20	Temporary US dollar swap lines	The Fed announced the establishment of temporary U.S. dollar liquidity arrangements (swap lines) with multiple other central banks.	
20-Mar-20	MMLF expands to Municipal debt	The MMLF extends its non-recourse lending to short-term muni collateral.	
23-Mar-20	PMCCF	The Primary Market Corporate Credit Facility (PMCCF) makes direct loans to or buys the primary issuance of US IG corporates (4y and less).	US Economics Flash - Fed to buy corp debt, fund ABS, unlimited QE
	SMCCF	The Secondary Market Corporate Credit Facility (SMCCF) will buy US IG bonds through dealers (5y and less).	
	TALF	The Term Asset-Backed Securities Loan Facility (TALF) makes non-recourse loans to banks to buy consumer ABS and certain CMBS.	
		The Fed reduced rates by 50bps to 100-125bp policy range just following the G-7 statement that global central banks were standing ready to use policy tools as appropriate.	US Economics Flash: Fed cuts 50bp intermeeting
12-Mar-20	Treasury purchases shift from T-bills further out the curve	Fed increases repo, starts what is likely to become full QE - moving its purchases of \$60bln/mth T-bills out the curve to purchase a range of longer maturities (through Apr 13 2020). Moreover, the Fed also announced a much-larger-than-expected upsize to its repo programs.	US Economics Flash: Fed increases repo, starts what is likely to become full QE
15-Mar-20	100bps rates cut; \$500bln Tsy and \$200bln MBS QE	1) The Fed over-deliver on the market with cutting rates to a 0-25bps policy range with RRP at 0bp and IOER at 10bp. 2)The Fed announce a larger-scale QE program, which pledges to buy \$500bn in treasury and \$200bn in MBS. 3) The Fed “encouraged” banks to make use of capital and liquidity buffers, which will free up capacity to continue to channel credit to the real economy.	US Economics Flash - Fed pulls out all the stops as rates cut to ZLB
23-Mar-20	Unlimited QE	Purchases of MBS and Treasuries are made open ended in “amounts as necessary.”	
26-Mar-20	Expand SOMA holdings of agency MBS and CMBS	Fed expands System Open Market Account (SOMA) purchases to include CMBS.	
31-Mar-20	Temporary FIMA Repo Facility	<u>The Fed established a temporary repurchase agreement facility for foreign and international monetary authorities (FIMA Repo Facility) to help support the smooth functioning of financial markets, including the U.S. Treasury market.</u>	<u>US Economics Flash - Fed FIMA repo pushes USD funding out more broadly</u>

Source: Federal Reserve Board and Citi Research.

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