

**Meeting of the Federal Open Market Committee on
March 15, 2020**

A joint meeting of the Federal Open Market Committee and the Board of Governors of the Federal Reserve System was held by videoconference on Sunday, March 15, 2020, at 10:00 a.m.

PRESENT:

Jerome H. Powell, Chair
John C. Williams, Vice Chair
Michelle W. Bowman
Lael Brainard
Richard H. Clarida
Patrick Harker
Robert S. Kaplan
Neel Kashkari
Loretta J. Mester
Randal K. Quarles

Thomas I. Barkin, Raphael W. Bostic, Mary C. Daly, and Charles L. Evans, Alternate Members of the Federal Open Market Committee

James Bullard, Esther L. George, and Eric Rosengren, Presidents of the Federal Reserve Banks of St. Louis, Kansas City, and Boston, respectively

James A. Clouse, Secretary
Matthew M. Luecke, Deputy Secretary
Michelle A. Smith, Assistant Secretary
Mark E. Van Der Weide, General Counsel
Michael Held, Deputy General Counsel
Thomas Laubach, Economist
Stacey Tevlin, Economist
Beth Anne Wilson, Economist

Shaghil Ahmed, Michael Dotsey, Joseph W. Gruber, Beverly Hirtle, David E. Lebow, Trevor A. Reeve, and Ellis W. Tallman, Associate Economists

Lorie K. Logan, Manager, System Open Market Account

Ann E. Misback, Secretary, Office of the Secretary, Board of Governors

Matthew J. Eichner, Director, Division of Reserve Bank Operations and Payment Systems, Board of Governors; Michael S. Gibson, Director, Division of Supervision and Regulation, Board of Governors; Andreas Lehnert, Director, Division of Financial Stability, Board of Governors

Daniel M. Covitz, Deputy Director, Division of Research and Statistics, Board of Governors; Rochelle M. Edge, Deputy Director, Division of Monetary Affairs, Board of Governors; Michael T. Kiley, Deputy Director, Division of Financial Stability, Board of Governors

Jon Faust, Senior Special Adviser to the Chair, Office of Board Members, Board of Governors

Joshua Gallin, Special Adviser to the Chair, Office of Board Members, Board of Governors

Antulio N. Bomfim, Brian M. Doyle, Wendy E. Dunn, and Ellen E. Meade, Special Advisers to the Board, Office of Board Members, Board of Governors

Linda Robertson, Assistant to the Board, Office of Board Members, Board of Governors

Edward Nelson, Senior Adviser, Division of Monetary Affairs, Board of Governors

Andrew Figura and John M. Roberts, Deputy Associate Directors, Division of Research and Statistics, Board of Governors

Rebecca Zarutskie, Assistant Director, Division of Monetary Affairs, Board of Governors

Brett Berger, Adviser, Division of International Finance, Board of Governors

Randall A. Williams, Senior Information Manager, Division of Monetary Affairs, Board of Governors

Jose Acosta, Senior Communications Analyst, Division of Information Technology, Board of Governors

Ellen J. Bromagen and Ron Feldman, First Vice Presidents, Federal Reserve Banks of Chicago and Minneapolis, respectively

Kartik B. Athreya, Anna Paulson, Daleep Singh, and Christopher J. Waller, Executive Vice Presidents, Federal Reserve Banks of Richmond, Chicago, New York, and St. Louis, respectively

Paula Tkac, Robert G. Valletta, and Nathaniel Wuerffel, Senior Vice Presidents, Federal Reserve Banks of Atlanta, San Francisco, and New York, respectively

George A. Kahn, Matthew D. Raskin, and Patricia Zobel, Vice Presidents, Federal Reserve Banks of Kansas City, New York, and New York, respectively

Karel Mertens, Senior Economic Policy Advisor, Federal Reserve Bank of Dallas

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CHAIR POWELL. Good morning, everyone. This meeting, as usual, will be a joint meeting of the FOMC and the Board. I need a motion from a Board member to close the meeting. That would be a motion from Governor Clarida.

MR. CLARIDA. So moved.

CHAIR POWELL. Without objection. Let me say a couple of things at the outset. First, we're rolling out the announcement and all of the documents at 5:00 p.m., and there's a press conference at 6:00 p.m. Consistent with people having a full opportunity to express themselves, I would like to have this wrapped up constructively sometime in the early afternoon.

In addition, before we dive into our formal agenda, I want to welcome Beth Anne Wilson to the table in her new capacity as director of the Division of International Finance. Beth Anne, you certainly brought some interesting times with you in your new role. So, congratulations, and everyone is pleased and looking forward to working with you.

Before we get started, I want to offer a couple of comments, too. This is a very difficult time for our nation—actually, for the world. The level of uncertainty and fear is unlike anything I can recall from my lifetime except, perhaps, the 9/11 attacks. Of course, it's not possible to know how this is going to develop. There is an upside case and a downside case to go with the base case, as there always is. We just don't know. I want to thank everyone, especially the staff, for your great work during this difficult time. We are making a difference, and the world is relying on us to continue to do what we can. So thank you to everyone. And we begin with the Desk briefing. Lorie, would you like to begin?

MS. LOGAN. Thank you, Mr. Chair. Financial markets have remained exceptionally volatile amid the global spread of the virus and uncertainty regarding its effects. While the significant adjustments made last week to the Desk's operations

have helped stem the decline in Treasury securities market functioning, liquidity remains severely impaired and markets more broadly are increasingly fragile.

The dislocations across markets are coming at a time when much of the financial industry is working in split teams across multiple locations, adding a significant degree of operational risk to the situation. Today, I'll provide an update on markets and operations. In doing so, I'll focus on three areas of risk: credit markets, market liquidity, and funding markets. Then I'll describe, at a high level, how the Desk would implement the balance sheet actions being presented today should the Committee adopt them.

First, however, let me briefly "level set" on broad financial markets. Since the Committee's meeting in late January, just six weeks ago, the S&P 500 index has fallen 18 percent, nominal U.S. Treasury yields are 60 to 100 basis points lower, and measures of inflation compensation have fallen 75 to 100 basis points. Investment-grade and high-yield credit spreads have widened about 120 basis points and 360 basis points, respectively. The U.S. dollar has appreciated notably against most currencies, with the exception of other safe havens. Crude oil prices have fallen 40 percent. These are generally the biggest intermeeting moves since the Global Financial Crisis and have come despite the reduction in the Committee's target range earlier this month and numerous measures announced by central banks and fiscal authorities around the world.

Against this backdrop, expectations regarding FOMC policy have adjusted sharply. Implied rates on federal funds futures contracts suggest the Committee is expected to reduce the target range a full percentage point at this meeting. Additionally, some market participants have indicated that they expect the Committee to announce additional purchases of Treasury and agency mortgage-backed securities (MBS) as soon as this meeting, and several have raised the prospect of additional measures, including a reduction in the discount window rate, changes to the terms of the U.S. dollar liquidity swap lines, and a reintroduction of crisis-era liquidity facilities.

Now let me turn to three areas of risks we've been closely monitoring, starting first with credit. Market participants expect the virus to have very significant effects on the economy and are increasingly concerned about the creditworthiness of certain borrowers in the most affected sectors. As I noted, credit spreads have widened sharply, with the energy, retail, and consumer discretionary sectors experiencing the most acute pressures. Approximately one-fifth of the benchmark high-yield index is now trading in distress, with spreads of greater than 1,000 basis points. The worsening in credit quality is also evident in lower-rated investment-grade names, a long-standing concern given the growth in this segment in recent years. Market participants report rising concern that downgrades of these firms, below investment grade, could trigger forced selling. Indeed, the rating agencies have indicated that they are conducting credit reviews of airlines and energy firms. This could result in meaningful downgrades as soon as next month. Bonds of certain airlines are already trading at close to their expected recovery values in default.

With investors expecting firms in the sectors most affected by the virus to experience sizable declines in cash flows, market participants expressed concerns over the ability of firms to continue to fund themselves. Primary issuance has become sporadic for investment-grade firms and has largely halted for lower-rated names. Further, some credit market investors have been experiencing pressures of their own in recent days. The stresses have contributed to outflows from corporate bond and loan mutual funds and exchange-traded funds (ETFs), and this has triggered further selling of bonds and loans. This highlights vulnerability related to the maturity and liquidity transformation of vehicles that invest in relatively illiquid products but offer daily redemptions at the same time. Outflows to date have been driven by institutional investors, with accelerated retail outflows a risk that could exacerbate these conditions.

Trading in corporate bond markets is reported to be very strained, although not back to the low point reached in 2008. Still, investor outflows could grow if there is a high-profile realization of losses or if a fund imposes gates or redemptions. Market participants are increasingly pointing to concerns in other segments of the debt and securitized markets, particularly muni bonds. The recent increases in muni bond yields across the rating spectrum have been notable and suggest rising concern over the effects of the virus on the finances of state and local governments. And in securitized markets, such as asset-backed securities (ABS) and commercial mortgage-backed securities (CMBS), primary market issuance has slowed, and secondary market trading has become less orderly, with money managers selling short-dated liquid products to meet investor redemptions.

Now I'll turn to the second risk—market liquidity. As I noted last Thursday, following several consecutive days of worsening liquidity in the Treasury market, market participants reported an acute decline in conditions toward the end of last week. A number of primary dealers reported that they had stopped making markets in off-the-run securities, and that this segment of the Treasury market had ceased to function effectively.

This disruption to intermediation was due to extraordinary flows from investors seeking the safety of Treasury securities, particularly in the on-the-run Treasury securities, the most liquid, and from those selling off-the-run Treasury securities, which included reserve managers who sought to raise cash, hedge funds facing margin calls or seeking to reduce leverage, and asset managers looking to rebalance their portfolios.

Dealers reported having difficulty selling these off-the-run securities and constraints on their ability to absorb any additional inventories that were coming their way. Given the central role of Treasury securities in pricing and in hedging, and as a store of value, this decline in liquidity spilled over into other markets and started to raise questions about the functioning of the financial system more broadly. The agency MBS market, for example, has become very strained, with declining liquidity amplified by a sharp increase in gross supply due to rising actual and expected mortgage originations.

Meanwhile, with respect to the third risk, funding markets, term funding markets have also worsened. Initially, uncertainty over the near-term path of overnight rates made it difficult for counterparties to agree on prices in term markets. By late last week, the decline in market liquidity and inability of dealers to intermediate was compounding the problem. In recent days, the premium paid to obtain dollars through the FX swap market has increased sharply, and the market's supply of term repo funding has fallen significantly. The commercial paper is particularly concerning. Issuance of paper maturing beyond one week reportedly almost dried up on Friday, and primary and secondary market liquidity for financial and nonfinancial commercial paper (CP) is described as nearly nonexistent at a time when investor concern about issuer credit risk is rising.

In light of increasing credit risk and amid redemptions from their investors, some traditional lenders, such as money funds and asset managers, have liquidated CP holdings or stopped investing entirely. The strains in commercial paper markets are forcing some firms to issue at shorter maturities and in smaller amounts, leaving borrowers increasingly exposed to refinancing risk. Additionally, some banks have indicated that firms are preemptively drawing down their revolving credit lines in order to obtain cash on hand.

With those developments and risks in mind, let me just talk a little bit about some of the actions we've taken to date. As we discussed last week, in light of the highly unusual disruptions in Treasury markets, the Desk made a number of operational changes to both repos and purchases. Let me start first on the repo side. We markedly increased our repo lending operations to address the acute worsening in term markets. On Thursday afternoon, we executed a three-month term repo operation for forward settlement, and on Friday, we conducted the first of the one- and three-month repo operations. Despite the sizable provision of additional term funding, take-up was only about \$100 billion, on the low side of my expectations, and we saw only short-lived improvement in market functioning.

On Friday morning, even as equities rallied, market indicators and Desk outreach suggested that liquidity and funding market conditions were even worse than they were the previous day, with contacts reporting distressed conditions in off-the-run Treasury securities, MBS, commercial paper, term repo, and FX swap markets. As a result, we turned to our second tool, Treasury security purchases. We revised the schedule of Treasury security purchases, announcing that \$37 billion of the monthly scheduled purchases would be completed on Friday. These purchases were conducted across the curve and in unprecedented size. It was the largest-ever daily amount executed by the Desk—by three times—occurring across six operations and taking five hours to complete. Nevertheless, while the purchases reportedly stemmed the decline in liquidity, further action is warranted to improve market functioning.

Now, that brings me to the package of balance sheet actions being discussed today. Our experience to date suggests that although providing funding through repo is helpful, to restore the intermediation process, we think that we should take further steps to purchase larger amounts of securities at a faster pace. This package could be

expected with time to support market functioning and restore intermediation. If the FOMC approves these actions, the Desk would plan to purchase Treasury securities and agency MBS in accordance with the draft implementation note. Purchases would be spread over coming months, with the pace in any particular month adjusted as needed to support market functioning.

In the case of Treasury securities, we would initially purchase securities in larger daily amounts in order to improve market liquidity very quickly. On Monday, we would plan to buy \$40 billion across a range of maturities, in line with the actions we took on Friday. Even with substantial purchases over subsequent days, it would likely take time, though, before conditions return to normal. As they do, we would then slow the purchase pace and put out more regular purchase schedules.

With respect to MBS, the draft directive instructs the Desk to reinvest the full proceeds from MBS maturities and then increase the System Open Market Account (SOMA) holdings of MBS. If this is approved, we would purchase around \$80 billion over the first month, comprising roughly \$20 billion of reinvestments and around \$60 billion of new purchases. This monthly amount should improve MBS market functioning. However, unlike the purchases of Treasury securities, the overall monthly pace of MBS purchases may not decline in coming months. With the extraordinary drop in interest rates, mortgage prepayments are likely to surge this summer, so reinvestment purchases are likely to accelerate, even as purchases conducted to increase holdings are ultimately reduced.

Finally, I want to note that if you approve these actions today, in coming weeks, the Desk will be conducting a larger volume of operations than it ever has, and we will be operating at full capacity across multiple locations. There may be some circumstances when we experience operational delays—for example, because of bidding issues or systems problems—and we may need to reschedule some operations because of the tight schedule. We will respond quickly to such scenarios and have processes for rescheduling in place. The staff in New York, at the Board, and across the System support our ability to execute, particularly on the technology side. And I just want to take a moment to thank everyone for all their efforts last week and as we look ahead.

To conclude: The extraordinary events of recent weeks have taken their toll on asset prices, market functioning, and the flow of credit. In light of this, expectations have grown for further response by policymakers. The actions being proposed today are an important step in addressing some of these issues. Thank you, and I'd be happy to take any comments or questions.

CHAIR POWELL. Thank you, Lorie. Any questions for Lorie and her team? President Harker, please.

MR. HARKER. Lorie, can you give us some insight into your thinking with respect to stock versus flow—that is, instead of putting out a number of \$500 billion or \$200 billion, just put out a monthly number? Because, in both cases, there is uncertainty using the phrase “coming months.” So I’m just curious how you thought about that.

MS. LOGAN. We’re thinking about the sizing of these operations purely from a market functioning perspective. We looked across a number of metrics to better understand what we think the total size might need to be in both the market for Treasury securities and the MBS market. And we think there’s a lot of uncertainty—

MR. HARKER. Sure.

MS. LOGAN. —in trying to size that number. We also think it’s possible the problem could grow in coming days, and we may need to adjust. In addition, we think there’s a risk, just more broadly, that the volatility could influence risk appetite, and then that, too, could influence volatility.

We are thinking that the total amount is probably about right for what we need, but we’re not sure, so we want to start with very large sizes to address the issue immediately. And then, as things start to calm down, we would slow that pace over time and then institute more regular operations that are more similar to what we have done traditionally. We wanted to move away from a monthly set number, because we want to provide a lot of flexibility so that we can react to the conditions we’re seeing and because we expect to start very large and then slow those over time. But we won’t know the exact pace that we need to take *ex ante*.

MR. HARKER. Sure. Okay.

CHAIR POWELL. Thank you. President Barkin, and then President Daly.

MR. BARKIN. Lorie, just to revisit a question asked on Thursday, I'm still trying to get my head into the question of, there's significant demand for Treasury securities, there's a bunch of people also trying to dump Treasury securities, and the yield is incredibly low. If we're having this misallocation, why isn't the price function working? What is it in the intermediation that isn't working? And is what we're doing going right after that or not?

MS. LOGAN. From the dealer perspective, they are taking in a lot of sales from a variety of clients, and then there are some purchases taking place, seeking the safety of Treasury securities. Most of the purchases that are seeking safety are taking place in the on-the-run securities, and most of those that are being sold are the off-the-run securities, the less liquid part of that market. And the dealers are trying to intermediate on both sides.

What we're seeing is that they are taking in a lot of these off-the-run securities, and then they are unable to pass them on. So their inventories are growing. And so where the intermediation process is being clogged is on the dealer balance sheets. We thought initially that we could help the dealers expand those balance sheets by providing term financing. But we learned, by doing that, that they weren't willing to expand those balance sheets, and they didn't take up that term funding. So the next step we're taking is to remove some of that current inventory to make room for them to bring in additional inventory from those that are selling likely from levered accounts or others and largely in the off-the-run securities.

MR. BARKIN. And so our purchases, the \$500 billion, would be very much targeted at the off-the-run market, in which there is illiquidity.

MS. LOGAN. Yes. We'd be initially targeting the sectors that we think are most dislocated or where most of the sales are taking place. And the way that we do our purchases, the algorithm automatically purchases the securities that are the cheapest, which would be those

off-the-run. So it would not exclude the possibility that we might purchase an on-the-run security, but my assumption is that we will purchase largely off-the-run.

MR. BARKIN. Thanks.

CHAIR POWELL. President Daly.

MS. DALY. Thank you. So, Lorie, you mentioned commercial paper markets. And, certainly, that's where my email and phone blew up on Friday and over the weekend, with major companies that are well established not being able to access, to the extent that they wanted to, commercial paper markets. So, when will we know? In your judgment, when will you make the call that the actions we have taken or we are going to think about taking have settled commercial paper markets? Do you wait a couple of days? When would you think that we need to consider a facility just for the commercial paper market or not?

MS. LOGAN. I think that actions that we are proposing here are aimed directly at the liquidity of the Treasury securities and the agency MBS market. We think it's important to stabilize the Treasury market, because all of the other risk assets price from that market, and also because investors use Treasury securities to hedge against other risk-taking. So it's really important, as a first step, to stabilize the Treasury market.

In other markets, like credit and CP, I think there's a combination of things taking place. There's both a liquidity premium being built, but there's also a credit premium. I think that some of the actions we are taking, like the term repo, or the other actions being proposed, like the discount window rate being lowered or term, should improve liquidity in the market. That liquidity might not pass through, though, to this segment. But it's not going to address the credit premium that's there.

My own sense is that the actions we're taking are not necessarily going to stem the pressures that we are seeing in the CP market. I think they will help if we can get the Treasury market stabilized and we can get more term funding out there more broadly into the system. But I would anticipate still seeing more pressures on the CP market.

MR. LEHNERT. And, President Daly, if I could, 12 years ago, the original Commercial Paper Funding Facility limited itself to only the highest quality commercial paper. And, as Lorie said, there's a significant amount of discrimination or tiering between issuer grades. But in the ensuing 12 years, the part of the market that isn't that top tier has grown a lot, and those are the people that are—I think currently, anyway—facing the most acute pressure. So, as we go forward, we have to make some decisions about which part of the market we can or you want to address.

MS. DALY. Sure. You know, one of the things—and I have shared this with Lorie—that captured my attention was, one of the companies that contacted me was in that top tier. And so there was dislocation even in that top tier, and that caught my attention perhaps more than the other ones that are lower quality, for what it's worth.

MR. LEHNERT. Absolutely.

CHAIR POWELL. Are there any other questions? President Kashkari.

MR. KASHKARI. Thank you, Mr. Chair. Just to follow up on the question about the sizing—\$500 billion and \$200 billion. Was there consideration given to making it unlimited: “We will purchase Treasury and agency securities as needed until we get markets functioning again”? It strikes me that that would be an even more powerful signal.

MS. LOGAN. I think, as currently structured in the statement, the last sentence of paragraph 4, which I don't have exactly in front of me, does have that same feel. It's meant to

suggest that the Committee would react as appropriate to information as it comes in. So I think in this package an important part of that and its success is sending a signal that, as we learn, we will respond appropriately.

MR. KASHKARI. Yes. I saw that, and I understand that. But that's language that we use all the time: "We will act as appropriate." My own personal opinion is, I don't feel like that's that powerful anymore, because we've said that a lot. And people kind of know that we will keep playing catch-up. I guess, just in the spirit of trying to get ahead of things, you could announce a bigger number, or you could just simply say, "We will step into these markets as we need to achieve market functioning." Anyway, I just offer it for consideration.

MS. LOGAN. Yes. In the repos we were doing earlier, we used the language "at least" for sizing, and I think that was a good combination that also could be an option for consideration in sending a signal like the one you're suggesting.

MR. KASHKARI. Yes, I agree, that would help. Thanks.

CHAIR POWELL. Okay. Thank you. I need a vote to ratify domestic open market operations conducted since the January meeting. Do I have a motion to approve?

CHAIR WILLIAMS. So moved.

CHAIR POWELL. All in favor? [Chorus of ayes] Thank you. Without objection. Next we'll turn to the review of the global and domestic economic situation. Beth Anne, would you like to start, please.

MS. WILSON. Thank you, Mr. Chair. It would be hard to overstate the tectonic shifts in the global environment that have taken place since our previous FOMC meeting. The world has sustained an exogenous, real, and synchronized shock that is already straining economies and financial markets and personally affecting millions. Because of the nature of the shock and its rapidity, our international and U.S. forecasts have relied unusually heavily on judgement and nonstandard sources of data, including intensified outreach to our sister institutions at home and abroad for news on the ground, and we have all become armchair epidemiologists. I, too, would

like to thank my own staff, my colleagues at the Board and around the System for their incredible work during this period.

As I discussed with you last week, three factors are weighing heavily on our international outlook: one, the rapid spread of the virus and the draconian containment measures that follow in its wake; two, the sharp deterioration in financial conditions, as Lorie just described, and plummeting commodity prices; and, three, for many countries, an expected precipitous drop in external demand. We now forecast a recession in the foreign economy in the first half of the year and a recovery that gathers steam only later this year.

In China, the epicenter of the shock, we see growth falling by double digits this quarter before recovering rapidly, though not fully, next quarter, as aggressive measures the authorities have taken are assumed to contain the virus. Rippling out, Europe is now feeling the shock waves, with much of Italy and Spain grinding to a halt and France following. We expect a deep recession in the euro area. In our forecast, we currently assume that the primary effect on Latin America will be through spillovers—financial stress, lower commodity prices, and falling external demand—but this may be wishful thinking. All of this will hit U.S. shores as, among other things, a substantial decline in U.S. exports this half of the year.

We hope the virus will prove less virulent and countries will be able to normalize conditions faster than in our baseline, but the reality may be bleaker. Unlike the United States, the foreign economy was not healthy before the pandemic struck. Should our assumptions about containment prove too optimistic, the persistent economic weakness may trigger more adverse financial reactions, especially in countries with highly elevated debt levels or weak banking systems. Without too much imagination—declines in global equity price indexes of another 20 percent, a 10 percent or so appreciation of the dollar, and greater hits to confidence—our simulations suggest we could see a contraction of global growth on the order of 2 percent this year, close to or around Global Financial Crisis levels. Fears of such an outcome have already unleashed a wave of policy actions abroad, and much more will likely be seen before this is through. The shock is now hitting us, and Stacey will describe the baseline and risks that we see for our own economy.

MS. TEVLIN. In the United States, we now expect fairly widespread infection and pervasive closures in many cities. As I noted in my remarks on Thursday, we expect that extensive social distancing measures, along with sharply lower consumer and business sentiment, will take a serious toll on economic activity.

Despite the extreme uncertainty surrounding the outlook, we feel reasonably certain that real GDP will decline next quarter. The key questions are how much and how long it will take to recover. In the update we sent around on Friday, we showed two scenarios. We calibrated those scenarios in both a top-down manner—using scenarios from academic researchers and the Congressional Budget Office (CBO), augmented with financial market concerns—and in a bottom-up manner, by looking at detailed spending categories that are likely to be hard hit. One scenario had GDP

declining 2 percent next quarter, remaining flat in the third quarter, and posting only a 0.6 percent gain for the year, with the unemployment rate reaching 4.3 percent. This scenario is consistent with a 15 percent drop in people dining out, taking vacations, and attending public events and a fraction of schools closing for weeks. This scenario also assumes that the outbreak dissipates over the summer and a pretty good rebound is in train by the fall.

In view of the astonishing speed and breadth of the closings and cancellations in the last few days, the calibration in this scenario may be too timid. Our fellow Americans are taking serious and laudable steps to reduce social interaction, which should help slow the spread of the virus but may also deepen the economic downturn. Thus, we also sketched out a much weaker scenario, which seems quite plausible, unfortunately, where social distancing is more extreme; financial conditions are worse; and, as Beth Anne described, weakness abroad is more pronounced. In this case, real GDP drops 8 percent next quarter and 3 percent in the third quarter, and the unemployment rate rises above 6.5 percent by the end of this year. In this scenario, the recovery is slower to take hold.

It is too early to tell how things will unfold, but widespread announcements of cutbacks and closures and the experiences abroad indicate rough going ahead. We will be monitoring all of these as well as a variety of alternative high-frequency indicators. For what it's worth, the private-sector forecasts that we watch most closely are generally in between the two scenarios I've discussed and closer to the less severe one. At this point, I haven't seen anyone projecting our extreme scenario, but they may just be behind. Thank you, and we would be happy to take your questions.

CHAIR POWELL. Thanks. Questions for our briefers? President Bullard.

MR. BULLARD. Thank you, Mr. Chair. On Q1, on the revised scenario that came out on Friday, Q1 is 0.6 percent. So what are we expecting very near term that's going to make the first quarter be 0.6 percent?

MS. TEVLIN. So one of the things we've put in there is the beginning of the decline in the categories that I mentioned: the airlines, the public spaces, the restaurants, things like that. We started to put that in already in March and also the declining sentiment. There's a lot of uncertainty about that, because we are also seeing, obviously, a big pull forward of some spending. So we have contacts, particularly in the e-retailing area, that are seeing a big pull forward of all kinds of expenditures. And so it could be that that is enough to counteract the

declines in some of those other categories. You know, we've put in numbers for March. We could be wrong. At the same time, we are also expecting a pretty big hit to come from net exports, because we think foreign growth is already taking the hit this quarter. So there's a big hit coming from the foreign growth aspect as well.

MR. BULLARD. I see. Thank you.

CHAIR POWELL. Other questions or comments? [No response] Thank you. Then let's move into our go-round on the economy, starting with Governor Clarida.

MR. CLARIDA. Thank you, Chair Powell. The U.S. economic outlook is profoundly uncertain. What was my baseline two weeks ago is now far, far away in the right tail of a very nonnormal distribution. Normally, I'd begin my outlook remarks with a concise review of the flow of macrodata since our previous meeting and then draw some inferences, based on those data, to inform my forecast for the economy over the rest of the year. But although the ultimate consequences of the virus pandemic for the United States are unknowable today, we do know enough already to dispense with rules of thumb and reliance on historical models to dictate our thinking as we navigate through this challenging time.

It is now evident to each of us that the effects of the COVID-19 crisis are striking a painful blow to the economy, with inevitable repercussions for consumer and business confidence that will very likely multiply and prolong the effect of this shock for months and perhaps quarters to come. Widespread resort to social distancing, the cancellation of thousands of events, and restrictions on large gatherings are today a fact of life that will be with us for some time. Life and economic activity are being disrupted to a degree not seen since at least 2001 and perhaps not since 1918. Not surprisingly, in response to these events, financial conditions have tightened considerably, volatility has exploded, and liquidity in many markets has evaporated.

We are, I believe, in the early stages of a corporate and business credit deleveraging cycle, aggravated at home by the collapse of oil prices and abroad by the collapse of commodity prices. Credit spreads are widening, and crowded trading strategies are unwinding. Some companies will go under, and many will be downgraded. Investment firms will liquidate portfolios, with the proceeds they pay out fleeing to the safety of Treasury securities, dollars, and bank reserve deposits in our coffers.

Each of us today faces the challenge of cobbling together a baseline outlook and forming a judgment about the balance of risks. Here are my thoughts, for what they are worth. I do know that the economy began the year in a very good place—with the consumer in the best shape in decades, unemployment at a 50-year low, wages rising, GDP growing at or perhaps above trend, inflation tame, and, importantly, the stance of policy accommodative.

And it is indeed a very good thing that the economy ended the year in a good place, because the hit to activity in the second quarter of this year and from the laudable efforts to contain and mitigate the virus are likely to be significant. Among the forecasters I respect, including Stacey, Beth Anne, and their teams, the emerging consensus is that real GDP will contract in the second quarter, perhaps sharply, and that today is also my base case.

Most, but not all, analysts do project that growth will return by the fourth quarter of this year, based, I believe, on the presumption that the virus will be successfully contained sometime in the summer. Though economic historians may with hindsight judge this forecast to have been overly optimistic, it is my forecast today.

This, then, leaves Q3 of 2020 and whether or not to project an actual recession in the baseline. Certainly, there is a real risk of recession, and forecasters I respect, such as Macroeconomic Advisers and Ed Hyman, have already made that call, but today it is not my call.

Under appropriate policy, which I will discuss later, my baseline view is that a U.S. recession can be averted and GDP growth for 2020 will come in around 1½ percent, well below my forecast in December but positive. As for inflation and unemployment, I agree with the baseline Tealbook projections. Specifically, on inflation, the net effect of the virus is likely to be disinflationary, not inflationary. COVID-19 may well disrupt some supply chains, but it represents a huge shock to aggregate demand. Even if, as I hope, we avoid a recession, my baseline view is that we will end the year further away from our price-stability objective than we began. Thank you, Chair Powell.

CHAIR POWELL. Thank you. Vice Chair Williams.

VICE CHAIR WILLIAMS. Thank you, Chair Powell. I would like to echo my colleague's comments. I agree with all of them. So instead of going through the economic outlook and the challenges there, I think I'll focus on the financial conditions that Lorie described just a few minutes ago.

We are seeing stress and illiquidity and market dysfunction across a number of key, I would say, cornerstones of our financial system. This isn't about the volatility in the stock market or some of those other markets. It is really about—to me, the primary focus for us is the fact that the U.S. Treasury securities market, which is, quite honestly, the most important market in the world, has shown a rapid deterioration in liquidity over the past week. I think that when we think about what's going on here, it's partly due to the volatility in markets. It's partly due to the issues that Lorie described a few minutes ago, in terms of various institutions trying to move Treasury securities around rapidly. But, importantly, it's spilling over into the broader financial system. So the U.S. Treasury market is showing extraordinarily low, low levels of liquidity, similar to what we saw in the financial crisis, that's spilling over into the mortgage-backed

securities market, which is absolutely critical for the transmission of monetary policy, in terms of lower interest rates getting to borrowers, in terms of lower mortgage rates. It's spilling over into the commercial paper market, as President Daly mentioned a while ago. And we're seeing it, unfortunately, spill over into broader market conditions.

When I think about how these developments in the financial markets affect our ability to carry out our monetary policy and actually for those decisions to get to the businesses and households, it is absolutely essential that the Treasury security and the MBS markets are functioning well. That's where our focus has been, and I think that's where our focus needs to be, because without that, anything else we do won't actually work the way we want it to.

In terms of what we've seen so far, as Lorie mentioned, we saw some positive effects from the purchases, which suggests that the diagnosis that, really, it's about clogging of the pipes into the Treasury market seems that we've got evidence that that's true, and we're seeing some small improvement but not nearly the level of liquidity that we need to see in this critical market. Therefore, we need to just double down on the actions we've taken that started on Friday.

In terms of broader financial market disruptions, as we've discussed, I think our first goal is to make sure the Treasury security and MBS markets are functioning well. I think, in terms of having less perhaps uncertainty in the market about monetary policy and more certainty about our willingness and our actions to act forcefully to bring the Treasury security and MBS markets to more stability and hopefully more liquidity, those will benefit these broader market disruptions, especially in the term funding markets. But as Lorie said, that doesn't actually address the credit issues. But if we don't get this right, then I don't think we can have success more broadly. So, again, I think that's our focus.

In terms of next steps, everybody is thinking about that. Obviously, areas that we're seeing stress is in the commercial paper market. That's an area of intense focus at the staff level, to think about what our options are and what we need to think about for the future. And right now what we're hearing is, a lot of banks—you know, a lot of borrowers are tapping into their credit lines, making sure that they have that liquidity for the situation that may be coming.

In terms of the economic outlook, I agree with Governor Clarida, and I agree with Stacey's description of the short-term outlook. And my concern is that we definitely need to see significant fiscal stimulus in order to, basically, alleviate some of the downturn in the economy. So far, what's been announced I don't think will achieve that, but hopefully we'll see more on that front.

So I think I'll leave it there. My focus right now is really that we need to get these key markets running effectively. And if we do that, I think then our policy will transmit more effectively to the broader economy, and that's really what we need. Thank you.

CHAIR POWELL. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chair. The epicenter of the major coronavirus outbreak in Massachusetts began with a Biogen conference held in Boston with 175 executives on February 26. Now Massachusetts has 138 cases already confirmed statewide, and most people with symptoms are not tested. Boston's schools are closed until the end of April. All large meetings are canceled. Colleges and universities are now online, with many large firms having already moved to essential personnel working at work and everybody else working remotely.

When one considers that according to Centers for Disease Control and Prevention (CDC) estimates, between 30 million and 49 million Americans had the flu this year despite

vaccinations, a 20 percent infection rate for the coronavirus—which is the most optimistic outcome that I received from a leading emergency medicine physician at a major Boston hospital—would imply 65 million eventually infected. If one assumes an optimistic 1 percent mortality rate, that would result in 650,000 deaths due to COVID-19. The medical professionals I consulted in Boston view the 20 percent infection rate and 1 percent mortality rate of those infected as a very optimistic scenario. With the lack of a national strategy and the delays in implementing effective public health measures, I, too, think this is an optimistic outcome, so my forecast may even be a little rosy.

Given the current data, my forecast expects an outcome between the Board staff's latest baseline and its pandemic scenarios. I am expecting a recession, reflecting the delays in implementing testing and social isolation. In looking at China, Italy, and South Korea, social distancing should have significant effects on aggregate demand. Both consumption and business investment will be hit in the near term. The severity of the recession will be dependent on public health actions and fiscal policy, and a continued slow pace of policy actions could well tip the economy into a more severe recession, like as shown in the severe pandemic scenario in the forecast update.

Low-income individuals, hourly workers, and gig economy workers are likely to be severely hurt. The energy sector, which has significant high-yield debt, is likely to experience numerous defaults. Retail, restaurants, and hotels, which employ a large number of people at the low end of the income distribution, are likely to start laying off a substantial number of workers, and many of these firms are themselves at severe risk of default.

In addition, the effect on financial markets has been substantial. Financial firms complain they cannot even trade in off-the-run Treasury securities. Trading desks are not

effectively making markets either because of risk aversion or poorly allocated internal capital preventing an expansion of balance sheets. Mortgage markets are badly disrupted. And with hedging strategies difficult to implement, the spread between yields on MBS and Treasury securities has significantly widened, thus preventing lower interest rates from reaching consumers.

Firms complain that the corporate bond market has shut down, and even firms outside the energy and hospitality sectors have been taking down their lines of credit to protect themselves against bankers preemptively reducing those lines. In effect, despite banks being well capitalized and meeting liquidity requirements, their behavior is more consistent with hoarding capital and liquidity.

We should be closely watching firms that have excessive leverage and low interest coverage ratios. Discussion with private equity and hedge funds indicate that they are drawing down lines, frequently with nonbank providers of credit, which are stressed. We are likely to see the shadow banking system shrink, perhaps dramatically, and more firms looking for bank credit.

Firms that have disrupted cash flows for several quarters may quickly see their credit ratings fall. I fear that we will observe these leveraged firms shedding employees more quickly, pushing the unemployment rate noticeably above the natural rate. The cost of low-for-long, I fear, is about to become apparent, with an extremely severe outcome for many workers.

In summary, we should take significant actions to support asset prices, reduce the cost of credit, enhance credit availability, and ensure highly liquid financial markets. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Harker.

MR. HARKER. Thank you, Mr. Chair. So it appears that there's so much uncertainty regarding future economic activity that reporting on current regional conditions would contribute little to the decision we face today. What I can relate, though, is conversations we've had with a number of manufacturers in the District last week. Those conversations were somewhat reassuring. They pointed to no planned layoffs as well as a resumption of activity in the near future, especially in China, and they think any shortage of parts or disruptions to supply chains will be relatively short lived. The information on the supply side, then, is that some things are returning to normal, but there will be Q2 shortages, as it takes time for parts to arrive.

What will happen on the demand side and subsequent economic activity is, as others have said, fraught with uncertainty. And, frankly, I just don't think I want to speculate at this point, other than to agree with some of the previous comments on where the path of the economy is going. So we'll discuss what that means for my policy views in the next go-round. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Mester.

MS. MESTER. Thank you, Mr. Chair. Economic data from the District are dated, as a number of people have said, so I'm going to discuss some of the anecdotal information that we have collected in recent days from business contacts in the Fourth District. Before the emerging coronavirus situation, business conditions were quite sound, with growth continuing at a modest to moderate pace, labor market conditions remaining strong, and price pressures remaining moderate. Reports received from business contacts since the first cases of the virus in Ohio and the steps the state has taken to encourage social distancing have been more positive than I might have thought. But everyone understands that this is a rapidly changing situation, and some deterioration is expected.

So far, Fourth District firms report the virus has had a limited effect on supply chains, but effects have been felt by businesses dependent on travel and tourism and in portions of the construction industry that rely on parts from China. In a special survey of District businesses late last week, one-fourth of the 60 respondents said they had seen no disruption to their business because of the spread of the virus. More than 60 percent said that disruptions were minimal or manageable, but two-thirds of those expect the disruptions to worsen over the next month. The main sources of the disruptions so far are a drop in demand and difficulty getting staff members to their usual place of work.

One small business manufacturer of hydraulic systems reported that because of the ban on travel from Europe, he is having trouble getting the parts he needs from Germany. He said supply chain disruptions are a much bigger challenge than the tightening of credit and bank covenants he faced in 2008. A large multinational aerospace manufacturing and power management company said that, with respect to aerospace manufacturing, the disruptions, including those associated with the 737 Max, are worse than those in 2008 and 2009 and are more like those after 9/11. His firm has instituted a hiring freeze and has cut investment spending. He anticipates that, with the recent government actions, buyers-related effects will be resolved by the end of the second quarter, but that industries, like oil, facing other challenges won't see improvement until later in the year.

A large national department store retailer headquartered in the District has seen a broad-based nationwide pullback in physical store sales since the middle of last week, with an average sales decline of 60 to 70 percent across the nation as of Friday. Another international retailer says that sales in China are still weak but have begun to come back.

One of our directors from a large international manufacturer of personal care and household products said that demand was very high for their products because of pantry-loading, but it's not clear what will happen to demand after people stop going out. Their operations in China are getting back to normal, with rotations of workers within plants. In the United States, their operations are changing hour by hour, depending on location. This company has had no problem rolling over its commercial paper, and it is not changing its investment plans, as they are over relatively long horizons.

Another director from the oil industry said the U.S. production of crude oil hit record levels in February, but the industry is under stress because of global developments, with China representing 14 percent of global crude consumption and oil prices down sharply because of, as she put it, "OPEC's last-ditch effort to remain relevant." She said there will be no interruptions in power or pipeline operations for oil and gas from work-at-home operations. And, in her view, while there will be short-run pain from the industry, we will actually be stronger on the other side of this because consolidation in the industry was needed.

A residential builder has not yet noticed any changes to consumer demand but expects some pullback, given that the firm lost about half of its signed business because of financial uncertainty after 9/11. A commercial real estate firm said that the recent Committee rate cut has not affected his company. He expects some tenants that were already in a tenuous financial situation to be further stressed by the effects of the virus.

Many businesses, including the Cleveland Fed, have instituted work-from-home arrangements for nonessential onsite workers, have canceled group meetings and programs, and have significantly limited travel. Our contacts acknowledged it is too soon to determine what the effect on orders, activity, and productivity will be, but they expect all will be down.

As of late last week, regional banking organizations in the Fourth District reported that credit-line utilization had been at normal levels, but they expect that to increase. They are implementing measures, such as skipped payment programs for consumer borrowers, and are working with the Small Business Administration to offer some relief to small business borrowers. Smaller banks report that requests for interest rate concessions have been opportunistic and not because of hardship in the requesters' businesses. One community banker did report that at least a dozen customers have asked to withdraw large amounts of \$50,000 or more from their accounts, and these have been older customers.

Bankers reported that they welcomed the recent statement from the federal bank regulators that "Prudent efforts that are consistent with safe and sound lending practices should not be subject to examiner criticism." However, they say it remains to be seen if the examiners will actually follow this practice. The Cleveland Clinic has taken significant measures to increase its testing capacity for the virus and to ensure that health-care providers are protected so that they can continue to carry on their mission. A recent action by the federal government to relax restrictions on telemedicine will be a valuable aid to health-care providers, disease containment, and the public.

In light of the stoppages in activity occurring across the country, negative output growth seems likely, at least for the first half of the year and perhaps longer. A scenario that lies between the Tealbook's revised baseline forecast and its "severe pandemic" forecast does not seem unreasonable to me. That said, I acknowledge there's considerable uncertainty and downside risks to the forecast, particularly if financial markets remain disrupted. It is not clear what the recovery from the downturn will look like, both in terms of strength and when it will commence. The magnitude and duration of the downturn and the shape of the recovery will

depend on the course of the disease and the policy measures taken to ensure adequate access to testing and health care for those who are sick. Recent fiscal policy actions are very welcome in that regard and in helping to ensure that those most affected have some financial support. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Barkin.

MR. BARKIN. Thank you, Mr. Chair. I want to start by applauding the staff's efforts to assess and size the effect of the coronavirus. It's a heroic effort on what I think is an impossible task. For me, I just wish we were summarizing conditions as of the end of February. I would have said the economy remains healthy, with labor markets strong, consumer spending solid, and, potentially, even the first glimpses of stabilizing business investment.

Alas, we are tasked with looking forward. Obviously, the coronavirus is a global tragedy, and the U.S. response has been a challenge. It's impossible to know whether, in the letter language I've grown to know, we're looking at a lowercase *v*, a capital *V*, a *U*, a *W*, or—God forbid—an *L*. To try to better understand where we are, my team and I have invested extensively in our District. We still see significant parts of the economy as economically healthy, like residential construction or health care. We see a four-to-five-week air pocket in China-based supply chains, especially those operations centered in Wuhan, with lean inventories and no alternative source of supply.

Many manufacturers have been surprised that their suppliers had hidden exposure to these supply chains. But, with modest exceptions, most companies we talked to are finding a way to make it work by locating alternative sources of supply, stretching out delivery times, working down inventories, leveraging air freight, and the like. So long as production continues

to scale back up in China, most of our contacts expect sporadic but not disabling supply chain shortages.

Businesses and consumers have cut back travel. As a result, airlines, hotels, cruise lines, caterers, and conference venues are hurting. As President Mester said, as airlines have cut back investment and the Boeing troubles continue, aerospace manufacturers are struggling, too. Entertainment, physical retail, and restaurants held up until about a week ago, but they are now being hit as well, and the many leveraged small businesses in those segments are at significant risk.

Employers are readying their crisis plans but largely haven't yet reduced head count. And in a tight labor market, many are trying to determine how to avoid losing workers they will need when the crisis passes. Salaried employees are increasingly being asked to work from home, banks tell us they will pay tellers even when the branch is closed, universities are still paying their excess frontline staff for now, and airlines are offering voluntary leaves of absence. As President Harker said, manufacturers still don't expect lengthy outages and point to success with running plants, even in China, enforcing preventive health measures. I would point out, there is a big downside risk if this plan doesn't work, and food processors, health-care manufacturers, grocery stores, and the like start to see health- or fear-induced labor shortages. On net, we see hiring dropping immediately, as businesses exercise caution on open positions. And if a shutdown lingers, employers will take action soon enough.

I do believe a health-driven supply shock to the U.S. economy could be manageable—that is, if it were well managed. I take signal from the fact that Chinese production facilities have been back at work for about five weeks, with reported cases down. But I worry whether our country's response at all levels is keeping it contained. The risks it presents to

decisionmakers are asymmetric. For institutions whose revenue streams are protected, like my daughter's university or public schools or, frankly, our institution, the risk of infecting employees and students incents widespread shutdowns. Businesses and political leaders who fear disabling their companies and their economies, in contrast, will naturally resist but risk being forced to move once public or employee concern turns into panic.

As an aside, white-collar social distancing alongside blue-collar workers continuing to go to work and produce goods and services feels to me like a fragile and, frankly, unstable mix, both economically and socially. A coordinated approach, in which compensation and, therefore, consumption are protected and the quarantine period is adhered to broadly, could have had health benefits and limited the size of the *V*. But I think we are seeing an uncoordinated set of individual initiatives that will damage the economy for longer without fully resolving the health challenge.

We talked to government officials who can't imagine taking broad-based action. We talked to school officials who don't consider the childcare implications of a shutdown. We talked to manufacturers not conceiving of absenteeism-driven shutdowns and the supply chain implications. We don't see much commitment to controlling reinfection risk in the way Chinese factories have been managed. And, of course, our hospitals are concerned about their capacity to handle the coming workload.

Social distancing looks like it is accelerating. It will help hospital capacity but will extend the duration of dislocation. As testing ramps up, the perceived scale of the outbreak will widen, and the level of public concern will rise even further.

The asymmetric risks I discuss will make it hard to make the call to come back to work. Fiscal stimulus will eventually arrive and should help somewhat, but, as Vice Chair Williams

said, it doesn't yet seem scaled to the situation. And so I see this as a *U*—I hope a short *U*, but that depends on our public health response. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Bostic.

MR. BOSTIC. Thank you, Mr. Chair. Happy Sunday morning to everyone. I'd like to start by echoing sentiments of thanks to the staff across the System. Everyone has come together, and the collective effort has put us in a stronger place to make policy decisions.

Because most of the hard economic data we have on hand is backward looking and of little use for the current discussion, I have relied heavily on information from business and community leaders in the District. The feedback that we have received can be summarized by the phrase “evolving rapidly.” Over the past few weeks, we have been asking directors and contacts to rate the disruption to their businesses from the COVID-19 situation. A week ago, the overwhelming response to our 5-point scale was a 1, which corresponds to “My business is experiencing minimal disruption.” Just one week later, the overwhelming response was a 2: “My business is experiencing some disruption, but I expect things to remain manageable,” with most saying that the situation felt like they were moving quickly toward a 3: “My business is experiencing significant disruption, although I expect we will be able to bounce back quickly once things settle down.”

Consistent with our in-person interviews, evidence from our survey efforts also shows an increase in disruption and uncertainty from the first to the second week of March. Importantly, preliminary results from our National Survey of Business Uncertainty, which is still in the field through the end of this week, show a marked deterioration in year-ahead sales growth expectations and a sharp increase in uncertainty. In a special question, firms were asked to provide their best guess for the effect of the coronavirus on sales revenues in 2020, with the

average firm expecting a hit of roughly 5 percentage points to sales growth this year. The main “takeaway” here is that the downside ramifications of the COVID-19 pandemic for the economy have escalated significantly in the past week, and today there are no signs that this trend is abating. We will continue to gather information on this disruption index over the coming weeks, and we’ll share what we learn with you as it comes in.

Not surprisingly, the most significant effects are being felt by businesses that provide discretionary services involving interaction with other people—airlines, cruise lines, restaurants, hotels, convention centers, movie theaters, and recreational and sporting venues as examples. Consistent with what President Harker reported and as just articulated by President Barkin, we heard from most businesses that rely on inputs from China that the effect has been mild. Among the reasons they highlighted for this were annual inventory building in advance of the Chinese New Year break, the increased reliance on non-Chinese sources for inputs established in response to the Administration’s trade dispute with China, and reports that Chinese production is ramping up quickly. One important exception was reports from hospitals that expressed considerable concern about the shortage of needed medical supplies, much of which is sourced from China.

On the labor front, most contacts reported that they are looking closely at their staffing needs and at ways to avoid laying off staff members. For instance, restaurants have attempted to ramp up their delivery services to mitigate the effect of decreased foot traffic. To date, we have not seen significant layoffs among District employers. I will note that the prospects for growth are extremely low, though. Several contacts noted that they have imposed hiring freezes for the foreseeable future.

Many businesses have instituted alternative workplace arrangements where feasible, although many are discovering that their current technologies may not be sufficient for effective large-scale telecommuting. Demand is obviously increasing rapidly in the health-care sector, and there is general concern from hospitals that there is very little spare capacity in the system. There is clearly a risk of the health system becoming overwhelmed. In recognition of that, hospitals and health-care providers are working to institute telemedicine options where appropriate, and they are delaying non-emergency procedures to free up some rooms. Medical staff shortages are also a major problem, and some hospitals are planning to institute double shifts in an attempt to handle the expected heavy influx of new patients.

I'd like to close by recognizing that the brunt of this crisis will fall upon those who are the most financially fragile. How they are able to weather this crisis will largely determine the depth and the breadth of our nation's economic disruption. It is a sobering reminder that inequality in income and wealth and economic resilience can have significant macroeconomic implications. Our Bank is increasingly engaging on these issues, and if you are not already doing this, I strongly encourage you to follow suit.

In sum, the effect of the pandemic on the health of the nation and the economy is evolving rapidly. My baseline forecast does not include a recession, but the outcome will ultimately depend on how citizens, businesses, and policy respond to this public health emergency. And, as many have noted, there is much uncertainty in this response on all three fronts. We need to be nimble in response in order to maintain an appropriate stance for policy against this ever-shifting landscape, but more on that later. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Evans, please.

MR. EVANS. Thank you, Mr. Chair. And I want to thank the staff and everyone who has put in so much time and hard work. New York has a markets group here in Chicago, and I always feel like something bad is happening when I go up there to listen to their morning calls. Everybody is performing with great dedication and diligence, and I know that the economic outlook and international forecasts that we saw were heroically done. So I really appreciate that.

I think Beth Anne hit the nail on the head for me with her amateur epidemiological comment. I'm reminded of a comment I recently read from an epidemiological expert regarding viral outbreaks. He said that if we do our job correctly to limit the spread of the virus through aggressive social-distancing tactics, the nation will look back and think we overreacted, and that would be success. But if we delay and don't act with appropriately strong restrictions, the nation will be overwhelmed. I do not mean to suggest that this is the uncontested advice for appropriate monetary policy. But, as Mark Twain might have said, it does rhyme. Things are moving fast, and the information content of many of my contact reports has already been overcome by events. Still, I want to highlight two themes, which undoubtedly remain relevant. First, at this point, the nature of uncertainty is impossible to quantify. This is truly the Knightian uncertainty situation. Financial markets are struggling to even bound the risk posed by the coronavirus, let alone price it amid massive trading volumes as investors attempt to both rebalance and exit now wrong-footed risk positions and market intermediaries step back, reluctant to make markets in such an unprecedented environment.

Similarly, many nonfinancial businesses are moving from their initial complacency that the virus was going to be contained to now feeling completely in the dark. As one of my directors put it, even when you are waiting for a hurricane to make landfall, at least you have some scientific-like meteorological forecast to assess and prepare for and some experience with

the range of outcomes. Today, at best, everyone is laboring to find some informative prior experience to guide them, but many are falling short. In helping the process, strong and effective direction from national leaders seems crucial. In this environment, firms are really struggling with their operational plans. This is particularly true in the case of those businesses for which working from home isn't feasible.

I will share just one report as an example of risk the economy faces. I spoke with a large heavy-equipment manufacturer on Thursday. What was most interesting is how the CEO characterized the decisions they need to make now. Management teams know they have to take costs out, but which costs, and by how much? Should they be thinking about how to make it through three weeks, three months, or six months? In reducing workforce and orders to suppliers, the CEO is mindful of the desire to maintain capacity to ramp up production when the public health crisis abates and, it's hoped, demand bounces back. If things go well, that would be soon enough that he wouldn't have to make drastic cuts. But, clearly, that might not be the path forward. He just doesn't know. I emphasize this report because it highlights the potential of a more persistent economic risk—that the public health crisis extends and amplifies moderate spending reductions into a strong corporate emphasis on large bottom-line adjustments, and the problems will be compounded if business risk aversion increases further.

Investment was already disappointing before the outbreak, and now businesses could pull back even more on cap-ex. Firms can also pare back workforces in a more meaningful manner. This would certainly take the luster off of the shining star of the recent U.S. expansion, which has been the strength and confidence of the consumer. Clearly, longer-term investment could weaken, and consumers could pull back substantially. If strong national leadership isn't forthcoming, it is not hard to envision some dark scenarios. This brings me to the second theme

coming from discussions with our contacts, which I've already alluded to a bit: the need for forceful, coordinated action from policymakers, particularly public health officials and fiscal policymakers. My contacts bemoan the lack of credible information about the spread of the disease and the lack of programs targeted at dealing with the fallout. There was also general recognition that monetary policy, at best, can cushion the blow. It's up to other policymakers to carry the main burden.

With regard to the national outlook, the forecasts prepared by the staff were very useful, and many thanks again to Stacey, Beth Anne, and your groups on doing an outstanding job in providing us with benchmarks to gauge how bad things really are or may become. I can't improve upon these numbers, and, in any event, whether we write down a 1 percent increase or a 1 percent decrease in output for this year isn't going to have much influence over my policy recommendations now or in the near future. I think our task is to figure out what we need to do to get through the next 6 to 12 weeks. After that, we should have a better view on the economic and financial situation and what we need to work our way through the damage. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chair. We meet today with a deteriorating situation, which is changing daily. One of the features of a crisis is that what you thought you knew and what you thought about the situation can get altered very quickly. I think that is actually happening as we meet here. I think we have to keep focused on the idea that expectations will play a crucial role in how this develops, and it's important to manage these expectations carefully and realistically, given developments on the ground.

In my view, the main current development just, actually, in the past few days or week is the looming European shutdown and the fact that the European economy, if you add it all together, is bigger than the U.S. economy. So this is really quite a development—more cases in Italy than there are in China and growing rapidly, Spain evidently taking on the Italian policy just today. So just one idea here, the idea of China sourcing and is it going to get ramped up again—well, now you've got European sourcing and European issues. So, to me, this is the main current development, and it certainly does not bode well for near-term developments in the global economy.

Now, for the United States, we obviously have a slowdown ahead. It's not a recession yet, and I do think we have to manage expectations about this very carefully. It's not clear that we're going to get two quarters of negative growth just sitting here today. It may happen, but I don't think we want to be leading that. There's going to be enough talk of recession already anyway. And, as I say, the expectations are quite important here, as I'll detail in going through these remarks here.

My baseline, like the Tealbook baseline, is that Q1 will be okay, Q2 will be bad in some sense, and then we'll be better in the fall. So I think the narrative around that is that what's going to go on in Q2 is just that we're going to have to pull back so that we can slow the growth of the COVID-19 cases, and then we'll recover in the second half of the year. Now, a bad Q2 could be as much as 10 percent, at an annual rate, decline. We did experience that, if I recall my macro history correctly, in 1980. We actually had a one-quarter, very severe slowdown there. That was often attributed to credit controls. And then the economy came back right after that. So there is at least one tidbit of historical information that you can look to.

I don't think we're there yet, though, for that kind of a quarter. It's "work at home," not "go home." People will quit going out to eat, but they still have to eat. There's a lot of mobile technology in the United States, and this may be the chance for the mobile technology to really come into its own. And so it's not at all clear exactly what's going to happen in Q2. But the point would be, even if you have a really, really nasty second quarter, there's no reason why you can't come back in the third and fourth quarters.

So I'd just like to step back a little and think about what we're talking about here. The second quarter would be a voluntary and appropriate response to ask people to take less national income in that particular quarter so that you can fight the virus. We're all Type A personalities, and we all want to fight and have growth in the economy at all costs, at all times, but this maybe isn't really the time to press ahead with raging U.S. growth. This is a time to say, "Okay. Let's relax. Let's make sure we get this sickness behind us." We don't want to encourage production in an environment in which you're going to make people sick. That's common sense. But I think if our messaging is on that kind of level—and I think it is, to some extent, for the person on the street—then I think we can be successful.

Now, the recession talk—and "recession" is almost all defined by labor markets. Sitting here today, I do not think that firms want to lose workers if they expect a rebound in the second half of the year. You've got a very tight labor market. They understand the disease to be temporary. So if they do expect a rebound, they're going to want to keep those workers that they have affiliated with their company. On the other hand, if they start to think that this is going to be a widespread downturn that's going to last for three or four quarters, they are definitely going to let workers go. So I think the issue for the economy about how negative this turns out to be is

really the framing of the second-quarter issue compared with the second half and what the expectations are for that.

In my opinion, the goal for us in the near term is to keep U.S. productive capacity intact so that national income can return in the second half of the year. For firms, I think we need to get them to focus on the medium-to-long term. They have valuable enterprises. It would be senseless to have them destroyed in a one-quarter turndown when you know they're going to be able to make money further in the future, and it is well understood that the one-quarter slowdown or negative quarter is because of a health response.

I also think we need to keep pressure on the idea that this is a health crisis, so you have to have a health response, and that's where the best marginal dollar is spent, getting the virus under control, and not have the response come over to the central bank in this situation. We really want to get the virus under control, and we'll be in a much better situation at that point. I also think we have to keep pressure on fiscal actions designed to protect productive capacity in the economy, and I think we are seeing some action. I would also say about that, in a sort of unified and coordinated response, it's a big, complicated country. I don't really expect everything to be perfectly coordinated. It's a chaotic crisis.

I think the strength of the country is that once the message gets out, you have kind of an overwhelming response at all different levels in the economy—state, local, federal, at the firm level, at the nonprofit level, at the individual level, at the family level—all kinds of responses all over the place. And I actually think that that adds up to a very good response at the end of the day. But I would not press the narrative that you have to have the dictator that knows everything going on in the whole economy everywhere and can make exactly the right choice at every node.

I want to just make a brief comment about oil. The oil price decline is sometimes cited as a huge negative. I don't think that's appropriate for the United States. I think we've talked about it before. There is a negative aspect for the United States. There is also a positive aspect for the United States. It does act like a tax cut for consumers. Gee, that's exactly what you're trying to get out of the Congress. So, in that sense, I think oil goes both ways for us in this situation. So I think we should stress that and not necessarily see that as a big negative. Obviously, if the global economy goes into recession, which it looks like it will, oil prices are going to stay low for a while.

I think there are two big issues for this meeting on the policy side, which I'll get to in the policy round, but I'll preview them here. One is that I think going back to the lower bound at this meeting will bring up the issue of negative rates in the United States within hours of our announcement. And I don't think that the Committee is completely prepared for that debate. We've talked about it a lot. I think most members have said—maybe all members have said—that they don't like negative rates, and we don't want to go to negative rates. But we're in a crisis situation. We're going to come under immense pressure on that issue. We have to have a very good argument about why we're not doing that or why we think other avenues are more appropriate.

And, second, for this meeting, I think the Quantitative Easing (QE) explanation—are we doing QE? Do we want the message to be that we're doing QE? Are we doing QE for market functioning, or are we doing it because we are trying to stabilize or encourage growth in the economy? QE has been most successful when we saw it as a monetary policy action, and we promised to continue to do it in order to meet our objectives. If we're going to say it's mostly for market functioning in this situation, that might take some of the edge off the policy effect that

you'd be hoping to get here. So this is a very tricky issue, in my view—how the Committee should communicate and set up expectations about future monetary policy actions. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Kashkari.

MR. KASHKARI. Thank you, Mr. Chair. Like the rest of the Committee, there's a huge range of uncertainty for us in trying to assess what the virus is going to mean for the economy here in Minnesota and our region. It's been a little slower reaching us than it has the coasts, but businesses here are very focused on it.

Like others, people are wondering, are we on the path of China, South Korea, and Japan, or are we on the path of Italy? We just don't know yet. Even the China example—we hear from our large companies that do a lot of business in China that China is turning back on. I think you all have heard this. But does that mean, when you relax the economic controls, that the virus flares back up again? I think this is really unclear. Is China really out of the woods yet, or can you have relaxed controls so you allow economic activity while still maintaining control of the virus? I think these are just huge unknowns.

My base-case scenario is that we are going to see a recession this year. My baseline is something like a “2001 recession,” after 9/11, rather than a “2008 recession.” If we’re going down the path of Italy, it’s more likely going to be a “2008 recession” than it is going to be a “2001 recession.” And if you do have to impose these controls, when can you ever relax them? Is it when a vaccine is around, a year or 18 months from now? Or is there something you can do sooner than that?

The most optimistic scenario that I have heard is that warm weather may help over the course of the summer, which may give health authorities a chance to catch up. But, again, if it

flares back up in the fall, you may have to clamp down on the economy yet again. So this could go on for a month or two, or this could go on for quarters from now. We just don't know.

One thing I'm reminded of—and this echoes something that Charlie said—back in the financial crisis, the one mistake that, collectively, the Treasury, where I was, and the Fed repeatedly made is that we were always slow, we were always too little, and we were always timid. And that was because we didn't know "Is this it?"—right? Is this as bad as the crisis is going to get? We didn't want to overreact. But, as Charlie said, when the downside scenario is the great financial crisis, the downside scenario is a deep, deep recession, the downside scenario is an Italy scenario, the right policy response is to overreact, because you want to clip that very deep—maybe it's small, but very deep—hole. I just think, as we think about policies for this and coming meetings, we should not worry about overreacting. We should be erring on the side of doing too much, not doing too little.

And when you think about the policy responses broadly, as others have said, first and foremost, this is a health policy response. Second, it's fiscal. But fiscal is really difficult. You know, think about—you're going to have airlines going out of business. The Congress and the Executive Branch know how to bail out airlines and auto companies. But for the thousands of restaurants and barbershops and coffee shops, what is the right fiscal response there? Some people have said, "Oh, the Congress should just give a \$1,000 check to everybody." Okay. That'll help the laid-off barista a little bit, on top of unemployment insurance, but it's not going to do much for the person who owns that coffee shop that has a mortgage or a lease.

And so I just think about—yes, we all hope for a profound fiscal policy response, and we know how to design that or the Congress knows how to design that to stimulate aggregate demand. But to target it, it's like the problem we had in 2008. People said, "Well, why don't

you just bail out millions of homeowners individually?" We didn't know how to do that in any kind of reasonable period of time, and so how does the Congress come up with something that's going to work for tens of thousands of small businesses across the country? I don't really know. And if we can help them think through it, we should do that. But the answers are not obvious to me, and so we do have to do our part. And as we hear businesses in our District, even though it is not directly hitting our District that hard yet, businesses here are also drawing down their credit lines just out of an abundance of caution. And so we're getting into the classic lender-of-last-resort function, and we know how to do this.

I'm not going to jump ahead to the policy response. But, again, I just think, for our part of this that we can respond to, we should be erring on the side of doing too much, and that first and foremost starts with lender of last resort. Related to Treasury and agency securities, certainly, but I think very quickly we are going to get into credit markets. And then that's where we are going to need to focus our attention and how to design those in a way that can support the economy, without having us "step out of our lane." Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President George.

MS. GEORGE. Thank you, Mr. Chairman. Across our District contacts, we see clear signs that the combination of the steps to contain the virus outbreak and the oil supply shock is already weighing on economic activity. Nearly 40 percent of contacts in our February manufacturing and services surveys reported some negative effect from the pandemic, and nearly 50 percent expect a negative effect for the remainder of this year.

Supply chain disruptions were the most frequently cited issue, although more recently our contacts have noted that Chinese supply chains were beginning to function. Some contacts expect the shipping backlogs will develop once demand returns, with smaller companies likely

facing the biggest challenges. Contacts in the hotel and travel industry reported significant cancellations in corporate travel and group and business meetings. Hotel revenues for early March were off by more than 20 percent in some areas, with expectations of further decline in coming weeks.

We heard a range of views about workforce implications from our contacts. Some said they would be reluctant to lay off employees because of the difficulty in finding well-qualified workers and would try to find ways to retain them, hopeful that the slowdown would be temporary. Others reported a halt to any new hiring, hoping to shrink by attrition. Those in oil and gas or tourism and entertainment expect job cuts right away.

The recent turmoil in oil markets is compounding the existing challenges for the oil and gas industry in our District. Most of our region's petroleum resources are composed of more natural gas relative to oil, making average breakeven prices higher compared to other areas. As a result, the decline in energy activity that began in the second half of last year is expected to accelerate as prices drop to the low-to-mid \$30 range. Bankruptcies were already rising last year and are expected to rise further, perhaps significantly, if prices stay low for an extended period.

In terms of the national economy, like others, I expect the effects of the pandemic and the recent oil supply shock to significantly lower real GDP growth and inflation this year, and a recession is not out of the question. It will, of course, take some time to judge the precise effects of these shocks, given the significant unknowns that we face. Considering the elevated levels of uncertainty, I see numerous downside risks to my outlook. Judging the effect of these risks, of course, depends on the duration of the virus threat and its residual effects on consumer confidence and household capacity to resume spending.

We will also learn more about the depth and nature of the vulnerabilities affecting the stability of the financial system, including whether an unwinding of potential imbalances could exacerbate what might otherwise be a temporary shock to demand and whether the banking system's capital and liquidity adequately position it to function effectively. Thank you.

CHAIR POWELL. Thank you. President Kaplan.

MR. KAPLAN. Thank you, Mr. Chairman. I agree with many of the comments already made, and I'm not going to rehash them, so let me cite a few and then narrow my comments to just a couple of issues.

First of all, I join others in thanking the staff, the New York Fed, and a broad group of people in the Fed who I think have done a superb job, and I'm really, really impressed with the list of policy proposals that we have come out with. At a time when I'm displeased by a lot of things, I couldn't be more pleased with that. I couldn't echo better and say better what Vice Chairman Williams said about the Treasury and mortgage-backed securities markets, so I won't try. And what President Rosengren said about, in effect, a broad deleveraging going on in the economy, and particularly in the nonbank financial sector, is exactly what I am seeing. And it is having knock-on effects far beyond this virus.

Regarding the outlook for the economy, it is our base case and my base case now that we will have a recession this year. We'll have a substantial contraction. And though I'm hopeful about a rebound in the fourth quarter of this year, I think we will wind up having negative real GDP growth this year, and I am increasingly convinced that such negative GDP growth needs to be met with monetary and fiscal policy responses in size.

The thing that's happening is, it started in directly affected sectors, like those have been mentioned—travel, leisure, energy, *et cetera*. And discussions with my contacts indicate that it

is increasingly broadening to a range of sectors in the entire economy. And many of my conversations with contacts—even those in industries that were otherwise healthy—have morphed over the past few weeks from feeling this was manageable to now saying, “We can manage this for three months,” but the question they are wrestling with is, what if this goes on for five or six months?

Even investment-grade companies are seeing their credit spreads gap out, and access to CP has been said to be going away. They’re having to give serious consideration to hitting their backup lines. They don’t want to fire people, but they don’t have a choice because they don’t know how long this is going to last, and they are moving quickly into survival mode. And those that aren’t thinking in survival mode are rapidly moving into survival mode as the days go on because of the financial system and lack of access to credit, particularly short-term credit.

So I’m going to bore in on my comments to the issue, taking these proposals—and we’ll come to them in a bit. I’m most worried now that otherwise creditworthy companies, big and small—and I mean creditworthy investment-grade—are going to struggle to make it through this because of lack of access to capital. And this is where I would echo—and we’ve talked, leading up to this meeting, about short-term funding for small businesses—that CP funding, including the old 13(3) program for creditworthy businesses, I think is going to be essential now, and essential very quickly. And I’ll comment on that when we get to the policy round.

I’ll make one last comment, and that is about the situation with energy and how it affected this. Clearly, we are now going to be oversupplied with oil for the foreseeable future: there’s no doubt. The best estimates are in the millions of barrels a day right now. What we saw happen, though, immediately after last weekend was, the biggest banks in our District—Comerica, Frost, Cadence—all sold off by a little bit more than 20 percent that day. Clearly, in

already troubled industries, there are going to be consolidation, failures, and what is going to be left is a small group of big players on the production side, but the pipelines are negatively affected, the refiners are negatively affected, the service sector is affected, the whole ecosystem is affected.

Now, having said that, if that were the only thing going on, it would be unfortunate, but it would be manageable. But what this did is, it accelerated the credit event, meaning, the coronavirus situation that we believed was going to create a tightening in credit would have happened eventually, and we might have had a few weeks or a certain amount of time before it happened. What the oil situation did, is to accelerate this credit event and the financial-sector deleveraging to now, unfortunately. And the reason, obviously, it did that is, as has been already discussed, it certainly affected high-yield spreads for all oil companies and their credit spreads. The problem is, as we've talked about in previous meetings, because high-yield mutual funds and ETFs need to get liquidity and had redemptions, they've got to sell all high-yield credit, and now we've seen it morph into triple-B and better credit whose spreads have gapped out.

As Lorie mentioned, it's reflected in munis and every other asset class, and the problem is, I'm having conversations with companies, even on the investment-grade side, who say, "I'm going to draw my line, and I think I can get through this for the next three to six months, but if this goes on longer, I'm not sure. I'm going to have to think then about firing people, even though I don't want to." And then they're realizing we are going to head into a recession, so the downward psychology has been jarring, talking to contacts just in the past week. And, related to Neel Kashkari's point, it is critical that we step in and break this downward psychology by doing what we've already proposed.

But I'll go back to where I started. To the extent we have the powers—and we only have limited powers—by which we can get at dealing with short-term corporate credit, particularly the CP market, for those we are able to deal with I think is going to be essential so that otherwise creditworthy companies do not take actions that are going to ripple through the economy. So let me stop there. Thank you, Mr. Chairman.

CHAIR POWELL. Thank you. President Daly.

MS. DALY. Thank you, Mr. Chair. As many of you know, the West Coast was the starting point for the virus in the United States in many ways. And when Stacey mentioned two scenarios on Sunday of last week, just a week ago, I thought the more optimistic scenario was plausible. But I have now sat for a week here in the Bay Area and in the West, and the pace of the virus spreading and our lack of preparation has been surprising and actually startling.

Just examples—in many hospitals in the Bay Area, we've run out of N95 masks, even for health-care providers. So they expect some more tomorrow, but who knows? The other thing is, we've got whole floors of hospitals ready for quarantines, but we don't have enough tests to fill those rooms. And so these are the kinds of just structural impediments to treating the virus and identifying the virus that have been a hit on confidence but also resulted in just massive social distancing, because that's the only mechanism you have to treat the virus.

So that has caused a much larger shock to economic activity than we anticipated, and it's starting to ripple through into financial dislocation in our areas, and perceived creditworthiness of borrowers, companies, and small and medium-sized businesses is falling here in the Bay Area. It's also been a pretty large hit to consumer and business confidence in the area, based on my contacts, and it's starting to show through to spending. We are starting to see it—people are buying things that they can put in their pantries, as Stacey or Beth Anne mentioned, but they're

not actually purchasing more durable goods or out buying things in nonessential retail areas, not even online.

And unlike many of the other reports, we're starting to see it in hours and even in layoffs here. This is primarily focused on workers that support travel and entertainment and other retail establishments. But some companies that are small or medium sized, they just can't go more than a couple of weeks without letting employees go. They can hope they come back, they can tell them they want them to come back, but they can't actually pay them. Some others have said we are already starting to see the effects of this in low-income communities, and this is causing, of course, pain and disruption, because when you get laid off and you're a low-wage worker, you don't have a big buffer. We know that. You don't have more than, really, a month.

The other thing I want to mention about that is, community banks in our District and credit unions are already starting to get calls from these workers saying they may not be able to hit car payments and mortgage payments. That, of course, would start to show through. So our community banks and credit unions are working with those individuals, but it's already here. I expect this to be more material by the middle of April.

I want to conclude my remarks by saying that whatever happens with the virus—and I think there are some real risks to it being a harder case than the more optimistic scenarios, although, you know, how this unfolds throughout the United States, since we were the leading edge, it might be that all of the other states are better prepared. It's hard to say. But even if we have a more optimistic scenario, I think there are three factors that will probably make this a more persistent shock to the U.S. economy. They've been mentioned.

The first one is the financial disruptions we've seen—the dislocations, financial markets. When companies can't get commercial paper and they have to start drawing on other lines, they

hunker down. They get nervous. And so that's a pullback that can be more persistent. While consumers' balance sheets came in quite strong, I think, for middle-to-low income Americans, this is going to be a larger hit on their balance sheets than just the extent of the virus because they are going to lose wages and hours. And the final thing is, the hit on inflation will likely be much more persistent. We were already running below our target, and we now face considerable disinflationary pressures coming from weaker demand, higher uncertainty, a stronger dollar, and lower oil prices. So this means that even when the pandemic abates, inflation is going to be an ongoing concern. So all three of those things are consistent with the actions that we've put forth, but also with it being a little more of a persistent shock than just the virus.

Finally, let me conclude by offering my thanks to the staff. You know, I feel like we do our best work when we're well prepared, and I have nothing but high praise for the Open Market Desk in New York and all of the people who work in Chicago and across the System to actually work on the financial dislocation at the same time they're briefing all of us, and, of course, to the Board staff, who have done just an amazing job at giving us the best that we can get in these uncertain times. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. Governor Quarles.

MR. QUARLES. Thank you, Mr. Chairman. Let me start out where President Daly ended—with praise for the range and depth of analysis that we've had as well as the quick production of sensible policy proposals. I certainly feel very well prepared and very, very impressed with how the institution and System as a whole has responded.

So governmental and societal responses to the perceived risk of the coronavirus have disrupted what otherwise was—and underlying all of this still ought to be—a strong economy. The February jobs number alone, before this, would've led me to revise upward my outlook for

this year. But now it's apparent that the unexpected and unaccountably chaotic reaction to the spread of this latest in a string of novel viruses that we have encountered over the past 20 years is causing significant disruption, both globally and domestically. As I've said before, panic does not have to be rational to be real. And in considering our responsibilities, we should expect this reaction to get worse before it gets better. So, overall, I share the staff's view that the near-term hit to economic activity is likely to be severe. And I very much share Vice Chairman Williams's strong concern over the liquid operation of a range of markets in the immediate term.

That said, things will get better, although the precise trigger for that is unclear. This lockdown of society is not sustainable. And if something can't go on, it won't. Once people identify a narrative to get out of the lockdown, whether that's a peak in announced cases, continued good news from China, or the arrival of spring, I would expect sentiment to stabilize. And while I said that, overall, I share the staff's view that the near-term hit to economic activity is likely to be severe, I may differ in the speed of the turnaround. I think that it's likely to be more rapid once we get past the lockdown, more like the reaction to a natural disaster or to 9/11 than to a typical business recession. And that would inform how I think about the policy options when we get to them. Thank you, Mr. Chairman.

CHAIR POWELL. Thank you. Governor Bowman.

MS. BOWMAN. Thank you, Mr. Chair. Over the past few weeks, we've seen a significant and very dramatic shift in the response to the threat of the virus outbreak. Considering the nearly unprecedented measures being taken across this country in both rural and metropolitan areas and around the world, I've downgraded my outlook for U.S. economic activity this year.

The effects of social distancing—including widespread school closures, the implementation of telework, cancellation of major sporting events and conferences, and the ongoing disruption of air travel and retail activity—will be significant on economic activity. The economic effect, though, does not begin to account for the emotional toll on our population. Our extreme responses have further encouraged an environment of social division. One perspective sees these measures as outsized to the risk we face, and another believes that we cannot take strong enough action to address the risk from the virus. Time will tell, but the disruption to our economy will have long-lasting and possibly persistent effects.

We're now seeing large retailers close stores, with effects on employees yet to be determined. As this trend flows through to small businesses, it will be challenging for them to survive. These businesses employ the majority of American workers. And without jobs, there is limited ability to pay mortgages, rents, car payments, credit cards, and other everyday expenses. But one small comfort is that the real economy entered into this period of turbulence from a position of strength with regard to our dual mandate. The unemployment rate is at its lowest rate in decades, and inflation has been tracking relatively close to our 2 percent target.

Economic data received very recently, such as weekly unemployment insurance claims, indicate that there is a strong foundation for weathering the economic shock. In addition, outside of moderate concerns about elevated corporate debt levels, our periodic assessments of financial stability have not revealed any major systemic risks. Banks' capital and liquidity ratios have been strong, and households' financial positions are generally sound. The measurable effect so far has been to securities markets and the stock market.

Given this recent financial market turmoil and the extreme uncertainties about the progress of the outbreak over the next several weeks and months, it's difficult to envision a

scenario in which domestic economic activity is not substantially changed, with risks weighted to the downside. Disruptions to global supply chains related to the effect of the virus could be large and somewhat prolonged. My hope is that the measures taken by the Desk in recent days will stabilize these markets and provide much-needed liquidity, and that fiscal measures announced recently will have a calming effect, countering the negative economic effect of the implementation of public health restrictions on communities nationwide.

What particularly concerns me is that most of the financial damage during this episode will fall to individuals who are at the lower end of the income distribution. These workers may find it more difficult to access health care and child care. We hope that the additional monetary policy stimulus that we provide today will reassure the public that we're taking active steps to mitigate the economic damage resulting from this global health emergency. However, we can't lose sight of the fact that people are afraid, and that our actions and our communications may feed into those fears rather than calm them. If these steps fail to ease the financial stresses, there are limited options for further action.

To conclude, I'd say that my near-term outlook for the economy is very guarded. Even with the policy actions we're taking, I see risks as weighted to the downside. It's now time to think creatively about how we can best support the economy and fulfill our dual mandate. This will likely involve a number of nontraditional approaches to monetary policy. But, in addition, I believe we should also be considering whether our supervision could provide the flexibility and responsiveness necessary to meet the needs of consumers, businesses, and financial institutions affected by the crisis. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. Governor Brainard.

MS. BRAINARD. Thank you, Mr. Chair. The transition of the coronavirus to global pandemic status and the efforts to contain and mitigate it have triggered massive repricing and repositioning in financial markets, sharply weakened the economic outlook, and notably increased risks of recession here and abroad.

The decision by Saudi Arabia and Russia to trigger a price war in oil has amplified stress in corporate credit in particular. Almost all of the hard economic data we've received since the previous meeting refer to the period prior to the global spread of the virus. While providing no insight into where we are today and what lies ahead, they do provide reassurance that the labor market and the underlying pace of economic activity just before the escalation of the virus were strong. This leaves us in a position in which we have to make educated guesses, in terms of what lies ahead based on anecdotal evidence from our contacts around the country, signals from financial markets, guidance from epidemiologists about the likely transmission and severity of the virus, and still-unfolding experiences of other countries that may have seen transmission spread earlier.

The resulting picture makes the spread of the virus look increasingly likely to cause severe disruption to economic activity for an uncertain duration, from factors such as widespread social distancing, supply chain disruptions, small business disruptions, employers' temporary loss of part of their workforce due to a combination of illness, school closures, and childcare needs. And as consumers cut back on certain types of spending and businesses reduce investment in the face of heightened uncertainty, like many of you, I worry particularly about hourly and contingent workers and other households with low cash buffers to weather losses of income. And we have started work both here at the Board and across the System to see what we can do to cushion those effects on both our hourly and contingent workforce.

The global spread of the virus is also slashing foreign growth forecasts and raising risks of financial strains, leading to more severe and prolonged recessions or even crises abroad. All foreign G-7 economies are now projected to fall into recession this year, with countries such as Italy already facing challenges going into the crisis surrounding debt sustainability and capacity in the banking system. There is a risk that we could see this, once again, causing broader strains in the euro area and bringing risks back here onto our shores.

Against this, there are some reassuring signs, as others have noted, of stabilization and recovery in China. The most immediate imperative is to prevent severe stress in financial markets from spiraling into much more severe financial and economic crises. The massive repricing and repositioning in asset markets is putting stress on market making in Treasury securities markets, and this is exacerbating strains in other asset classes. Based on my discussions with market participants, it appears we're seeing two pronounced developments, and investors are exhibiting a sharp increase in their preference for cash and in the demand for duration. Together, this is driving a wedge between cash securities and futures contracts in the Treasury securities market and is also leading to increased spreads between off-the-run and on-the-run Treasury securities.

This, in turn, is radiating out to other key markets, such as the agency MBS market, which are critically important for our moves on monetary policy to transmit more broadly into the economy as well as into dollar funding markets and into corporate credit markets. Fortunately, we have powerful tools to fulfill our traditional role of ensuring our orderly market functioning and effective transmission of monetary policy and to encourage credit to flow to the households and businesses that are being affected by the COVID-19 epidemic. Some of these

tools are ready to be rolled out immediately, and others will take a bit more time. And I look forward to discussing these next. Thank you, Mr. Chair.

CHAIR POWELL. Thank you, and thanks to everyone for your thoughtful comments. Like many of you, I'm going to start with the fact that the economy was performing so well at the FOMC meeting in January, only six weeks ago: Growth was moderate but strong enough to gradually push unemployment even deeper into record territory; inflation was still lagging our objective but close to 2 percent; monetary policy was accommodative; of course, unemployment was at a 50-year low; and the expansion was in record territory. And we looked to be on track to extend the longest expansion in recorded history, an objective that is now very much at risk.

The virus arrives to find our economy in good shape, but virus-related things have trended in a very negative direction. As the virus has rapidly spread and the scope of necessary social-distancing measures has expanded, I've lowered my forecast again and again as I've raised my estimates of the damage. It seems likely that the outbreak will cause the economy to shrink in the second quarter, maybe by a substantial number. I would guess—and, yes, I mean “guess”—that we will see a return to growth by the fourth quarter. In the upside case, we would also see some growth in the third quarter. In the downside case, it could be another deeply negative number.

I was very struck by a number of the comments about small businesses, which have limited resources to survive, with leases and mortgages and payrolls and the consequences for them—very difficult, to the extent this goes longer than we expect. And as President Kashkari pointed out, that's very, very hard to reach—certainly, with fiscal policy, but monetary policy doesn't help those people either.

Above all, the outlook is highly uncertain. A number of you mentioned to me recently that your outlook, too, had changed significantly every few days, like mine. Financial markets are trying to process all of this bad news and uncertainty, volatility has been extraordinary, and now the single most important financial market of all—the famously liquid market for U.S. Treasury securities—is experiencing high abnormal conditions of severe illiquidity. If we allow these conditions to worsen, they will spread to other markets in which businesses and households finance their activities. Fortunately, we have the tools to prevent that from happening.

So let's turn to the liquidity measures we're considering taking today. As many of you have shared with me, at this particular moment, liquidity and market functioning are job one. A broken financial system can wreak terrible damage on the economy, as we so recently saw in the Global Financial Crisis. We could actually have waited until Wednesday to reduce the federal funds rate. In my view, it would have been unwise to let three more days pass before acting to address the growing liquidity issues.

The main purpose of these liquidity measures is to support the flow of credit to households and businesses. We cannot say that too many times. So we're proposing \$500 billion—perhaps at least \$500 billion—in purchases of Treasury securities in coming months. There will be no monthly limit or time limit. The language “in coming months” allows the Desk to go at the appropriate speed. That should be a comfort to markets, a clear statement that we will strongly support the functioning of the U.S. Treasury securities market.

As for the MBS purchases, as Lorie and others noted, the markets for MBS are at least as stressed, if not more so, as the market for Treasury securities. The MBS market is very tightly tied to the Treasury securities market and is also important for assuring the flow of credit to those seeking a mortgage or to refinance one. These purchases will help assure that our

monetary policy decisions flow through to the economy. The other liquidity measures are straightforward. A key part of the message today is that we stand prepared to continue to use our tools as needed to support the flow of credit to households and businesses. If other funding markets threaten to become dysfunctional, we need to be ready to deploy our tools. Much work is going on to prepare for such events should they come.

Regarding rates, three weeks ago my view was that we could address the need for rate action, if any, at the regular March meeting. One week ago, my baseline was to cut 50 basis points now and hold 50 for the future. As the facts on the ground and the outlook have changed, like many, my view has changed. I think now that it's inevitable that we will be at the effective lower bound very soon, and appropriately so, given the likely size of the shock that is just now arriving. The decision of whether to cut 50 basis points or 100 basis points is a judgment call. My own view is that we should go ahead with 100 basis points, as I've discussed with each of you, and I feel that there is no useful purpose to be served in holding back today.

Our proposed guidance says we'll keep the funds rate there until we're confident that the economy has weathered recent events and is on track to achieve our dual-mandate goals. And we are not out of ammunition. Far from it. I suspect that our liquidity operations will be the main focus in coming months, and we need to continue to move preemptively to assure the functioning of our markets. Market functioning is about confidence, which can easily be lost in these uniquely challenging, unprecedented circumstances. It falls on us to support that confidence with our liquidity tools.

Thank you. And I'm going to call a short break. It'll be lunch for those of us on the East Coast. So we'll be back in 30 minutes, at 12:30, to move to the monetary policy briefing. Thank you.

[Lunch recess]

CHAIR POWELL. Okay, next up is the policy discussion. Thomas will cover both the FOMC policy decision and the material covered in the memo on liquidity options. Following the policy go-round, we'll have an opportunity for comment on the liquidity options. Thomas.

MR. LAUBACH.¹ Thank you, Mr. Chair. I will be referring to the handout labeled "Material for Briefing on Policy Options."

The memos that we sent you on Thursday and yesterday, offering policy options that you may want to take at this meeting, are the work of a multitude. I will briefly summarize the main elements, then all of us on the staff will be happy to answer questions.

The exhibit in front of you organizes the options by governance. Beginning with the FOMC statement, paragraph 1 notes that the economy "came into this challenging period on a strong footing." But as Beth Anne and Stacey noted, the news flow over the past week has made clear that the economic effects of the coronavirus and of the measures needed to address the public health emergency both here and abroad are likely much larger than they appeared earlier. Financial conditions have tightened significantly for many borrowers, and the sharp oil price decline will make matters worse in the near term. In response, the staff revised down sharply its projection of real GDP growth this year.

Against this backdrop, the draft statement circulated yesterday includes a 100 basis point cut in the target range for the federal funds rate, accompanied by qualitative outcome-based forward guidance. In view of the heightened uncertainty about the severity and duration of the slowdown, you may view such guidance as striking a good balance between reducing policy uncertainty and preserving the option of more forceful guidance if this was needed at a later time.

Lorie and several of you already discussed the balance sheet measures designed to address liquidity and market functioning issues in the Treasury security and agency MBS markets. I would only note that, by specifying the total purchase amounts but choosing "over coming months" as the time reference, the statement preserves flexibility for the Desk to adjust the pace of these purchases as appropriate to achieve the goal of smooth market functioning.

Regarding the U.S. dollar liquidity swaps, the joint statement of the Federal Reserve and our five standing liquidity swap line counterparties is intended to enhance dollar liquidity provision to counter strains in global dollar funding markets. With this statement, the Chair would approve the proposal to lower the pricing on the standing liquidity swap arrangements by 25 basis points, to a spread of 25 basis

¹ The materials used by Mr. Laubach are appended to this transcript (appendix 1).

points above the overnight indexed swap (OIS) rate, and to offer in each jurisdiction that conducts regular weekly auctions an 84-day maturity in addition to the regular one-week maturity swap.

Finally, the Board could take a number of actions to support the flow of credit to households and businesses during the challenging period ahead and thereby promote the attainment of your dual-mandate objectives. The Federal Reserve statement would announce a reduction in the primary credit rate of 150 basis points so that the rate would be at the top of the target range of the federal funds rate, which “should help encourage more active use of the window by depository institutions.” The reduction in the primary credit rate would also ensure that liquidity provision through the window is priced similarly to liquidity obtained through the swap lines, a desirable design principle. Along lines similar to the arrangements pertaining to the longer-term liquidity swaps, the statement would announce the offer of discount window loans for periods up to 90 days, prepayable and renewable daily so as to achieve favorable treatment under the Liquidity Coverage Ratio (LCR). And the statement would encourage depository institutions to turn to the window to meet demands for credit from households and businesses at this time.

The Board could also issue statements encouraging depository institutions (DIs) to utilize intraday credit extended by Reserve Banks and encouraging banks to use their capital and liquidity buffers as they lend to households and businesses affected by the coronavirus. And the Board could reduce reserve requirements to zero on the grounds that reserve requirements are no longer needed in the ample-reserves regime, and that this reduction would free up more than \$150 billion in liquidity in the banking system, which will help support lending to households and businesses.

Thank you, Chair Powell. That completes my prepared remarks, and my colleagues and I will be happy to take any questions.

CHAIR POWELL. Thank you. Questions for Thomas on the FOMC statement and related actions? President Kashkari.

MR. KASHKARI. In the earlier memo on liquidity options, there was an option of restarting the Term Auction Facility (TAF), which wasn’t included. Could you walk through that thinking?

MR. LAUBACH. Sure. You might think of three reasons why you might want to start with what is currently in the Board statement and leave the TAF for later. One is: The situation is not quite comparable with what it was in 2007. In 2007, actually, the primary credit rate was lowered only to 50 basis points above the target rate, initially, not all of the way down to what is

now the top of the target range. So what is now being done with regard to the primary credit rate is actually more aggressive than back then. Also, making the 90-day loans LCR-friendly is another feature that really tries to first pursue the avenue of actually making depository institutions come to the window. That's also consistent, of course, with the recent speech by Governor Quarles, who strongly encouraged institutions to move in that direction, so it could be seen as, you want to—as of now, really—deliver on things that banks mentioned they wanted to see.

In addition, I think the relative attractiveness has also changed a little bit, because, of course, if you now had auctions, the borrowing through these auctions would still be subject to the Dodd-Frank disclosures so there is no asymmetry between what the discount window is doing and the TAF.

Another potential reason is that during the crisis, we saw that, actually, the TAF was predominantly used by foreign banking organizations and in particular foreign branches. You may, at this point, want to first pursue just the discount window angle and rely on, to some extent, the liquidity swap measures that are in parallel in order to see that if there is particularly pronounced demand on the foreign banking side, they might go that route.

MR. KASHKARI. Can I follow up, Mr. Chair? Thomas, I hear that. I was hoping for better arguments, frankly, because I really support these proposals to make the discount window more effective by reducing the penalty rate. But the recent history has been so stigmatized—and TAF was designed with all of these very smart features to literally overcome stigma—that I think hoping that these other measures are going to eliminate the stigma so we don't need the TAF seems pretty optimistic, in my view. I mean, my humble view is, we should do both, because I

don't think this, by itself, is going to reform the window and make it a routine source of credit. I don't know. Lorie, what do you all think in New York?

MS. LOGAN. I would say, from a market expectations perspective, that—when I talked earlier about the package that they were expecting, I think a lot of market participants expect that the TAF and, to a large extent, the Commercial Paper Funding Facility (CPFF) would be part of this package. So I think there are some views that it would be helpful for the provision of term funding more broadly—probably more for the foreign banking organizations (FBOs), as Thomas noted, than some of the larger domestic institutions. But I think expectations are there that that would be in the package or, at least, shortly thereafter.

CHAIR POWELL. Governor Quarles, please.

MR. QUARLES. Just to add, though, maybe in response to President Kashkari's question, we have been in discussions with the banking institutions around the use of the discount window for some period, actually, but particularly over the course of the past week. And there have been strong indications, in fact, that they would use it under the right circumstances if it's accompanied with an exhortation to use it and if that exhortation is in concert with the other banking regulators, which we are in the process of discussing over the weekend. The other banking regulators don't know that we are meeting, but they are working on a joint exhortation to "Discount window available—use it." So I think it's not just a wish and a prayer that the discount window with these appropriately revised terms will be acceptable, but we have a lot of indication that it will be reacted to differently than it has been in the past.

CHAIR POWELL. President Kaplan.

MR. KAPLAN. I was going to ask about the TAF. And then the other question is—and Lorie mentioned it—I know it's an enormous amount of work, and there are probably a number

of other issues on the 13(3) program, but I was just curious to hear where we stand in our work on the CP program.

MR. LEHNERT. President Kaplan, we've been working jointly, between folks here at the Board and at the New York Fed, and I think we've isolated a set of policy considerations that the Board is going to have to consider. In terms of what a CPFF 2.0 would look like if they decide to go in that direction, there have been substantial changes in the commercial paper market on both the investor and the issuer sides. Some of the challenges that the market faced in 2008, particularly involving the run on money funds, aren't necessarily or aren't yet, anyway, a feature here. So I imagine we'll be meeting to discuss those features.

MR. KAPLAN. Just for what it's worth, and I think Lorie has a better feel than I do, but contacts I've talked to are expressing concern about an imminent run on money market funds—that that's coming, and it's coming this week.

MR. LEHNERT. Yes, I think we've heard similar talk.

CHAIR POWELL. I think I need to ask, though, on the commercial paper facility and the TAF, there's a case in which they're needed fairly quickly, and I would hope that we are in a position to provide them fairly quickly if needed. I think that would be good to say to the Committee if you believe that's true.

MR. LEHNERT. Yes.

CHAIR POWELL. In other words, we're working on them. We're ready to drop them. We're not ready to drop them today. If the need arises, we'll resolve—we'll probably, later today, need to talk about these policy considerations. We're well aware of the urgency of it. It just—to try to slam them together for today didn't work.

MR. KAPLAN. I got it.

CHAIR POWELL. But these are very well-taken points. And they've been working quite hard on this. I think, in both cases, we would be able to move very quickly, and we'll probably have to. Further questions? President Barkin.

MR. BARKIN. On the qualitative outcome-based forward guidance, just a question. The phrasing "is on track to achieve its maximum employment and price stability goals"—is that a phrase we've used before? And how did you think about that versus many other ways to define the moment of—I'll call it "liftoff"? Because, it occurred to me, we could have just stopped after the word "events." But, again, there may be some history or belief, in terms of how we want to define it.

MR. LAUBACH. I can say for sure that those words have not been used before. I think it's important to read those words in the context of "until the Committee is confident." So I think this is, in some sense, an "at least" statement, if you will—namely, that you really have to first reach a sufficient level of confidence that the economy has weathered these events before you would consider changing the stance. I don't know whether that answers your question.

MR. BARKIN. Yes—just, in your shorthand, maybe a simple way to ask it is: If we were back in the situation we had in January, would that be a situation in which you think we would be able to hit the word "confident"?

MR. LAUBACH. That's difficult to anticipate. I mean, it's—in January, right? If you thought that the virus was firmly under control—

MR. BARKIN. I meant pre-virus. Pre-virus.

MR. LAUBACH. —and you thought that there wasn't really a significant potential for spread and, importantly, that the economic fallout had also been contained, then I would imagine that the Committee may want to have a discussion around that. But, for now, it is intended to be,

really, not overly precise in a situation in which uncertainty is enormous, and it's very difficult to spell out now very specific economic conditions under which you want to cross that bridge.

CHAIR POWELL. President George.

MS. GEORGE. Mr. Chairman, I was just going to add on to Neel Kashkari's comments. I think my questions have been answered.

CHAIR POWELL. Okay.

MS. GEORGE. But I would just say, I wanted to be sure the TAF was ready. Maybe we're not ready to announce it, but that it was ready operationally. And, second, one of the distinctions is that people came in as a group through that auction, which I think further lowered the stigma. So that was the only point I wanted to add on. We can move on to John's two-hander, if you want.

CHAIR POWELL. Who has a two-hander? Ah, President Williams.

VICE CHAIR WILLIAMS. Yes. Actually, I was responding to the earlier one. By the way, can I answer? We are able to start the TAF in a relatively short period. That's not hard, in terms of operational aspects.

In terms of the sentence, if I can get back to that—let me directly answer the question, which is, if we weather recent events and we're in a situation that looks a lot like the economy that we were seeing in January—in which the unemployment rate is reasonably low, inflation is heading back to 2 percent, and we thought the economy is growing at or above trend—I think those are the circumstances that would meet that. That's the way I understand that. But I think there are two conditions here. One is not just that we got through the recent events—which, I'm an optimist at times, so that could be even by fall—but this is saying that we not only have to get

through the outbreak period, but also see that the economy is back into that good place that we've talked about a lot. Thanks.

CHAIR POWELL. President Rosengren.

MR. ROSENGREN. I agree with the staff's assessment on TAF. I think we should give the discount window a chance to actually work on Monday and Tuesday. There are fundamental differences between now and what happened in 2008. I'm hopeful that some of the regulatory changes and other things will make it much more attractive, though I do think, on the other things that we control, it may be worth really emphasizing that we want to go big.

So, following up on Neel Kashkari's earlier comments, inserting the words "at least" before "\$500 billion" and "\$200 billion," which makes the amount that we're going to be doing for MBS and Treasury securities a minimum, might be a way of conveying that we are definitely going big and not just counting on us getting back. So it's a simple insertion of the words "at least" between those two. We could still stay exactly at those numbers if we thought it was appropriate, but it gives the flexibility to go larger if it's needed. And I think, given the amount of disruption to Treasury securities and MBS, that ought to be a first-order thing that we need to get corrected. So just highlighting that we're going to do whatever it takes to get those markets functional, I think, is important.

CHAIR POWELL. Thank you. Okay. Let's get started with the policy go-round, beginning with Governor Clarida, please.

MR. CLARIDA. Thank you, Chair Powell. As I and our colleagues made clear during the outlook go-round, the economy today faces a significant near-term threat from COVID-19, with multiple repercussions that could well tip the economy into recession—and very likely would, in my judgment, in the absence of an appropriate monetary policy response. It is actually

rather unusual for policymakers to be able to identify in real time a truly exogenous shock that, if confronted, would itself push the economy into recession. Some might argue that September 11, 2001 meets that criterion, but we now know, in fact, that the economy fell into recession nine months before. I believe that today we face such a shock, and that it does, indeed, call for the muscular, multifaceted policy response we are contemplating today. Mr. Chair, I support each of the elements of this package. And I would now like to outline briefly the reasons why.

The package calls for purchases in coming months of \$500 billion of Treasury securities and \$200 billion of MBS. And let me second President Rosengren: I actually would prefer to insert “at least \$500 billion” in that language.

For complex reasons due, in part, to appropriate but binding leverage constraints on dealer balance sheets, the Treasury security and MBS markets have been in a state of dislocation and distress for the past several weeks. To second something Vice Chair Williams said earlier, well-functioning markets for Treasury securities are crucial to the infrastructure of financial markets, and, obviously, well-functioning MBS markets are essential to ensuring a robust housing market.

These purchases will provide liquidity to these markets at a time when the demand for liquidity is surging. The package also calls for a transformation of the primary credit facility that, in my judgment, is overdue. These changes to the discount window would provide term funding at a much lower rate closer to our interest on excess reserves (IOER) rate and, together, would provide liquidity and encourage lending by all eligible depository institutions, not just global systemically important banks (G-SIBs). And, certainly, I would be open to also adding the TAF to the toolkit, in line with the recommendations of others. That would make sense as well.

The package calls for some sensible changes to our existing FX swap arrangements with foreign central banks that, at the margin, will help support the functioning of dollar funding markets. And in the context of our broader goals, the proposal to eliminate required reserves and encourage the use of intraday credit also makes sense.

The element of this package that has, for me, and I suspect for others, been the most challenging to assess is the proposal to cut the target range for the federal funds rate by 100 basis points to its effective lower bound of 0 to 25 basis points. Until recently, when it first appeared that COVID-19 would be just a headwind to growth and not the threat to the expansion that we understand today, I was unpersuaded that going to the lower bound in March would represent the best course. There is a potential cost to going to the lower bound, of course, which is that if another shock hits the economy, our toolkit will be less well stocked than if we had held back some policy space. But there's also a cost to keeping dry powder, given the clear and present danger to the economy that the virus clearly poses. For frame of reference, were we not in a "new neutral" world featuring low global policy rates, a shock of the magnitude of COVID-19 would, I believe, surely call for us to lower the funds rate by the 150 basis points we will have agreed to with our decision today and two weeks ago.

Finally, the potential costs of easing too much, in terms of encouraging excess risk-taking or triggering a significant overshoot of our inflation objective, do not seem to be at all relevant, given the conditions we face.

In sum, for these reasons, I support the decision to reduce the target range for the federal funds rate by 100 basis points. Thank you, Chair Powell.

CHAIR POWELL. Thank you. Vice Chair Williams.

VICE CHAIR WILLIAMS. Thank you, Chair Powell. I fully, strongly support the policy decisions in the FOMC statement. This is an extraordinary situation that we're dealing with. I think everyone has recognized that in their remarks. This is a global pandemic, not something we've ever dealt with before, and it carries with it extraordinary uncertainty and challenges for all of us.

You know, the baseline outlook that was outlined earlier today is one of, essentially, a global recession—recessions in all of the other advanced economies—and it's a sobering situation to see ourselves in. I noticed that President Evans highlighted the Knightian uncertainty around this, and that's exactly how I've been viewing this for the past few weeks. And when the uncertainty is so hard to measure or anticipate, it is critical that we really focus not just on the baseline outlook, but on the downside risks as well.

In terms of our policy actions, I do fully support the 100 basis point reduction in the target range for the federal funds rate. I think that's exactly what we need to do, in terms of the dramatic change in the economic outlook, along with the risks to that. So I feel that that's, to me, exactly the appropriate thing.

In terms of the language of the forward guidance, I think it properly highlights that the delta since late January has been the coronavirus outbreak and, obviously, the oil price shock. Those are the enormous shocks that we're dealing with right now. Once the economy has weathered those shocks and we feel that we're back in that good place that we saw earlier, we can contemplate adjusting policy. And that provides, I think, very good conditional forward guidance.

In terms of the issue of the balance sheet actions, these are focused completely on market functioning in the critical markets for U.S. Treasury securities and agency MBS, obviously

looking also at the spillovers into short-term funding markets more generally. The goal here is to act decisively to make sure these markets are liquid and make sure they're functioning well for the reasons I said earlier. Without that, I don't think our monetary policy actions will transmit to the economy. Credit will be cut off, and that would have disastrous effects for households and businesses.

In terms of the sizing, the staff here have thought long and hard about that. Obviously, one of the challenges around the \$500 billion and \$200 billion numbers is that this is a rapidly evolving situation. There's no way to know *ex ante* what the right number is. The staff feels—and I agree—that these are appropriate markers for these initiatives.

I will say that, first of all, there's the uncertainty about the right size. And the second is, the situation could change markedly in coming weeks. So there is a risk that the amount of purchases that we need to do may end up being higher than the \$500 billion or the \$200 billion because the situation just evolves in a bad way. For that reason, I'm fully supportive of putting "at least" both in front of the "\$500 billion" and in front of the "\$200 billion." I think the \$500 billion and \$200 billion will get the attention of the markets, our actions themselves will show that we are acting decisively and appropriately, and the "at least" will allow us to signal that we're willing to adjust as needed.

In terms of how I view these policies, I think we learned from QE1 that one of the reasons that was particularly successful was that it had these dual aspects. One was to address market functioning in the mortgage markets and the MBS markets, but it also, obviously, had its effects through the standard channels of asset purchases. This is a situation in which these markets are not functioning well, so I expect these purchases to have outsized effects relative to, say, just asset purchases of the QE2 or QE3 variety.

I think the underlying challenges we have in these markets are that there's enormous volatility. As many have already commented, that interferes with the ability to price assets. It reduces liquidity, and hedging strategies become very difficult or impossible. So what our actions—lowering interest rates and signaling that we're going to keep them there for some time as well as our purchases—should do together, working to complement each other, is help stabilize the critical markets in U.S. Treasury securities and MBS and, I hope, reduce volatility in those markets, which should help them come back more quickly.

A lot of the discussion today, I think, is very much correctly focused on what's next, and we've talked a lot about funding markets, commercial paper, and bank lending. I do think the big challenge for us—and, quite honestly, federal, state, and local governments—is getting the money to the people who need it. Those are small businesses. Those are families who are not going to have paychecks and may be shutting down their businesses. As someone who used to run a small business, a pizzeria, I know you don't sit on a lot of cash to deal with—if you're shut for several months and you have no income, you're going to have to send your employees home. You can't meet payrolls, and maybe you can't even meet the interest payments you have. So I do think that needs to be a focus not only for us, as Governor Brainard and many others have already said, but also for our other government entities.

Importantly, this is not the Global Financial Crisis. This is a pandemic. And the treatments that we need in terms of economic policies are different than they were then. The tools we need are really to deal with the challenges that borrowers face, not the challenges that banks themselves are having, and that's going to require a lot of creativity and a lot of outside-the-box thinking on all of our parts.

You know, like Governor Clarida, I agree that all of the pieces—the discount window, the swaps—fit very nicely and work together. One natural thing is, after we do this, people are going to ask, “What’s next?” That’s not an argument against doing what’s right today, but it does mean that once we’re done tonight and maybe get some sleep—which would be nice for our team to get for one night—we’re going to need to be working tirelessly on thinking about what the next options are. Obviously, the TAF, I think, has got to be one that we need to be ready—and are ready—to deploy as needed as well as some kind of facilities around commercial paper. But, actually, a lot of other possible options are really what we’ll need to be working hard on to figure out what the right treatment is for the issues that we’re facing. Thank you.

CHAIR POWELL. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chair. As Mary said, this has primarily been focused on the East and West coasts. And, unfortunately, I think that we’re a preview of coming attractions for those of you who have not experienced significant problems to date.

It’s highly likely we will have a recession. The depth and duration will likely depend on public health actions, but we can affect the spillover through financial markets. I strongly support the proposed reduction in the federal funds rate target by 100 basis points and the proposed QE purchases of both Treasury securities and MBS. As I mentioned before, I am also very supportive of inserting “at least” before the “\$500 billion” and the “\$200 billion.” I also strongly support all of the proposed actions to bolster liquidity, including actions regarding the discount window, dollar swap lines, using capital and liquidity buffers, and reducing reserve requirements to zero.

Two further considerations. Should, after our actions, short-term Treasury securities have negative yields, we will need to consider the effect on money market funds. In the short

run, funds will cut fees, but if it persists, we may see money market funds badly disrupted. We may want to consider encouraging the Treasury to issue more Treasury bills to keep the rate at or above zero. If unsuccessful with that, we should consider selling our bills and buying longer-term Treasury securities.

I do view the difference between government funds and prime funds a little bit differently. The government funds are much larger than the prime funds. I think it's very important that the government funds exist through the crisis and after the crisis. I'm not as certain that we should do much to actually support the prime funds, but that's a topic for possibly another time.

Second, given that we are urgently taking emergency monetary policy and fiscal policy actions, we should have the same urgency in using our supervisory powers—for example, by stopping all share repurchases by banks. We allowed banks to continue share repurchases during the financial crisis, as well as issuing dividends, and then we had to use Troubled Asset Relief Program (TARP) money to recapitalize them. Banks should be told to stop all repurchases and encouraged to provide more capital to their broker-dealer subsidiaries to enhance market functioning. If we next implement the TAF and other facilities to support lending, it should go with a preservation-of-capital strategy. To take emergency actions for monetary and fiscal policy but not for supervisory policy, will once again provide the perception that we do not have the balance between Main Street and Wall Street appropriately calibrated.

In summary, we need to moderate, in both severity and persistence, the likely recession we face, even though the primary source of mitigation will be the public health and fiscal policy responses. I support all of the policy actions in the statement and the adjoining documents. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Harker.

MR. HARKER. Thank you, Mr. Chair. I fully support a 100 basis point reduction in the funds rate at this time, and I also strongly support the need for adding liquidity in both the Treasury securities and MBS markets; reintroducing liquidity facilities like the TAF, as we've been discussing; and making the discount window more accessible by dropping the penalty rate and encouraging term loans as long as 90 days.

But, as I stated in the morning, I am somewhat concerned that announcing definitive target stocks rather than just flows that are associated with returning markets to normal functioning may—and I emphasize “may”—be interpreted as QE. I thank Lorie for her explanation, and I see the logic in these numbers. But, coupled with the large funds rate reduction, along with the myriad other changes that we’re considering, the perception that we are pursuing a QE-type asset purchase program does run the risk of panicking markets and defeating the purpose of the steps we are contemplating today. I’ll come back to that in a moment.

As well, I’m in favor of adjusting the term primary credit so that it receives favorable treatment under the Liquidity Coverage Ratio. Doing all of the above will allow institutions of various sizes easy access to credit. I’m also in favor of eliminating reserve requirements. Everything that can be done should be done to assure financial markets of our resolve to keep them functioning smoothly.

I also see the need for liquidity policies to be in place when the markets open on Monday. The current situation is much different from the financial crisis. It’s being caused, as others have said, by a readily recognizable disturbance, and in that sense, it seems to me more akin to what we faced on 9/11, although the severity and persistence of the shock could be greater.

There certainly is justification for announcing a policy decision this evening, as financial markets are clearly showing signs of stress, and there appear to be noticeable signs of weakening of foreign economic activity. As well, as we know, a national emergency has been declared, and some sectors of the U.S. economy are facing growing stress. The fiscal and health policy responses to date, as we talked about in the morning, simply have not been as robust as needed.

I believe as well, however, that there are some risks associated with announcing the policy decision this evening. We risk accentuating the risks and uncertainty that the public is feeling right now, at this time. But I also realize the extraordinary forecasting challenges that we're all facing, and, with so much uncertainty, it seems reasonable to adopt a robust control strategy and just simply assume the worst when it comes to calibrating our policy response—again, as others have noted.

We have a very large challenge ahead of us after this decision is announced. Communicating this decision in a way that does not further panic markets and the public, in my view, will be very challenging. This is a significant policy change from what we'd been contemplating just a few days ago. It is based on a bad-case scenario, one that is clearly plausible, but observers might infer the scenario is even worse than we think it is. Given the declaration of a national emergency, our actions might also be viewed as bowing to political pressures and as some of our independence has been compromised.

You know, in the past week, several contacts and our own directors have told me and my team directly that they're concerned with the fact that we know something they don't, and this deeply concerns them: What do we know that they don't know? Or they have expressed to me that we have caved to pressure. Let me be very clear here: I do not believe that either of those statements is true. But we do need to recognize that these beliefs may be held by a substantial

portion of the public. So I think we must frame our decision in our written and verbal communications squarely in the context of the virus outbreak, as we've done in Alternative B—and I really do applaud the added language to Alternative B. The actions are to provide relief—and let me emphasize “relief”—rather than stimulus to communities, households, and businesses by lowering borrowing costs and ensuring that the financial sector is working smoothly and can provide liquidity as needed.

Again, the key, I think, to me, in the communication is to emphasize “relief.” We need to clearly state and continue to reiterate that these moves we make today and, possibly, in the near future are part of a prudent plan. We do expect the economy will rebound as soon as, possibly, the second half of this year, but we stand ready for the possibility of severe and more persistent disruption to economic and financial activity. However, giving an impression or even a hint that an even worse worst-case economic scenario is driving our decision could do more harm than good. So I think this is a real challenge for us.

Finally, because communication will be this huge challenge, I think it would be a good idea for us, as a Committee, to come up with a set of talking points so that the System can speak as one voice regarding our outlook and the reasons we took the actions that we did. That is, I don't think we should rely solely on the statement language or place the entire burden on the shoulders of the Chair. We should, to the best of our ability, coordinate to create a consistent message and use our various vehicles—our speaking engagements and other opportunities—to sing from the same hymnal, although I promise you, you don't want to hear me sing, so I won't do that. I do not presume to know everything that should go into these talking points, and I'm open to suggestions as to the best way to arrive at those points. And I also know that my staff

here in Philadelphia stands ready to assist in any way that would be of use. But I do think it is essential that, in this moment, we have a relatively unified message.

And, lastly, since we're going to keep the language in paragraph 4 with respect to the size of the purchases, I would advocate also inserting the words "at least" while, though, emphasizing in all of our subsequent communication, both verbal and other types of communication, that this plan is clearly fluid. It's clearly subject to change. I think we can't say that enough. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. And we will provide those talking points. President Bullard, with a two-hander.

MR. BULLARD. Mr. Chair, what is the status of the blackout here, given the special meeting? I don't think anybody probably has anything scheduled for the week, but what's your thought on this?

CHAIR POWELL. The plan is a blackout today and tomorrow.

MR. BULLARD. Okay.

CHAIR POWELL. All right?

MR. BULLARD. Thank you.

CHAIR POWELL. Good question. Okay. President Mester.

MS. MESTER. Thank you, Mr. Chair. The lack of liquidity in financial markets is a first-order problem, so the Fed's first order of business is to do everything it can to ensure that the markets are operating in an orderly manner, no matter what levels they are seeking. Investors' risk preferences and economic outlooks will determine asset prices. The Federal Reserve needs to ensure there is adequate liquidity so that trades can be made and credit continues to flow. I strongly support all of the actions being proposed to address market

liquidity today, and I support the actions the Desk has already taken to increase its repo transactions.

I also support adding the “at least” language to the proposed language in the statement to increase our holdings of Treasury securities by at least \$500 billion and of agency MBS by at least \$200 billion, couching these purchases in terms of actions taken to support the orderly function of financial markets, although I think we need to anticipate that some will consider this a new program of quantitative easing.

Term funding could be particularly helpful at this point, so reiterating that we have expanded both overnight and term repos is useful. The fact that this is a global economic and financial market shock suggests that lowering the rate on our central bank U.S. dollar liquidity swap lines is appropriate. I support the discount window actions, including reducing the spread between the primary credit rate and the federal funds rate and offering term lending.

But my view is similar to President Kashkari’s, that experience suggests these may be less effective than we’d like, given the continued stigma around use of the window by larger banks. I would have gone even further today and activated the Term Auction Facility, the TAF, to auction term funds to depository institutions. I’m glad that that’s being studied and worked on. I would have probably done more to take steps to activate the Commercial Paper Funding Facility. It seems to be the thing that is closest to getting support and access to credit to small businesses, a segment that could be significantly hurt if the flow of credit is curtailed. Announcing a package of liquidity measures and reiterating the actions the Desk has already taken with respect to its repo operations can help inspire confidence that the Federal Reserve will take the steps necessary to support market functioning.

Regarding lowering the federal funds rate target range, I note that if markets are not functioning well, then the transmission mechanism of monetary policy to the economy is disrupted, and any cut in the target federal funds rate will have less of an effect on the real economy. In current circumstances, with social distancing and the stoppage of activity, rate cuts are also less effective than they would otherwise be. I believe a reduction in the funds rate is appropriate to support the liquidity actions we are taking to improve market functioning and in light of the material change in the outlook due to the virus, but I favor a 50 basis point reduction at this time.

I would view a 100 basis point cut differently if it did not mean we were returning the funds rate to zero. I'm reluctant to move to the lower bound and use up all of our interest rate policy space at this time until we have more assurance that the transmission mechanism of policy to the economy is working. The main effect of lowering the funds rate will not be felt in the near term. It will come later, after new cases of the virus begin to stabilize, social distancing has eased, and life begins to return to some semblance of normal.

Cutting the funds rate by 50 basis points as a supportive move for the liquidity actions is appropriate in my view. Moving by 50 basis points rather than 100 allows us to cut again once we know that market functioning supports transmission of the cut through the economy, it preserves our ability to act in tandem with other central banks should this be needed as the virus situation continues to evolve, and it allows us to act at a time when a further rate cut can be most effective in helping to manage the economy after the medical response has been put in place.

The communication around our actions to be announced later today also factors into my reasoning on this. Our goal is to be decisive, but also to help put a floor of support under investor and consumer confidence in a very uncertain time. We are speaking to various

audiences—to the markets and to Main Street. Various business and consumer contacts to whom I have spoken did not understand the purposes of our intermeeting rate cut on March 3. They see the main need now as managing the effect of the virus on people's health.

Policy communications are especially important at times with high levels of uncertainty. In communicating today, I would put the focus on our actions to address market liquidity, leading with asset purchases, swap lines, discount window actions, and reiterating the repo operations. I would couch cutting the funds rate target by 50 basis points as being in support of these liquidity actions and in response to the anticipated macroeconomic effects of the virus.

It's always difficult to determine how our actions will be read. But if we cut the funds rate to zero, inject the large amounts of liquidity we believe are needed, and do not release our Summary of Economic Projections, I am very concerned that we could, in some sense, instill panic and not confidence. The message we send to Main Street could be that the Federal Reserve has used up its interest rate tool, reactivated its crisis-period tools, and refuses to tell us how bad it's going to get. This is not an inspiring message.

I think we need to bring people along with us before we go to zero if we expect that to have a positive effect. Over the next several months, the data we receive on the economy are going to be quite negative. The proposed funds rate cut of 100 basis points anticipates this, but I think there is some value in being able to further react by reducing the funds rate once the hard data actually come in. Once the data come in, the question is going to be, what's next from the Fed? I routinely get questions from bankers and others asking whether we're going to go negative on our policy rate. We can expect those questions to arise again even with the statement's forward guidance.

Now, we may very well need to go to the lower bound, but I think we want to stage our actions and tie them to the expected economic effects of the virus: provide liquidity now to support market functioning before taking further interest rate action, wait until we know market liquidity problems are addressed and markets are functioning well enough to transmit that monetary policy stimulus, prepare ourselves internally for the future actions we may need to take to add accommodation after we hit the lower bound, and come to some understanding among ourselves for how we will take back these emergency actions once we get beyond the virus crisis and the economy begins growing again. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Barkin.

MR. BARKIN. Thank you, Mr. Chair. We walk a fine line. Panic is the issue, and we don't want to be the cause of it nor the focus of it. Not moving enough could appear tone deaf. Moving aggressively risks confirming people's worst fears. That is even more important, as other tools are limited, too. With the yield curve so flat, yield curve control, or quantitative easing, won't seem to have much influence. The uncertain duration of the coronavirus makes the forward guidance tool less fit for purpose, and the public is increasingly skeptical about the potential for the right fiscal or health policies.

I support all our liquidity and credit availability moves. I do worry the balance sheet expansion will be confusing in the way that President Harker suggested, and that the number will be seen as both too much by some and too little by others. So, I admit, I was intrigued when President Kashkari mentioned the notion of saying "as needed" as opposed to having a specific number, because I thought that might actually be more of a "whatever it takes" kind of message, and I'd at least encourage a look at that.

On rates, I didn't start the week at 100 basis points, but events have moved quickly. With the rolling shutdown currently under way, the data will worsen to levels requiring this kind of accommodation, and I understand why we'd act with force. If we do this, I think we should take advantage of the fact that we've gone all in.

First, we, not the markets, should define what our next move might be. We should say, "We've gotten ahead of this." We should say, "This is more like 9/11 than the Global Financial Crisis, and so any next moves will be liquidity- or credit-focused, not negative rates." We should say, even more clearly, "If the balance sheet expands further, it will be to enable markets to function—not to move already-low longer-term rates." I think the resulting reduction in market uncertainty about the path forward would be very much to our benefit.

Second, we aren't the only game in town, and now, in this unique situation in which we have gone all in and in which targeted fiscal and health moves should predominate and still have a lot more to contribute, we should strongly message that need. Perhaps that could help unlock productive action there as well.

Finally, as I referenced in my earlier question, the phrase "and is on track to achieve" in paragraph 2 just creates in my mind a definitional debate that I'm not even quite sure I know where I stand on. I do accept President Williams's definition, but I do wonder, just reading it, whether we need that phrase or whether stopping after the word "events" might achieve the same thing with less confusion. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Bostic.

MR. BOSTIC. Thank you, Mr. Chair. In considering what actions the Committee should take, I have been considering the functioning of financial and credit markets and the effects of

the COVID-19 pandemic on the current economy. Let me take each in turn and then close with some thoughts on the communication challenge that we face.

In major respects, the big, new information over the past few days has been the difficulty that markets have had with basic functioning. As many have noted, this is a new front that is quite troubling. But it is also an area in which the Committee has experience and one in which we have tools to mitigate negative effects. The proposed actions regarding the discount window, dollar liquidity swap lines, intraday credit, bank capital and liquidity buffers, and reserve requirements are well conceived, and I fully support implementing them. I expect these will be very well received by market participants across the board.

That said, I agree with others that more will be needed in response to tightening financial conditions. Many have discussed the needs in corporate paper markets and of corporations. I understand this and agree with taking steps here on this front. But, like others have mentioned, I would add to this the issue of finding ways to provide short-run funding to finance small and medium-sized businesses. Their funding is through banks, and I expect their stress to be acute and relatively immediate. Policymakers should be considering guidance on the forbearance on loans and mortgages, facilities for lending, and clarifying and strengthening our authorities as lender of last resort.

As I noted in the economic go-round, regarding the effects of the pandemic on the economy, the key phrase is “evolving rapidly.” This rapid evolution clearly suggests that a move to ease the federal funds rate is appropriate for this meeting. The question is, what move is most appropriate? While I appreciate the arguments supporting a 100 basis point reduction and understand why they are compelling, I do think it is important to raise the issue of risks that make this approach something less than an obvious slam dunk.

First, recent signs that the Congress and Executive Branch will come together to provide support and stimulus, in addition to the positive changes in the yield curve, are quite welcome. I think these reduce the urgency of our moving to a dramatically more accommodative stance. Frankly, the extra accommodation will not help solve the immediate problem, which is, at its heart, a public health problem. Among those on my board and contacts, there were many questions about why we would, at this early stage in the crisis, use all of our federal funds rate policy “juice.” I think that is a fair question, and we should be clear about who this benefits in the immediate term.

Second, going to the effective lower bound will necessarily focus attention on what happens next. I have little confidence that our position at the effective lower bound will reduce expectations for Fed action if and when new data come in that show weakening of the economy. And the question will be, what is on the table? It would be ideal to get ahead of this so that we are not in a reactive position in terms of expectations. But the Committee has not yet coalesced on a plan, so it will be difficult to satisfy and control expectations at this time. By moving by 50 basis points, the Committee could buy some time to refine its thinking and then communicate a comprehensive plan, something akin to what we are doing today with respect to preserving market functioning.

Third, as noted by others, there is a clear risk that this action could increase rather than decrease fear in the market. In my view, the big story coming out of this meeting should be the liquidity actions. The rate move proposed here will mean that there are two big stories, with one likely being that the Fed is more worried about the prospects for the U.S. economy than perhaps many households and businesses are. This could trigger an even deeper retrenchment and hinder our ability to drive a recovery. And there will not be a Summary of Economic Projections (SEP)

detailing what our expectations are, so it is not obvious that there are other straightforward counterweights to this narrative, assuming we think that such a counter would be good. This is a source of great concern.

Given this context, if the Committee decides to go forward with the 100 basis point reduction, how we communicate and justify this to the public and market participants will be critical if we are to avoid such pitfalls. I think it is good that the proposed statement emphasizes that this is an action that is being taken in response to the specific pandemic event. That said, I am not in favor of blending this with our usual consideration of the dual mandate. Thus, I agree with President Barkin. I would drop the phrase “and is on track to achieve its maximum employment and price stability goals” from paragraph 2. In my view, we are in a crisis regime and should distinguish actions in this context from actions taken during more normal times. And I would emphasize this latter point in all communications during this period.

I would also prefer that we establish an expectation sooner rather than later that the moves taken during this crisis period will be reversed when we are past it. As the statement is now constructed, this point is not clear, and my question to the Committee is this: In normal times, would we have driven rates to the effective lower bound if the issue was solely the pace of inflation? I am not sure we would have, and I know I would not have supported this. Further, in very short order, we need to be ready to detail the set of actions we are willing to take if additional measures seem necessary. For example, like President Bullard and others, I don’t think the issue of negative rates is clearly off the table.

Similarly, what about modern monetary theory? Are we prepared to go there? We need a more concrete plan, and the Committee needs to have these deliberations quickly. I also think we need to be mindful of the potential for elevated fear and couch any actions we do today in the

great uncertainty that we all recognize prevails. We should make clear that, using President Harker's words, there isn't something we know that others don't. And we definitely need unified language here, so I appreciate us getting those talking points.

I'd like to offer a psychological perspective. There is a rich literature—and you can think about prospect theory, for example—that shows us something happens to people's decisionmaking when you get to zero. At the lower bound, we are no longer in a symmetric linear response space for people, and so there is a risk of getting stuck there. Thus, it might be useful to think of the effective lower bound as, in the words of one of my staffers, an "attracting boundary." I think there is merit to this view, and this reality should be at the forefront of our minds as we move forward.

Finally, I wanted to speak about the implementation of communications, and I will say that knowing that there is a blackout today and tomorrow is useful. But I would strongly encourage us to be active rather than passive in thinking about engaging our constituents. And I would encourage the Chair to consider a more proactive approach, deploying the entire Committee to make sure we get our clear messages and rationales out to as many people as possible. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chair. Events have moved very fast, and I fully support the recommendation for lowering the funds rate target range to the effective lower bound, the forward guidance as well as the full package of actions to support market functioning, and the flow of credit to households and businesses.

At this point, it will be an amazing accomplishment if the U.S. economy avoids a recession. I simply think the public health risk is just enormous, and many people in the private

sector haven't gotten their arms around this. Just looking at the crowds at bars last night and then the pictures at O'Hare and Dallas–Fort Worth of crowds coming in from international flights—if there's anybody who is carrying the virus, the spread of the virus is going to be very large from that. Looking back at the 1918 Spanish flu, you can come upon these instances that point out that Philadelphia had a big parade, and then they had a huge spread of the virus that came from that, whereas a similar-sized city like St. Louis didn't do that, and their spread was much lower. I just think that's so instructive for what we're probably facing.

In our current situation, it's important to move aggressively up front to try to put a floor under the deterioration in financial conditions and support economic activity as much as we can. If our package of actions is successful, we might prevent some of the worst possible outcomes, and we may cushion the economy from the effects of business closures and declines in consumer spending that do occur. There is great value to that, and we all recognize that. Even though monetary policy isn't the best tool to address a public health crisis, we need to do what we can.

As I said, I support the full package of actions on the table today. Forward guidance indicates that we will provide appropriate accommodation when activity eventually picks back up and households and businesses are able to return to normal. In addition, the forward guidance provides some clarity about the future path of policy rates, and this should help diminish one source of uncertainty that has been inhibiting market making.

On the question of the language and possibly omitting the reference to our maximum-employment and price-stability goals, I'll simply say, I think, in one sense, the forward-guidance language is a little weaker than, in fact, we might really wish we could have. I think we're going to have a difficult time raising the federal funds rate after all of this takes place. And if we suggest that, perhaps once people are going back to work, maybe we will try to undo something

like that, I don't think that that would be helpful. And I think that the reference to our dual-mandate goals continues to help that. The asset purchases should help restore liquidity to Treasury and MBS markets, with obvious benefits to the real economy. I do support inserting the language "at least" before "\$500 billion" and "\$200 billion."

I think that all of you in Washington and in New York should have the authority to do as much as you can without coming back to the Committee before the next meeting if something is necessary. I think that would be helpful. And it's important that we have a set of actions aimed at promoting the flow of credit to households and businesses through the banking sector.

Looking ahead, I doubt our work is done. We likely will need to find other ways to support households and businesses who are struggling through these difficult times. I know we've considered some possibilities to spur lending in the past, and I think dusting off some of those options would be a good place to start continuing that research about other cutting-edge possibilities that we haven't actually rolled out in the past. Whether these ultimately are Federal Reserve programs, Treasury programs, or some combination doesn't really matter. During a public health crisis of vast proportions, I think obtaining appropriate authorization with the Treasury Secretary and congressional leaders should be possible. That's my view.

I think our aggressive moves today demonstrate a do-what-it-takes approach to fighting the current threat to the economy. We know from experience that this can be key for bolstering public confidence and minimizing further downside risks. The threat is real, and we must do everything we can to reduce the short- and the long-term economic damage from the global pandemic. With this in mind, I fully support the proposed package of policy actions. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chair. I'm generally very supportive of this package. We face a deteriorating situation globally. I think incoming news is likely to be quite bad in the days ahead, especially out of Europe as Europe shuts down and we get a lot of cases here. I think we need to act aggressively to contain downside risk to the economy. I think the focus on market functioning is appropriate. I agree with Presidents Bostic, Mester, and Harker that the Committee, in this situation, needs to make moves within a plan. I liked President Mester's language of "staging." I think that's appropriate in a situation in which you think you're going to have a lot of bad news coming ahead. So it would help us—when you're in the middle of a crisis, obviously, everything is chaos, and we're doing the best we can. But I think it would help us to think about staging if we can and so be able to release programs appropriately as we go forward.

On the 100 basis point policy rate reduction, I think this is appropriate in this situation. It meets the expectation in U.S. markets. I do agree with others that are commenting that we do run the risk that this may come off as inciting panic further, and we do have to be ready for a possible negative reaction. That's not my base case, but I do think we need to be prepared.

I think we should be cognizant of the fact that this is an unusual FOMC meeting. We're releasing the statement at 5:00 p.m. on a Sunday before Asian markets open. Because of that, I think there's more risk that we get the reaction that the Fed knows something more than other people know. You've got traders in Singapore and Tokyo, not in New York, that are trying to interpret what we're saying here. This could be old news by the time of the U.S. open tomorrow morning.

Also, I think we're in a situation in which you might think Europe just has to trade down on a Monday after a weekend of terrible news across the continent. So the idea that we're doing

a lot and we're going to see a positive shock in markets and we're going to change the psychology—I'm not really sure that's something we can count on here. Even though I think this is the right move and we are doing the right thing, I don't think we're in a particularly good position here to get that positive aspect. Now, maybe we will, and that'll be great. But I think we have to be ready that it may not come out that way.

On the balance sheet actions, I agree with President Barkin and others that we're stressing liquidity and market functioning. We're not stressing this as a quantitative easing program. I think a great question that we'll get right away is, do we want this to be interpreted as quantitative easing, or is the message that we reduced the policy rate and started up a quantitative easing program? If not, if we tell a market functioning story and a convoluted one that talks about on-the-run versus off-the-run Treasury securities, I mean, how much clarity are we going to get on that? And how much ability are we going to have to say we're trying to help the person on the street or the small business or the gig worker when, really, what we're doing is taking an action that's alleviating problems in the primary dealer market?

So I think we have to be very careful here. If we don't want to call this QE, then how will we differentiate a future program that we would want to call QE? Now, President Williams used the language "dual function," which I interpreted him to mean that QE1 had this dual function—that there was poor market functioning in March 2009 and that it was also quantitative easing, in the sense that we were trying to lower longer-term rates right at that juncture. I would say about that is, it might have been easier at the QE1 point when this had never been done before, and the Committee came in with a big move right at that spot, and we could plausibly argue that we were doing both things. I think, since then, there have been four other programs, and markets have gotten used to the idea that this is meant for lowering rates on Treasury and

mortgage-backed securities. And I like the language “at least.” It gets closer to the open-ended language. I think that that’s helpful in this environment.

On the swap lines, again, I think—you know, I’m not sure. We set up the swap lines as standing facilities. As far as I know, they’re not being used, but maybe things have changed just recently. They can use them at any time, so I’m not quite sure why we have to change the prices in a situation in which they’re not really in use. I’m not really against it, but we did set up these other prices as part of the standing facilities. Also, what happened in the GFC was that we had other countries requesting swap lines, and that’s sort of a common thing, that you get many countries that want to do this. I’m not seeing the dollar funding, but I’m not as close to it as others, so I’m not quite sure what we want to do in that dimension.

On the Board actions, I was comfortable with those. I agree with President Mester and others, as I said in my earlier remarks, that the negative-rates debate is looming, and, unfortunately, because we’re in the middle of a crisis, we can’t get away from that. But rates are determined in markets, so you may just wake up and you’ve got negative rates off the Treasury curve. But also, why isn’t our policy rate negative the way it is in Japan and in Europe? I am quite concerned, and I would defer to President Rosengren on the money market mutual fund issue. That was a major issue last time around, and very low rates are critical there. So this is something that could develop just in the next few days.

Finally, on the SEP, part of the package is to come out without an SEP and to quit giving guidance. Certainly, I think all of us were very relieved that we didn’t have to give guidance in this situation of extreme uncertainty, but this is the kind of thing that a private-sector firm would do when they’re not sure how their business is going to evolve. I think we need to have some guidance despite not having the SEP, and I think I know what it is.

The guidance is just that the second quarter is not looking good. No matter how you look at it, the second quarter for the United States is not looking good. We don't really know how it's going to develop after that. We hope there will be a bounceback, but the second quarter doesn't look good. You don't need to call that a recession. You can if you want, but I wouldn't do that. And there's just a lot of uncertainty around that, and everything depends on how the virus proceeds. So we're very hopeful that we can get back on track in the second half of the year, but we're going to be pressed on this in the days ahead. Probably pretty much the first questions that you'll get are "You didn't give a dot. Well, what's your dot? What would your dot have been if you had given it?"

I think this is critical, because we do not want to give the impression that the economy is falling off the cliff, and some of the discussion here today definitely has that feel to it. It's perfectly appropriate that you have a health crisis, and you would ask everybody to pull back a little bit. That is appropriate. The disease goes away, you get back to production, the productive capacity of the economy isn't harmed—that's what everybody would say is the right thing to do. So, to me, you can call it a recession if you want, but it's a different animal than other types of recessions that the U.S. economy has gone through in the postwar era.

I thought President Bostic had a good point on Committee communication. I think what has happened is, we were previously thinking we were all going to be on blackout, and no one scheduled any events. You do run the risk here that the narrative is taken over by private-sector commentators during the Monday–Tuesday time frame—it's very hard for the Chair to go out and say anything. So I think, to the extent we can support this decision in the days ahead, that's quite important. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. President Kashkari.

MR. KASHKARI. Thank you, Mr. Chair. I support the package. I think it's comprehensive, it's aggressive, and I support it. You know, a few people have used the word "panic." I don't view this as a panic. I think a panic is something that happens when markets get spooked for no good reason, and we just need to let the panic pass and things will go back to normal. I think this is a legitimate health crisis.

I was amazed when I learned from the CDC that, in 2009, 60 million—six-zero—almost 60 million Americans got the swine flu. That's remarkable to me—and how only 12,500 died. Only. That's still a lot of people. But if it's 1 percent mortality for coronavirus, obviously, that's 600,000 people. And so I think the pullbacks that we're seeing are eminently logical and rational, and they're not reflective of a panic. They're a thoughtful response. So just in terms of how we talk about it, I don't view this as us trying to quell a panic.

I support the 100 basis point reduction. I think cutting 50 now and 50 a few weeks from now doesn't make any sense. If we're going to get back to the lower bound, let's just get there. In terms of the forward guidance, you're not going to be surprised—I agree with Charlie. I think the forward guidance could be and should be stronger. You know, even in this, I'm not actually asking us to consider a change in this minute. But, even now, with this statement, we're demonstrating that we want to raise rates ahead of inflation. That's what it says.

And so I think this is wrapped into our framework review. I don't know where that's going to stand in light of the fact that we've got all of this going on. But something that I would hope would come out of the framework review is that we would stop getting ahead and raising rates ahead of inflation. So, to me, I would have said, "Let's actually put forward guidance when we achieve our dual-mandate goals, then we'll lift off." But that's just an editorial note.

Regarding paragraph 4, the “at least,” I certainly support putting “at least” in there: “at least \$500 billion,” “at least \$200 billion.” Listening to this discussion, it sounds like that paragraph is meant to be our “whatever it takes” paragraph: “The Committee will do whatever it takes to ensure smooth functioning in markets for Treasury securities and agency securities.” I think we could be stronger, and, if not actually use the “whatever it takes” language, I think we could say, “The Committee will increase its holding of Treasury securities and agency-backed securities as needed to ensure smooth functioning of markets.” So, anyway, I think “at least” is a step forward, but I think it could be stronger if this is meant to be our “whatever it takes” language.

I appreciated, Governor Quarles, your comments on the discount window and the outreach that you’ve had with banks. I’ll just say—and I hope it works, and I’m cautiously optimistic it will work—it reminds me of 2008. So we had seen that the U.K. government had tried to intervene in banks, and some banks refused their assistance because of stigma. To combat that, Secretary Paulson and Chairman Bernanke had the nine bank CEOs in at Treasury on a Sunday, just like today, and said, “We all want you to take the TARP, and we’re going to message this as though the TARP is only for healthy institutions.”

And it worked for about a month. We created a positive stigma by which “Hey, we want to show that we’re healthy. We’re going to go take this TARP money,” and then it was quickly overcome by political and economic events, and the stigma returned. So I’m optimistic that your outreach will make the window effective initially. I hope it’s ongoing, and I’m glad to hear that the TAF is ready to go if we need it.

In terms of these other facilities, we talked about the TAF, and we talked about commercial paper. I also think we need to be ready for something in the investment-grade

corporate credit markets. I'm not talking about bailing out airlines, but I do think making sure industrial companies that are otherwise healthy—there needs to be a functioning bond market, and I think this is an appropriate role for central banks to play.

Same thing with the muni market. You can imagine, a lot of the health responses are going to be at the state level. You can imagine states wanting to tap the muni market to help them with their health-care response. I think us making sure that the muni market is functioning is a totally appropriate role for a central bank. Other central banks get involved in these markets, and I think we can do it, again, without going down the path of bailouts. We could put some parameters around it to make sure that we're just ensuring functioning of markets for good credit, and we have the authority to do it. We don't have to reopen the Federal Reserve Act. Between our discount window authority, through which we can lend against almost anything, and our 13(3) authority, I know that Dodd-Frank constrained it, so we can't do one-off interventions like Bear Stearns with Maiden Lane. But, in the extreme, you could imagine Maiden Lane for a very wide set of counterparties, a very wide set of assets. So the authority exists. We just have to decide if we want to use it.

A couple more points. I liked Eric's comment about stopping share repurchases. I don't think there's any reason why banks should be buying back their stock right now, and I think that's a very positive message that we would be sending to the country, that we're all in this together. I think stopping dividends is a big bridge further than that, but stopping share repurchases—the banks will squeal, but let them squeal.

And then the last thing that Ron here has mentioned to me, which I've been thinking about, is our meeting schedule. You know, our next meeting is going to be six weeks away. It seems like that's an awfully long time. Of course, the Chair can call meetings as needed. But

when we do these one-off meetings, it makes it feel like we're panicking, like we don't have a meeting scheduled for six weeks, and then two weeks from now the Chair calls a meeting. I know there's a cost to having these meetings. I just wonder, in the ensuing few months, if we had shorter—in terms of the length of the meeting—but more frequent meetings, it might enable us to take actions on a more regular basis. Even if we don't take an action, we could meet—we could meet for an hour and not take an action, as opposed to every time something comes up we call an emergency meeting. So, anyway, it's just something to think about. Thank you,

Mr. Chair.

CHAIR POWELL. Thank you. President George.

MS. GEORGE. Thank you, Mr. Chairman. I support today's plan to take aggressive steps to ease stress in short-term funding markets with our liquidity facilities. The deterioration in financial conditions and the escalation of the virus outbreak here in the United States and across the globe make market functioning and financial stability our highest priority, even as others more directly must attend to the health-care issues.

I also support today's policy action. I am sympathetic to the points made by others about the risk of returning to the lower bound. But as I listen to this discussion, with clear signs of near-term economic disruption in the United States and globally, the downside risks to the outlook appear significant and warrant a reduction in the federal funds rate and the proposed asset purchases.

The forward-guidance language appropriately, in my view, gives us the flexibility to reassess this policy stance once we have a clear sense of the economic damage. Even as I support these actions, a return to the lower bound and the relaunch of asset purchases are sober

reminders of the nature of this shock, its human toll, and economic costs as well as the monetary policy challenges that lie ahead for this Committee.

And, finally, I concur with the supervisory steps proposed but would align myself with the points made by others about the ongoing share buybacks by our largest banks in this environment. Thank you.

CHAIR POWELL. Thank you. President Kaplan.

MR. KAPLAN. Thank you, Mr. Chairman. I support each of the elements of the liquidity package. I agree with inserting the language “at least” before the “\$500 billion” and the “\$200 billion.” I also am glad and would be very supportive that we stand ready on the TAF facility, the CP facility, and other facilities that allow companies, big and small, access to credit.

I think it’s critical that we allow companies to buy time. And this is one of those unusual situations in which two or three months is an enormous amount of time. I think these kinds of programs that make it easier for companies to have some confidence that they could at least roll their short-term paper would go a long way to settling down the term credit markets, particularly for those companies that have refinancings coming due over the next year and aren’t sure whether there’s going to be a window for them. And so I think those are absolutely critical.

I also think it’s critical, as has been said, that we communicate that we are not out of ammunition and we are ready to take action and do more. And, obviously, it’s critical that this is joined by fiscal action. I do agree with comments that have been made about telling the banks that they should not be repurchasing shares.

On the target rate, I went into this meeting, and over the past week, preferring that we move 50 basis points, not 100 basis points. I am very sympathetic to the arguments made by Presidents Mester and Bostic. I’m concerned about the psychological effects of going to the zero

lower bound. Comparisons to Japan and Europe, I think, are not helpful to confidence. In addition, this is a virus, as we painfully know, that particularly targets the elderly. And while they're dealing with this, and dealing with a decline in their portfolios, it also affects their ability to save.

Having said all of that, I will support 100 basis points if that's the decision of this Committee. And, if that's what we do, despite our own views and what we've said around the table, I do think it is critical that in our public comments all of our actions are geared toward facilitating and enhancing the probability of a second-half recovery in the United States. Thank you, Mr. Chairman.

CHAIR POWELL. Thank you. President Daly.

MS. DALY. Thank you, Mr. Chair. I support the full range of actions outlined in the draft statement and the accompanying documents. The extraordinary situation we face calls for this type of bold and aggressive and immediate action. And in my judgment, the public expects this from us and will not be taken aback or surprised, at least in the most affected areas of our nation, which currently are the 1st, 2nd, and 12th Districts.

Of course, it's completely true that monetary policy is no panacea, especially for a pandemic. But we do have, in my judgment, a crucial role to play. Our role is to stabilize financial conditions and support economic activity and price stability, and we are facing clear shocks to all three of those things: We face significant financial dislocations, a demand shock of unknown size and unknown duration, and significant weakening of inflation. So the 100 basis point cut proposed today, along with our recent 50 basis point cut, is appropriate to temper those adverse effects.

I also like the forward guidance and would be with President Evans and President Kashkari that it perhaps could go more for me, that we have to say, in my judgment, that we have confidence that both the virus is behind us and the economy has recovered. We are really probably not going to just see a *V*-shaped recovery. I hope that's true, but I don't see that in the making, because we have slower global growth and financial distress, and many, many parts of our communities—especially those who are less advantaged, lower-income workers—are going to have a negative shock because of this that lasts beyond the simple recovery of the virus. So having the assurance that we're going to do what it takes for the duration to achieving, once again, our dual-mandate goals I think is appropriate.

In conjunction with the 100 basis point rate cut today, I see the liquidity and market-functioning provisions outlined in the staff memo as essential. As so many have mentioned, to be effective, our funds rate actions have to be accompanied by the distribution mechanism across the yield curve and across asset classes. So the measures we are taking today to support the smooth functioning of financial markets are just essential to allowing the flow of credit to get to businesses and households.

In particular, I understood Lorie—I really took to heart that we have to get the Treasury market volatility solved first. That's a foundation. But I, like others, would like to see us be ready almost immediately to do the TAF and the commercial paper market facility. I also, like others, would like to see banks stop share repurchases. Regarding the talking points, I think it would be helpful if one of the talking points could be something about how we see this as different from QE, because to the extent that we can all say the same thing, even if it's nuanced, the public will understand it. But if we're a little bit confused about whether this is so much like QE that it looks like QE except that our intention is different or whether it's to fix market

dislocation, I think that could end up with a lot of noise, and the Fed watchers are going to be making their own views. So I think a single talking point that you could provide us would be helpful.

Let me conclude by saying that although we can't fully offset the effects of a global pandemic, we do have important tools, and I don't think we're at all out of those tools. So the actions proposed today are a good starting point and are appropriate, but we, in my judgment, will likely need to do more, including more directly finding ways to help our communities.

President Evans said this, and Vice Chair Williams said it—we are in this Knightian uncertainty in which we can't quantify the risks ahead of us. And one thing I'd like to leave with is that it's important in this time not to weight equally the potential outcomes, but rather to plan for the worst and hope for the best. We all hope that the brightest scenario will be the one we see in the United States, but we need to plan for the worst possible scenario and understand that that's what we might be facing so that we're ready.

I understand the worry that any actions we take—and even this planning for the worst—could be causing people to feel more afraid, or maybe they'll think we're overreacting or that we know something they don't know. However, when I weigh that against the responsibility we have for the dual mandate and for financial market stability, those goals we have completely offset this worry that we'll be more trouble than help. I think we cannot be timid. We have to be doing our job effectively. And then, if communication is not perfect, we have to double down and communicate more effectively. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. Governor Quarles.

MR. QUARLES. Thank you, Mr. Chair. I fully support the package as a whole. It is comprehensive, it's decisive, and it will have an effect. Just to go through Thomas's outline of

the options and some comments on the key ones, with respect to the reduction in the federal funds rate, I can support that if that is the conclusion of this Committee, as channeled by the Chair. I do so with some reservation, but, again, I can do it without reluctance.

My reservations are those that have been expressed by others. It's not clear that monetary policy action, which acts slowly with lags to address developing trends in economic activity, is the right tool to address economic distress that's caused by emergency measures and temporary hysteria. Lowering the interest rate will not open schools, and it won't finish the NBA season.

Then, separate from its substantive effects of seeping into the cracks of the economy, monetary policy can send a signal. In this environment, as President Mester and others have said, a 100 basis point move might alarm as many people as it calms. Our move of 50 basis points on a Sunday, more than any other central bank, and the fact that it was made promptly and decisively, in combination with a package of well-designed liquidity measures, would send a very strong signal. And a 100 basis point move will have an immediate and strong negative effect on the financial services industry, which we need to be robust to keep providing support to the real economy.

The pathologies of prolonged negative interest rates that are playing out in the European banking system are different in degree, but not fundamentally different in kind, from pathologies that will develop from an extended period at the zero lower bound. And if we move to zero, we'll be there for an extended period.

Somewhat separately from the way I think President Mester expressed her reservations, I wouldn't be saying that 50 basis points rather than 100 basis points would keep our powder dry. I do think we need to think about what position a 100 basis point move puts us in, if there's some

event later this year or next that would respond well to a monetary policy move. But I'm very well persuaded by those who argue that one of the lessons from the crisis is that if you see a problem, respond powerfully—the Colin Powell doctrine, now the “other Powell” doctrine: Don’t hold something in reserve.

I do have some question, however, as to whether monetary policy easing in the current circumstances is really an especially good tool, so doubling down on it is not necessarily learning the lesson of the crisis that you should keep your powder dry. You shouldn’t keep your powder dry—it may simply be dissipating a tool that might be useful in the future for modest current benefit, something like trying to fight a virus by using a remaining supply of antibiotic.

All of that said, I take the full force of the arguments that have been made from the people around this virtual table whom I respect. Again, if it’s the conclusion of the Committee, I can support a 100 basis point move, with reservations but no reluctance. And some day in the future when I’m telling my grandchildren about the events of March 2020, I may have decided in my own mind whether that is statesmanship or simply conflict avoidance.

On the other measures that are on the table, I can support them wholeheartedly. The balance sheet measures—I may have some regret but no reservations, no reluctance. I completely agree with President Kashkari that ensuring that there is liquidity in financial markets is a totally appropriate function for a central bank. We will have some explaining to do with some folks afterward, but I can do that without looking at my shoelaces the whole time.

On the discount window, I do agree with the staging of, “Do the discount window, don’t have the TAF out there at the same time,” because I think I just—a year ago, I would have completely agreed with those who said, “The discount window just isn’t going to work, and part of being comprehensive and bold is, we have got to put all of the tools out there.” I think we are

in a different environment. Over the course of the past number of months, separate even from the current circumstances, there had been a lot of evolution in the thinking, particularly of the largest banks, about the use of the discount window. Over the course of the past week, that has really stepped up. I think that we should give the discount window an opportunity to work. My own estimation of the odds is probably 60–40, and that there's a good chance that we'll need to come out with the TAF. The folks are ready to come out with the TAF and can do that promptly. But there really have been concrete discussions that I think can give the discount window a good chance to work, and we should give that an opportunity.

Presidents Rosengren, Bostic, George, Kashkari, and others have mentioned the importance of correlative action, regulatory actions, with the banking industry. We are in the process, again, of negotiating a package of those with the other banking regulators. We've been talking with banks about their share repurchases. I think you'll see over the course of the next couple of days that the concerns that have been raised here about the regulatory side of things will not have been forgotten.

And then on the final element on Thomas's list here, reducing reserve requirements to zero—I'm totally in favor of that. That's been on the table for a long time. Reserve requirements in our current regime are a barbarous relic, and this is a good opportunity to actually finish what it is we've been intending to do for a while. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. Governor Bowman.

MS. BOWMAN. Thank you, Chair Powell. Before the recent intensification of challenges related to COVID-19, the fundamentals for the U.S. economy remained strong. So I take some comfort from the fact that we're confronting these new challenges from a position of relative economic strength.

As others have noted, however, there are significant uncertainties regarding both the public health and the economic effects of COVID-19. With things moving so quickly, the strong economic data, even from a few weeks ago, probably tell very little about how much recent events will affect the economic outlook. And I realize there is only so much that monetary policy can do to address the challenges we now face. Much of what needs to be done should be accomplished through fiscal policy, which falls to others in the public sector, and I am pleased to see the recent progress on that front.

But we certainly need to do what we can, which is why at this point I am in favor of providing additional support to the economy by taking further action to ease our policy stance. And given the significant degree of uncertainty regarding the economic outlook, I'd rather err on the side of providing too much accommodation today than on the side of being too restrained.

It's important to acknowledge, however, that a decision based on preference to err on the side of aggressiveness could be costly if we're not effective in our communications or if the decision goes too far. We will need to be especially careful when explaining today's federal funds rate and asset purchase decisions to the public. Today's rate cut, together with the announcement of \$700 billion of asset purchases, could help reassure the public that there is a very strong risk that the underlying reasons for these decisions could be misinterpreted, potentially stoking the sense of fear that already exists among the public.

I do realize that Treasury securities and MBS markets have been under intense stress, and that letting that stress persist could have costly implications for businesses and households down the road. I hope that our purchases of Treasury securities and MBS, as described in the policy statement, will help alleviate that stress. I'm also mindful that an aggressive policy action could lead some to wonder what the Fed knows that they don't. Some might wonder, for instance,

about what required two increasingly large rate cuts in less than a month, bringing the federal funds rate to its effective lower bound and leaving no further ability to react to future shocks with our main policy tool. So while I support the policy statement as currently written, I would have preferred a much smaller rate cut today, especially in light of our recent 50 basis point cut and the proposed announcements of \$700 billion of asset purchases, which, it's conceivable, some may interpret as QE.

But I'm also supportive of the new significant liquidity measures. I do support the liquidity measures described in the draft press release of "Federal Reserve Actions to Support the Flow of Credit to Households and Businesses." For the effects of our funds rate decision to be felt by businesses and households, we need to address the elevated pressures that are currently disrupting the functioning of the funding markets. I believe that actions that help lower the stigma associated with discount window borrowing, such as the proposed cut in the discount rate and the extension of term discount window loans to as long as 90 days, are particularly helpful under current circumstances.

I'd like to take a moment to note how our actions today will likely affect financial institutions and community banks. Of course, I realize that the actions we're planning to announce today are meant to support the U.S. economy, and a strong economy benefits everyone, including our financial institutions. But it's important to acknowledge that a return to the effective lower bound will, at least for some time, have a strong negative effect on the financial services industry. In this context, I welcome today's proposed effective elimination of reserve requirements. This action will reduce operational burdens on most community banks and help support lending to households and businesses. Thank you, Chair Powell.

CHAIR POWELL. Thank you. Governor Brainard.

MS. BRAINARD. Thank you, Mr. Chair. With the transition of COVID-19 into a global pandemic, I want to first just express appreciation to health providers and public health authorities at all levels in our country who are the critical first line of defense. In addition, I'm pleased to see signs of a bipartisan response on fiscal policy, which has to be at the center of our nation's response if it is to be successful. Monetary policy plays an important supporting role.

The three-pillar strategy we are adopting today amounts to a forceful and comprehensive approach to providing the requisite support to households and businesses while also preserving the ability to increase the scale and scope of our response if circumstances warrant. First, it's critical to provide support for businesses and households in affected communities to enable them to weather temporary disruptions they are experiencing through no fault of their own, retain their workforces, and return to work and business as quickly as possible once the epidemic slows. By lowering borrowing costs, the cumulative 1½ percentage point cut in the federal funds rate over the past few weeks and today and the forward guidance that policy will remain at the lower bound until we are confidently on track to reach full employment and 2 percent inflation are the centerpiece of this pillar.

Second, it is vital to ensure that credit actually flows to the affected households and businesses, especially small businesses and small farms and households with low liquid resources. That's why the Board is providing guidance to banks regarding supervisory expectations that they will use their strong capital and liquidity buffers to support lending to affected customers, along with enhanced access to the discount window and reduced pricing to support that lending. Like many others, I do think it's important to indicate that share repurchases are not appropriate in this environment. In addition, I do think that it's important, as we are doing, to be prepared to stand up a term auction facility if in fact that proves necessary

while giving the discount window some chance to prove its worth in these circumstances.

Ultimately, a funding-for-lending scheme for small business would be particularly well suited for the circumstances, and we should explore this, recognizing it would require a fiscal backstop.

Third, the significant liquidity-easing measures we are taking today are vitally important to ensure effective transmission of monetary policy and orderly market functioning. The illiquidity we had been seeing in the off-the-run Treasury securities markets, if left unchecked, could have transformed a shock that emanated outside the financial system into a systemic shock to financial stability. The “at least \$500 billion” in purchases by the Desk that I hope will be concentrated in off-the-run securities will free up dealer balance sheet for the purpose of market making and addressing fragilities and price discovery in critical related markets. Similarly, by addressing the blockages in the agency MBS market, the “at least \$200 billion” in purchases, along with the resumption of reinvestments, will help facilitate the transmission of lower rates into mortgage refinancing and the housing market more broadly. The changes to the pricing and tenor of our swap lines will similarly ease dollar funding strains and help protect against spillovers from abroad.

For me, it was critical that our actions today constitute a forceful and well-targeted response, but that we also strategically are prepared to respond further as conditions evolve, as many of you have emphasized. Let me briefly suggest some ways on how our response could evolve in the future. The forward guidance is written carefully so that it could become more clearly contingent on maximum employment and target inflation if the pandemic proves more damaging and long-lasting than anticipated or the effect on the economy is more protracted. Additionally, we retain considerable ability to change the nature and rationale of our balance sheet policies as the nature of the challenge evolves. This is a very important point.

While outside commentators may feel there is little practical distinction between the liquidity-easing measures we are announcing today and the use of the balance sheet to provide accommodation beyond the zero lower bound via quantitative easing, I believe there are important design elements that distinguish the two. If today we were announcing quantitative easing to extend the degree of accommodation, we would be expected to explain what maturities we were targeting in the context of transmission to the long end of the curve and to provide date- or state-contingent guidance, as well as some sense of how the magnitudes translate into equivalent conventional policy space. Today's announcement instead provides authorization to the Desk to adopt the appropriate composition of purchases to most effectively address the most acute frictions that are apparent in the off-the-run Treasury and MBS markets and gives full latitude to front-load and target those purchases as needed.

If future exigencies were to necessitate the use of asset purchases or yield curve caps for purposes of providing additional accommodation, we will have some complicated issues to contemplate, given the very flat slope of the yield curve. In my mind, the historically low levels of interest rates, as well as the striking flatness of the yield curve, cry out for a muscular fiscal response. Fiscal policy can be more targeted, which is particularly important today when the large number of households with low liquid savings, as well as small businesses and particular sectors, are likely to see outsized effects.

Finally, I do hope we'll have more to offer in coming days with regard to the signs of stress we're seeing in corporate credit markets. While the tools we are announcing today could have some very important indirect effects on those markets, the staff are already working hard to see whether we can design a facility that would help ease strains in the commercial paper market

consistent with our 13(3) authorities. With that, I support Alternative B, with some of the suggestions. Thank you, Mr. Chair.

CHAIR POWELL. Thank you. And thanks, everyone, for your comments. I am hearing broad support for adding “at least” in two places in paragraph 4 and, really, not for any other changes. So, Jim, why don’t you please make clear what the FOMC will vote on, and then read the roll.

MR. CLOUSE. Thank you. The vote will be on the monetary policy statement and the directive to the Desk as they appeared in the materials sent to you yesterday, except with the amendment that in both places referring to asset purchases it will include the words “at least.” And that’s both in the statement and the directive to the Desk. And with that, I’ll call the roll.

Chair Powell	Yes
Vice Chair Williams	Yes
Governor Bowman	Yes
Governor Brainard	Yes
Governor Clarida	Yes
President Harker	Yes
President Kaplan	Yes
President Kashkari	Yes
President Mester	No
Governor Quarles	Yes

CHAIR POWELL. The Board will now vote on interest rates on reserves and discount rates and other matters. I need a motion from a Board member to take the proposed action with respect to interest rates on reserves as set forth in the implementation note distributed yesterday.

MR. CLARIDA. So moved.

CHAIR POWELL. May I have a second?

MS. BRAINARD. Second.

CHAIR POWELL. Without objection. Thank you. Next, we need to approve the corresponding changes in discount rates. May I have a motion from a Board member to approve

establishment of the primary credit rate at 0.25 percent and the establishment of the rates for secondary and seasonal credit under the existing formula specified in the staff's March 13, 2020, memo to the Board?

MR. CLARIDA. So moved.

CHAIR POWELL. May I have a second?

MS. BRAINARD. Second.

CHAIR POWELL. Without objection. Thank you. Okay. Next up is the opportunity for comment on liquidity options. Before we begin, let me thank President Kashkari and the Conference of Presidents for your work on ways to help mitigate stigma associated with the discount window. A number of the ideas developed in that work were incorporated in the proposed changes to the discount window we are considering today. Governor Clarida, would you like to begin?

MR. CLARIDA. I support these measures enthusiastically.

CHAIR POWELL. Does anyone else want to comment? [No response] Thank you. I do think it's very important to take the steps outlined in the liquidity options memo. These are useful actions to help support the flow of credit to households and businesses. We may very well need to do even more in coming weeks, but this is a good first installment.

Let me note that under delegated authority from the Committee, I have approved the proposed changes in swap lines described in the coordinated central bank statement distributed to the Committee yesterday.

Next up, we need to approve the authority for Reserve Banks to extend primary credit loans. May I have a motion from a Board member to approve the offering of term primary credit

loans by the Federal Reserve Banks as proposed by the staff memorandum on liquidity options dated March 12, 2020?

MR. CLARIDA. So moved.

CHAIR POWELL. May I have a second?

MS. BRAINARD. Second.

CHAIR POWELL. Without objection. Now we need to approve the proposed reduction in reserve requirements to zero effective with the reserve maintenance period beginning March 26, 2020. May I have a motion from a Board member to reduce reserve requirement ratios to zero on net transaction accounts above the reserve requirement exemption amount effective March 26, 2020?

MR. CLARIDA. So moved.

CHAIR POWELL. Second?

MS. BRAINARD. Second.

CHAIR POWELL. Without objection. Our final agenda item is to confirm that, with luck, our next Board meeting will be on Tuesday–Wednesday, April 28–29, 2020. And that concludes this meeting. Thank you, everyone. Thank you for all of your efforts, thank you for today, and that concludes our proceedings.

END OF MEETING