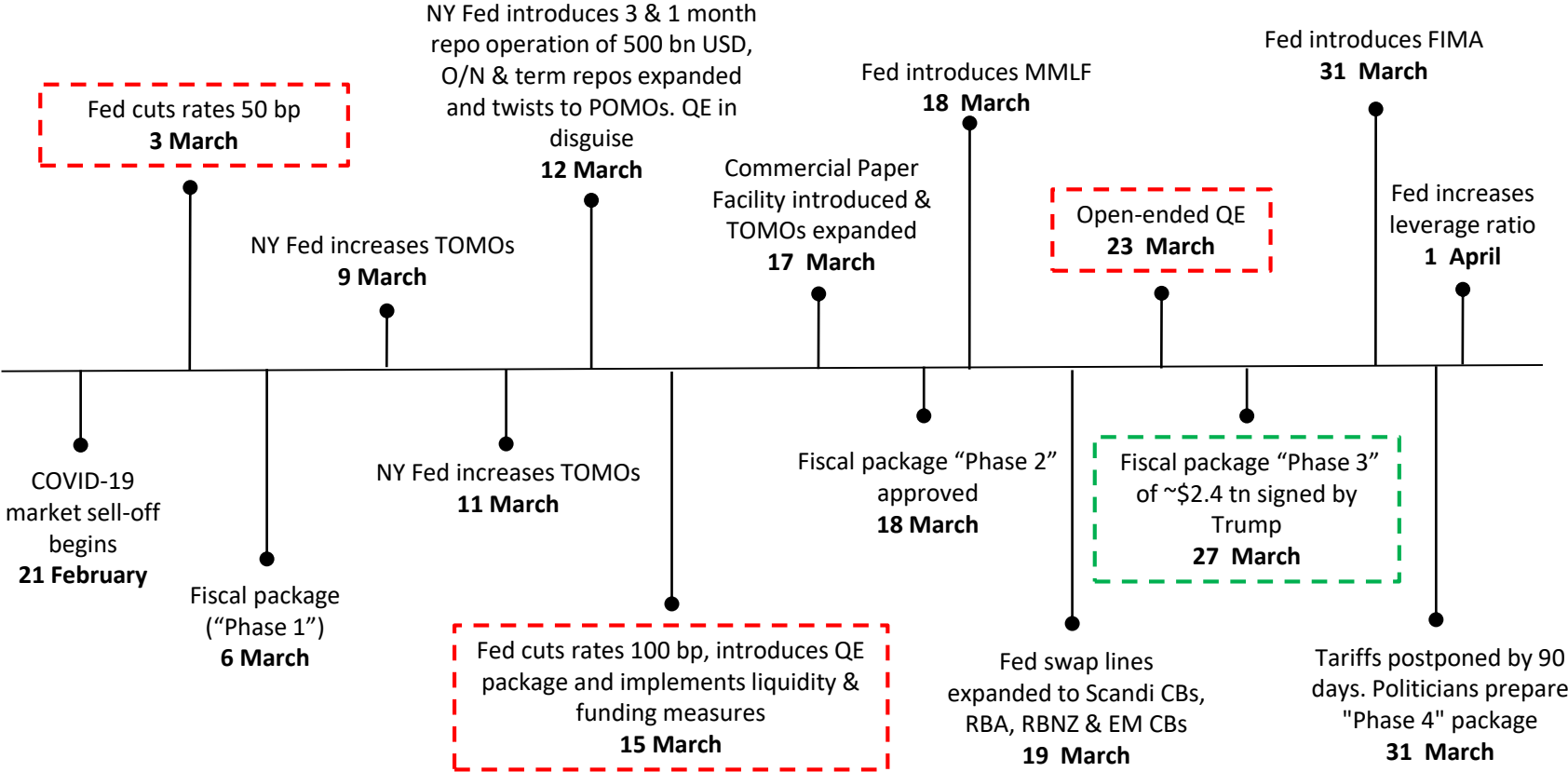


Timeline: US policy responses to COVID-19



Source: Nordea Markets

Overview of monetary and fiscal actions (1/3)

Date	Institution	Type	Amount & comment	Links
3 March	FOMC	Rate cut	50 bp cut to 1.00-1.25%	https://ndea.mk/2QqHdQ
		T-bills	Purchases done at least into Q2 2020	
6 March	Congress	TOMOs	Term and overnight repurchase agreement operations at least through April 2020	https://ndea.mk/2whcOMG
		Fiscal ("Phase One")	\$ 8.3 bn emergency COVID-19 spending package, incl. \$3 bn in vaccine research. Package nicknamed "Phase One".	
9 March	NY Fed	TOMOs	Daily O/N repo operations increased from \$100 bn to \$150 bn. Two-week term repo operations increased from \$20 bn to \$45 billion.	https://ndea.mk/2w1CjnL
11 March	NY Fed	TOMOs	Daily O/N repo operations increased from \$150 bn to \$175 bn. \$45 billion in two-week term repo operations twice per week. Three one-month term repo operations at \$50 bn each.	https://ndea.mk/2wkPLR9
12 March	NY Fed	POMOs	- As a part of its \$60 billion "reserve management purchases", purchases will be conducted across a range of maturities to roughly match the maturity composition of Treasury securities outstanding. This includes nominal coupons, bills, TIPS, and FRN.	https://ndea.mk/2Wm7Zw3
		TOMOs	- 3-month and 1-month repo operations for \$500 bn on a weekly basis. Continues with \$175 bn in daily O/N repo operations and \$45 in two-week term repo operations twice per week.	
15 March	FOMC	Rate cut	- 100 bp to 0-0.25% (IOER at 0.10%)	https://ndea.mk/391FNRX
		Forward guidance	- Committed to holding rates near zero "until it is confident that the economy has weathered recent events and is on track to achieve its maximum employment and price stability goals."	
		QE	- Purchase of Treasury securities by at least \$500 billion & agency mortgage-backed securities by at least \$200 bn	
		Discount window	- Encourages depository institutions to turn to the discount window. Discount rate cut by 150 bp to 0.25% (primary credit rate). Depository institutions may borrow from the discount window for periods as long as 90 days	
		Intraday Credit	- Encourages depository institutions to utilize intraday credit extended by Reserve Banks, on both a collateralized and uncollateralized basis	
		Loan guidance	- Encourages banks to use their capital and liquidity buffers as they lend to households and businesses	
17 March	NY Fed	Reserve req.	- Cut to 0% effective on March 26, the beginning of the next reserve maintenance period	https://ndea.mk/3d8Z5bo
		CB swap lines	A coordinated action among major CBs to provide liquidity via the standing U.S. dollar liquidity swap line arrangements	
17 March	FOMC	TOMOs	Daily O/N repo operations offered twice per day of \$500 bn each	https://ndea.mk/3a30iPt
17 March	FOMC	CPFF	Establishing a Commercial Paper Funding Facility (CPFF). Approved under the authority of Section 13(3) and by Treasury. The Treasury will provide \$10 billion of credit protection to the Fed. Pricing will be based on the then-current 3-month OIS rate plus 200 bp.	https://ndea.mk/2U037et
17 March	FOMC	PDCF	Establishment of a Primary Dealer Credit Facility (PDCF) to support the credit needs of households and businesses. The PDCF will offer overnight and term funding with maturities up to 90 days and will be available on March 20, 2020. It will be in place for at least six months and may be extended as conditions warrant	https://ndea.mk/392tbK8
17 March	Congress	Fiscal ("Phase Three")	- Trump Administration proposes Congress a roughly \$ 1 tn fiscal package nicknamed "Phase Three" (numbers not confirmed). Includes \$250 bn for small business loans and \$500 bn (of two rounds) for direct payments to households aka. helicopter money (more than \$1000 payment to all U.S. adults, excluding millionaires and billionaires). \$50 billion in bailouts for the airline industry	https://ndea.mk/2U037et
			- Individual and businesses will have an extra 90 days past April 15 to pay their tax bills. Mnuchin estimates this will free up \$300 bn in extra liquidity over this period. Individuals can delay taxes up to \$1 million and corporations up to \$10 million. Notably, tax return forms are still due April 15	
			- Democratic leadership in the House of Representatives revise their paid sick leave proposal to 2 weeks of sick leave at full pay and 10 weeks at 2/3's pay	
18 March	FOMC	MMLF	Establishing a Money Market Mutual Fund Liquidity Facility. Money market funds are common investment tools for families, businesses, and a range of companies. The MMLF will assist money market funds in meeting demands for redemptions by households and other investors, enhancing overall market functioning and credit provision to the broader economy. This is similar to the AMLF program launched in 2008 after the collapse of Lehman Brothers caused a major money market fund to fail. Approval by the Treasury Secretary. The program is scheduled to run until the end of September.	https://ndea.mk/2U037et
18 March	Congress	Fiscal ("Phase Two")	Senate approves the "Phase Two" stimulus suggested on 13 March. Includes free virus testing, expanded unemployment benefits, additional funds for Medicaid & a provision requiring paid sick leave for some workers affected by COVID-19	

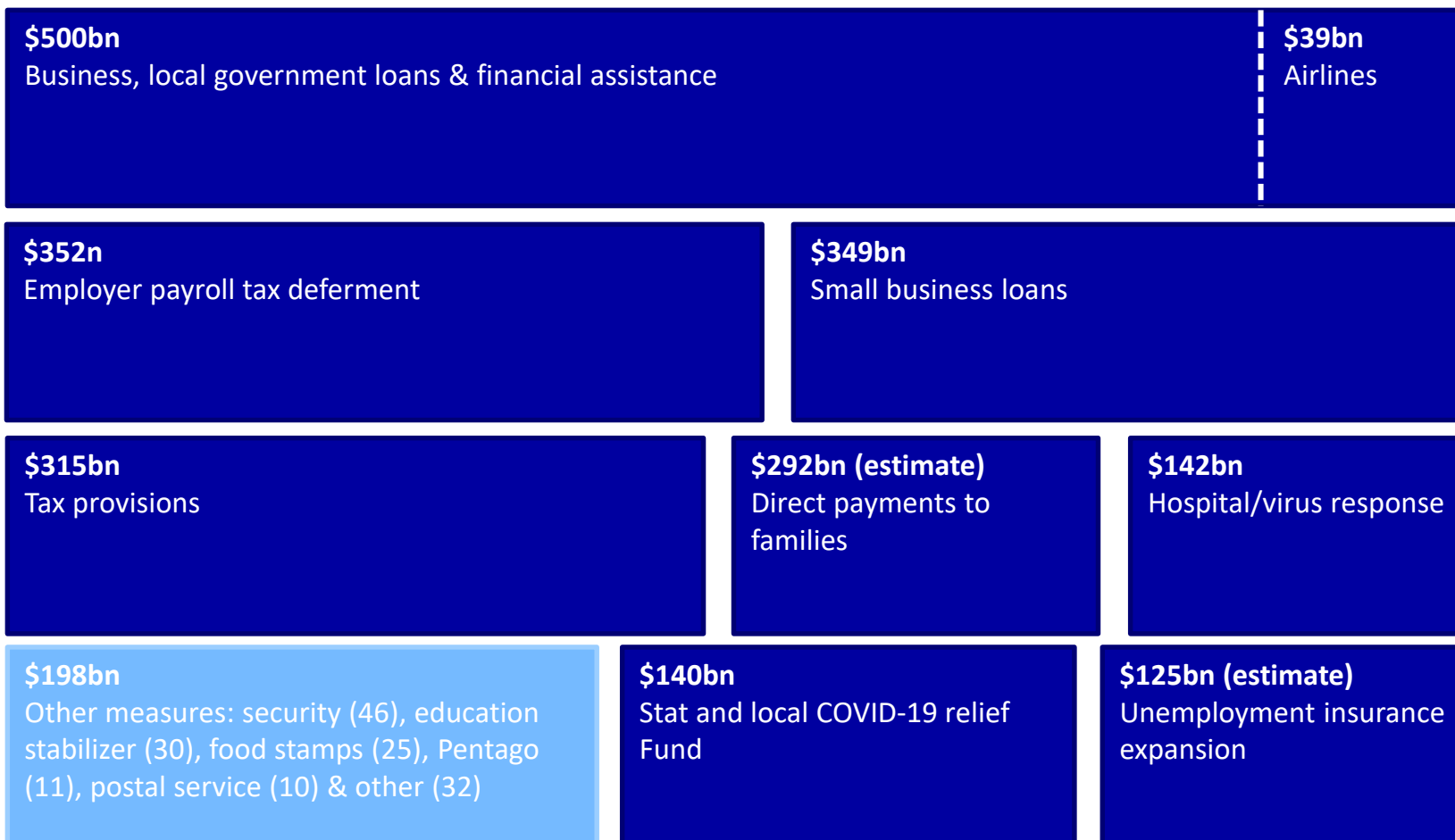
Overview of monetary and fiscal actions (2/3)

Date	Institution	Type	Amount & comment	Links
19 March	FOMC	Swap lines	Swap lines arrangement expanded to include RBA, BCB, BOK, Banxico de Mexico, the Monetary Authority of Singapore, Riksbanken, Nationalbanken, Norges Bank & RBNZ. The three latter will be provided USD liquidity of \$30 billion each, the rest \$60 billion each. These U.S. dollar liquidity arrangements will be in place for at least six months.	https://ndea.mk/2vGvdSj
19 March	Congress	Fiscal ("Phase Three") - <i>Bill</i>	Draft bill of the "Phase Three" stimulus package released. A total package of \$2 tn (~10% of GDP).	https://ndea.mk/3ahUwts
20 March	FOMC	Swap lines	To improve the swap lines' effectiveness in providing U.S. dollar funding, these central banks have agreed to increase the frequency of 7-day maturity operations from weekly to daily. These daily operations will commence on Monday, March 23, 2020, and will continue at least through the end of April. The central banks also will continue to hold weekly 84-day maturity operations.	https://ndea.mk/2vGvd5b
20 March	FOMC	MMLF	Through the MMLF, Fed Boston will now be able to make loans available to eligible financial institutions secured by certain high-quality assets purchased from single state and other tax-exempt municipal money market mutual funds.	https://ndea.mk/2Uxk6DY
22 March	FOMC	TDR easing	The agencies encourage financial institutions to work with borrowers, will not criticize institutions for doing so in a safe and sound manner, and will not direct supervised institutions to automatically categorize loan modifications as troubled debt restructurings (TDRs).	https://ndea.mk/33GJafY
23 March	FOMC	Open-ended QE	- The Fed will purchase Treasury securities and agency MBS in the amounts "needed to support smooth market functioning and effective transmission of monetary policy to broader financial conditions and the economy". I.e. this is unlimited QE. The Desk will buy \$75 bn of Treasury securities and \$50 bn agency MBS each business day the current week. Agency Commercial MBS are now included in purchases.	ndea.mk/2WDyP2U
		PMCCF	- The Primary Market Corporate Credit Facility (PMCCF) is used for new bond and loan issuance. This will allow companies accessing credit so that they are better able to maintain business operations and capacity. This facility is open to investment grade companies and will provide bridge financing of four years. Borrowers may elect to defer interest and principal payments during the first six months of the loan. The Fed will finance a special purpose vehicle (SPV) to make loans from the PMCCF to companies. The Treasury, using the ESF, will make an equity investment in the SPV.	
		SMCCF	- The Secondary Market Corporate Credit Facility (SMCCF) will provide liquidity for outstanding corporate bonds. Purchases via issued investment grade U.S. companies and U.S.-listed ETFs whose investment objective is to provide broad exposure to the market for U.S. investment grade corporate bonds. Treasury, using the ESF, will make an equity investment in the SPV established by the Federal Reserve for this facility.	
		TALF	- The Term Asset-Backed Securities Loan Facility will enable the issuance of asset-backed securities (ABS) backed by student loans, auto loans, credit card loans, loans guaranteed by the Small Business Administration (SBA), and certain other assets. Fed will lend on a non-recourse basis to holders of certain AAA-rated ABS backed by newly and recently originated consumer and small business loans. The Federal Reserve will lend an amount equal to the market value of the ABS less a haircut and will be secured at all times by the ABS. Treasury, using the ESF, will also make an equity investment in the SPV established by the Federal Reserve for this facility. The TALF, PMCCF and SMCCF are established with approval of the Treasury Secretary.	
		MMLF expanded	- The MMLF will now include a wider range of securities, including municipal variable rate demand notes and bank certificates of deposit.	
		CPFF expanded	- Expanding the Commercial Paper Funding Facility (CPFF) to include high-quality, tax-exempt commercial paper as eligible securities. In addition, the pricing of the facility has been reduced. Like the MMLF this is aimed at facilitating the flow of credit to municipalities.	
		"Main Street" lending	- The Fed expects to announce soon the establishment of a "Main Street" Business Lending Program to support lending to eligible small-and-medium sized businesses, complementing efforts by the SBA.	
27 March	Congress/pre president	Fiscal ("Phase Three")	- A historic fiscal package of estimated \$2.4 tn (~12% of GDP) in spending and tax breaks. - Plan includes \$500 bn in loans to companies (\$29 bn to airlines), \$349 bn to SMEs, \$142 bn hospitals/health care, \$125 bn unemployment insurance, and other spending initiatives. Moreover, \$500 billion in direct payments to people (aka. helicopter money), in two waves of checks of up to \$1,200 for an individual earning up to \$75,000 a year (max at 99k). Additional payments for families with children could push the total to \$3,000 for a family of four. See slide on next page for complete overview.	

Overview of monetary and fiscal actions (3/3)

Date	Institution	Type	Amount & comment	Links
31 March	Congress	Fiscal ("Phase Four") - process initiation	Both the President and House Speaker Nancy Pelosi have said they want to pass a "Phase 4" stimulus package. Details on proposals remain scarce	
31 March	President	Tariffs	President Trump said he would approve a 90 day suspension of tariffs.	
31 March	FOMC	FIMA	Temporary repurchase agreement facility for foreign and international monetary authorities (FIMA Repo Facility). This is EM swap line in disguise. Main beneficiaries are likely India, Thailand, Indonesia, Taiwan and Malaysia. They each have a large percentage of offshore debt held in foreign currencies. Other central banks, such as those in China, Hong Kong and Russia could also benefit, but we doubt they would tap Fed swap lines given their political backdrops; Russia's led it to sell most of its USD holdings in 2019.	https://ndea.mk/2UWbqrc
1 April	FOMC	Leverage ratio	<ul style="list-style-type: none"> - Dchange to Fed's supplementary leverage ratio rule to ease strains in the Treasury market. This will allow banking organizations to expand their balance sheets as appropriate to continue to serve as financial intermediaries, rather than to allow banking organizations to increase capital distributions - The supplementary leverage ratio generally applies to financial institutions with more than \$250 billion in total consolidated assets. It requires them to hold a minimum ratio of 3 percent, measured against their total leverage exposure, with more stringent requirements for the largest and most systemic financial institutions. The change would temporarily decrease tier 1 capital requirements of holding companies by approximately 2 percent in aggregate. - Leveraging \$454 billion - funds allocated to the Treasury by the rescue fiscal package - 10 to 1, would allow the Fed to lend up to \$4.54 trillion to companies. These will make the balance sheet explode. 	https://ndea.mk/2x1VMCq

Fiscal package “Phase 3” breakdown



Nordea Research Fed Watch and relevant links

2 April: US Macro: The King abdicates

26 March: Global: Policy responses if the corona recession deepens

23 March: Fed Watch: Unlimited QE

16 March: Fed Watch: Cutting to zero and restarting QE!

13 March: Fed Preview: (at least) 75 bp or the markets will puke

3 March: Fed Watch: More easing is on its way

2 March: Fed Watch: Powell signals easing is coming – new Fed forecast

27 February: Fed Watch: How far are we from a policy response?

- *Overview of Fed monetary policy changes:*

<https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm>

- *Overview of New York Fed's TOMO and POMO announcements:*

https://www.newyorkfed.org/markets/op_policies.html

- *Overview of Fed TOMO schedules:*

<https://www.newyorkfed.org/markets/domestic-market-operations/monetary-policy-implementation/repo-reverse-repo-agreements/repurchase-agreement-operational-details>



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