Appendix 1: Materials used by Ms. Logan

Material for Briefing on

Financial Developments and Open Market Operations

Lorie Logan
Exhibits by Ashley Rhodes
April 28, 2020

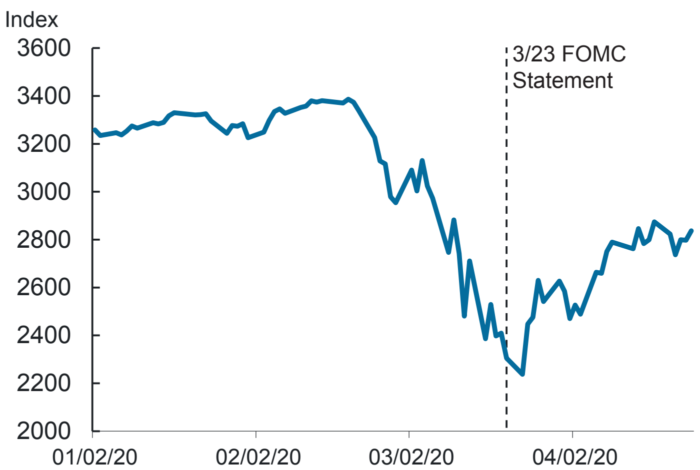
Overview

- Broad Market Developments
- Market Functioning
- Short-term Funding Markets
- Fed Balance Sheet
- Appendix

Broad Market Developments

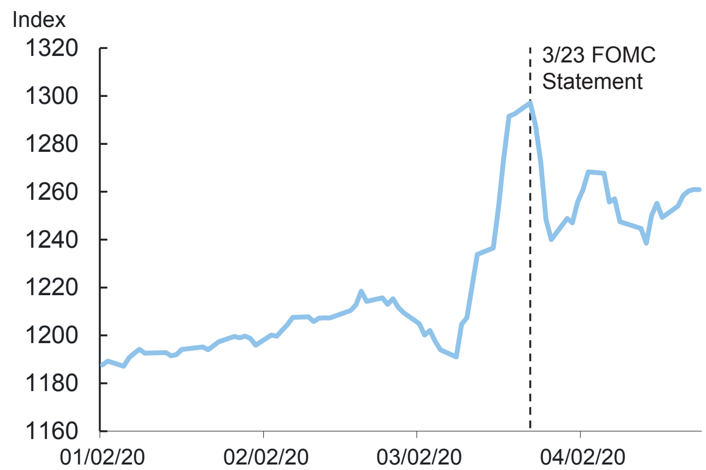
A partial rebound across markets

(1) S&P 500 Index



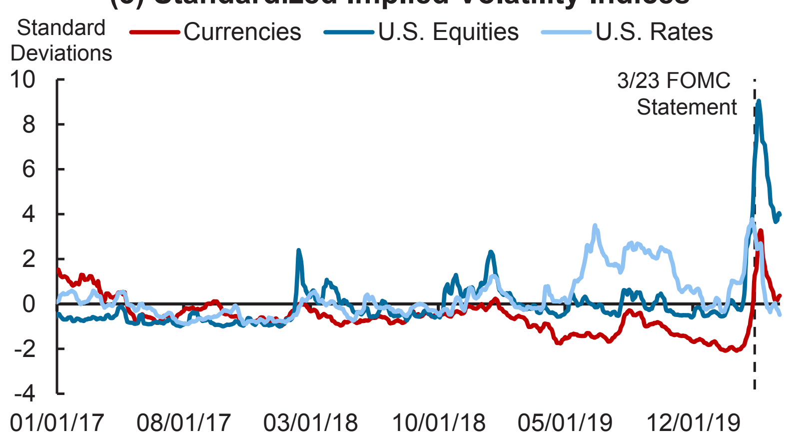
Source: Bloomberg

(2) Bloomberg Dollar Index



Source: Bloomberg

(3) Standardized Implied Volatility Indices



Note: Standardized implied volatilities since January 2012. Five-day moving average. U.S. equities: VIX Index. U.S. rates: 1m2y swaption volatility. Currencies: CVIX Index.
Source: Bloomberg

(4) Asset Table

	Since Mar. 23	YTD	Current Level
10Y Treasury Yield	-24 bps	-132 bps	0.60%
Fed 5Y5Y Breakeven	+32 bps	-32 bps	1.49%
S&P 500 Index	+23.1%	-12.2%	2837
IG Credit	-154 bps	+116 bps	209 bps
Bloomberg Dollar Index	-2.44%	+6.4%	1261
VIX Index	-30 ppts	+22 ppts	36

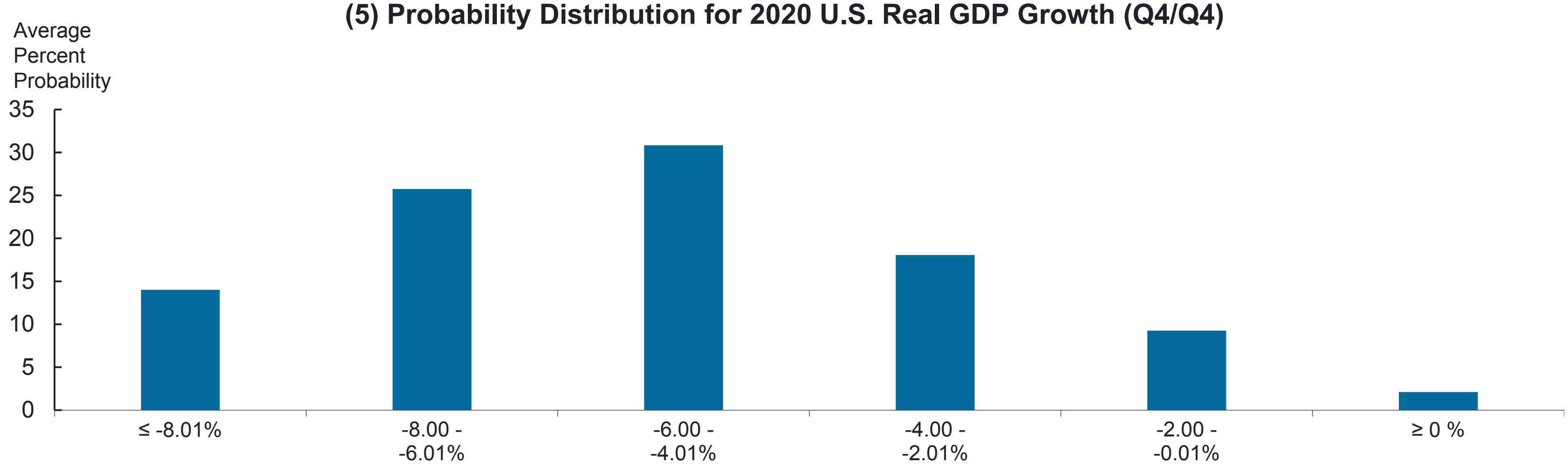
Note: Current Level pricing as of 04/24/20.
Source: Bloomberg

Factors supporting the market rebound

- Swift and forceful action taken by the Federal Reserve
  - Some in coordination with other authorities
- Series of significant fiscal policy measures
- Signs of slowing spread of the coronavirus in major economies
- Monetary and fiscal actions in foreign economies

Enormous uncertainty and key risks remain

(5) Probability Distribution for 2020 U.S. Real GDP Growth (Q4/Q4)

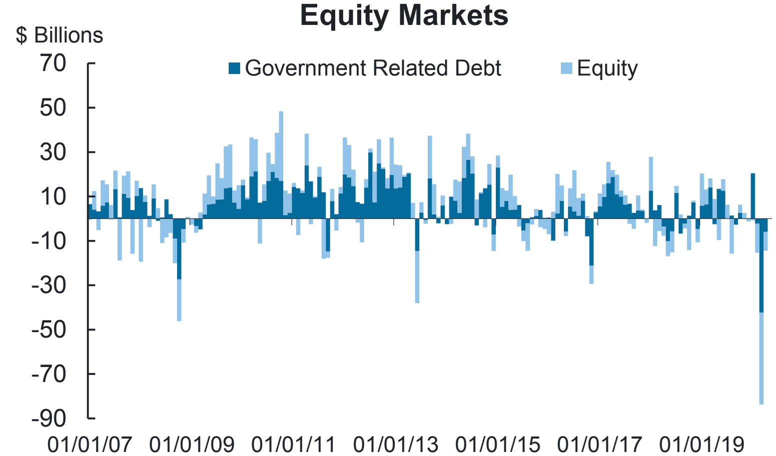


Note: Based on all responses to the Surveys of Primary Dealers and Market Participants.
Source: FRBNY

(6) Key Risks in Focus

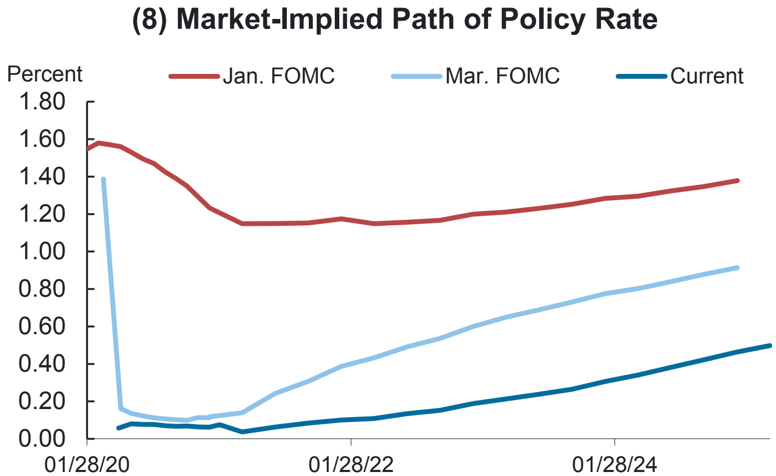
- Corporate credit
- Emerging markets
- Real estate and mortgage sectors

(7) Monthly EM Portfolio Flows to Local Debt and Equity Markets

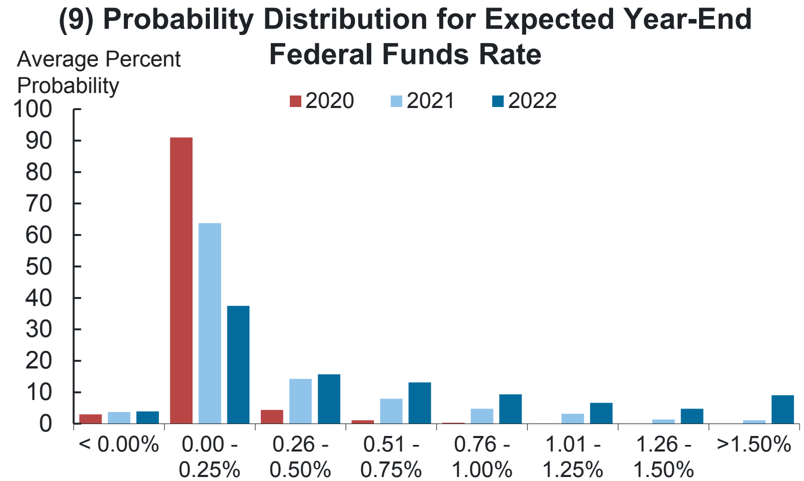


Note: Includes estimates for March and April.
Source: Exante

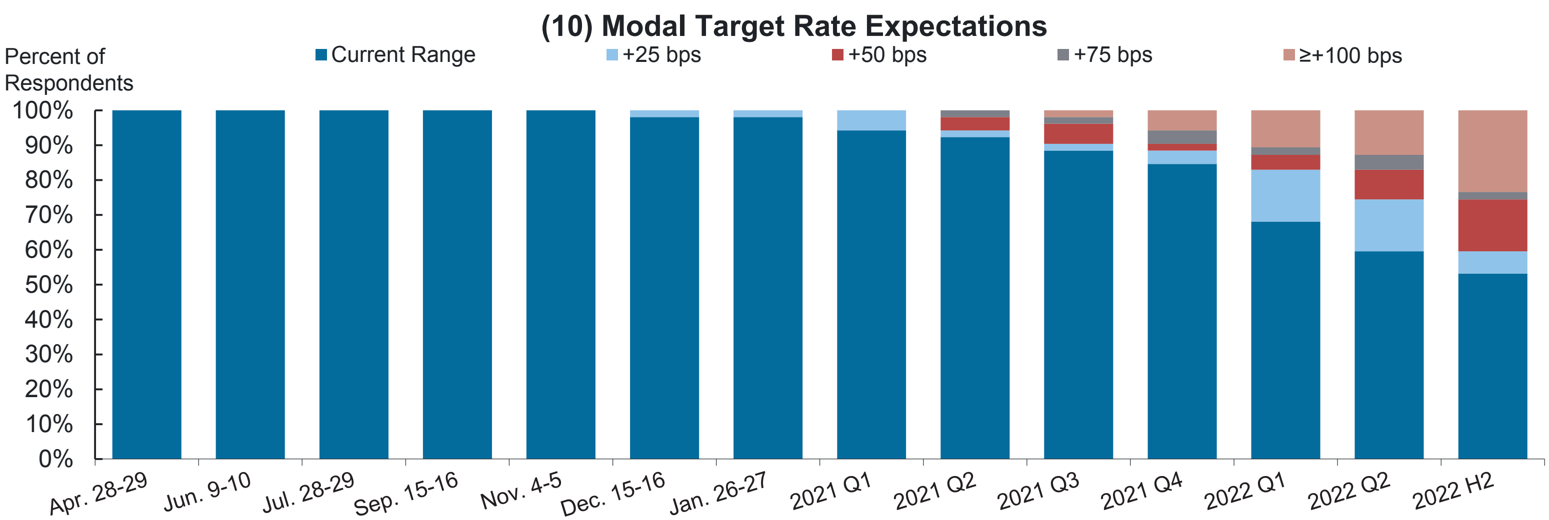
The target rate is expected to remain at the ZLB



Note: Derived from fed funds and Eurodollar futures contracts. March FOMC pricing as of 3/13/2020 market close.
Source: Bloomberg



Note: Based on all responses to the Surveys of Primary Dealers and Market Participants.
Source: FRBNY



Note: Based on all responses to the Surveys of Primary Dealers and Market Participants.
Source: FRBNY

Market Functioning

Market functioning and asset purchases

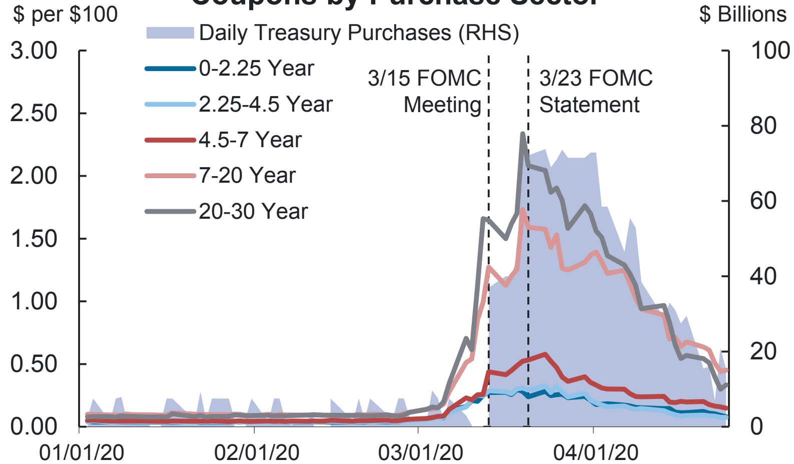
- Market functioning has improved notably
  - Underpinned by FOMC's commitment to support smooth functioning
  - Slowed purchases from very rapid initial pace
- Some measures are not back to pre-March levels
  - Some may not return to pre-crisis levels for a while
  - Adjustments to risk-taking in uncertain environment and remote working arrangements may affect market functioning
- If trends continue, expect further modest reduction in purchase pace
  - Some purchases likely needed through the June FOMC to sustain gains
  - Remain prepared to respond to additional shocks

Indicators to assess market functioning

- Liquidity measures
  - Whether market participants can transact at reasonable costs
    - Bid-ask spreads, price impact coefficients
- Relative value measures
  - Whether the prices of closely related securities are well connected
    - Cash-futures basis, spline errors, on-the-run to off-the-run yield spreads, MBS-Treasury yield spreads
- Balance sheet data
  - Whether some investor types are buying or selling in unusual volume
    - Dealer inventories, foreign official account holdings
- Results of Desk operations
  - Whether market participants have a strong desire to sell to the Desk
    - Offer-to-cover, favorable offer-to-cover

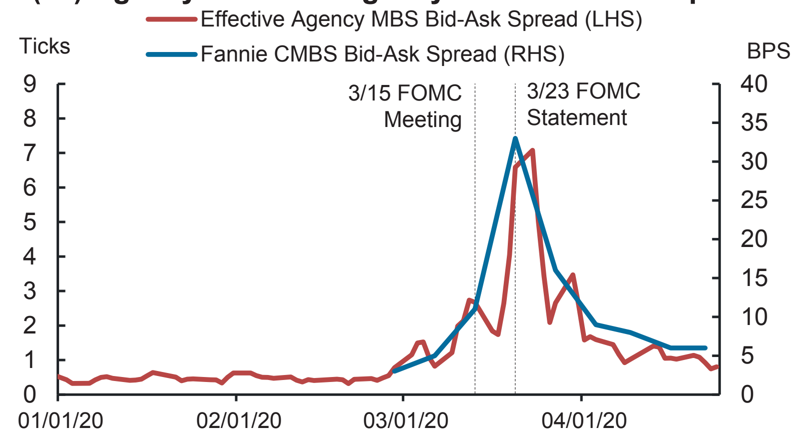
Notable improvement in market functioning

(11) Average Bid-Ask Spreads for Nominal Treasury Coupons by Purchase Sector



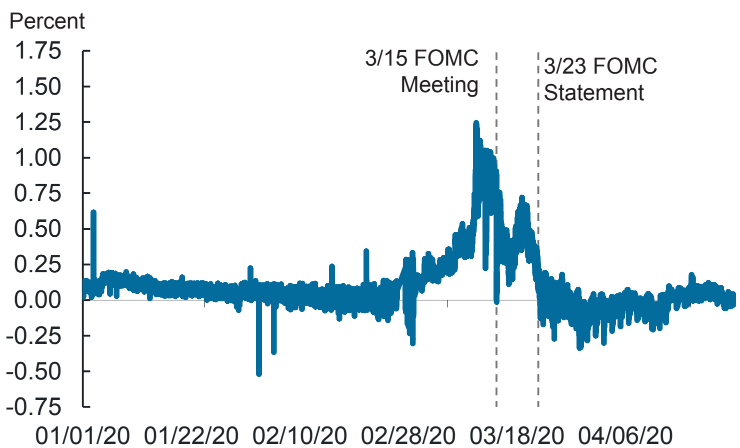
Source: FRBNY

(12) Agency MBS and Agency CMBS Bid-Ask Spreads



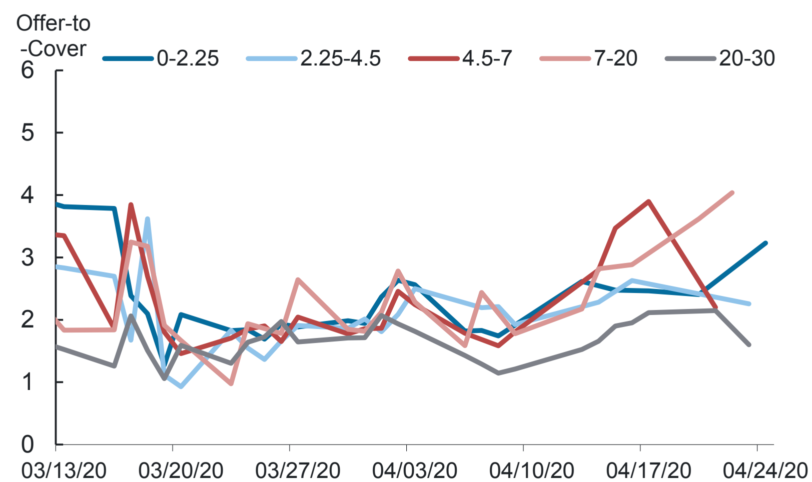
Note: Agency MBS spread is two-day moving average and includes dealer-to-client transactions for 30-year and 15-year TBA securities across agencies. Fannie CMBS bid-ask spread data based on representative sampling of dealers and starts on 02/28.
Source: Bloomberg, BlackRock, Desk Calculations, FINRA, TRACE

(13) Treasury Cash-Futures Basis



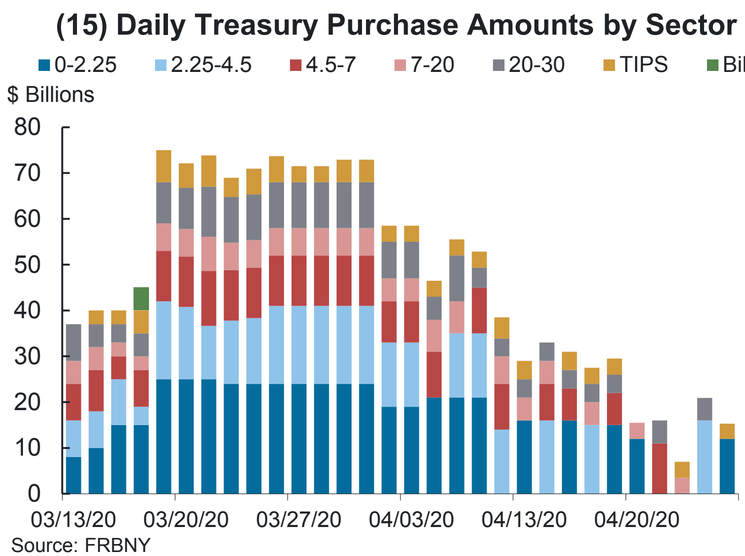
Note: 5-year futures contract implied repo rate spread to 3-month OIS; reference contract changes in March due to contract roll.
Source: Bloomberg, Desk Calculations

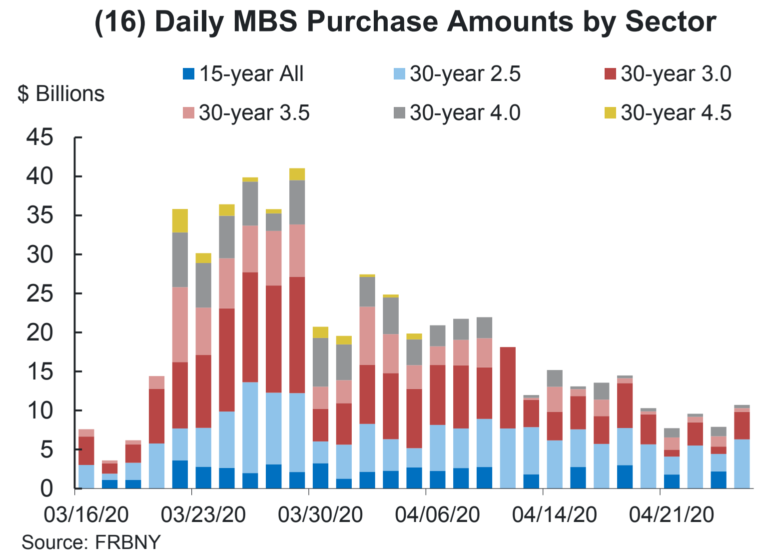
(14) Offer-to-Cover in Desk Treasury Purchases by Sector

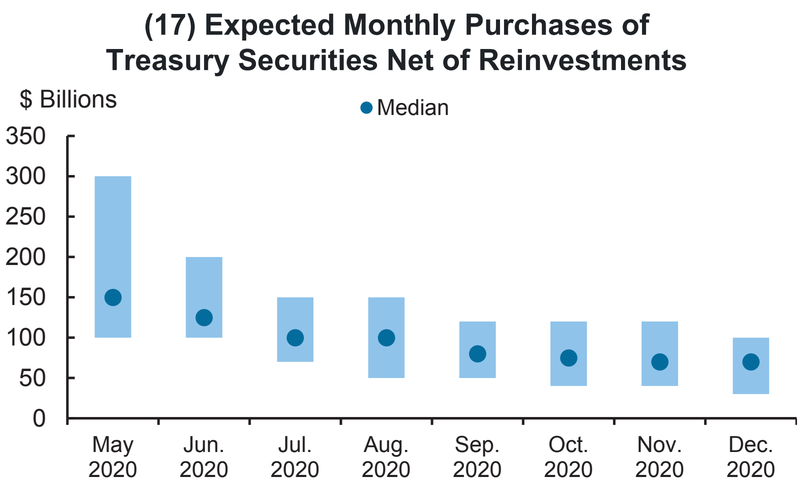


Source: FRBNY

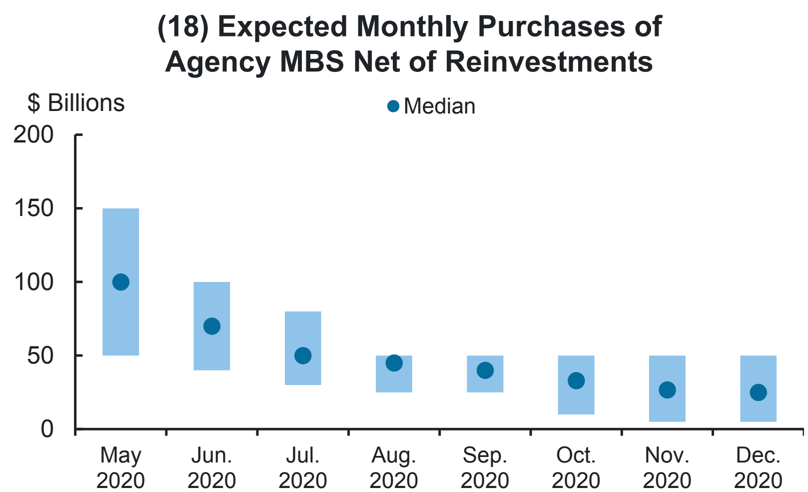
Purchase pace has slowed







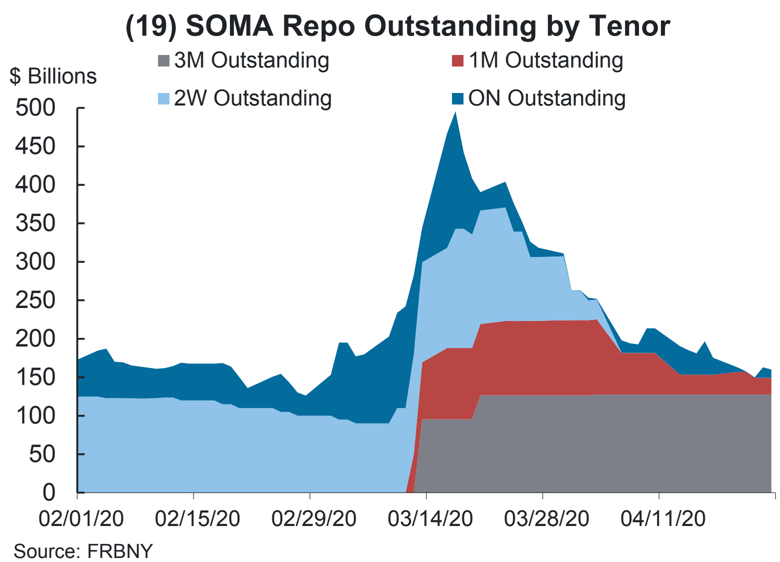
Note: Based on all responses to the Surveys of Primary Dealers and Market Participants. The light blue bars represent the middle 50% of responses.
Source: FRBNY

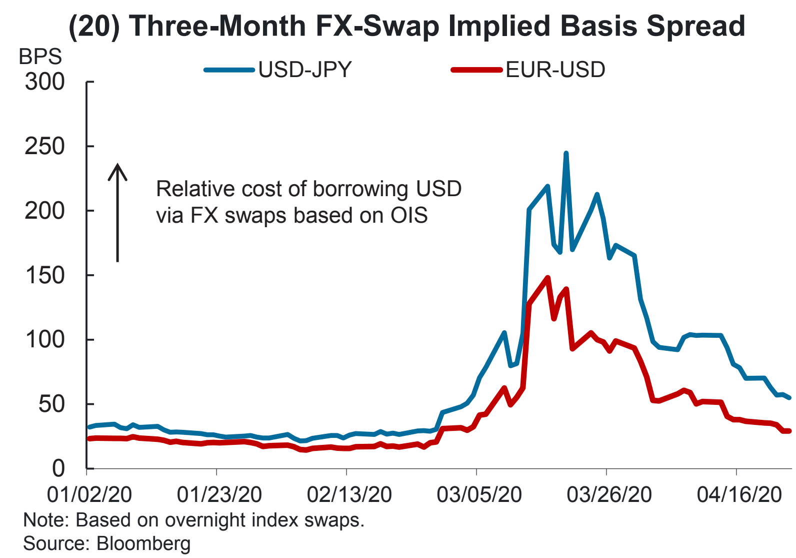


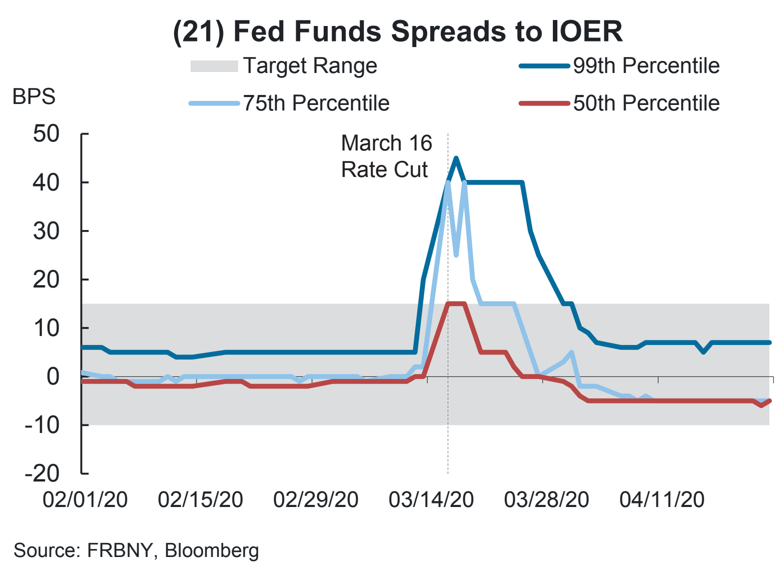
Note: Based on all responses to the Surveys of Primary Dealers and Market Participants. The light blue bars represent the middle 50% of responses.
Source: FRBNY

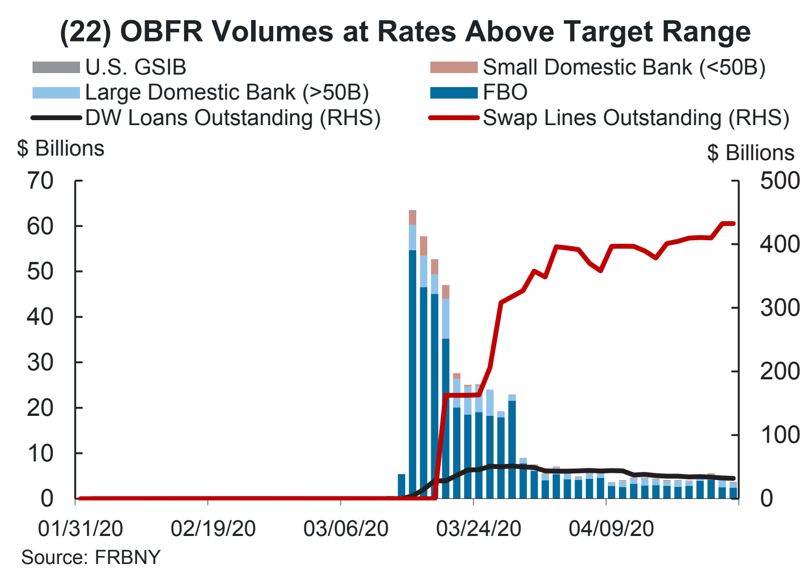
Short-term Funding Markets

Fed actions support functioning and rate control

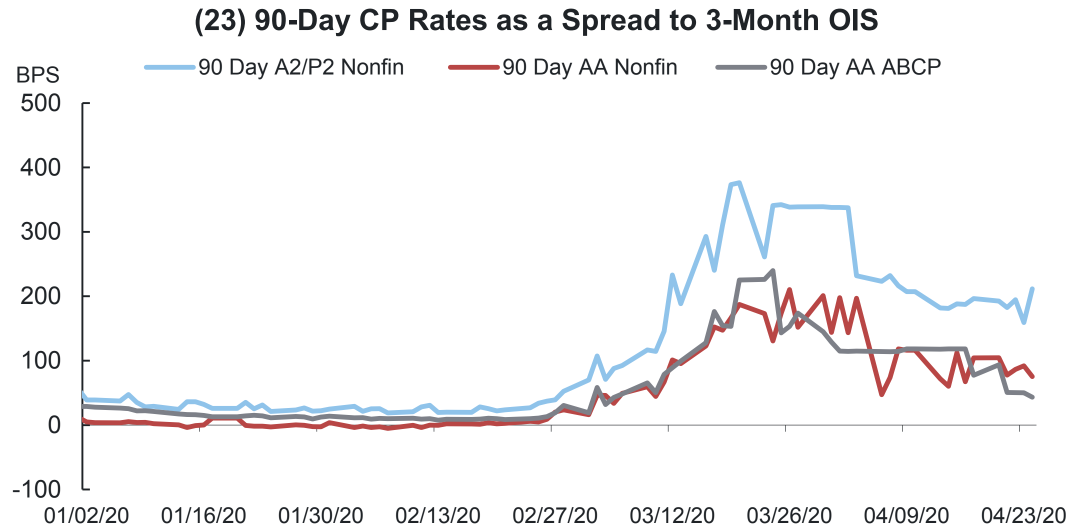




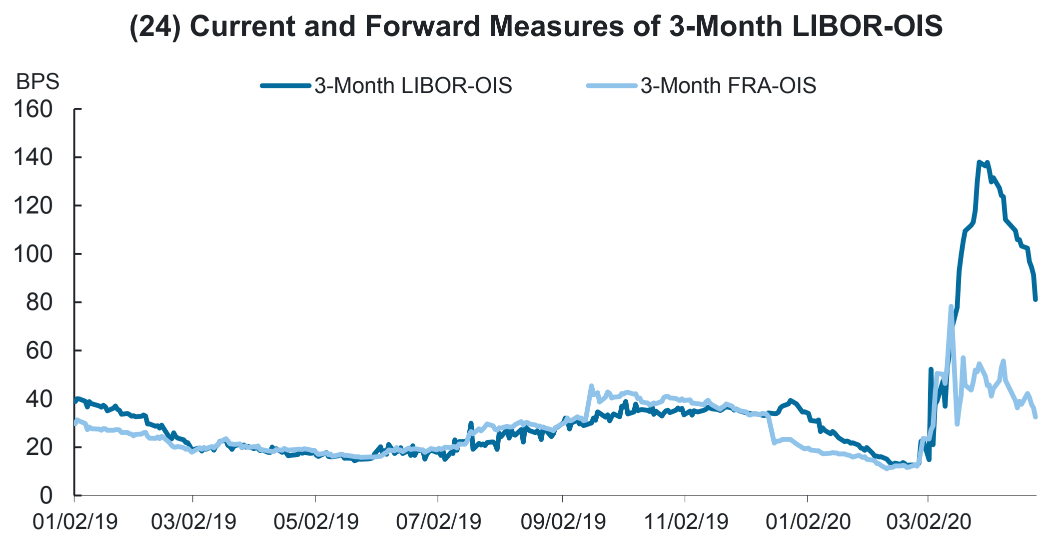




Some term funding rates remain elevated



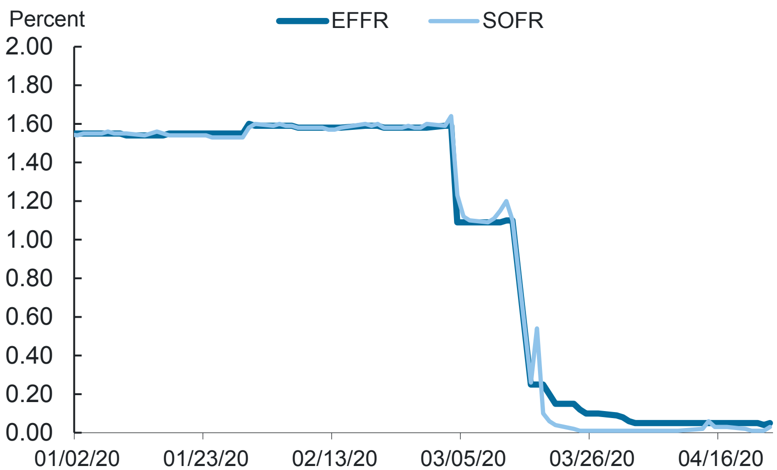
Source: Federal Reserve Board



Source: Bloomberg

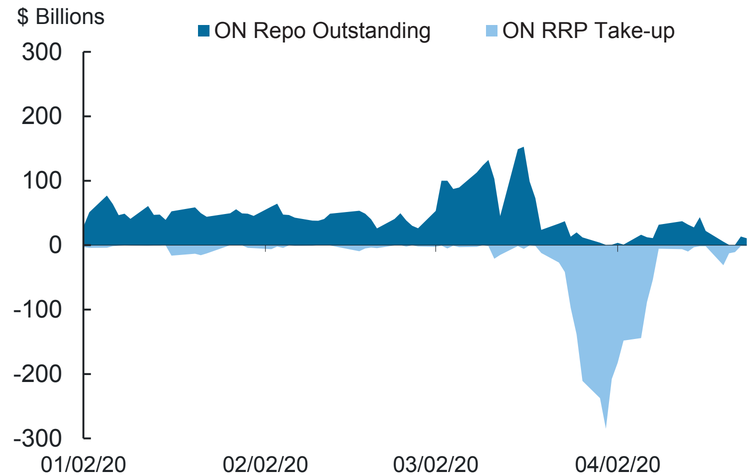
Policy implementation effective at the ZLB

(25) Level of Overnight Rates



Source: Bloomberg

(26) Overnight Repo and Reverse Repo



Source: FRBNY

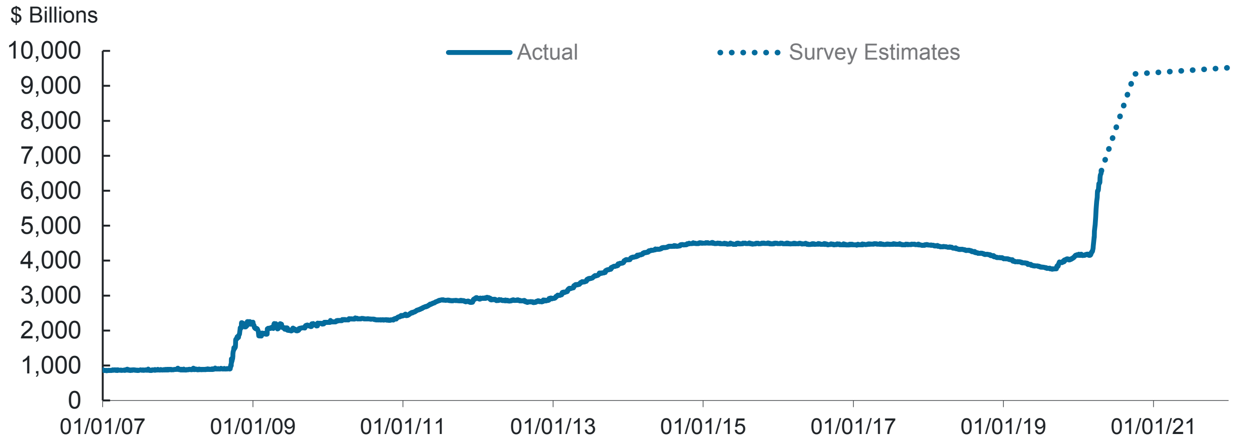
(27) Potential Adjustments

1. Raise minimum bid rate to position repo operations as backstop
2. Provide flexibility to raise ON RRP counterparty cap, if needed
3. Some market participants expect a technical adjustment—no current market functioning concerns that would necessitate a move

Fed Balance Sheet

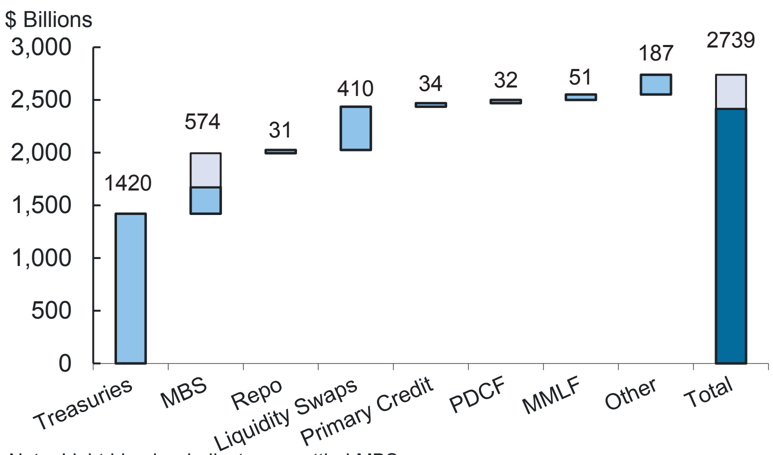
Unprecedented balance sheet growth

(28) Federal Reserve Balance Sheet



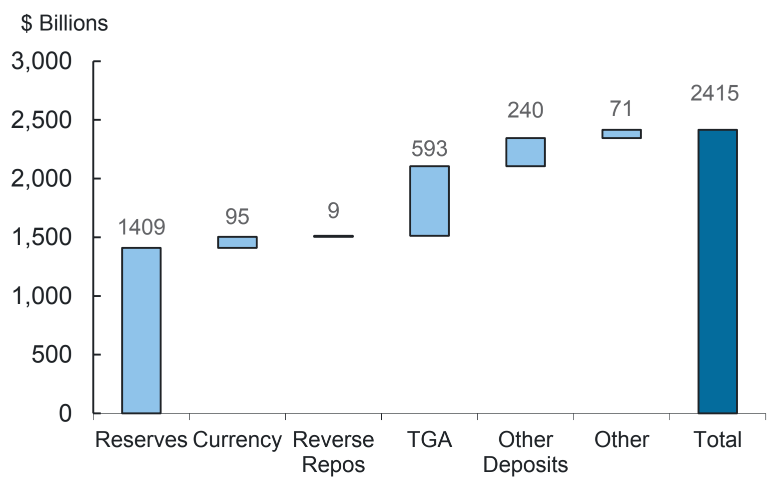
Note: Estimates based on all responses to the Surveys of Primary Dealers and Market Participants.
Source: FRBNY

(29) Change in Federal Reserve Assets Since 02/28/20



Note: Light blue bar indicates unsettled MBS.
Source: Federal Reserve Board of Governors

(30) Change in Federal Reserve Liabilities Since 02/28/20



Source: Federal Reserve Board of Governors

Appendix

Appendix

(1) Summary of Operational Testing

Summary of Operational Tests in prior period:

- No small value tests were conducted

Upcoming Operational Tests:

- One test scheduled under the Domestic Authorization
    - May 21: Securities lending (using the backup tool) for up to $120 million
    - May 26 and 27: Coupon swap with unsettled MBS holdings for up to $20 million, total
- Three tests scheduled under the Foreign Authorization
    - May 21: Yen-denominated sovereign debt purchase for ¥300 million
    - May 21: Yen-denominated sovereign sale to private counterparties for ¥300 million
    - May 26: Euro-denominated repo with private counterparties for €7.5 million

(2) FX Intervention

- There were no intervention operations in foreign currencies for the System's account during the intermeeting period.

Appendix 2: Materials used by Mr. Lehnert

Class II FOMC - Restricted (FR)

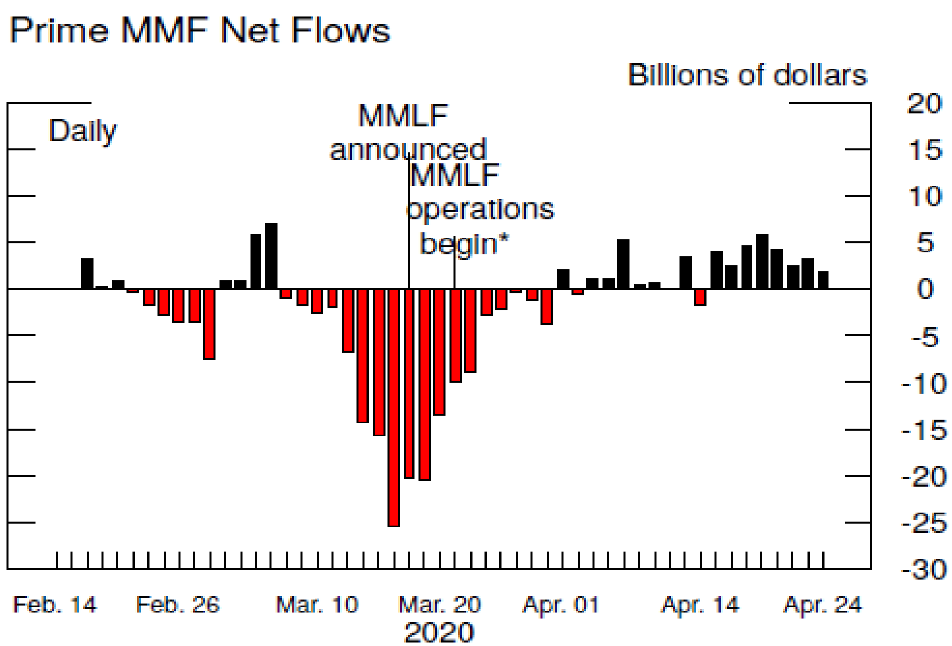
Material for Briefing on

Financial Stability

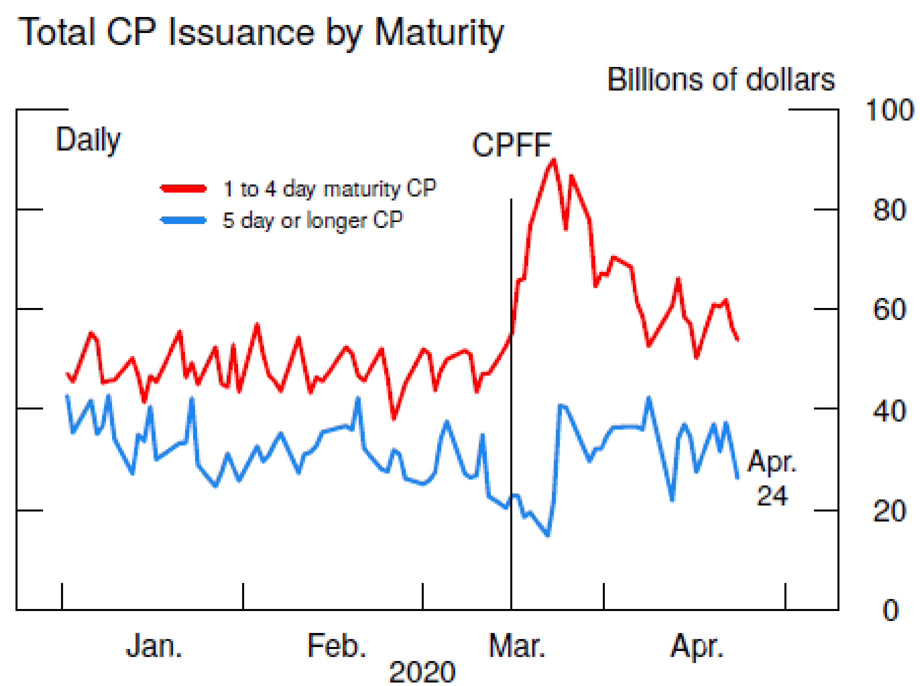
Andreas Lehnert
Exhibits by Morgan Elliott and Kevin Kiernan
April 28, 2020

Facility	Date Initial Term Sheet Published	Announced Treasury Backstop ($ billions)	Potential Size as Announced ($ billions)	Status	Size as of 4/22/2020 ($ billions)
CPFF	3/17/2020	10		Operating	3
PDCF	3/17/2020	N/A		Operating	32
MMLF	3/18/2020	10		Operating	49
TALF	3/23/2020	10	100	Implementation	
PM/SM CCF	3/23/2020	75	750	Implementation	
MLF (Munis)	4/9/2020	35	500	Implementation	
Main Street	4/9/2020	75	600	Implementation	
PPP-LF	4/9/2020	N/A	659	Operating	8

Redemptions from money funds were heavy, CP markets showed strains

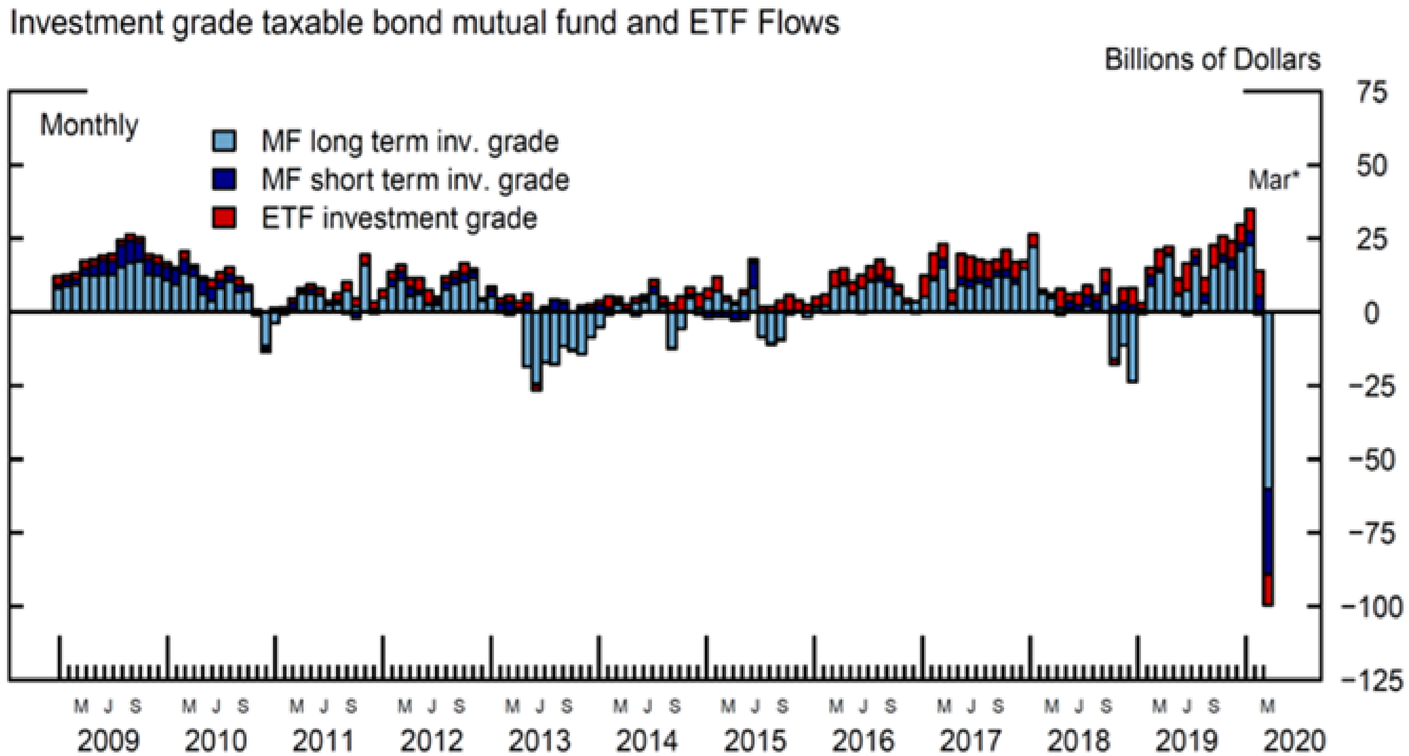


* MMLF operations began on March 23. On the same day, the Federal Reserve announced that the MMLF would be expanded to include NCDs and variable-rate demand notes.
Source: iMoneyNet.

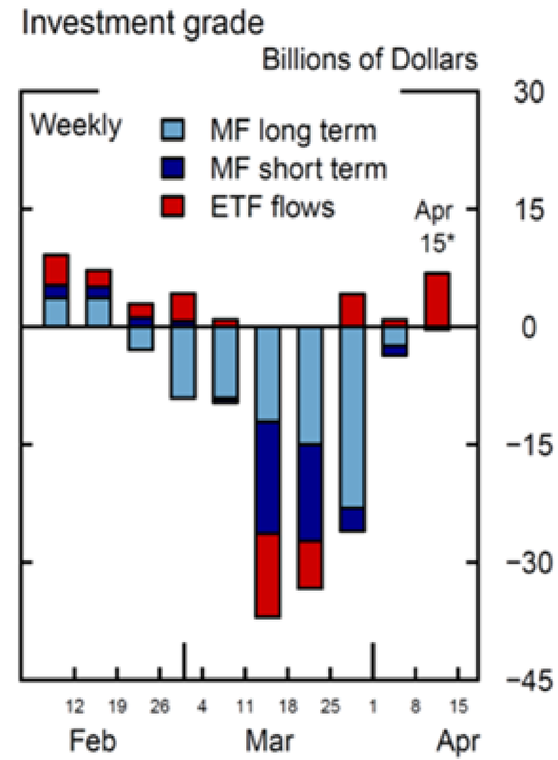


Source: Depository Trust & Clearing Corporation.

Long-term bond funds also showed strains



Monthly data from the Investment Company Institute (ICI)
*Most recent month estimated from weekly data.

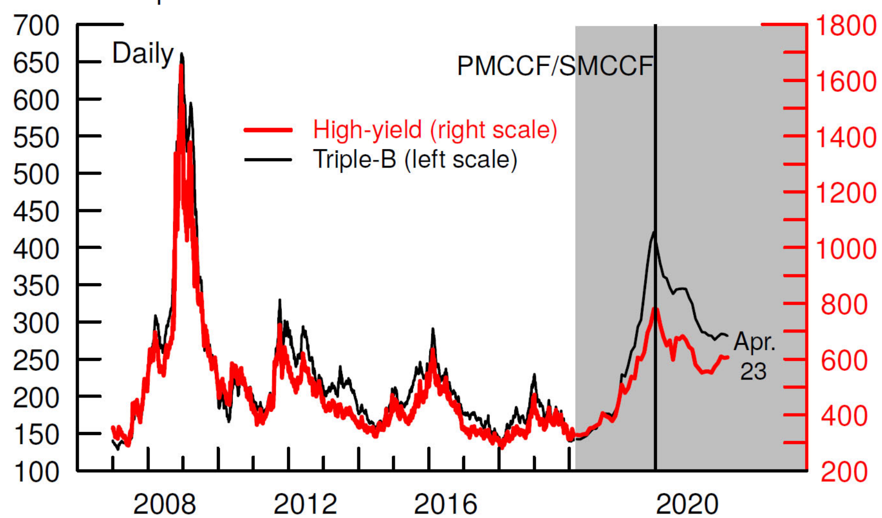


* Preliminary
Weekly ETF data from Morningstar Direct.
Weekly MF data from ICI.

Asset valuations

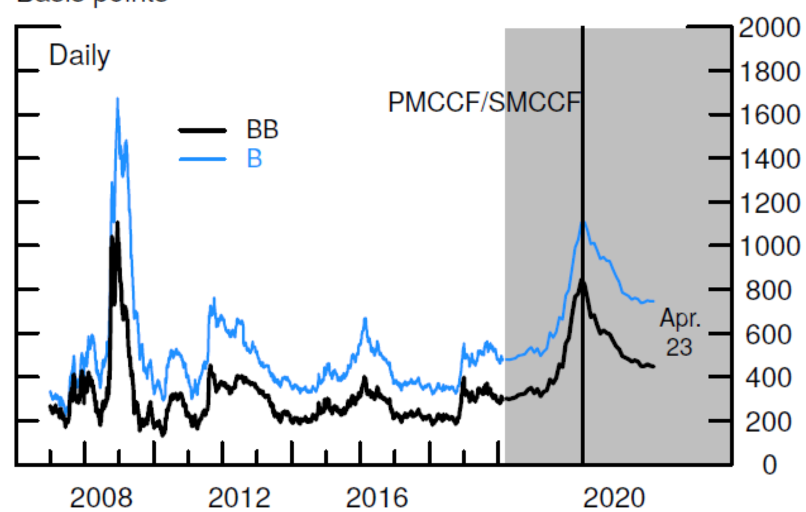
Spreads on corporate bonds and loans

10-Year Corporate Bond Spreads
Basis points



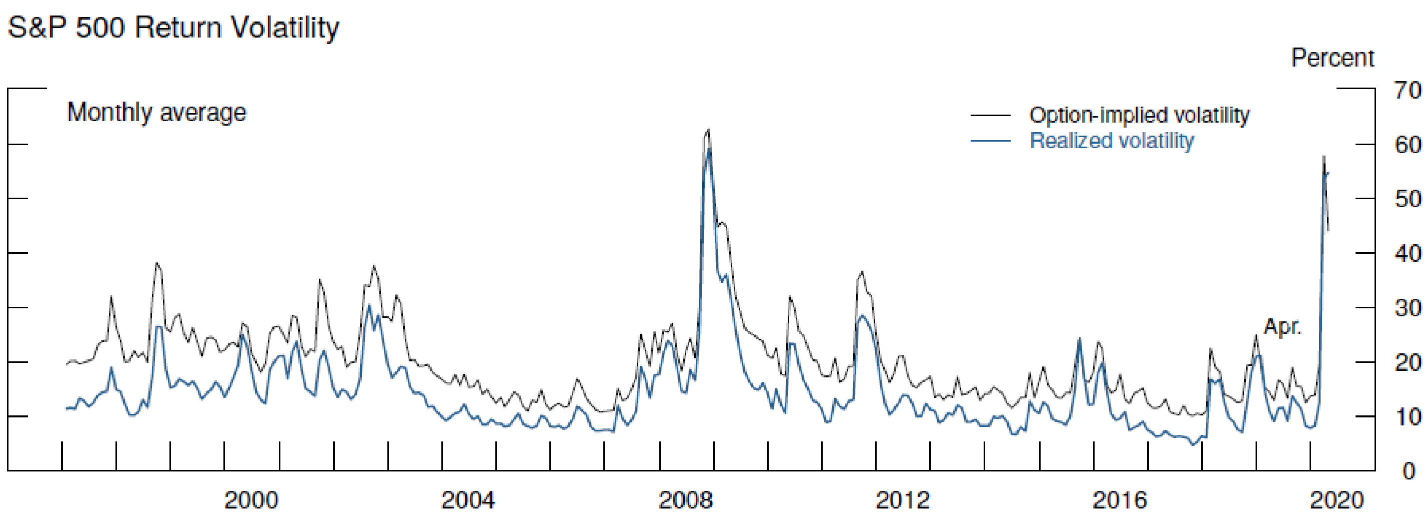
Note: The shaded gray area represents an expanded window focusing on the period from February 17th onwards. Spreads over 10-year Treasury yield.
Source: Merrill Lynch; FRBNY; Board staff calculations.

Leveraged Loans: Spread
Basis points



Note: The shaded gray area represents an expanded window. JPM defines spread as the constant spread over a zero curve which is used to equate discounted loan cashflows to the current market price.
Source: JP Morgan Markets, JPM Leveraged Loan Index.

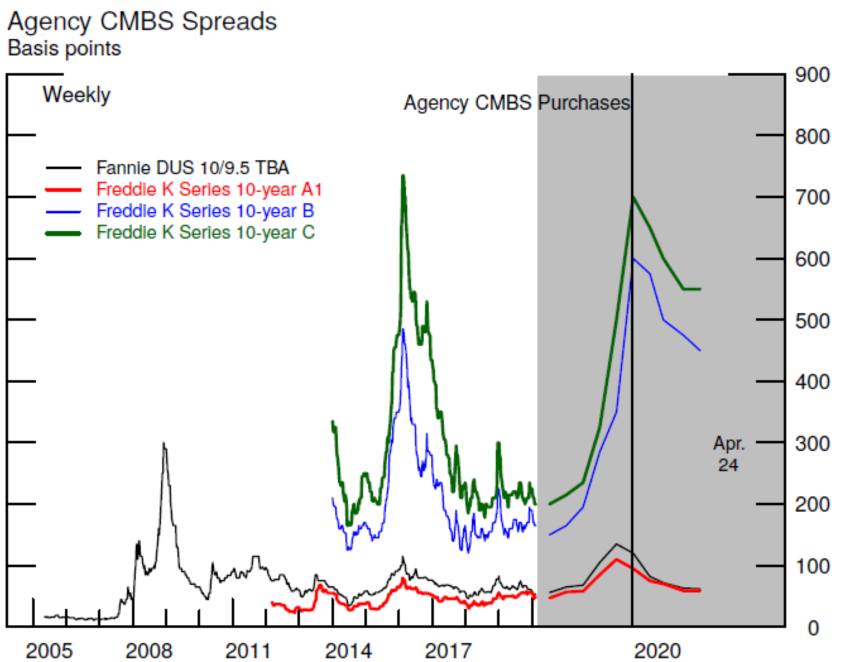
Equity valuations



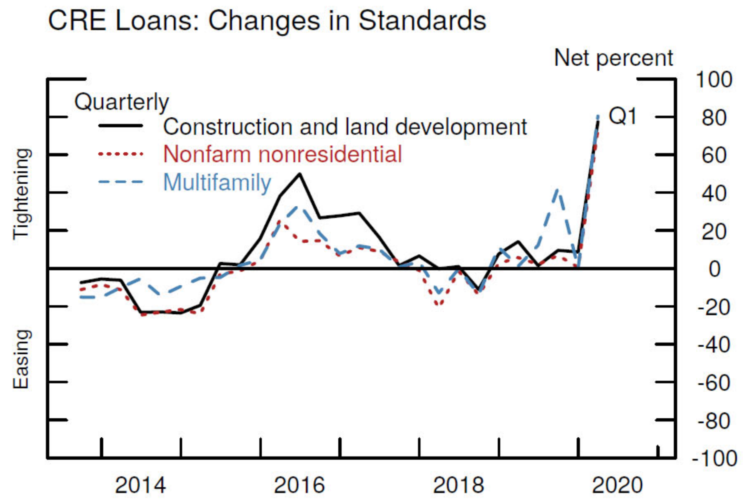
Note: Realized volatility estimated from five-minute returns using an exponentially weighted moving average with 75 percent of the weight distributed over the past 20 days.
Source: Bloomberg Finance LP.

* Aggregate forward price-to-earnings ratio of S&P 500 firms. Based on expected earnings for twelve months ahead. + Denotes the latest daily observation. Source: Staff calculations using data from Thomson Reuters Financial.

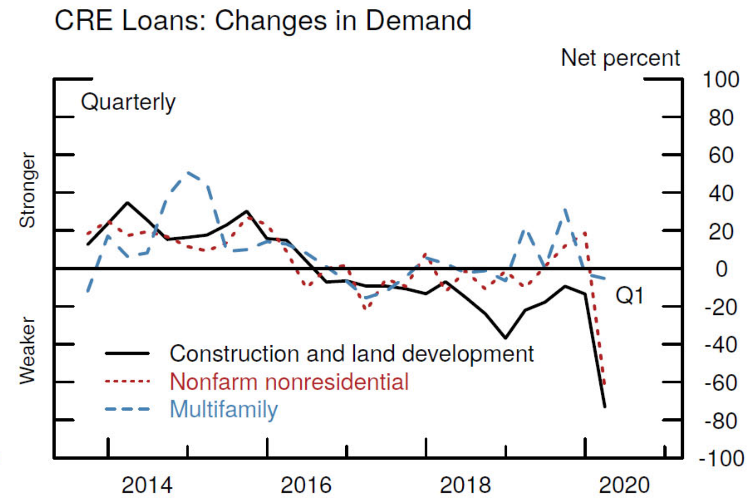
Commercial real estate



Note: The shaded gray area represents an expanded window from February 17th onwards.
Source: J.P. Morgan.



Source: Senior Loan Officer Opinion Survey.

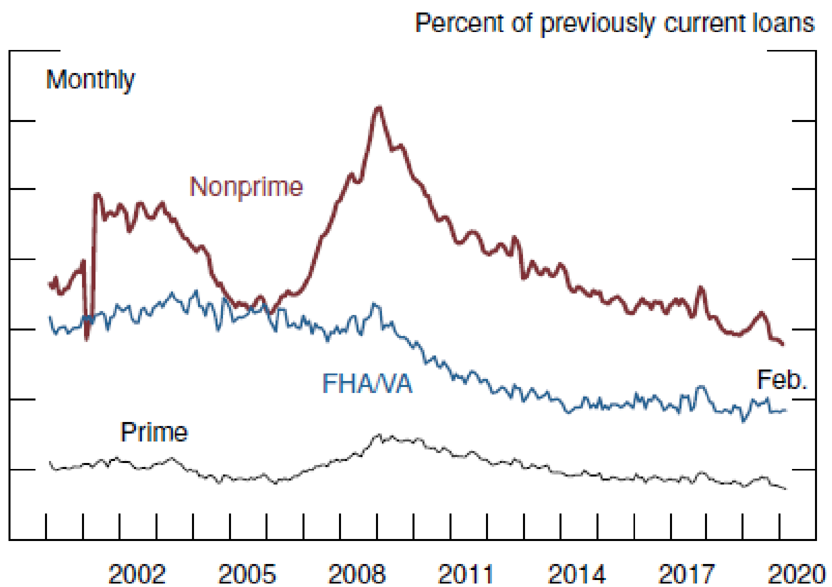


Source: Senior Loan Officer Opinion Survey.

Household and business borrowing

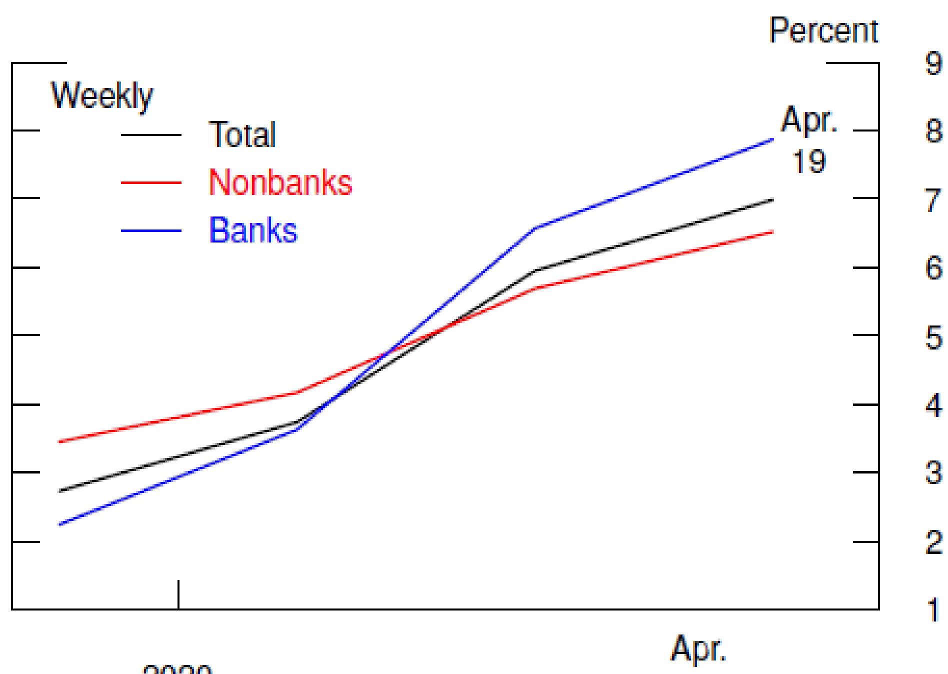
Mortgage delinquencies low ahead of rising forbearance

Transition Rates into Mortgage Delinquency



Note: Percent of previously current mortgages that transition from being current to being at least 30 days delinquent each month. The data are three-month moving averages. FHA is Federal Housing Administration; VA is U.S. Department of Veterans Affairs. Prime and nonprime are defined among conventional loans.
Source: For prime and FHA/VA, Black Knight McDash Data; for nonprime, CoreLogic.

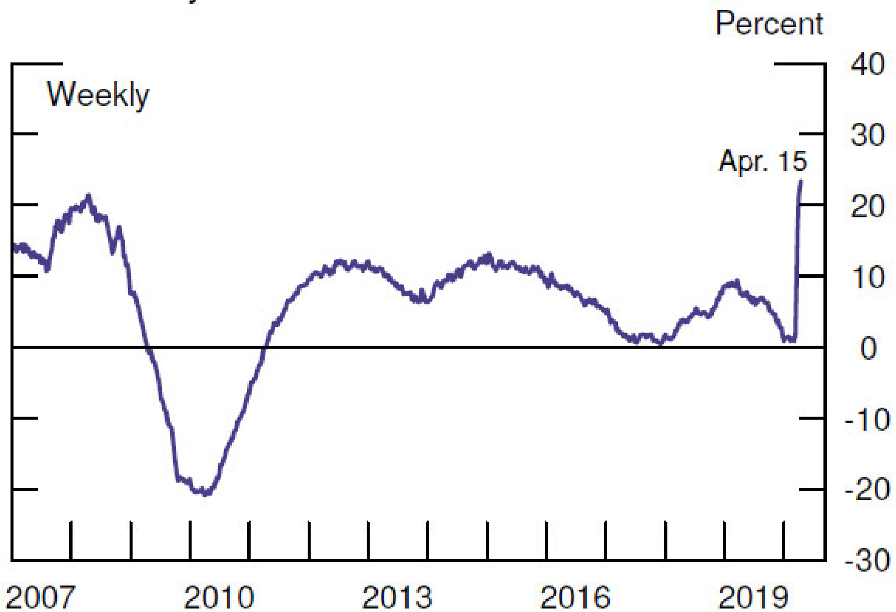
Percent of Loans in Forbearance



Source: Mortgage Bankers Association

Draws on bank business lines of credit

Year-over-year Growth in Commercial and Industrial Loans



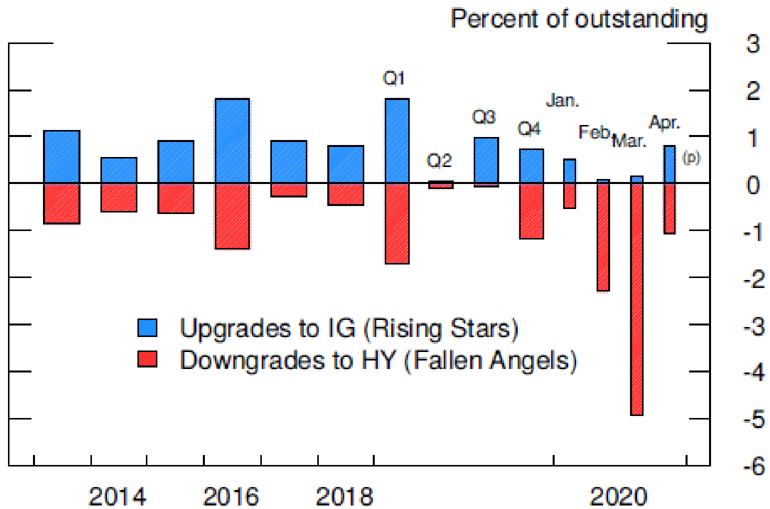
Source: H.8

Sector	Credit Lines as of December 2019		Estimated Percent Utilized as of April 2020 (percent)
	Credit Line ($bn)	Percent Utilized (percent)	
Nonbank Financial Institutions	996	45	46
Nonfinancial Firms	2558	31	40
Trade, Transportation and Utilities	839	39	45
Manufacturing	766	24	34
Mining, Quarrying and Oil and Gas	162	31	38
Leisure and Hospitality	87	38	77
Other	703	29	35
All industries	**3554**	**35**	**41**

Source: FR-Y-14Q Corporate Schedule, S&P Global, Leveraged Commentary & Data

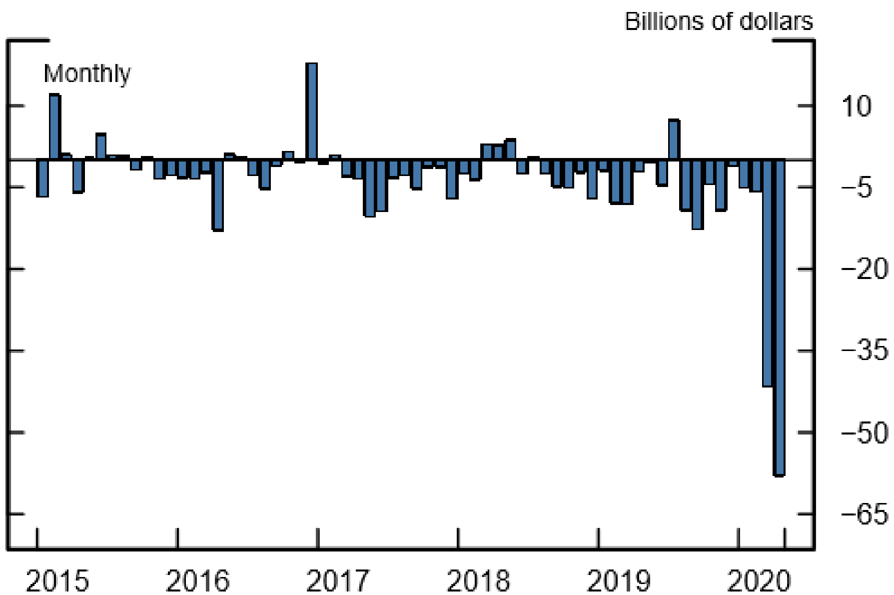
Downgrades on bonds and loans

Nonfinancial Fallen Angels and Rising Stars



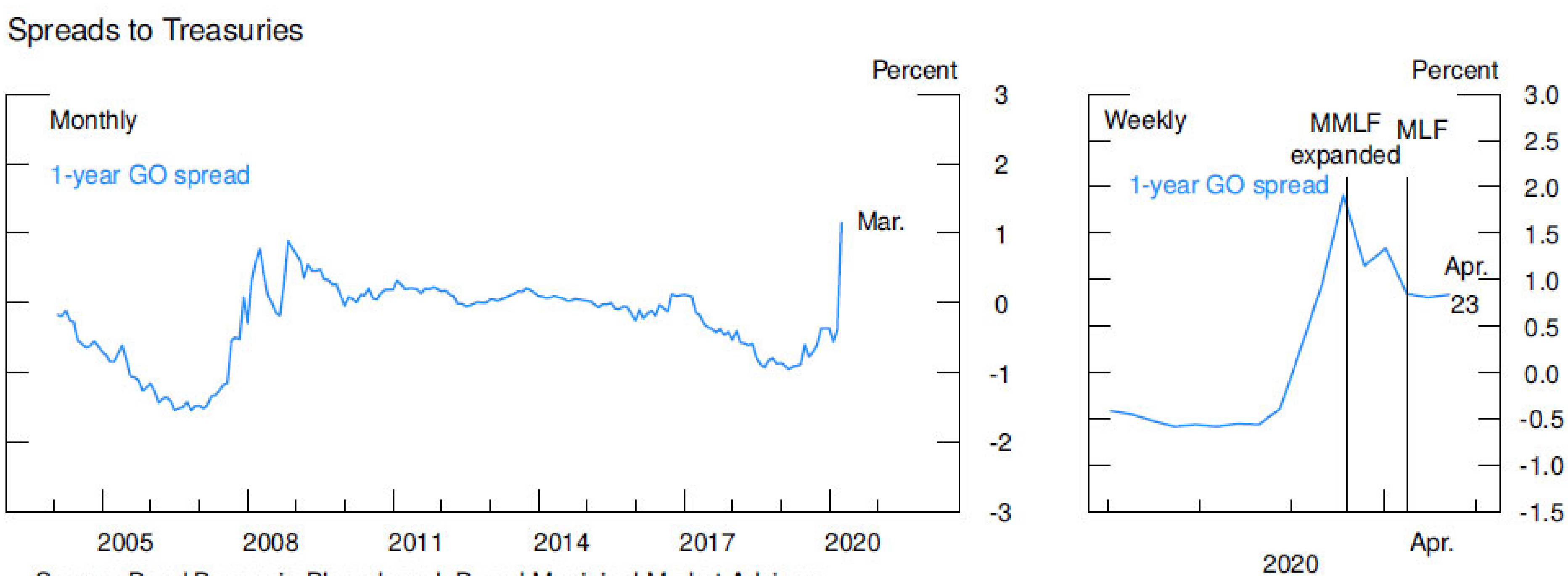
(p) Preliminary.
Note: Fallen Angels are investment-grade bonds that are downgraded to speculative grade status. Rising Stars are the opposite. Data are reported at an annual rate.
Source: Mergent's FISD.

Net Leveraged Loan Ratings Changes



Note: Positive (negative) values represent upgrades (downgrades). Data does not include investment grade loans. The face value of the loan is used to calcualte the total volume. If a loan is upgraded multiple times in a month, it is only counted once and the terminal monthly rating is used. Date are through Apr 2020.
Source: S&P Leveraged Commentary & Data.

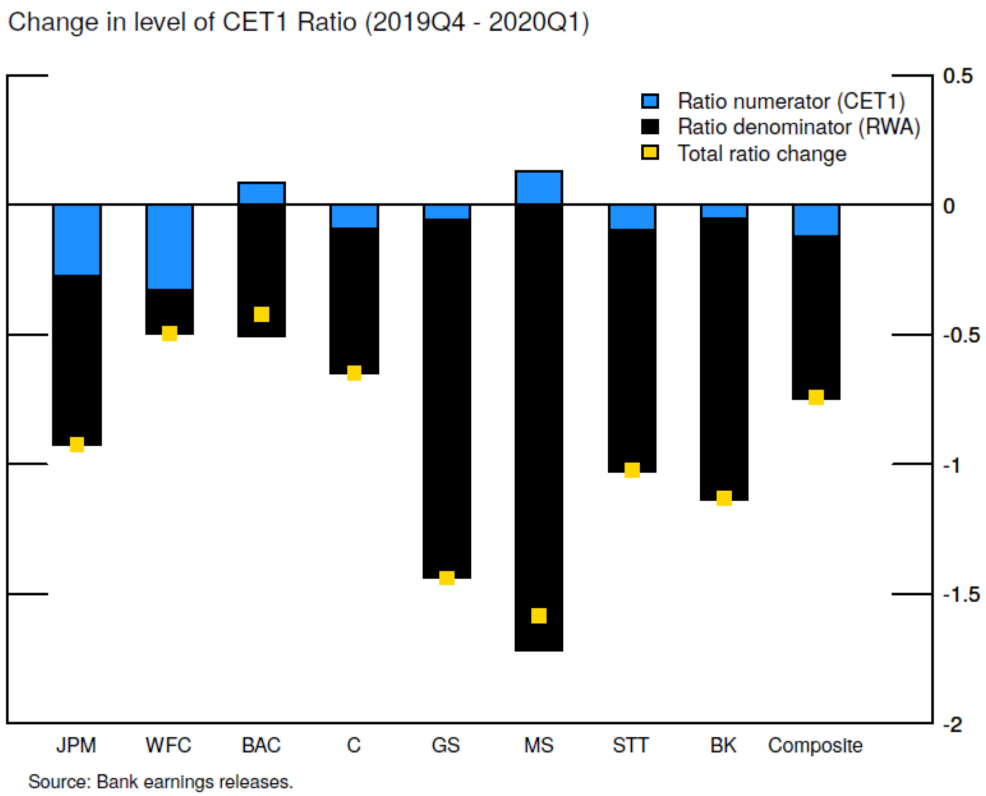
Spreads on munis spiked

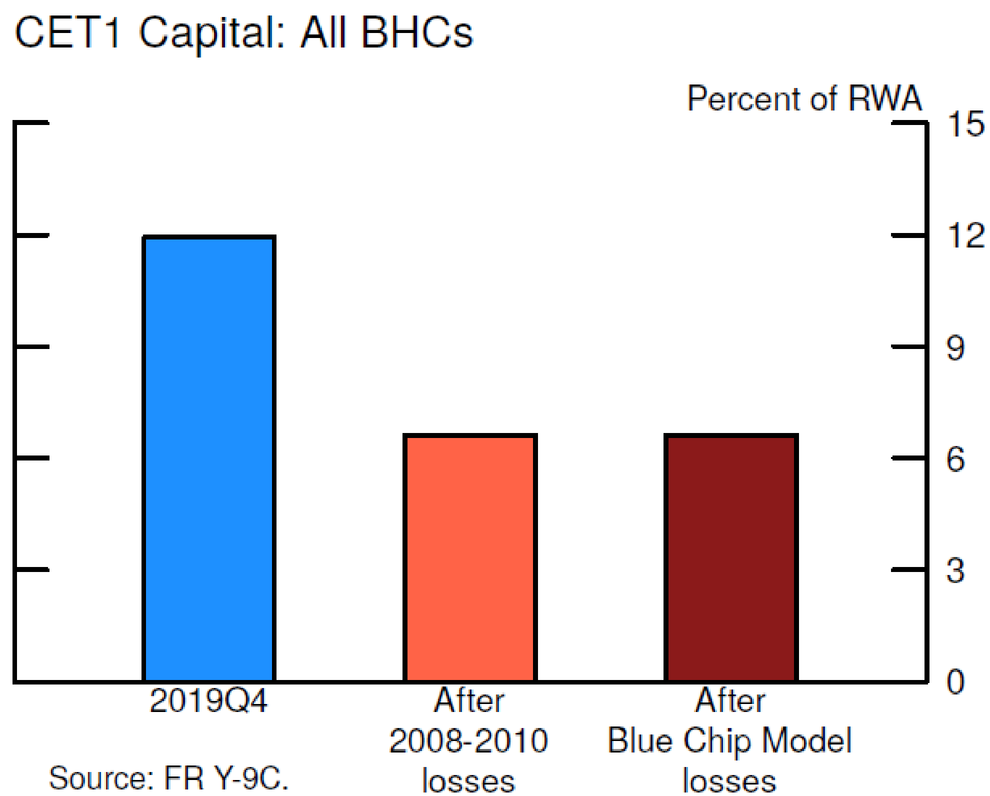


Source: Bond Buyer via Bloomberg L.P. and Municipal Market Advisors

Financial system resilience

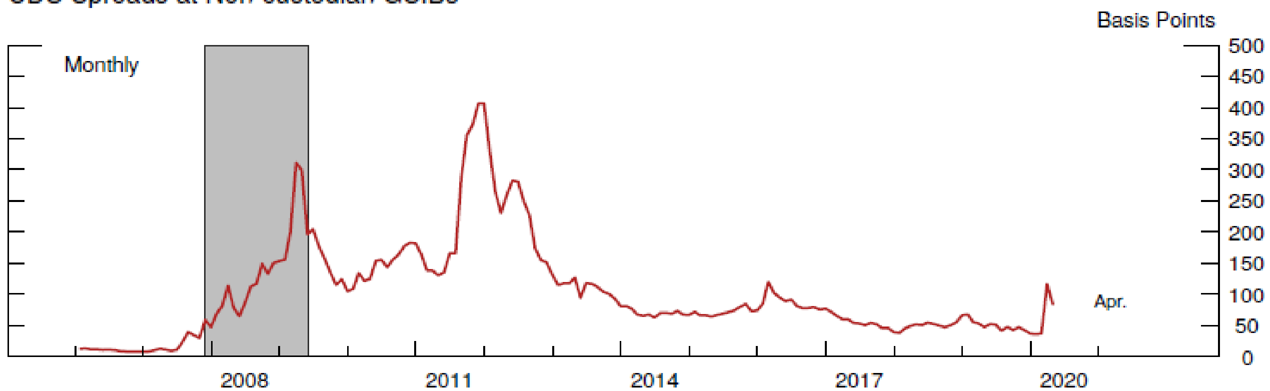
Bank capital ratios





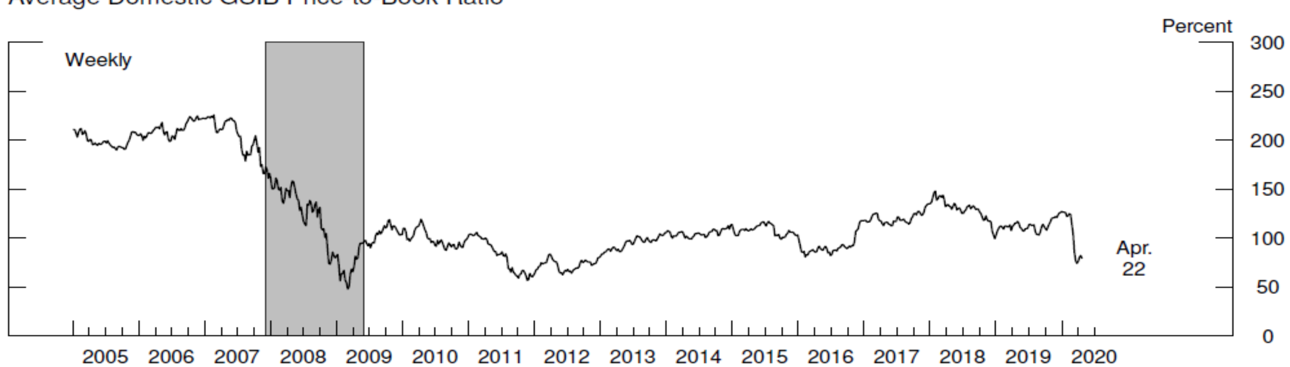
Bank CDS spreads low, but so is price-to-book

CDS Spreads at Non-custodian GSIBs



Note: The banks included are JPM,BAC,WFC,C,GS,MS.
Source: Markit.

Average Domestic GSIB Price-to-Book Ratio



Source: S&P Global.

What next?

Shoes that might drop

- Mortgage servicers
- Insurance companies
- Leveraged intermediary in distress

Appendix 3: Materials used by Mr. Roberts

Class II FOMC - Restricted (FR)

Material for

Staff Presentation on the Domestic Economic Situation

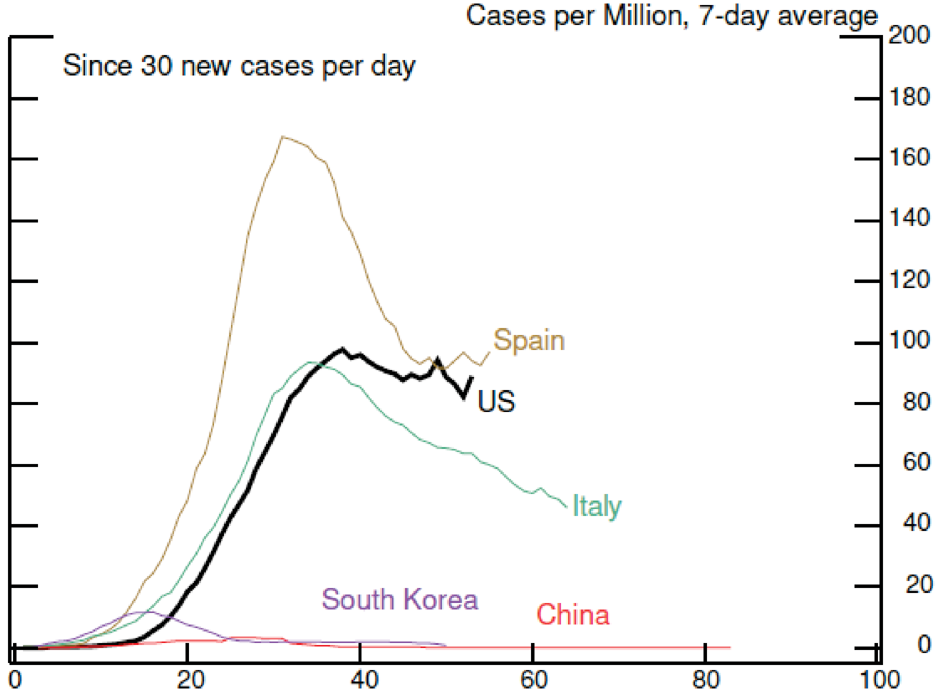
John M. Roberts
Exhibits by Rosemary Rhodes and Ashley Sexton
April 28, 2020

Overview

- We've learned a lot in the past eight weeks.
- Even so, uncertainty is enormous.
    - Uncertainty about the course of the disease and society's response
    - Uncertainty about how the economy will respond
- Briefing will review what we know, the staff's interpretation, and risks

What we know: The disease

New Reported Cases Relative to Population



Source: Our World in Data.

The staff's baseline scenario

Gottlieb et al.

Criteria for relaxing stay-at-home orders:

1. 14-day drop in new cases
2. Hospitals can safely treat all patients
3. Testing and contact tracing are in place.

First two likely to be met by mid-May.

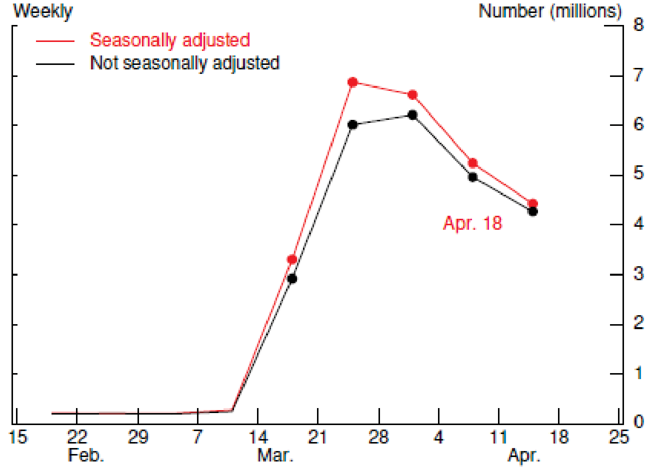
Third is a higher hurdle.

Staff Assumptions

- (Nearly) nationwide stay-at-home orders through May 31
- Gradual state-by-state relaxation thereafter
- Stay-at-home orders fully lifted by September
- Important social distancing remains in place until late 2021

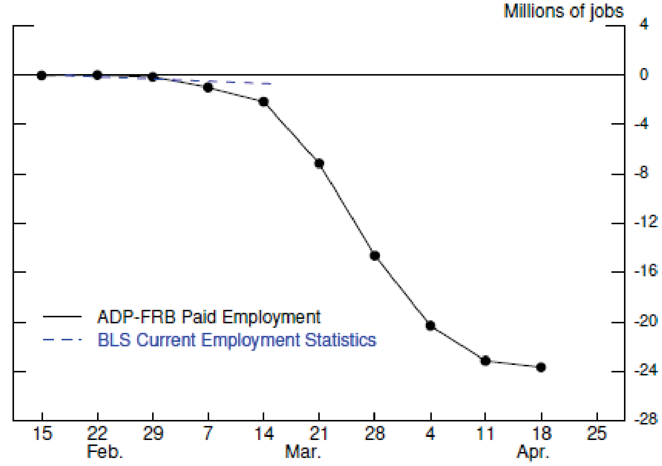
What we know: The labor market

Initial Claims for Unemployment Insurance



Source: U.S. Department of Labor, Employment and Training Administration.

Cumulative Job Loss since Feb. 15, 2020



Note: Paid employment includes workers who were issued a paycheck in a given pay period.
Source: BLS; FRB estimates of ADP data.

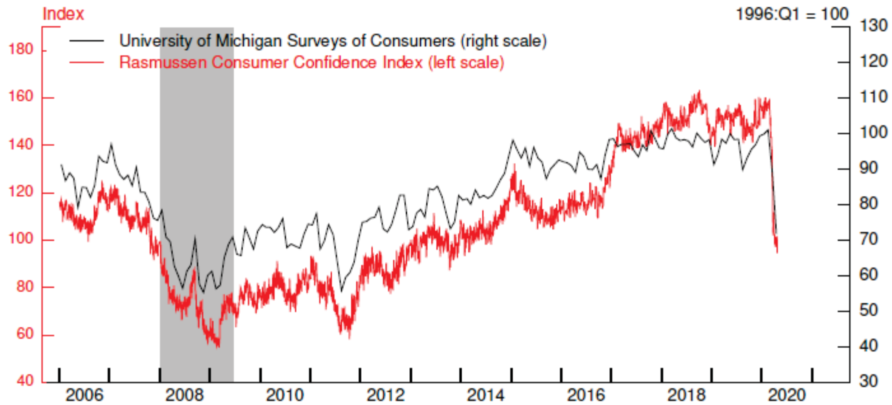
Near-term Labor Market Forecast

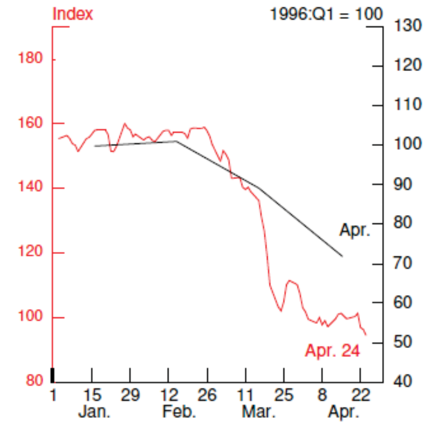
	Mar.	Q1	Apr.[f]	May[f]	Jun.[f]	Q2[f]	Q3[f]
1. Payroll employment[1]	-700	-70	-21,640	-3,280	7,590	-5,770	2,350
2. Unemployment rate	4.4	3.8	16.1	18.3	13.8	16.0	11.1

1. Average monthly change, thousands, rounded to nearest 10,000. f. Staff forecast.

What we know: Spending and production

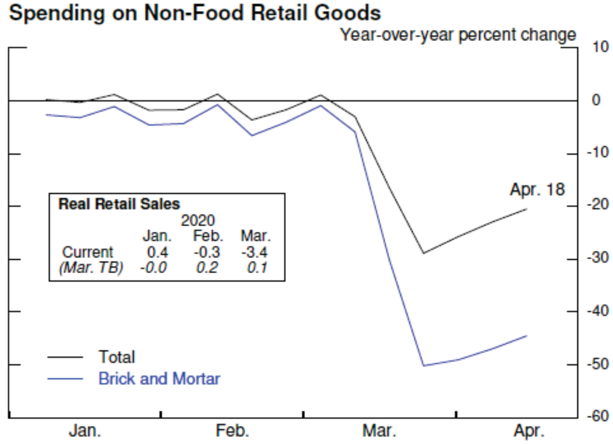
Indexes of Consumer Confidence





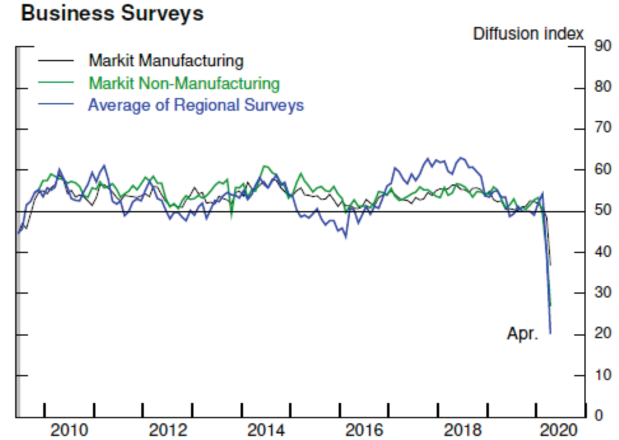
Note: Rasmussen data are reported daily, and Michigan data are reported monthly. The shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research.

Spending on Non-Food Retail Goods



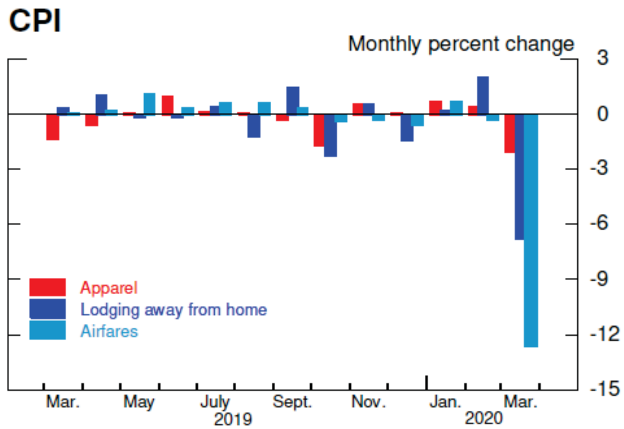
Source: NPD Group.

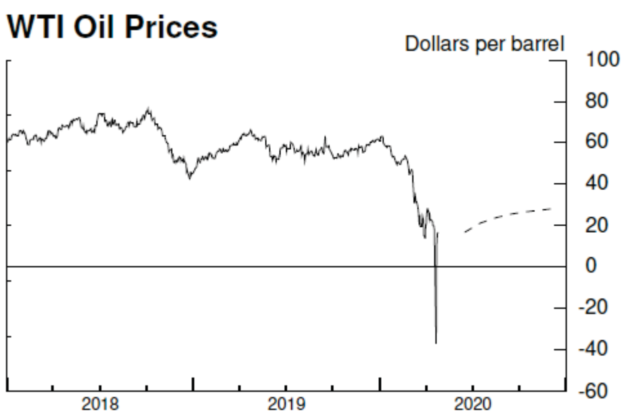
Business Surveys



Note: Data represent general activity indexes. April value is based on 4 of the 6 regional surveys.
Source: Federal Reserve.

What we know: Prices





Note: Futures prices (dashed line) are the latest observations on monthly futures contracts.

There are also upside pressures on prices

- High demand at some retailers (grocery stores, online)
- Possible production bottlenecks
- Added costs to protect workers

What we know: Government support

- Federal government support for the economy has been substantial and considerably more timely than in previous recessions.

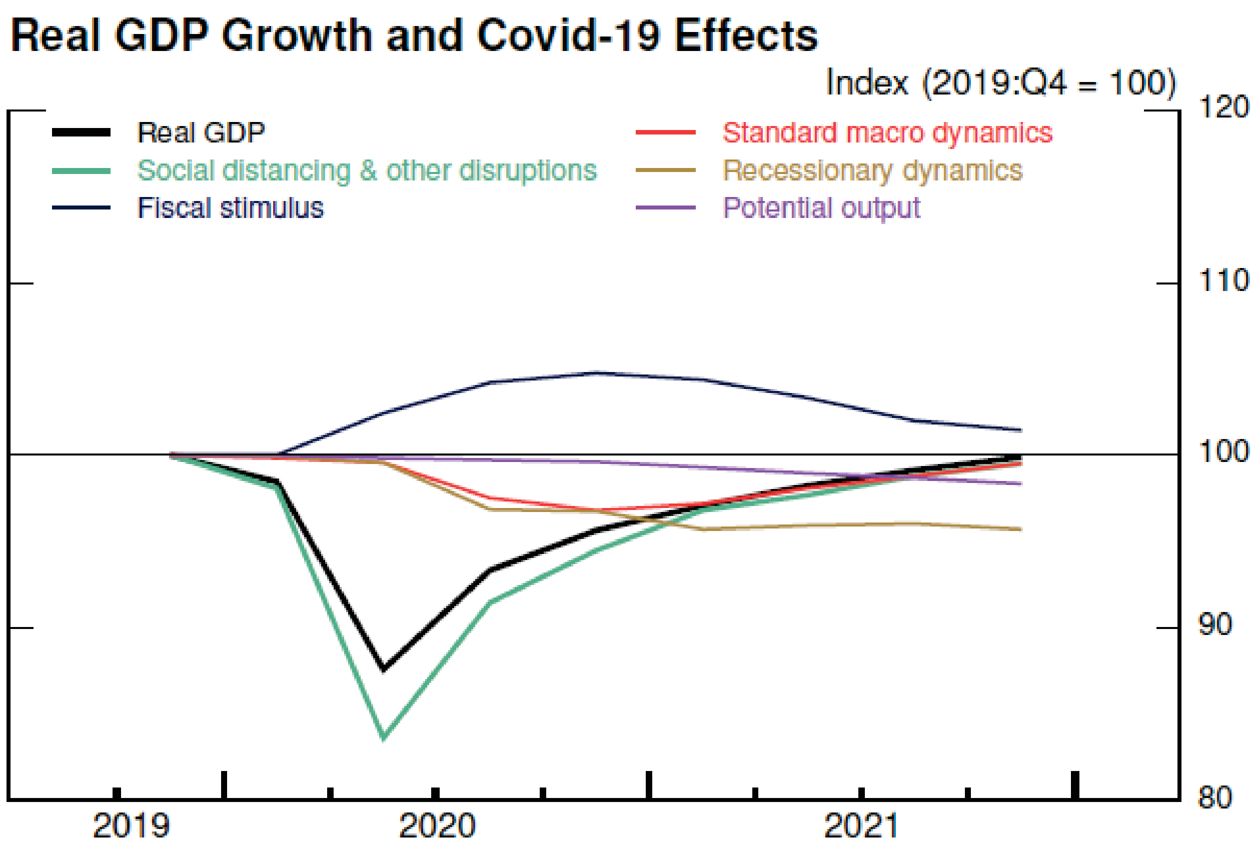
Fiscal policy

- The CARES Act provides unprecedented fiscal support
- Directly in the form of stimulus checks, UI expansion, and the PPP
- Also, provides backstop financing for Fed lending programs

Federal Reserve

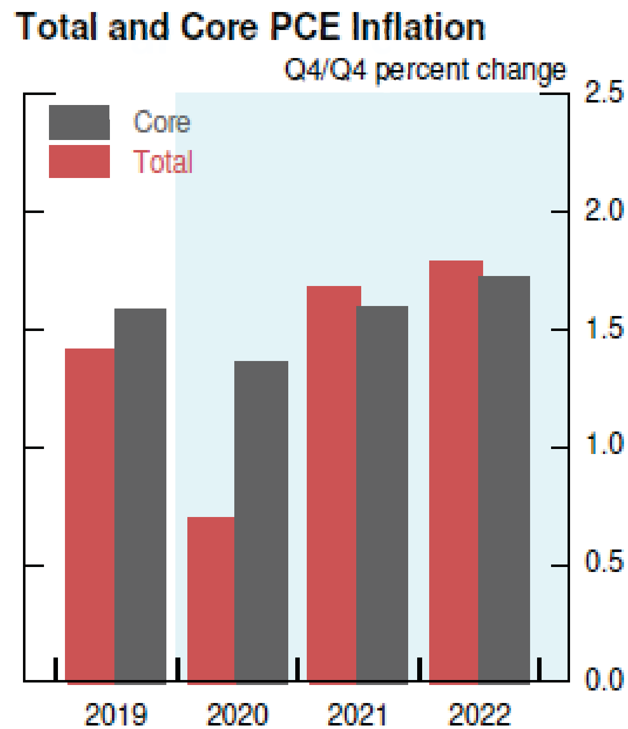
- Funds rate at ELB
- Massive asset purchases
- New programs to support financial functioning, keep credit flowing, and limit bankruptcies

Pulling it together: GDP forecast



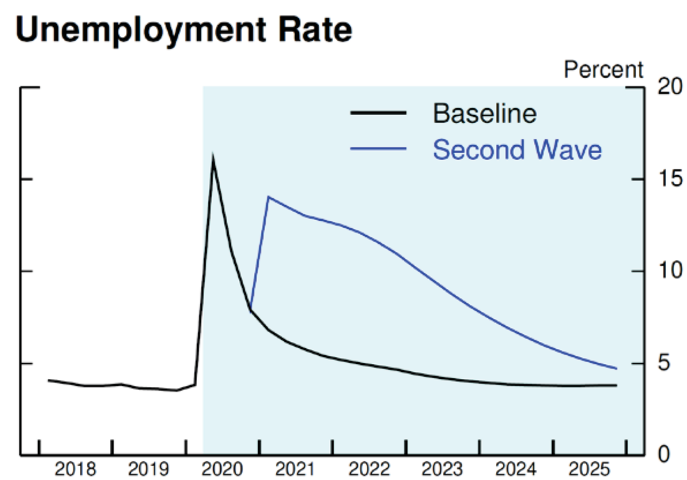
Staff inflation outlook

- Unprecedented mix of supply and demand pressures on inflation
- On net, staff believes adverse demand effects will dominate



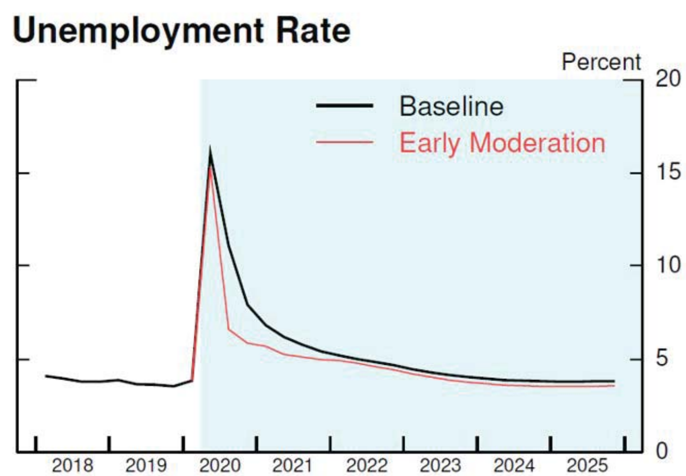
A downside risk: Second Wave

- Testing and tracing may prove inadequate
- In this scenario, disease temporarily abates but returns late in the year
- On the economics, recovery could be more protracted
- We view this scenario to be about as likely as the baseline



An upside risk: Early Moderation

- Given uncertainty, events could turn out better than expected
- Social distancing could be lifted more quickly, perhaps because of novel treatments
- Spending could also rise more rapidly: Response to fiscal stimulus could be greater



Appendix 4: Materials used by Mr. Gruber

Class II FOMC - Restricted (FR)

Material for Briefing on

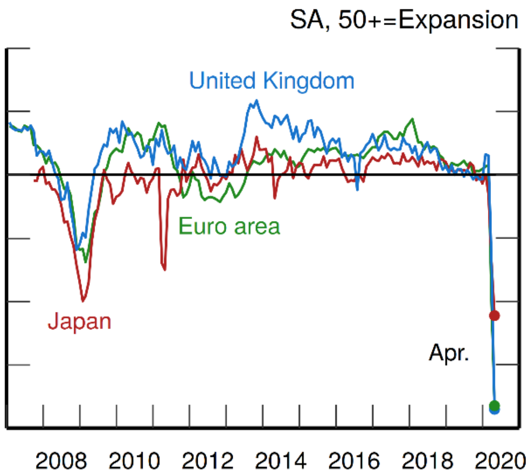
The International Outlook

Joseph Gruber
Exhibits by Chazz Edington
April 28, 2020

COVID-19 restrictions leading to a collapse in foreign activity

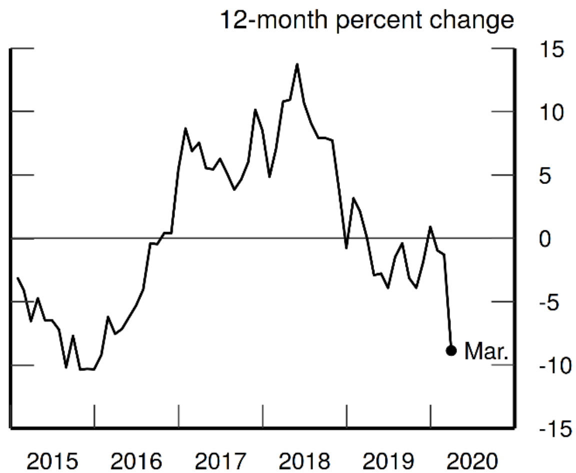
- Flash PMIs for April indicate sharp fall in activity.
- Pulling down U.S. exports.
- March China data reveals:
  1. Lifting restrictions will lead to rebound in production.
  2. But, activity will remain depressed.

Composite PMI



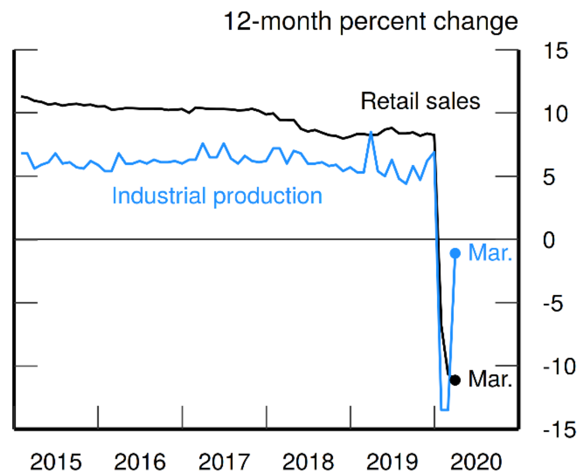
Source: IHS Markit.

U.S. Nominal Goods Exports



Source: Bureau of Economic Analysis; Census Bureau.

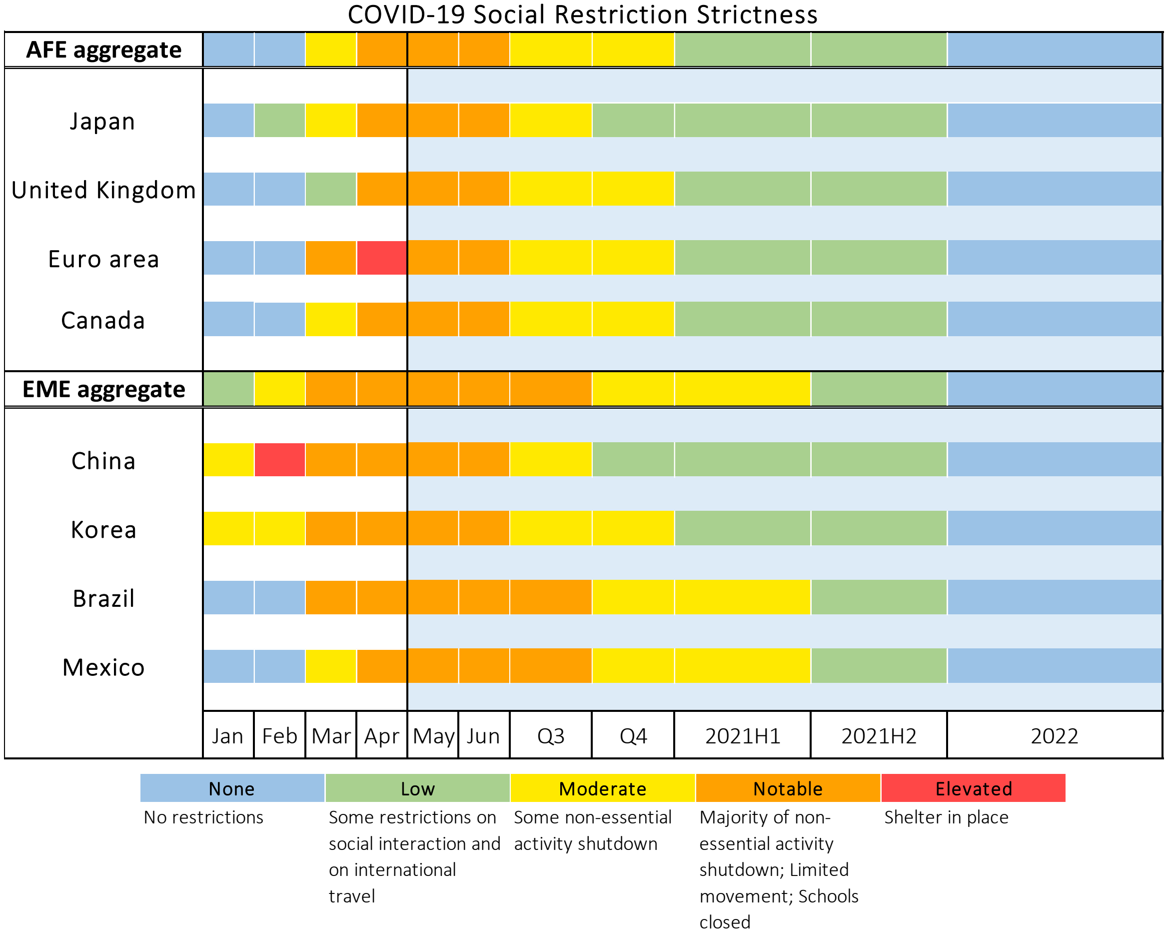
Chinese Activity Data



Source: China National Bureau of Statistics.

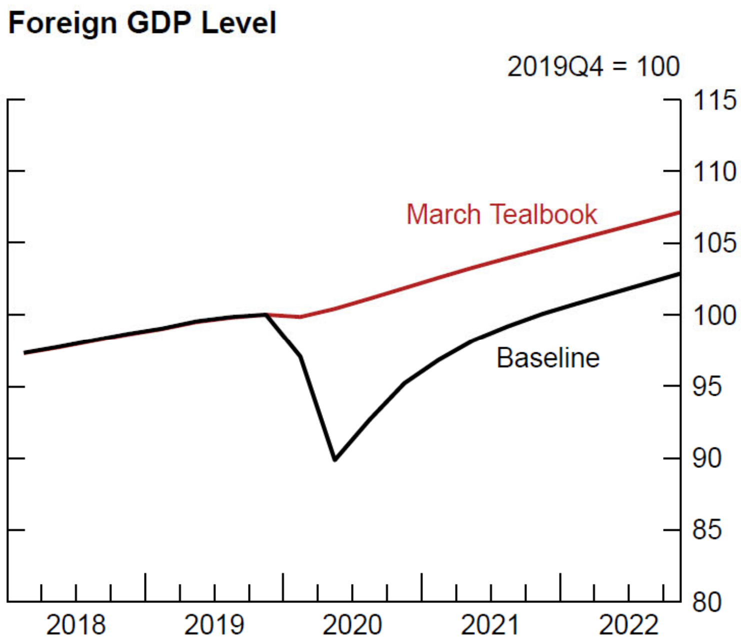
Outlook dominated by path of restrictions

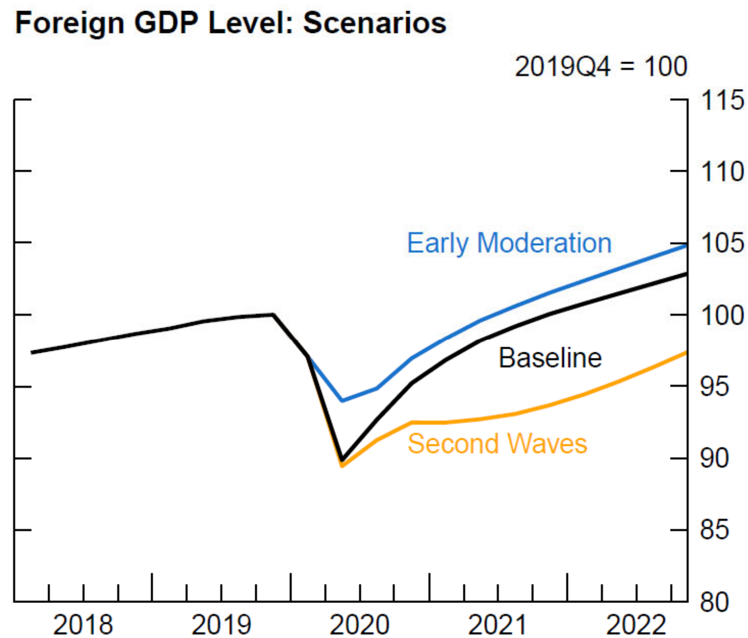
- Euro area restrictions to ease in May; Latin America expected to lag.
- Some disruptions persist until the middle of next year.



Rebound expected, but persistent hit to GDP

- Lifting of restrictions expected to lead to bounceback in activity.
- But GDP remains below previous forecast throughout.
- Wide range of possible outcomes.



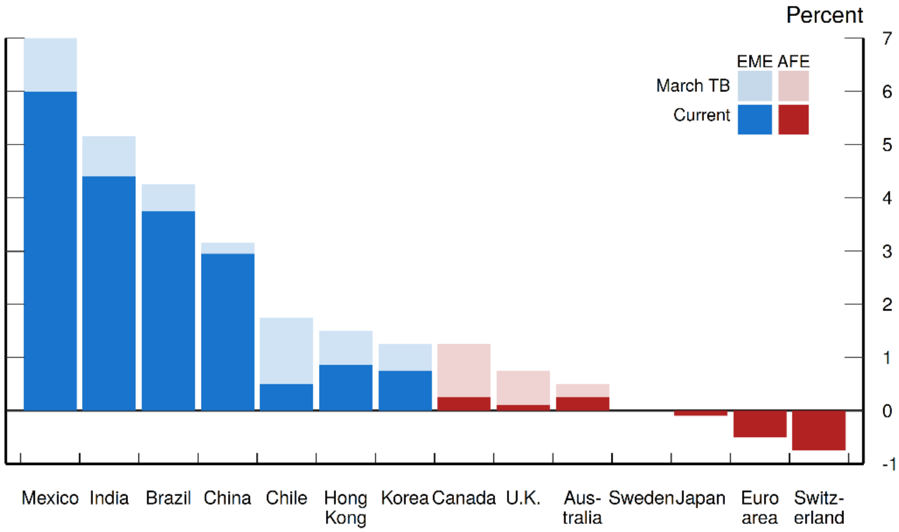


Source: Staff calculations.

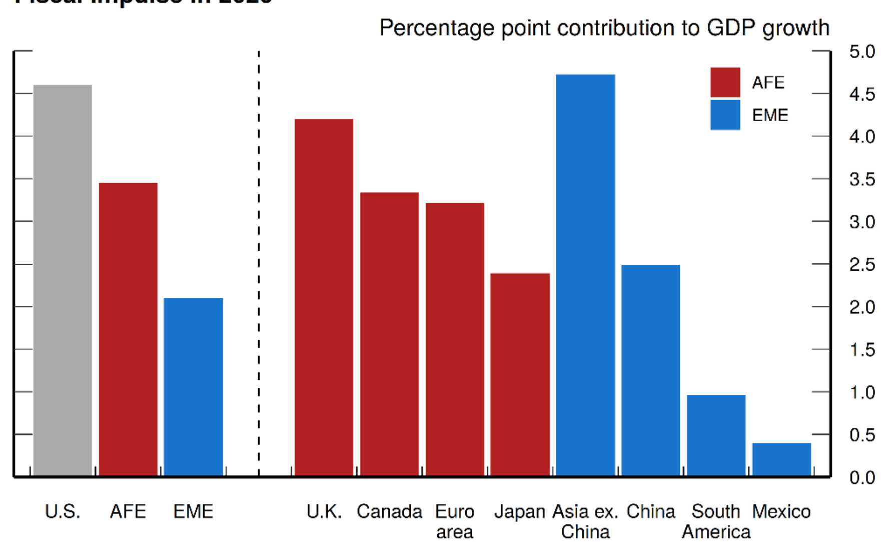
Considerable policy support for markets and the recovery

- Foreign central banks cut rates and enact policies to support liquidity and credit markets.
- Substantial fiscal stimulus has been announced.
- Policy promotes recovery, but unlikely to offset shock.
- Persistent headwinds likely to weigh on activity.

Policy Interest Rates at Selected Central Banks



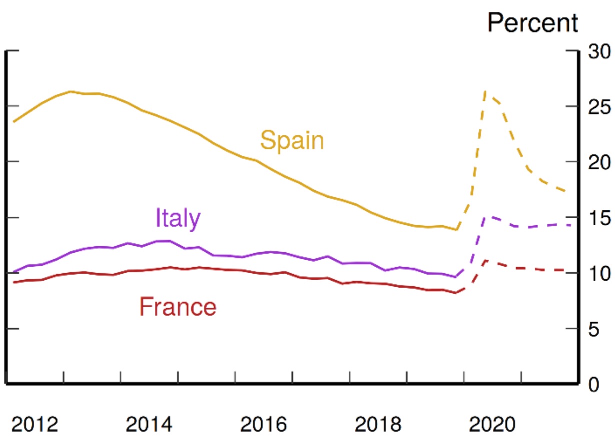
Fiscal Impulse in 2020



Source: Staff calculations.

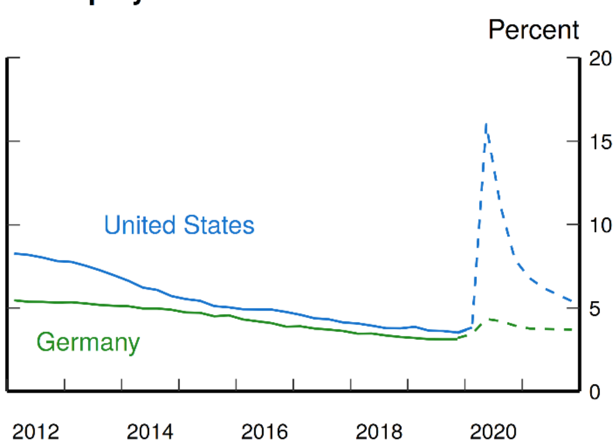
Headwinds: Recessionary dynamics in euro area

Unemployment Rate



Note: Dashed line indicates staff forecasts.

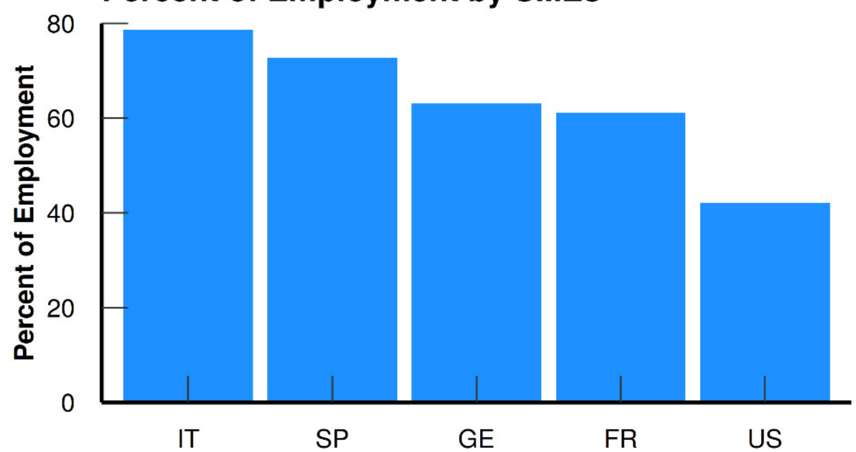
Unemployment Rate



Note: Dashed line indicates staff forecasts.

- Euro-area labor markets historically suffer from hysteresis.
- Short-term wage subsidies (Kurzarbeit) buffer the rise in unemployment.
- Small business under pressure.

Percent of Employment by SMEs

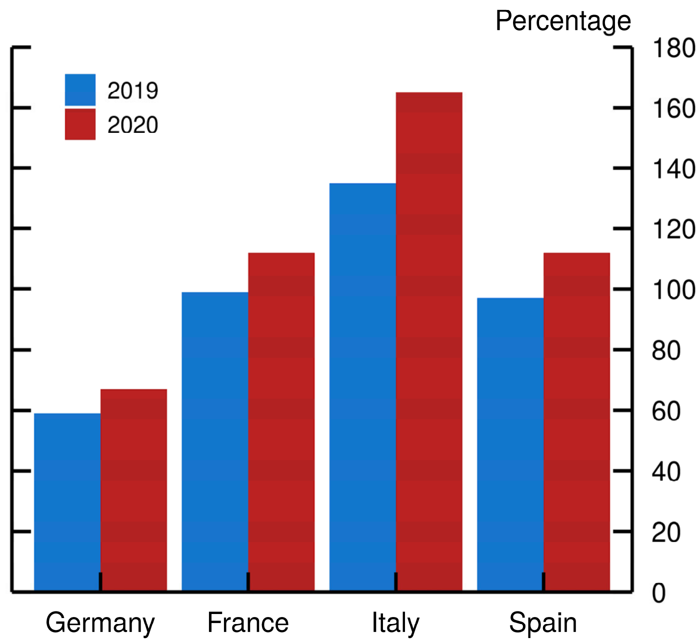


SME = employment < 250 persons; data from 2015.
U.S. bar uses the number of employees;
euro-area countries use total employment.
Source: Organisation for Economic Co-operation and Development.

Headwinds: Financial strains in the euro area

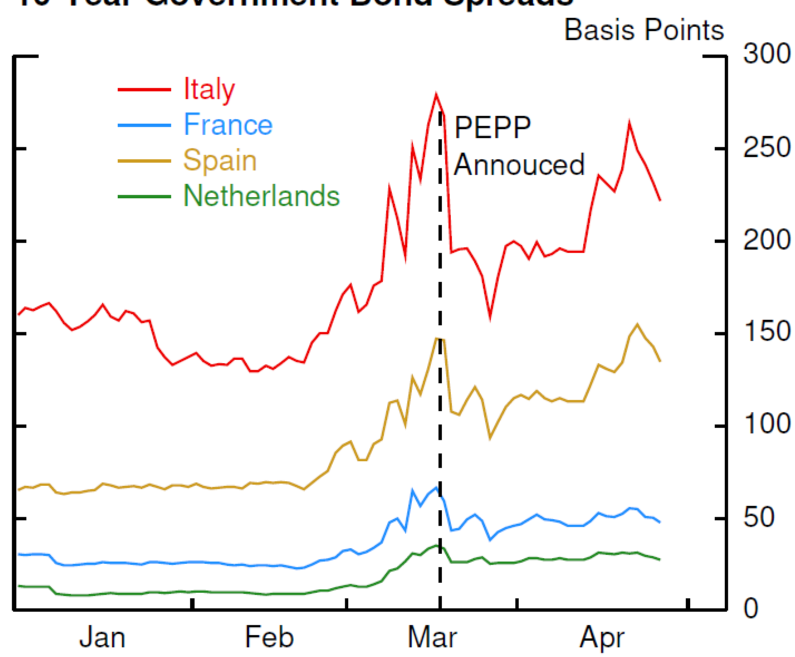
- Increasing debt raise sustainability concerns.
- ECB's $750 billion Pandemic Emergency Purchase Program (PEPP) intended to narrow spreads.

Debt-to-GDP Ratios in the Euro Area



Source: Staff estimated projections.

10-Year Government Bond Spreads*

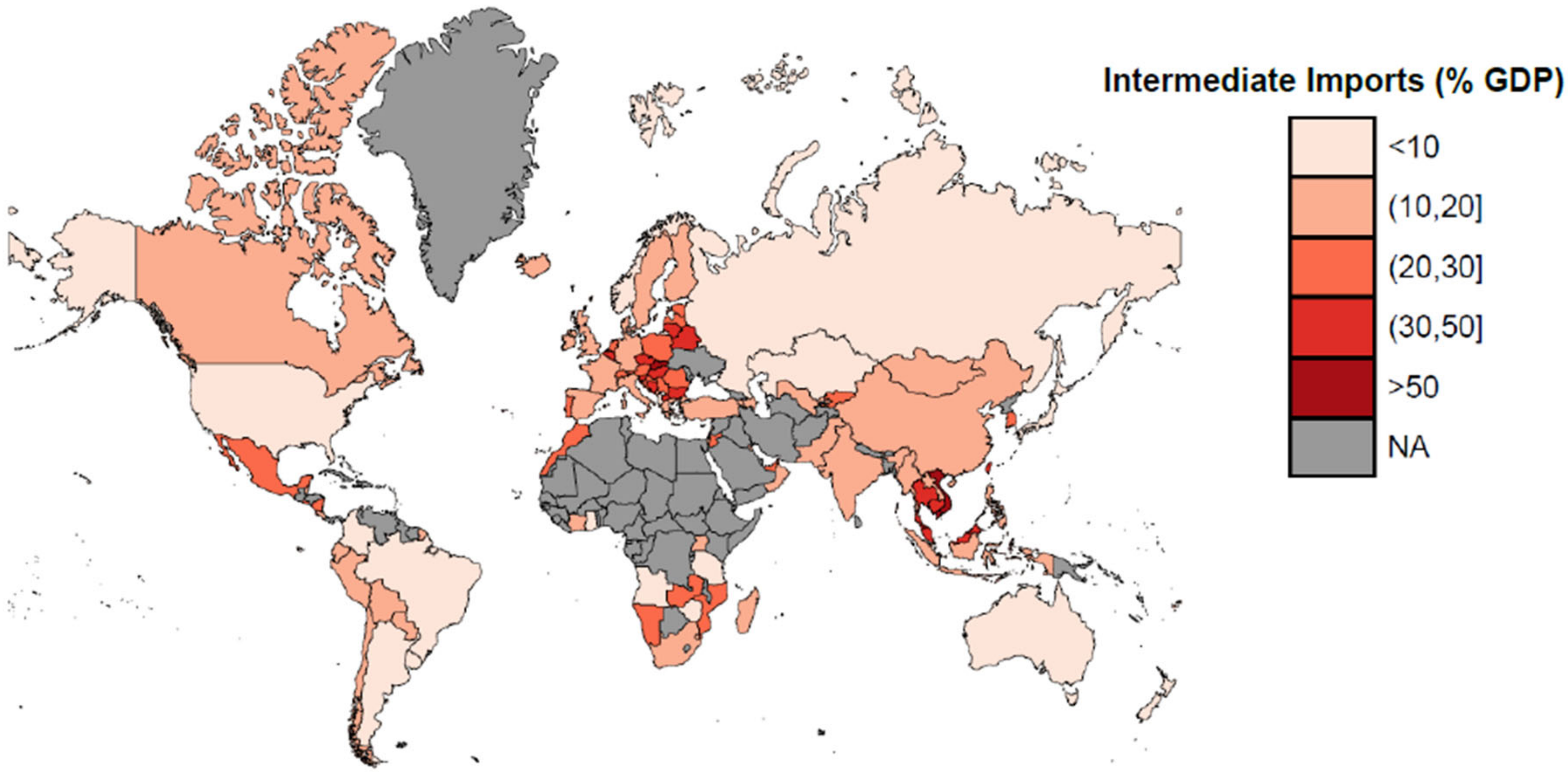


* Relative to Germany.
Most recent data: April 27, 2020
Source: Bloomberg

Headwinds: Trade and Supply Chains

- Disrupted supply chains weigh on activity.
- EMEs particularly exposed to supply chain disruptions.

Importance of Supply Chains

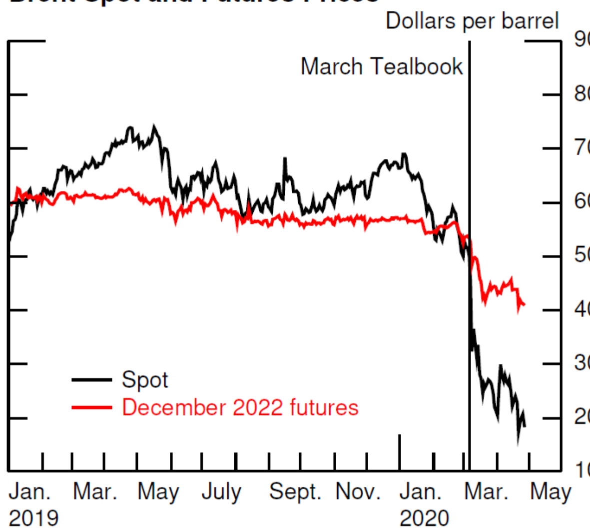


Sources: UN Comtrade, Haver analytics.

Headwinds: Oil Markets have collapsed

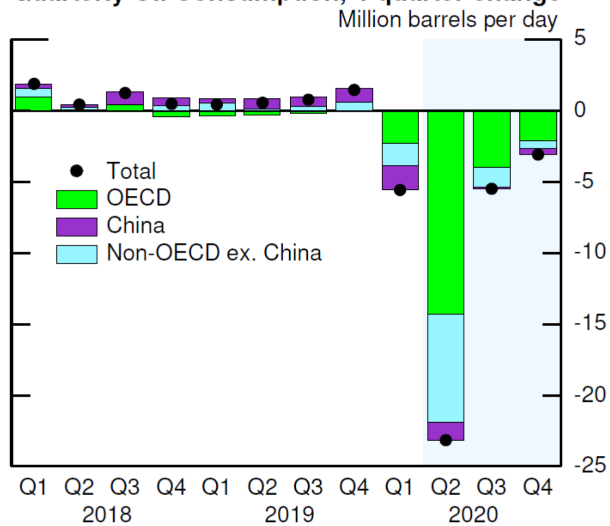
- Prices fall by over 2/3 as demand plummets.
- Continued production is filling inventories.
- Pressure on near-term prices.

Brent Spot and Futures Prices

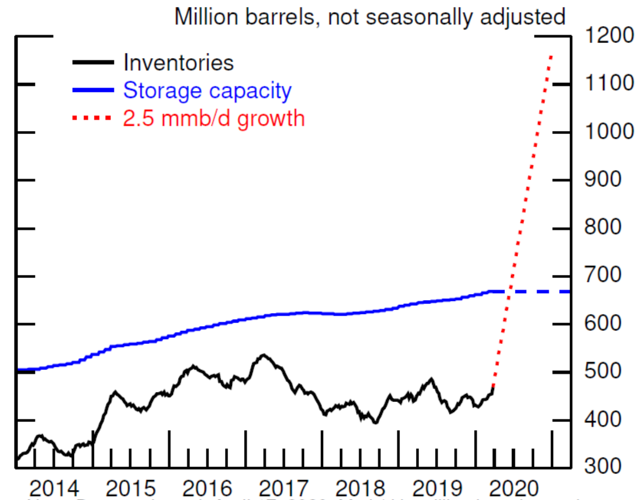


Note: Data go through April 27, 2020.
Source: Bloomberg.

Quarterly Oil Consumption, 4-quarter change



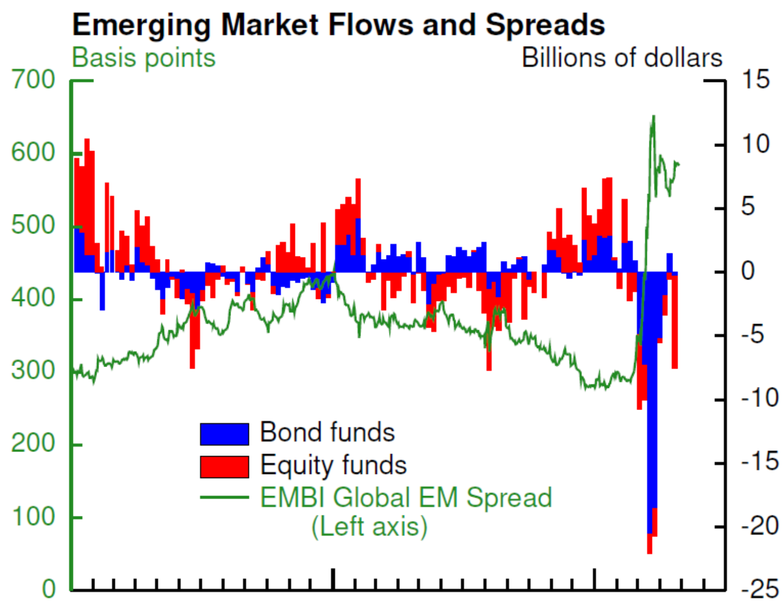
U.S. Crude Oil Inventories



Note: Data go through April 17, 2020. Mmb/d is million barrels per day.
Source: U.S. Energy Information Administration.

Headwinds: EMEs under significant financial stress

- EMEs hit by currency depreciation, capital outflows, and wider spreads.
- Highest risk EMEs are Argentina and Turkey, but others also under stress.



EMBI data through April 27, 2020.
EPFR weekly data through April 24.
Source: EPFR, JP Morgan.

EME Financial Stress Index

Country	Overall Financial Stress*
Argentina	3.8
Turkey	3.4
Mexico	3.1
South Africa	2.8
Indonesia	2.8
India	2.6
Chile	2.5
Brazil	2.5
Colombia	2.5
Malaysia	2.2
Thailand	2.2
China	2.1
Russia	2.0
Saudi Arabia	1.9
Vietnam	1.9
Philippines	1.8
Israel	1.7
Hong Kong	1.7
Singapore	1.5
Korea	1.3
Taiwan	1.1

*Represents average of Financial Markets, Market Access, NFC, Sovereign, and Banking Stress components.

Color-codes:	1.0 - 1.75	1.75 - 2.5	2.5 - 3.25	3.25 - 4.0
	Low	Medium-low	Medium-high	High

Appendix 5: Materials used by Mr. Laubach

Class I FOMC – Restricted Controlled (FR)

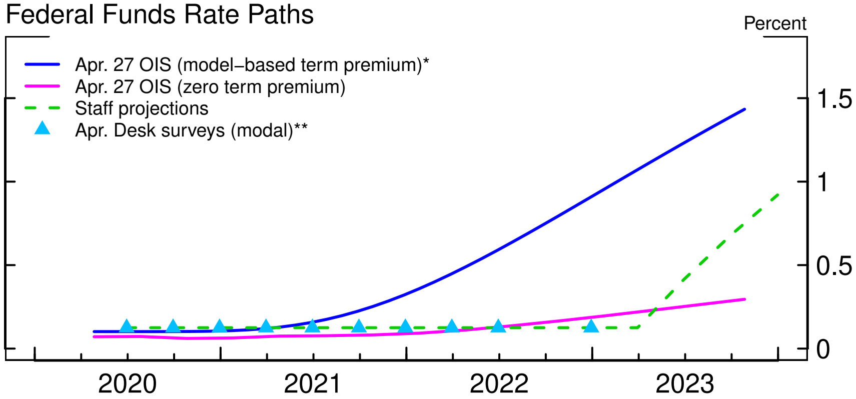
Material for the Briefing on

Monetary Policy Alternatives

Thomas Laubach
Exhibits by Gurubala Kotta
April 28-29, 2020

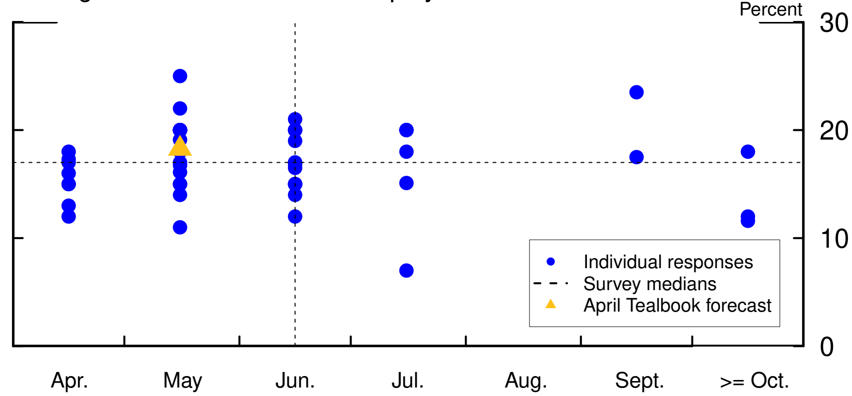
Monetary Policy Considerations

Federal Funds Rate Paths



*Adjusting for premiums using a term structure model maintained by Board staff.
**Median of respondents' modal paths for the federal funds rate.
Source: Bloomberg; Board staff estimates; FRBNY.

Timing and Level of Peak Unemployment Rate

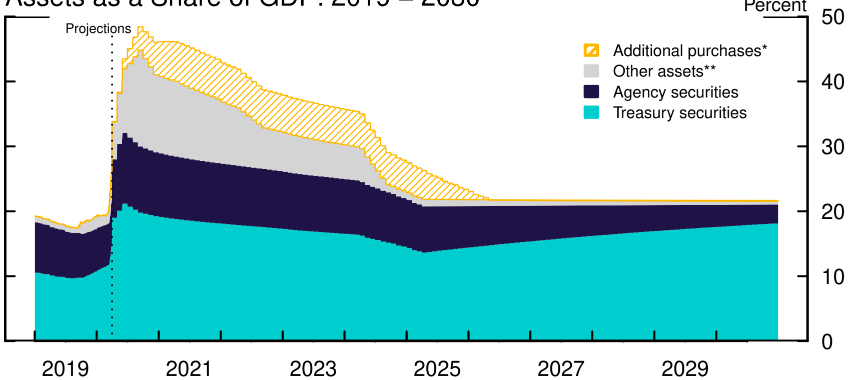


Note: Respondents were asked for their expectations regarding the level and timing of the next peak in the U–3 unemployment rate.
Source: FRBNY; Board staff calculations.

Survey Expectations and Staff Assumptions

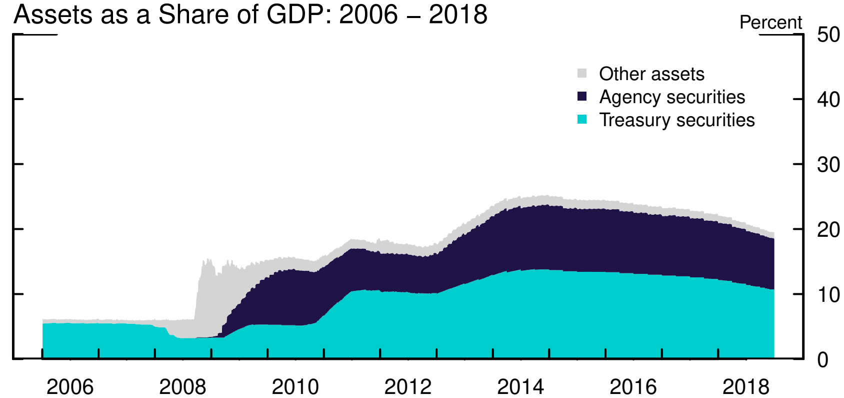
	ELB period, forward guidance	Net asset purchases	Lending facilities
Desk survey	Median respondent views funds rate most likely to remain at ELB through at least end–2022. Among those who ex–pressed views, most expect no change to FG at this meeting.	Pace of Treasury and MBS purchases slowing after May but remaining significant at $100B/month in Dec. Securities holdings totaling $6.5T in Sep 2020 and $7.1T by end–2021.	Take–up about $2T by September, declines to about $1.6T by end–2021.
Tealbook assumptions	Federal funds rate remains at ELB until unemployment rate has declined to 4.3 percent; liftoff projected in early 2023.	No net asset purchases beyond June; maturing Treasuries and principal payments on agency MBS reinvested until funds rate reaches 1.25%. Securities holdings peak at $6.1T in September, little changed through 2024.	Take–up peaks around $2.7T in September; tapers off to about $1.9T at end–2021.

Assets as a Share of GDP: 2019 – 2030



*Assumes median dealer expectations for monthly purchase pace of Treasury securities and Agency MBS in 2020 and the size of SOMA assets in Dec. 2021.
**Includes facilities and repo operations.
Source: Federal Reserve Board; Board staff estimates; FRBNY.

Assets as a Share of GDP: 2006 – 2018



Source: Federal Reserve Board.

March 2020 FOMC Statements

March 15 Statement

1. The coronavirus outbreak has harmed communities and disrupted economic activity in many countries, including the United States. Global financial conditions have also been significantly affected. Available economic data show that the U.S. economy came into this challenging period on a strong footing. Information received since the Federal Open Market Committee met in January indicates that the labor market remained strong through February and economic activity rose at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending rose at a moderate pace, business fixed investment and exports remained weak. More recently, the energy sector has come under stress. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent. Market-based measures of inflation compensation have declined; survey-based measures of longer-term inflation expectations are little changed.

2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The effects of the coronavirus will weigh on economic activity in the near term and pose risks to the economic outlook. In light of these developments, the Committee decided to lower the target range for the federal funds rate to 0 to 1/4 percent. The Committee expects to maintain this target range until it is confident that the economy has weathered recent events and is on track to achieve its maximum employment and price stability goals. This action will help support economic activity, strong labor market conditions, and inflation returning to the Committee’s symmetric 2 percent objective.

3. The Committee will continue to monitor the implications of incoming information for the economic outlook, including information related to public health, as well as global developments and muted inflation pressures, and will use its tools and act as appropriate to support the economy. In determining the timing and size of future adjustments to the stance of monetary policy, the Committee will assess realized and expected economic conditions relative to its maximum employment objective and its symmetric 2 percent inflation objective. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments.

4. The Federal Reserve is prepared to use its full range of tools to support the flow of credit to households and businesses and thereby promote its maximum employment and price stability goals. To support the smooth functioning of markets for Treasury securities and agency mortgage-backed securities that are central to the flow of credit to households and businesses, over coming months the Committee will increase its holdings of Treasury securities by at least $500 billion and its holdings of agency mortgage-backed securities by at least $200 billion. The Committee will also reinvest all principal payments from the Federal Reserve's holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. In addition, the Open Market Desk has recently expanded its overnight and term repurchase agreement operations. The Committee will continue to closely monitor market conditions and is prepared to adjust its plans as appropriate.

March 23 Statement

1. The Federal Reserve is committed to use its full range of tools to support the U.S. economy in this challenging time and thereby promote its maximum employment and price stability goals.

2. The Federal Open Market Committee is taking further actions to support the flow of credit to households and businesses by addressing strains in the markets for Treasury securities and agency mortgage-backed securities. The Federal Reserve will continue to purchase Treasury securities and agency mortgage-backed securities in the amounts needed to support smooth market functioning and effective transmission of monetary policy to broader financial conditions. The Committee will include purchases of agency commercial mortgage-backed securities in its agency mortgage-backed security purchases. In addition, the Open Market Desk will continue to offer large-scale overnight and term repurchase agreement operations. The Committee will continue to closely monitor market conditions, and will assess the appropriate pace of its securities purchases at future meetings.

DRAFT FOMC STATEMENT FOR APRIL 2020

1. The Federal Reserve is committed to use**ing** its full range of tools to support the U.S. economy in this challenging time**,** ~~and~~ thereby promote**ing** its maximum employment and price stability goals.

2. The coronavirus outbreak ~~has harmed communities and disrupted economic activity in many countries, including the United States~~ **is causing tremendous human and economic hardship across the United States and around the world. The virus and the measures taken to protect public health are inducing sharp declines in economic activity and a surge in job losses. Weaker demand and significantly lower oil prices are holding down consumer price inflation. The disruptions to economic activity here and abroad have significantly affected financial conditions and have impaired the flow of credit to U.S. households and businesses**. ~~Global financial conditions have also been significantly affected. Available economic data show that the U.S. economy came into this challenging period on a strong footing. Information received since the Federal Open Market Committee met in January indicates that the labor market remained strong through February and economic activity rose at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending rose at a moderate pace, business fixed investment and exports remained weak. More recently, the energy sector has come under stress. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent. Market-based measures of inflation compensation have declined; survey-based measures of longer-term inflation expectations are little changed.~~

3. ~~Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability.~~ The ~~effects of the coronavirus~~ **ongoing public health crisis** will weigh **heavily** on economic activity**, employment, and inflation** in the near term**,** and pose**s considerable** risks to the economic outlook **over the medium term**. In light of these developments, the Committee decided to ~~lower~~ **maintain** the target range for the federal funds rate ~~to~~ **at** 0 to 1/4 percent. The Committee expects to maintain this target range until it is confident that the economy has weathered recent events and is on track to achieve its maximum employment and price stability goals. ~~This action will help support economic activity, strong labor market conditions, and inflation returning to the Committee's symmetric 2 percent objective.~~

4. The Committee will continue to monitor the implications of incoming information for the economic outlook, including information related to public health, as well as global developments and muted inflation pressures, and will use its tools and act as appropriate to support the economy. In determining the timing and size of future adjustments to the stance of monetary policy, the Committee will assess realized and expected economic conditions relative to its maximum employment objective and its symmetric 2 percent inflation objective. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments.

5. ~~The Federal Reserve is prepared to use its full range of tools to support the flow of credit to households and businesses and thereby promote its maximum employment and price stability goals. To support the smooth functioning of markets for Treasury securities and agency mortgage-backed securities that are central to the flow of credit to households and businesses, over coming months the Committee will increase its holdings of Treasury securities by at least $500 billion and its holdings of agency mortgage-backed securities by at least $200 billion. The Committee will also reinvest all principal payments from the Federal Reserve's holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. In addition, the Open Market Desk has recently expanded its overnight and term repurchase agreement operations. The Committee will continue to closely monitor market conditions and is prepared to adjust its plans as appropriate.~~

5. ~~The Federal Open Market Committee is taking further actions~~ To support the flow of credit to households and businesses**,** ~~by addressing strains in the markets for Treasury securities and agency mortgage-backed securities.~~ the Federal Reserve will continue to purchase Treasury securities and agency **residential and commercial** mortgage-backed securities in the amounts needed to support smooth market functioning**,** ~~and~~ **thereby fostering** effective transmission of monetary policy to broader financial conditions. ~~The Committee will include purchases of agency commercial mortgage-backed securities in its agency mortgage-backed security purchases.~~ In addition, the Open Market Desk will continue to offer large-scale overnight and term repurchase agreement operations. The Committee will ~~continue to~~ closely monitor market conditions~~, and will assess the appropriate pace of its securities purchases at future meetings.~~ and is prepared to adjust its plans as appropriate.

Implementation Note for April 2020

Release Date: April 29, 2020

Decisions Regarding Monetary Policy Implementation

The Federal Reserve has made the following decisions to implement the monetary policy stance announced by the Federal Open Market Committee in its statement on ~~March 23~~ **April 29**, 2020:

- The Board of Governors of the Federal Reserve System voted **[** unanimously **]** to ~~set~~ **maintain** the interest rate paid on required and excess reserve balances at 0.10 percent, effective ~~March 16~~ **April 30**, 2020.
- As part of its policy decision, the Federal Open Market Committee voted to authorize and direct the Open Market Desk at the Federal Reserve Bank of New York, until instructed otherwise, to execute transactions in the System Open Market Account in accordance with the following domestic policy directive:

  "Effective ~~March 23~~ **April 30**, 2020, the Federal Open Market Committee directs the Desk to**:**

  - Undertake open market operations as necessary to maintain the federal funds rate in a target range of 0 to 1/4 percent.
  - ~~The Committee directs the Desk to~~ Increase the System Open Market Account holdings of Treasury securities**,** ~~and~~ agency mortgage-backed securities (MBS)**, and agency commercial mortgage-backed securities (CMBS)** in the amounts needed to support the smooth functioning of markets for ~~Treasury~~ **these** securities ~~and agency MBS. The Committee also directs the Desk to include purchases of agency commercial mortgage-backed securities in its agency mortgage-backed security purchases~~.
  - ~~The Committee also directs the Desk to continue conducting~~ **Conduct** term and overnight repurchase agreement operations ~~to ensure that the supply of reserves remains ample and~~ to support **effective policy implementation and** the smooth functioning of short-term U.S. dollar funding markets.
  - ~~In addition, the Committee directs the Desk to~~ Conduct overnight reverse repurchase **agreement** operations ~~(and reverse repurchase operations with maturities of more than one day when necessary to accommodate weekend, holiday, or similar trading conventions)~~ at an offering rate of 0.00 percent~~, in amounts limited only by the value of Treasury securities held outright in the System Open Market Account that are available for such operations and by~~ **and with** a per-counterparty limit of $30 billion per day**; the per-counterparty limit can be temporarily increased at the discretion of the Chair**.

  - ~~The Committee directs the Desk to continue rolling~~ **Roll** over at auction all principal payments from the Federal Reserve's holdings of Treasury securities and ~~to~~ reinvest all principal payments from the Federal Reserve's holdings of agency debt and agency ~~mortgage-backed securities~~ **MBS** ~~received during each calendar month~~ in agency ~~mortgage-backed securities~~ **MBS and all principal payments from holdings of agency CMBS in agency CMBS**. ~~Small deviations from these amounts for operational reasons are acceptable.~~
  - ~~The Committee also directs the Desk to~~ Engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency ~~mortgage-backed securities~~ **MBS** transactions."

- In a related action, the Board of Governors of the Federal Reserve System voted unanimously to approve ~~a 1-1/2 percentage point decrease in~~ **the establishment of** the primary credit rate ~~to~~ **at the existing level of** 0.25 percent~~, effective March 16, 2020~~. ~~In taking this action, the Board approved requests to establish that rate submitted by the Boards of Directors of the Federal Reserve Banks of Minneapolis and New York.~~

This information will be updated as appropriate to reflect decisions of the Federal Open Market Committee or the Board of Governors regarding details of the Federal Reserve's operational tools and approach used to implement monetary policy.

More information regarding open market operations and reinvestments may be found on the Federal Reserve Bank of New York's website.

Potential actions of the Board of Governors of the Federal Reserve System

Interest on excess reserve balances

Leave the interest rate paid on excess reserve balances unchanged at 0.10 percent.

Establishment of the primary, secondary, and seasonal credit rates

Approve establishment of the primary credit rate at the existing rate of 0.25 percent and establishment of the rates for secondary and seasonal credit under the existing formulas specified in the staff's April 24, 2020, memo to the Board.