

THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION

MEETING OF THE  
SECURITIES AND EXCHANGE COMMISSION  
ASSET MANAGEMENT ADVISORY COMMITTEE

Via WebEx Video Teleconference

Wednesday, May 27, 2020

9:00 a.m.

U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C.

1 PARTICIPANTS:  
2 Jay Clayton, SEC Chairman  
3 Hester Peirce, SEC Commissioner  
4 Allison Lee, SEC Commissioner  
5 Dalia Blass, Director - Division of Investment Management  
6 Edward Bernard, Committee Chairman  
7 John Bajkowski  
8 Michelle McCarthy Beck  
9 Jane Carten  
10 Scot Draeger  
11 Mike Durbin  
12 Gilbert Garcia  
13 Paul Greff  
14 Neesha Hathi  
15 Adeel Jivraj  
16 Ryan Ludt  
17 Susan McGee  
18 Jeffrey Ptak  
19 Erik Sirri  
20 Aye Soe  
21 Ross Stevens  
22 Rama Subramaniam  
23 John Suydam  
24 Mark Tiberghien  
25 Russ Wermers

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1 PARTICIPANTS(CONT.):  
2 Alex Glass (non-voting)  
3 Joe Savage (non-voting)  
4  
5  
6  
7 Non-AMAC Member Participants:  
8 Reginald Browne  
9 Sean Collins  
10 Jonathan de St. Paer  
11 Joe Lynagh  
12 Ben Phillips  
13 Marc Seidner  
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1 PROCEEDINGS  
2 MR. BERNARD: It's 9:00. This is Ed Bernard. I  
3 am Chairman of the Asset Management Advisory Committee, and I  
4 will call this May 27 meeting to order.  
5 I would note that we have a quorum. This is a  
6 virtual meeting on WebEx, due to the ongoing restrictions  
7 related to the pandemic. We've done a sound check over the  
8 course of the last 20, 30 minutes, so that we can ensure  
9 that all can hear. And I would just ask for any and all of  
10 you who are participating in the WebEx, the committee  
11 members and folks from the Commission, if you have any  
12 problems, please send a chat to the host and he will try and  
13 sort it out for us.  
14 So to get on with it, as committee members are  
15 aware, our originally planned agenda has pivoted to engage  
16 in a timely discussion of the impact of COVID-19 pandemic on  
17 financial markets and the asset management industry. I will  
18 have additional comments on that and our new agenda shortly.  
19 But I first would like to thank Chairman Clayton and  
20 Commissioners Peirce and Lee for their attendance and invite  
21 each of them to offer any opening remarks they may have.  
22 Chairman Clayton, over to you, sir.  
23 CHAIRMAN CLAYTON: Thank you very much. And I  
24 want to welcome everyone to the second meeting of the Asset  
25 Management Advisory Committee. I am very glad that you were

1 able to meet virtually today. And I will thank my  
2 colleagues, Commissioners Lee and Peirce, and our panelists  
3 as well for participating.

4 And I want to particularly thank you for pivoting,  
5 as you mentioned, in crafting an agenda for today's meeting  
6 that is important for the Commission and important for the  
7 markets. And thank Dalia Blass and her team for their many  
8 contributions in a compressed time frame.

9 I would also be remiss if I didn't thank our  
10 Office of Information Technology and the Office of the  
11 Secretary, whose good work has allowed us to hold today's  
12 meeting remotely and more generally operate in these  
13 stressed conditions. And I also want to thank all of the  
14 interested individuals who have dialed in and who are  
15 listening to our meeting through the Commission's website.

16 I am looking forward to hearing the committee's  
17 insights into the effects of the pandemic on the asset  
18 management industry and, in particular, on long-term Main  
19 Street investors. An essential component to our national  
20 response to and recovery from COVID-19 will be the  
21 continuing orderly operation of our markets and the  
22 continued flows of capital and credit throughout our  
23 economy. The asset management industry has played and will  
24 play a pivotal role in both orderly market operation and the  
25 generation and absorption of capital flows. Investment

1 funds and advisers are an important link between these  
2 market realities and the interests of our long-term Main  
3 Street investors.

4 As the effects of the COVID-19 and our societal  
5 response thereto unfolds, it's important that we discuss  
6 these matters in realtime and with clear heads. The  
7 Commission's general approach to the challenges presented  
8 has been premised on putting health and safety first as we  
9 strive to fulfill our mandates under modified operating  
10 requirements and stressed economic conditions, and thereby  
11 give the health and safety experts the time to develop a  
12 better understanding of the disease and how best to respond  
13 to it. As always, we have put investor protection and  
14 market integrity at the front of our minds.

15 During the past several months, the Commission and  
16 its Staff have been monitoring these effects and our  
17 unprecedented societal response. And in particular, have  
18 been assisting market participants in their effort to  
19 continue their operations. Where appropriate, we have  
20 provided industry participants with targeted, conditional  
21 and temporary exemptive relief. Our intent has been to  
22 enable each participant to meet the full substance of their  
23 regulatory obligations and the expectations of investors and  
24 yet keep things going the way they were on behalf of  
25 investors, while recognizing that they may face and are

1 facing temporary operational disruptions.

2 Throughout this, our staff has been actively  
3 working with other domestic regulatory colleagues,  
4 particularly the Treasury Department, the Federal Reserve  
5 and others, as we have sought to give a whole-of-government  
6 response to these issues. I believe these collaborations  
7 have expedited action and enhanced the effectiveness of our  
8 response and I thank my colleagues across the government for  
9 their cooperation.

10 Going forward, we will continue to monitor the  
11 effects of our responses to COVID-19 as they evolve and we  
12 will consider modifying, supplementing and, where  
13 appropriate, withdrawing relief and guidance. I do hope  
14 that we are able to withdraw some of this relief in the near  
15 term. But we are continuing to monitor it.

16 Today's discussion will provide us with valuable  
17 insight into how this job -- how to do this job better.

18 Here, I want to take a step back and note two key  
19 questions we continually ask ourselves. First, how can we  
20 improve? And, second, how do we want participation and  
21 representation in our markets to evolve at all levels,  
22 including with respect to investors, financial service  
23 companies, regulators and others?

24 In my view, a key part of the answer to both  
25 questions is expanding access and opportunity to our long-

1 term Main Street investors on a basis that is consistent  
2 with the opportunities available to institutional investors,  
3 while maintaining our leadership -- our global leadership in  
4 investor protection.

5 As we move forward, it remains incumbent upon the  
6 Commission to hear from those with hands-on experience and  
7 expertise from outside of our building -- our virtual  
8 building these days. Feedback from this committee will no  
9 doubt help us understand better where our regulatory  
10 framework is working and where challenges remain.

11 Turning to today's discussion specifically, I look  
12 forward to hearing from the committee's recently formed  
13 subcommittees focused on private investments and on  
14 environmental, social, and governance, or ESG, issues. I  
15 have spoken at some length in both areas. I believe I have  
16 made it clear that, while I am certain that in many cases,  
17 one or more of E issues, S issues, or G issues are material  
18 to an investment decision, I have not seen circumstances  
19 where combining analysis of E, S and G together across a  
20 broad range of companies, particularly with a single  
21 weighting or score, would facilitate meaningful investment  
22 analysis that was not significantly over-inclusive and  
23 imprecise. I have requested engagement on this topic,  
24 particularly from active portfolio managers with actual  
25 track records and I greatly appreciate your efforts to

1 inform the Commission in this area.

2 On the second question of participation and

3 representation in our markets, a critical component of this

4 discussion is diversity and inclusion. And, Ed, I know

5 you're going to speak about this later today.

6 With that, I look forward to seeing how your work

7 will inform the Commission and I very much look forward to

8 today's discussion. Ed, thank you for the time.

9 MR. BERNARD: Thank you, Chairman Clayton.

10 Commissioner Peirce, did you want to make any

11 remarks?

12 COMMISSIONER PEIRCE: Sure. Thank you, Ed. I

13 appreciate the fact that all of you are gathering today

14 virtually and am very much looking forward to hearing both

15 your impressions of what's happened so far during the COVID

16 crisis and, as the Chairman mentioned, we've taken a number

17 of relief measures, so your responses to what we've done.

18 Is there more that we need to do? Is there anything that we

19 need to change about what we've done? And then, looking

20 longer term, are there things that we should be thinking

21 about, lessons learned from this crisis, that we should be

22 thinking about trying to adjust things in the longer term?

23 I look forward to hearing from all of you and,

24 again, thank you for taking the time and lending us your

25 expertise.

1 MR. BERNARD: And thank you very much for

2 attending, to be with us.

3 And Commissioner Lee, would you like to make any

4 remarks?

5 COMMISSIONER LEE: Yes, thank you, Ed. Good

6 morning, everyone, and welcome. And thanks to all for

7 participating in today's virtual meeting.

8 When this committee held its inaugural meeting in

9 January, my colleagues and I all commented on the importance

10 of the asset management industry to investors of all types.

11 Those remarks were made at a time of relative calm in our

12 markets but they're even more fitting now, in light of the

13 significant impact to Americans' lives, livelihoods and

14 savings caused by COVID-19 and its ongoing consequences. So

15 I genuinely appreciate this committee coming together to

16 discuss how the industry can now best serve its clients in

17 this new economic environment.

18 And going forward, as Commissioner Peirce noted, I

19 hope you'll help us take stock of lessons learned from the

20 recent market volatility, to determine how we might address

21 any weaknesses laid bare by the effects of the crisis. For

22 example, money market funds once again required

23 extraordinary support from the Fed, raising questions about

24 the systemic risk that may be presented by these funds and

25 whether the current regulatory framework adequately

1 addresses and contains that risk. Also, business

2 development companies, which Congress recently allowed to

3 take on additional leverage, sought and received even

4 greater flexibility to borrow beyond those recently expanded

5 limits. And then funds experiencing significant outflows

6 were permitted to borrow from affiliated funds beyond the

7 typical limits in order to fund redemptions, exposing

8 shareholders in the less volatile funds to additional risks.

9 These are just a few examples of areas that may benefit from

10 your forensic analysis and lookback with respect to recent

11 events.

12 I am also very glad to see that the agenda

13 includes a presentation from the ESG Subcommittee, and I

14 look forward to hearing about those workstreams and, of

15 course, I look forward to hearing about the ultimate outcome

16 on each. These are not easy topics to tackle and I commend

17 you for taking this on.

18 I appreciate, for example, the very first

19 workstream identified, which looks at the nature of ESG

20 investing, kind of posing the question of whether it's about

21 values or about value or long-term value. And I would

22 submit that I don't think these two present such a

23 dichotomy. Instead, more and more data shows how closely

24 the two overlap. And, in fact, recent research indicates

25 that ESG-tilted portfolios outperformed the broader market

1 during the recent downturn. Which is why I am also very

2 interested to hear the committee's recommendations on what

3 the Commission can or should be doing to ensure that issuers

4 provide consistent, reliable and comparable disclosure of

5 climate-related risk and other ESG data, so that asset

6 managers and investors can assess and price the relevant

7 risks.

8 So I appreciate your time and attention in this

9 area and, more broadly, the valuable time and expertise that

10 you all lend to the Commission and its mission. Thank you.

11 MR. BERNARD: Thank you very much, Commissioner

12 Lee.

13 And now I will turn to Director of Investment

14 Management, Dalia Blass. I think you wanted to make some

15 opening remarks.

16 MS. BLASS: Yes. Thank you, Ed. And good

17 morning, everyone.

18 I would also like to add my welcome to all

19 attendees to the second meeting of the Asset Management

20 Advisory Committee. Before I get started, I would like to

21 provide the usual disclaimer for all SEC Staff participating

22 today. So I would like to remind you that the views

23 expressed today here from the Staff are those of the speaker

24 and do not necessarily reflect those of the Commission, any

25 commissioners or any other members of the Staff.

1 So today, the AMAC is meeting in a virtual  
 2 posture, in light of the COVID-19 pandemic that we face as a  
 3 global community. Needless to say, this pandemic has  
 4 significantly impacted the U.S. and global markets. Over  
 5 the past approximately three months, the Staff has engaged  
 6 in an extensive outreach effort to monitor the effects of  
 7 the pandemic on investors, investment products and market  
 8 functions just to name a few areas. As we continue in our  
 9 efforts to monitor the markets, we appreciate the committee  
 10 members' and panelists' willingness to pivot the agenda for  
 11 the meeting today to focus on market and operational issues  
 12 related to COVID-19. With diverse representation of  
 13 investors and market participants, we hope today's  
 14 participants can provide the SEC with broad-based market  
 15 color from their unique vantage points.

16 I believe that we can have a preliminary, data-  
 17 driven conversation about how different segments of the  
 18 asset management industry functioned over the past few  
 19 weeks. Having this conversation as events continue to  
 20 unfold can help us analyze what is happening and lay the  
 21 groundwork for determining future steps.

22 I personally hesitate to draw conclusions or make  
 23 recommendations for regulatory changes to address potential  
 24 impacts today. Doing so risks being premature, as we are  
 25 still in the middle of the pandemic and its evolving impact

1 on the U.S. and global markets.

2 To date, the Division and Staff across the agency  
 3 have been focused on extensive outreach and market  
 4 monitoring efforts. In addition, we have recommended to the  
 5 Commission and provided temporary conditional exemptive  
 6 relief. We are continuing our outreach and monitoring  
 7 efforts and stand ready to address pressing regulatory  
 8 issues identified by registrants.

9 Of note, the Staff's timely and thoughtful  
 10 response has and continues to be accomplished during this  
 11 challenging time in a full-time telework posture. While  
 12 juggling unprecedented challenges on the home and personal  
 13 front, the Staff is hard at work to fulfill the critical  
 14 mission of this agency. The Division, while tackling COVID-  
 15 19 requests for relief, is also moving forward with its  
 16 regulatory agenda and its core initiative, the investor  
 17 experience and modernizing our regulatory framework for the  
 18 asset management industry. We believe that it's critical to  
 19 do so to provide choice and opportunity for Main Street  
 20 investors. The professionalism and dedication of the Staff  
 21 in the Division and across the agency as we work through our  
 22 added workload is truly commendable.

23 Today's panels will cover the work of two AMAC  
 24 subcommittees, ESG and Retail Access to Private Investment.  
 25 In addition, panelists will provide preliminary data on

1 COVID-19 market impact, as well as insights on particular  
 2 segments of the industry most impacted. For example,  
 3 panelists will discuss money market and bond funds with a  
 4 focus on liquidity and market function. Of note,  
 5 significant reforms in each space played after the financial  
 6 crisis. A preliminary perspective on how the reforms  
 7 functioned will be helpful to both regulators and market  
 8 participants.

9 Finally, the last panel will cover different  
 10 aspects of business operations. As we all know, the current  
 11 environment has tested all aspects of business operations.  
 12 Without the need for regulatory action, business continuity  
 13 plans were adjusted to account for dispersed telework  
 14 locations. Meetings, including board meetings, moved into  
 15 virtual environments. Trading desks can now span multiple  
 16 locations while still connected as a unit.

17 With this backdrop in mind, I look forward to  
 18 today's panel discussion on the shift in operational  
 19 postures to dispersed telework and any potential challenges  
 20 ahead. In particular, I look forward to hearing input on  
 21 advancing the use of e-delivery and the challenges  
 22 experienced in printing and delivering paper, and experience  
 23 with virtual board attendance.

24 In closing, I would like to thank Christian  
 25 Broadbent and Sirimal Murkerjee, the Division's managing

1 executive office and the Commission's Office of Information  
 2 Technology for enabling us to meet virtually today. It  
 3 takes an extraordinary amount of work to put together a  
 4 meeting like today's in normal circumstances. So you can  
 5 all imagine the effort it has taken to make it happen in a  
 6 virtual posture.

7 With that, Ed, I will turn it back to you. And I  
 8 look forward to your opening up today's discussion.

9 MR. BERNARD: Thanks very much, Dalia. And before  
 10 we proceed, I will make a few remarks and I've got a little  
 11 housekeeping to take care of. But I think we'll be able to  
 12 stay on time.

13 So first, if I may, let me refresh the committee  
 14 on what followed our January 14 meeting which, I will  
 15 confess, feels like a lifetime ago. After a great day of  
 16 discussing a broad range of issues, I reached out to  
 17 everyone on the committee to seek views on the most  
 18 important, forward-looking issues for further discussion and  
 19 work by the committee. I received a great deal of input and  
 20 a number of issues emerged as the highest priorities and  
 21 you've heard about those. But so based on that, we  
 22 determined that the committee -- we communicated to the  
 23 committee in February that today's meeting would focus on  
 24 four high-priority issues: Access to private investments  
 25 led by Rama Subramaniam; ESG and investment management led

1 by Michelle McCarthy Beck; diversity and inclusion in  
2 investment management led by Gilbert Garcia; and data and  
3 technology issues in investment management led by Neesha  
4 Hathi.

5 I am very grateful to our four colleagues for  
6 taking on these leadership roles, as well as other AMAC  
7 members who joined them in their work.

8 So we all know what happened in the ensuing  
9 months. Few areas of our lives have been spared impact by  
10 the pandemic and, certainly, financial markets and asset  
11 management have been tested.

12 In mid-April, we communicated the decision to  
13 pivot, devoting today's meeting to a timely discussion of  
14 the impacts of the pandemic on financial markets and our  
15 industry. That impact will be the subject of analysis for  
16 years to come, with the benefit of time and perspective.  
17 But I believe there's also much to be gained by a discussion  
18 of these impacts while they're fresh and, in many cases,  
19 ongoing.

20 I turned to the committee once again, and once  
21 again received very substantive input on a range of impacts.  
22 Thanks to all of you for that and your input has helped form  
23 the basis of today's agenda.

24 So here is how today's agenda has changed. Of the  
25 four issues we had prioritized, we formed subcommittees for

1 our pivot in advance to all of you for participating in an  
2 additional meeting.

3 So turning to our new agenda, here is how we will  
4 proceed. As I mentioned, in a moment, we will ask the ESG  
5 and Private Investment Subcommittees to update us on how  
6 they're approaching their work. After a brief break, we  
7 will have three external experts provide foundational data  
8 and macro observations as context for our discussion. Then  
9 we'll take a long break for lunch to allow you to get away  
10 from your screens for a bit and come back at 1:00 for a two-  
11 hour session to discuss three topics, which Dalia touched  
12 on: ETFs, money market funds, and operational challenges  
13 and opportunities.

14 My thanks to Ryan Ludt, Neesha Hathi and Mike  
15 Durbin for agreeing to lead these discussions. They'll be  
16 joined by other committee members and some outside  
17 participants.

18 At the end of that session, we'll take a brief  
19 break and then we'll have a wrap-up discussion. As we did  
20 in our first meeting, we'll do a lightning round, this time  
21 around a virtual table. I'll ask each committee member to  
22 take no more than a minute to reflect on what struck them  
23 most about today's discussion, and I will explain a little  
24 more about that later.

25 And then finally, I'll follow up after today's

1 two. And for the other two, we wanted to have additional  
2 discussion as a committee before determining next steps.  
3 The two subcommittees, as you've heard, focused on ESG and  
4 private investments, and they are well into establishing the  
5 foundations of their work. The intention for today had been  
6 to allot time to each of them for a panel to include  
7 additional discussion of their topics, along with a readout  
8 on how they're approaching their committee work.

9 While the new COVID-19 focus doesn't allow  
10 adequate time to explore the broader discussions, each team  
11 will brief us on the approach they're taking to their work  
12 and we hope to get any quick feedback for that as they  
13 continue that work.

14 By contrast, the intention for today for diversity  
15 inclusion and data and technology was the fulsome discussion  
16 that was, in fact, scheduled for today. And there is simply  
17 not adequate time to do justice to those topics and address  
18 COVID-19 impact on the same day. However, given the  
19 importance of the topics and our ability to use video  
20 conferencing to be a bit more nimble and without the travel  
21 that's usually required, the SEC Staff will be reaching out  
22 to the committee to find a date in late June or early July  
23 for a three to four-hour special meeting to focus on those  
24 two topics in a more comprehensive way. I am particularly  
25 grateful to those teams for their flexibility in support of

1 meeting with an email to the committee to ask for  
2 reflections and input on the recommendations I expect we'll  
3 hear today, with that approach giving you a bit more time to  
4 reflect on the day and perhaps even touch base with  
5 colleagues.

6 If I may, I would like to offer one observation  
7 before I turn to a couple of housekeeping details. And this  
8 actually picks up on something that Dalia mentioned as well.  
9 Again, I believe the timing of today's discussion affords a  
10 terrific opportunity to provide timely input to the SEC  
11 regarding issues we believe should be on their radar. With  
12 that said, we should be careful not to jump to conclusions.  
13 As a committee, augmented by external experts, we bring a  
14 breadth of experience and expertise to the insights and  
15 recommendations we'll hear today. Nevertheless, we're still  
16 in the middle of all of this and a key objective of  
17 providing timely recommendations today is actually to  
18 prioritize them for a more deliberative process before  
19 reaching conclusions.

20 So with that, a bit of housekeeping. I suspect  
21 we've all been in a lot of video conferences in recent  
22 months. But there are various platforms, and some may be  
23 less familiar with Webex, depending on which platform you  
24 use. Please scroll around your screen, make sure you know  
25 where your audio and video buttons are, as well as how to

1 access the chat function.

2 If you run into any technical problems, please

3 send a private chat to the meeting's host, who is the SEC's

4 tech support professional on duty for the duration of

5 today's meeting.

6 We will each manage our own status. So when

7 you're not speaking, please ensure you're muted. And when

8 you're ready to speak, unmute. My hope is that you'll keep

9 video on, so we have a sense of our collective presence,

10 unless you're interrupted or need to step away from your

11 screen.

12 As we've done in the past, we'll hold questions

13 until each speaker finishes. And we're going to try to just

14 have folks unmute and speak to raise comments or questions.

15 And hopefully we won't all speak at once. If we do, we'll

16 go to a plan B, using the chat function.

17 I would say though that if you know you have a

18 question for a speaker while he or she is speaking, please

19 feel free to send a chat message to me before the speaker

20 finishes, and I can get us started in Q&A by calling on the

21 queue. And since an SEC is technically the host, I can't

22 see the "raise hand" function, so please don't use that.

23 So with that, I will take a brief pause to see if

24 anyone wants to unmute and ask a question or make a comment

25 before we begin. And I'm happy to say we're five minutes

1 ahead of time.

2 (No audible response.)

3 UPDATES FROM THE PRIVATE INVESTMENTS SUBCOMMITTEE

4 AND THE ESG SUBCOMMITTEE

5 MR. BERNARD: Hearing none, first we will hear an

6 update from the ESG Subcommittee, led by Michelle McCarthy

7 Beck. Michelle, I believe several members of your committee

8 will speak. I'd ask that, as each of you finish, just pass

9 along to the next. And then, when the last speaker is

10 complete, pass it back to Michelle, so we know we're ready

11 for Q&A.

12 So, Michelle?

13 MS. McCARTHY BECK: Terrific. And can you see my

14 screen?

15 MR. BERNARD: I can, yes.

16 MS. McCARTHY BECK: Great. So we have just about

17 under 20 minutes to take you on a tour of what we've been

18 looking at. And so I was going to introduce you to the

19 committee members, take you through the questions that we're

20 trying to tackle and how we're trying to go through our

21 work, and then finish with our ask to you as the rest of the

22 committee.

23 So the folks that are on the subcommittee are

24 myself; Jane Carten; Rich Hall, who can't be with us today;

25 Jeff Ptak and Aye Soe.

1 And the main questions that we've decided to

2 tackle during our work this year is the five that you see on

3 the left of this table. Is ESG about values or value? And

4 this is what Rich Hall has taken on. And as Commissioner

5 Lee noted, it may not be a dichotomy. But if you decide

6 that ESG is about values, it may be more about the

7 ingredients in the fund that people are trying to add to

8 their investing or subtract from their investing. If it's

9 about value, it may be about performance, performance and

10 performance. And, you know, some folks do see the

11 combination. The main outcomes of that workstream are going

12 to be recommendations about whether the focus should be on

13 values, value or both and what the implications are for best

14 practices and regulation.

15 I'm going to pass it now to Aye to take us through

16 how she sees the key outcomes of the performance stream.

17 MS. SOE: Thank you, Michelle. I am going to

18 cover Slide 8, 9 and 10 on the deck.

19 When we look at the ESG studies and the marketing

20 materials of ESG funds, what we often see is the statements

21 along these lines, that ESG funds or ESG strategies do not

22 underperform the respective benchmarks, the market or that

23 ESG funds do not detract from financial performance.

24 We also see that -- often see that, you know, ESG

25 fund strategies have lower portfolio volatility, they have

1 limited downside risk, and also statements implying that

2 companies with higher ESG scores have better balance sheet

3 or they are less volatile.

4 So all these statements make us think a bit deeper

5 about, you know, what are the returns and the risk drivers

6 of these ESG strategies, as risk and returns are two sides

7 of the same coin. So in diving deeper, you know, I think

8 that we -- in order for us to better understand the returns

9 of ESG strategies, we have to sort of keep that in mind,

10 that ESG -- most ESG strategies come to market over the last

11 past five years. And in the last past five years, we've

12 seen a number of structural changes taking place in the

13 market. And first and foremost is the decline of energy

14 prices. And then the dominance of big tech companies and

15 then the health care sectors.

16 So if you overweight energy and if you overweight

17 tech and health care, you know, it's a great recipe to

18 outperform the market. So we really want to understand are

19 the ESG strategies, the returns, coming from ESG or is it

20 simply coming from overweight and underweight of certain

21 industries? That's something that we need to get down to

22 the bottom.

23 The second is the momentum effect of ESG. That's

24 something a lot of studies noted, that as more and more

25 flows go into ESG funds, it's also driving up the

1 performance. So that's something to be mindful of.  
 2 Last, is ESG a proxy for quality, just financial  
 3 quality? That's something that remains to be established.  
 4 In many studies, we see that there's an overlap of good  
 5 corporate governance, the G aspect, with the financial  
 6 quality metrics that we come to see, such as something like  
 7 low leverage, low earnings accrual, lower earnings  
 8 volatility. So is ESG a proxy for quality? Particularly  
 9 governance, the G aspect.  
 10 On the next slide, you know, we want to look at  
 11 the measurement time, time horizon of ESG funds. Many ESG  
 12 funds, they lack long-term track record. And then in the  
 13 studies that focus on long-term track record, there's mixed  
 14 evidence of, you know, their performance. And there is also  
 15 the potential for survivorship bias when you go over that  
 16 long-term period. And ESG scores, they do not go back that  
 17 far in history, and they are often backfilled. So when you  
 18 backfill the ESG scores and drag it back in time, there's  
 19 also the potential for look-ahead bias. So that's something  
 20 to be mindful of as we look at the performance of ESG funds.  
 21 And, you know, whenever you talk about  
 22 performance, you have to talk about what is the appropriate  
 23 choice of benchmark. There are now more than 300 open-end  
 24 and exchange-traded ESG funds in the U.S. and they all come  
 25 in different flavors and shapes. They could be very much

1 broad-based exclusionary, such as S&P 500 ex tobacco, S&P  
 2 500 ex fossil fuel reserves. Or they could be rather  
 3 dramatic, such as gender diversity, sustainable farming,  
 4 clean technology. They could be best in class. And the  
 5 latest thing that we see is what they call being integrated,  
 6 where there are quant factors or there is alpha overlay, you  
 7 know, that's integrated. And also they can be optimized  
 8 with tracking a budget.  
 9 So because they come in all shapes and sizes, the  
 10 question becomes, you know, how should they be measured?  
 11 What is the appropriate choice of benchmark? Should they be  
 12 measured against the broad-based market cap weighted  
 13 benchmark? Or should it be beta adjusted, style adjusted  
 14 benchmark that accounts for the bets that they take? Or  
 15 should there be a primary and a secondary benchmark for  
 16 performance reporting? That's something to be considered.  
 17 Last but not the least, you know, when we look at  
 18 the ESG integration, we find that there is a lack of well-  
 19 defined systematic steps among managers on how ESG gets  
 20 integrated at every step. There's no uniformity. So that  
 21 makes the performance attribution very difficult. And I  
 22 think the industry needs, you know, alignment between the  
 23 ESG integration and then the expected outcome from the  
 24 integration, sort of that goes back to the prior slide of  
 25 aligning value with values. So that, you know, there's

1 clear ingredient mapping of what the exposure is and whether  
 2 it's supply chain, important protection, diversity, et  
 3 cetera, so that the users can see that the investment  
 4 objectives align with the outcomes from that integration.  
 5 So that will wrap up, you know, the work so far in  
 6 terms of understanding ESG fund performance.  
 7 MS. McCARTHY BECK: Thank you, Aye. I'm going to  
 8 return us to the overview we had back on one of the earlier  
 9 slides and talk about the other streams in addition.  
 10 So the three final streams are proxy voting in ESG  
 11 strategies, issuer disclosure of ESG data, and the role that  
 12 ESG rating systems and benchmarks should play.  
 13 So we are going to be turning to Jane Carten to  
 14 talk through what she's planning to do with her workstream.  
 15 We'll go to Jeff Ptak on issuer disclosure, and I will  
 16 finish up with this discussion of ESG rating systems.  
 17 So, Jane, I'm going to take you to your slide.  
 18 Here we go.  
 19 MS. CARTEN: Okay, good morning. And some of the  
 20 things that we tackled as a group were what are the  
 21 considerations for proxy voting in ESG funds. This is a  
 22 topic that has been widely covered by the media and is  
 23 continuing to make headlines. And the questions that we are  
 24 grappling with now and trying to find a way to lead our work  
 25 are what funds are trying to -- what are funds trying to

1 accomplish in their proxy voting? Are they trying to help  
 2 shareholders, help the environment? What are the potential  
 3 pitfalls of fund companies voting these proxies for specific  
 4 reasons? Who benefits and who loses? What is the role of  
 5 proxy advisory firms? Is it significant that ESG funds do  
 6 not always vote the ESG positions recommended by the proxy  
 7 advisory firms in proxy votes? That's something that a lot  
 8 of companies have been grappling with. Should ESG funds be  
 9 held accountable for proxy voting? If so, how? And what  
 10 does that look like in terms of disclosure? Can the funds  
 11 outsource these decisions to proxy advisers so long as they  
 12 have rules related to this? Can they provide enough  
 13 guidance to the proxy advisers that they would be able to  
 14 have the correct recommendations returned? Should anything  
 15 be mandatory in this area for any fund that brands itself  
 16 ESG? And what should proxy voting practices look like in  
 17 fund disclosure?  
 18 MS. McCARTHY BECK: Thank you, Jane. I am going  
 19 to move now to Jeff and talk about the question of issuer  
 20 disclosure.  
 21 MR. PTAK: Thanks, Michelle. Good morning,  
 22 everybody. My workstream is on issuer disclosure. And as  
 23 we scoped this out, one of the things we asked ourselves is  
 24 about the adequacy and consistency of issuer disclosure.  
 25 And to us, it coalesced around a few different dimensions,

1 one of them being the comprehensiveness of the information,  
2 how rich it is, whether it's meaningful to an investor  
3 that's cracking open one of the documents that an issuer  
4 would file with the SEC, the materiality that's addressed in  
5 those disclosures that are made by corporate issuers. Does  
6 it really matter and how do we measure some of those  
7 outcomes? And then the comparability across issuers and  
8 industries.

9 You know, when we thought about the different use  
10 cases that investors have and we tried to approach this  
11 through an investor lens, them working with issuer  
12 documents, these were each of the key dimensions that we  
13 thought we needed to make sure that we were mindful of as we  
14 scoped this out. And we asked ourselves where are the gaps  
15 and what if any role can regulation play in trying to close  
16 those gaps.

17 And, you know, this is playing out against a  
18 backdrop where there are multiple standards that are  
19 available. We have listed off a few of those  
20 parenthetically. And there are also multiple stakeholders,  
21 users of that information, all with their own incentives,  
22 imperatives and in different circumstances. You know, but  
23 what we want to try to ensure we do is we study this issue  
24 and develop what we hope is a set of actionable  
25 recommendations is to uphold comparability, consistency,

1 which is sometimes lacking in what we're currently getting  
2 from issuers today. In fact, we find that fewer than 30  
3 percent of public companies are disclosing ESG risk. The  
4 percent is even smaller for private issuers in fixed income  
5 disclosure, can be even more wanting in some ways, a bit  
6 threadbare and focused only on the issuer or in some cases  
7 on the use of proceeds. And so you get some inconsistency  
8 there.

9 You know, we would also, I think in the spirit of  
10 continuous improvement, look to promote a framework that's  
11 not only backward looking but also forward looking. And I  
12 think there is precedence in the disclosure regime for  
13 having those sorts of disclosures. And so the question  
14 becomes, in an ESG context, how can one provide those types  
15 of disclosures in a reliable way that serves investors' best  
16 interests?

17 As a practical matter, the metrics required by  
18 public standards could number in the hundreds, making it  
19 difficult to consume. So we are also conscious of the fact  
20 that there's a balance to be struck. There are certainly  
21 opportunities to innovate and provide additional  
22 standardized information to investors. But there's probably  
23 also opportunities to rationalize and to edit, and so we  
24 think it's incumbent upon us to find ways that we can  
25 encourage that sort of striking of a balance.

1 And then the last thing that we want to be mindful  
2 of is that issuers in some cases appear to cherry pick the  
3 ESG information that they use in marketing materials or  
4 other statutorily required information that they might file  
5 with the SEC and others. I think it points to the fact that  
6 there isn't necessarily a codified framework, let alone  
7 standardization. And so it can give rise to this blurring  
8 between something that is actually material and useful to  
9 investors and that which is a bit more self-serving and puts  
10 a gloss on what a corporate issuer is doing.

11 I'll close before I hand things back to Michelle  
12 by noting that we are mindful of the fact that we've had  
13 another advisory committee that the SEC has enlisted, being  
14 the SEC Investor Advisory Committee, that has presented a  
15 set of recommendations to the Investor as Owner Subcommittee  
16 to the SEC. I believe they presented that set of  
17 recommendations earlier this month and we're pleased to say  
18 that I think the way that we've scoped out and approached  
19 this issue dovetails nicely with the work that appears the  
20 thoughtful work that it appears that they've done in their  
21 own set of recommendations that they've produced. But  
22 certainly that will be a reference point for us as we  
23 prosecute this effort.

24 And with that, I will go ahead and turn things  
25 over to Michelle.

1 MS. McCARTHY BECK: Excellent. So I was going to  
2 finish with the final stream, which is on ESG ratings  
3 systems and benchmarks. And given Chairman Clayton's  
4 comments also, it's worth noting that E and S and G rubber  
5 banded together in a ratings system, you know, that don't  
6 see that as necessarily a unit. But there are scoring  
7 systems out there to help rate funds and their holdings  
8 based on how they rate on these environmental, social and  
9 governance characteristics. Some only focus on  
10 environmental, some focus on any combination of the two.  
11 And given Jeff's stream on issuer disclosure, one  
12 interesting theme about these ratings systems is, you know,  
13 folks are going out and approaching issuers themselves in  
14 order to do these ratings in a lot of cases because the  
15 information isn't available in their public documents.

16 So if you look at the whole system, if we did  
17 tackle something related to issuer disclosure, it would  
18 simplify this and probably simplify the numbers and types of  
19 rating systems that are needed. So ESG rating systems are  
20 out there. There are scoring tools developed by third  
21 parties that are kind of like credit ratings based on their  
22 adherence to different principles. And benchmarks may take  
23 an existing index or create an index to express tilt in  
24 environmental, social or governance categories.

25 And so the question is what role should they play

1 in the investment universe. You could see a world where  
2 everyone is required to get a rating on their fund and that  
3 would be how ESG is measured. That would have a nice --  
4 that would be very rule bound but would it be good? Would  
5 it actually accomplish the objectives of helping investors?

6 So the quality of ESG data in issuer disclosure  
7 has risen. It's fragmented. These data providers try and  
8 fill these gaps and they use various kinds of data that I've  
9 listed on the slide in order to assess their ratings. But  
10 there are some really meaningful differences between these  
11 rating systems right now. So lots and lots out there, it's  
12 great to have all that diversity. But there is a lot of  
13 lack of comparability.

14 So philosophically, some of them have looked at  
15 the risk of a company in absolute. And some look at it  
16 relative to other peers in its sector. And that can lead to  
17 very different results. The best energy company in a sector  
18 might be in one rating system a good thing, in the other it  
19 might be a bad thing because it's an energy company of a  
20 certain kind.

21 How they define the different peer groups in  
22 relative measures differs from rating system to rating  
23 system. Whether they focus on financial materiality of the  
24 ESG topic versus stakeholder sentiment. Some rating systems  
25 will rate things poorly if stakeholders don't like it.

1 Others will only rate it poorly if there's a financial  
2 impact they could see happening to the company.

3 And then finally, do they focus on what the  
4 company discloses as its policy or do they focus on the  
5 actual impact of how many emissions the company is having of  
6 certain kinds or how they're managing water. So you can see  
7 with a lot of ESG rating systems out there, they differ in  
8 some pretty material ways. So there is no one codified  
9 methodology right now. So in this stream, we'll be looking  
10 at what role should they play and how should we think about  
11 the rating systems.

12 As we draw to a close, our questions for you on  
13 the committee are, what is missing here that you think needs  
14 to be explored in terms of environmental, social and  
15 governance funds? What are your concerns about potential  
16 regulatory responses? What would be helpful, what could be  
17 problematic? And what are your concerns about the way the  
18 investment industry currently does ESG? What are the  
19 positives you think need to be retained and what are the  
20 negatives you think need to be managed?

21 So as members think about this area, if they could  
22 shoot me an email or, you know, talk to Ed Bernard about  
23 what else you think we should be talking about or what you  
24 think we need to bring into our considerations, we would  
25 appreciate that.

1 Our next steps will receive your feedback on our  
2 scope, our focus, and make any needed adjustments. And we  
3 are really going to be in our next set of meetings focusing  
4 on the pros and cons of what if you do nothing versus what  
5 if you do something to address these questions we have about  
6 ESG. So the do something could be anything from guidance  
7 and suggestions to rules-based regulation, and we'll be  
8 considering the spectrum of do nothing to do something.

9 And finally, toward the end of 2020, we expect to  
10 develop recommendations based on our assessment of the pros  
11 and cons of doing nothing and something and your feedback.  
12 So we expect to come back by the end of the year to talk  
13 about our recommendations in the area.

14 So, Ed, I don't know if we want to turn it over to  
15 questions?

16 MR. BERNARD: Sure. First of all, thank you all  
17 very much. That was remarkably comprehensive in 20 minutes'  
18 time. And I think it's very clear to everyone how much work  
19 has already gone into this, and we're grateful for that.

20 I would mention, and it occurred to me as I was  
21 reading the questions you posed to the committee, I will  
22 include those questions in the email I send out for follow  
23 up. So you will have a follow-on opportunity to give input  
24 to the committee. We will do the same thing for privates.  
25 I assume Rama will find that helpful.

1 But in the meantime, while we've got them, and  
2 we've got just a couple minutes before we move on to the  
3 next one, does anyone have any questions now for the panel  
4 to clarify anything that was just said? I'm just going to  
5 let you unmute. And, actually, Gilbert, I can see a hand  
6 raised.

7 MR. GARCIA: Thank you, Ed. And let me just say I  
8 think there's a lot of meat on that bone. And as a  
9 practitioner, I really appreciate trying to have some type  
10 of standardization.

11 The question I really have, not necessarily to  
12 answer, but one thing I would love to look at is right now  
13 there are so many funds, so many players, so many folks out  
14 there just sort of slapping an ESG on the label. And I  
15 wonder if there should be any consideration on those  
16 practitioners, those money managers, per se, are they  
17 themselves ESG compliant? In other words, what are they  
18 doing on the S and the G part in their own business before  
19 we even look at their own investments that they're making?  
20 In other words, how are they with diversity on their  
21 corporate boards? How are they with diversity? And I mean  
22 gender, as well as ethnic, in their business, senior  
23 management, et cetera? I think that might be sort of the  
24 first thing, is do they themselves have a high or low ESG  
25 score?

1 MS. McCARTHY BECK: Excellent, thank you. You  
2 know, if Rich Hall had been here also, he would have been  
3 speaking a little bit -- his stream about is it about values  
4 or value, also wants to tackle a little bit about the names  
5 rule, the question about how these strategies -- what should  
6 be required to call yourself an ESG, the concern that people  
7 have about so-called greenwashing. But then the additional  
8 point you raise of do the companies themselves walk the talk  
9 is another element that he can look at in his stream.

10 MR. BERNARD: Any other questions or comments?  
11 Again, you'll have another opportunity in email to come back  
12 with input for the committee.

13 And if I may say to the Chairman and the  
14 commissioners and Dalia, I won't put you on the spot each  
15 time. But by all means, know that any time you'd like to  
16 chime in with comments or questions, we welcome your input.  
17 But I'm not going to ask you each time if you have something  
18 to say, because I don't think that's necessarily helpful to  
19 you.

20 Anyone else before we --

21 CHAIRMAN CLAYTON: Ed, it's Jay. Could I say  
22 something here?

23 MR. BERNARD: Absolutely.

24 CHAIRMAN CLAYTON: I just think that in 15, 20  
25 minutes, that was one of the best presentations if not the

1 on that side would probably be very helpful to all players  
2 to get a consistent approach.

3 What do you think, Jeff, having looked at the  
4 disclosure question?

5 MR. PTAK: Yeah. No, I concur with that. And I  
6 guess I would add, I mean, one of the most, I guess,  
7 striking examples that you can see where, you know, maybe  
8 there is a difference in sort of the quality and  
9 comprehensiveness of the data that you'll see is between  
10 larger and smaller issuers, which I think is one of the  
11 things that, you know, the Investor as Owner Subcommittee of  
12 the SEC Investor Advisory Committee in its set of  
13 recommendations observed as well, that there are some  
14 issuers that are better resourced to respond and provide the  
15 data than perhaps others. And so what you end up with is  
16 sort of this patchwork where, in certain places, perhaps  
17 you're getting a very comprehensive and rich inventory of  
18 relevant ESG data. But then, amongst other issuers, which  
19 might be just as relevant to investors, you're not nearly  
20 getting as much information. So it does vary.

21 I think also to your point, though, Ed, there are  
22 some cases where I think investors, issuers would benefit  
23 from standardization of the data. If we could codify what  
24 the set of expectations are, you know, then it probably will  
25 allow issuers to zero in on what are the most material sort

1 best presentation on the complexity and different interests  
2 that are part of this dynamic issue. And I just want to  
3 thank the panelists. I think that was just terrific work in  
4 identifying the many issues that would need to be addressed  
5 in order for us to move this forward. Just a terrific job.

6 MR. BERNARD: Thank you for that contribution.  
7 And actually, I'll just, if I could, I'll follow his comment  
8 with which I agree fully, with a question. The issue of  
9 transparency, consistency, comparability, that complexity  
10 was throughout your remarks. Am I correct in understanding  
11 that you all are finding there's plenty of data, it's just  
12 trying to sort through it and see what means what that is  
13 the challenge? Or are you also lacking in data?

14 MS. McCARTHY BECK: I think I'll ask Jeff to  
15 comment on this as well. From my point of view, there are  
16 lacking pieces of data that are being filled in by people in  
17 very creative ways. We're in an early phase of -- creative,  
18 not meaning bad. I saw your -- that's the beauty of Webex;  
19 I can see your facial reaction there, Ed. Creative in that  
20 we are allowing a lot of approaches to flourish to fill in  
21 those gaps in issuer data.

22 The better root cause might be to look for  
23 consistency in the issuer data and that might be -- we may  
24 get there through this flourishing of different approaches  
25 that has been going on. But that might be -- some narrowing

1 of set of disclosures to make to investors to help them to  
2 make more informed investing decisions.

3 MR. BERNARD: That's very helpful. Anyone else  
4 before we -- I wanted to leave some time for -- in fact, I  
5 do think we need to move on. So I'm going to exercise the  
6 prerogative of the chair, if I may.

7 Thank you very much. That was -- I agree with  
8 Chairman Clayton. That was superb.

9 So now we will turn to the Private Investment  
10 Subcommittee led by Rama Subramaniam. And I think, Rama,  
11 you're going to do the presentation?

12 MR. SUBRAMANIAM: Yes. It's going to be a short  
13 update and I will try and share my screen.

14 Yeah, can people see my screen?

15 MR. BERNARD: Yes, at least I can.

16 MR. SUBRAMANIAM: And you're seeing the slides,  
17 right? Don't get a split screen?

18 MR. BERNARD: Exactly, just the slides.

19 MR. SUBRAMANIAM: Okay. So thank you everybody  
20 for the opportunity to update the committee. Hard act to  
21 follow after that, but I'll do my best and try and provide  
22 an update on where we are on the Private Investment  
23 Subcommittee.

24 I think ahead of that, it's useful to take a step  
25 back and, you know, talk about why we're looking at private

1 investment. And so in terms of agenda, I will introduce the  
 2 members of the subcommittee. I think most are on, if not  
 3 all, are on the call today. Take a step back and just  
 4 remind people why we think this is an important area to look  
 5 at. And you know, that really evolves around what we call  
 6 the supply and demand dynamics, so asset management,  
 7 products and services. That's a combination of macro and  
 8 socio-economic themes, as well as some specifics,  
 9 particularly in the U.S., around the change to the  
 10 retirement market. And then talk about really what we're  
 11 doing. First of all, what our key guiding principle is, and  
 12 then our two main workstreams and what we believe are the  
 13 next steps. And then, you know, open it up to questions now  
 14 or hopefully get input and comment and questions from people  
 15 over the next few days.

16 So first of all, in terms of the members of the  
 17 subcommittee, we have myself from GTS. We have Adeel  
 18 Jivraj, who is a partner at Ernst and Young. Adeel also was  
 19 an SEC staffer and so has an SEC background. We have Erik  
 20 Sirri, who is at Babson College and is also on the board of  
 21 the Natixis Fund and Loomis Sayles Funds. Erik, as many of  
 22 you know, was also the director of the Division of Trading  
 23 and Markets at the SEC, so has an SEC background. We have  
 24 Joe Savage from FINRA to sort of bring a FINRA perspective  
 25 to the committee, where they see certain particular types of

1 private offerings. We have John Bajkowski from the American  
 2 Association of Individual Investors. You know, clearly, one  
 3 of the main things we're considering is recommending or  
 4 looking at wider access to private investments for Main  
 5 Street investors. John's association and its membership, we  
 6 felt, would be very useful touchpoints to get some feedback  
 7 as we progress the analysis. And then lastly, we have John  
 8 Suydam from Apollo Global Management. John is the chief  
 9 legal officer. His legal background, as well as overall  
 10 association with Apollo, we felt, would be very important on  
 11 the private markets.

12 And it is useful maybe to think about why we think  
 13 access to private investment -- why the access is  
 14 potentially important. And on that, as I said, we wanted to  
 15 look at points of demand side or just remind people that  
 16 about the demand side and the supply side.

17 And the demand side, I very judiciously used some  
 18 slides from Michael Goldstein who presented on the first  
 19 AMAC meeting. His materials, the materials are available if  
 20 people are interested, on the website. I've chosen a few  
 21 slides from here with Michael's kind permission, just to  
 22 remind people and highlight what I call the demographic and  
 23 socioeconomic changes, as well as some particular changes to  
 24 the retirement industry in the U.S.

25 So these are a few slides from, you know, Michael

1 Goldstein, and I won't spend too much time on it. As I  
 2 said, there's a lot of excellent work on other slides in his  
 3 presentation and we will also probably get behind this data  
 4 as we progress, as he's kindly offered to share the  
 5 underlying data with us.

6 The first thing I guess most of us know is that  
 7 the asset management industry or the money market industry  
 8 in the U.S., which accounts for a bit more than half of the  
 9 global industry has grown, whether indicated as a percentage  
 10 of GDP or in total assets. Between 2002 and 2019, it's gone  
 11 from roughly 17 billion to about 45 billion, you know, more  
 12 than two times growth. That is a combination of a country  
 13 with growing wealth, a country as well with changing  
 14 demographics.

15 I haven't included some slides here which talks  
 16 about where that wealth is concentrated. But we did see as  
 17 well a presentation from Casey Quirk, Deloitte Consulting,  
 18 which showed that, you know, the Boomers are generally  
 19 consolidating wealth, with the next generation behind them  
 20 sort of increasing wealth. So there is also an interesting  
 21 concentration of wealth among different demographics and age  
 22 groups.

23 Apart from growing in size, the asset management  
 24 industry is growing in a retail character. So if you look  
 25 at this pie chart and on the sort of 9:00 to 12:00 side, you

1 see retail investor assets, whether it's retail mutual  
 2 funds, variable annuities, et cetera. But also when you  
 3 look at retirement assets, the sort of bottom of the screen,  
 4 from sort of 3:00 to sort of 7:00 p.m., you see defined  
 5 contribution plans and IRAs and then defined benefit plans  
 6 in blue at the top. One of the interesting changes to that  
 7 is that defined benefit plans, as we know, are disappearing  
 8 and also moving to a payout phase on their life. We're  
 9 moving largely to defined contribution plans and a lot of  
 10 those are self-directed IRAs. So, you know, they have much  
 11 greater limits on what they can invest in, compared to a  
 12 sophisticated pension plan, whether it's a defined benefit  
 13 or a defined contribution plan.

14 But you can see a lot of that growth is in the  
 15 retail side. And again, the options are increasingly being  
 16 limited.

17 Again, another chart that, you know, again sort of  
 18 highlights -- this is, everything adds up to 100 percent, so  
 19 it's just the relative size that's important. And you can  
 20 see that, you know, other retirement assets which are IRA  
 21 accounts in particular, the sort of -- I always get orange  
 22 and brown mixed up with my color blindness, but I think it's  
 23 orange -- is growing. Retail investors in percentage wise  
 24 terms, slightly smaller. But only because they, in  
 25 percentage terms, the other retirement assets are growing.

1 And you can see defined contribution plans in green also are  
 2 growing size, whereas defined benefit pension plans are  
 3 getting smaller.  
 4 And the last slide just briefly on, you know,  
 5 defined benefit plans is this slide which I find, you know,  
 6 very interesting, is that the number of participants has  
 7 actually come down much more precipitously than some of  
 8 those other slides showed. So, you know, the number of  
 9 participants has come down a lot. But those plans, as I've  
 10 said, have sort of gone through the accumulation phase and  
 11 now are in the payout phase. So I think all that points to  
 12 -- you'll start to see a real tail-off on the size of  
 13 defined benefit plans as an overall share of the money  
 14 market industry as they move into the payout phase,  
 15 particularly over the next sort of 20 years.  
 16 So, you know, those are all, I think, pretty  
 17 strong indicators. And I don't think it surprises anyone,  
 18 but when you sort of see the numbers and see some of these  
 19 charts, it's really helpful to provide the context of  
 20 increasing demand from self-managed pools of money, whether  
 21 that's retail investors, whether that's 401(k)s or other  
 22 self-directed IRAs. So the demand side is clearly growing,  
 23 particularly in the U.S., as I said, a combination of  
 24 demographics as well as changes in their retirement  
 25 landscape with more defined contribution and self-managed

1 IRAs.  
 2 Okay, so that's the demand side. What about the  
 3 supply side? Well, the supply side is dwindling, in short.  
 4 Right now, you can look at several measures of the number of  
 5 listed U.S. companies. What's interesting in this graph, I  
 6 find, even though it's a bit out of date going to 2017, is  
 7 the number of listed companies, we all know, has dropped.  
 8 It's about three and a half thousand U.S. companies right  
 9 now. Whereas, the market capitalization has actually  
 10 increased. And this is obviously nominal. You might want  
 11 to adjust for rate in real terms. But whichever way you  
 12 look at it, we're seeing -- and you see it in the S&P 500,  
 13 you see it in a number of articles being written, a lot of  
 14 the indices are dominated by the trillion-dollar companies  
 15 and the sort of over-\$500 billion companies. But fewer and  
 16 fewer opportunities. The Wilshire 5000, for example, hasn't  
 17 had 5,000 companies in it since, I think, 2015; there's  
 18 about three and a half thousand companies.  
 19 So we are definitely seeing less supply, less  
 20 choice, if you would, of public companies. A similar graph  
 21 here from the World Bank.  
 22 You know, I haven't included any graphs here on,  
 23 you know, why that is, right, or information. One of the  
 24 main reasons, or maybe it's an outcome, it can be debated  
 25 whether it's a reason or an outcome, is how long companies

1 are staying private and how big they are getting. So  
 2 there's a lot of data which I haven't included, you know,  
 3 around companies not just doing a venture-backed round, a  
 4 series A, series B, they keep going and do a series E,  
 5 series F, because they don't feel the need to go public.  
 6 And there's a lot of, you know, private money that's moving  
 7 to support them staying private.  
 8 GTS, where I work, also has a market making side  
 9 of the business. And I asked them for just a few quick  
 10 figures on what they're seeing on IPOs on the NYSE, where we  
 11 are one of the largest -- we are the largest market maker,  
 12 DMM, on the New York Stock Exchange. Excluding SPACs and  
 13 what I'll call not typical capital raises, but just looking  
 14 at normal common stock capital raises, you know, the numbers  
 15 even just recently, in 2016 there were 25 deals that raised  
 16 9 billion of total capital; 2017, it was 67 deals for 26  
 17 billion; 2018, it was 33 deals for 25 billion; 2019, it was  
 18 35 deals for 21 billion. And this year, it's been six IPOs  
 19 with a total cap raise of 2.4 billion.  
 20 The pipeline is obviously very thin with COVID.  
 21 There are a couple of companies that are starting to return  
 22 to the market looking at IPOs. There have been a number of  
 23 SPAC IPOs but not really any sort of traditional companies.  
 24 Obviously, of course, the NYSE is, you know, currently off  
 25 the floor. They are planning to return, which makes the

1 IPOs a bit more difficult.  
 2 I also haven't included any data on debt. Just  
 3 generally, equity and debt being the two main places that  
 4 private equity invests in. But it's pretty obvious that,  
 5 with interest rates close to zero in a lot of cases, the way  
 6 that people are chasing yield is to move down the credit  
 7 spectrum. But again, you know, their choices as a public  
 8 investor with fewer public companies and, you know, debt  
 9 yielding very low rates, is limited. And, you know, we  
 10 expect rates to stay low for a long time. We see the supply  
 11 side as being challenging and getting more limiting at least  
 12 in terms of choice, even though you've got, you know, very  
 13 large companies, a lot of market cap right now.  
 14 So against that backdrop, we thought, okay, what  
 15 should we do to progress this subcommittee? The first thing  
 16 we thought is to have a simple guiding principle, a north  
 17 star, to take Ed's terminology. And we decided that it  
 18 would be pretty simple. Our guiding principle will be the  
 19 best interest of Main Street investors. But to be a bit  
 20 more specific, when we say best interests, we're not just  
 21 going to focus on protections. You obviously need investor  
 22 protections. But we think it's a balancing act where you  
 23 need to balance the protections for investors with the  
 24 potential opportunity and access to a wider range of  
 25 investments. And so that's going to be a key guiding

1 principle that determines the work we do, as well as what we  
2 end up producing. And to be clear on that last point, at  
3 this point, we're not clear whether we end up with just a  
4 discussion and -- because of some of the limitations I'm  
5 about to allude to, or whether it becomes more specific and,  
6 you know, talks about potential changes or principles that  
7 we can suggest to the SEC as to provide a wider access to  
8 private investments.

9 As a result as a guiding principle, we have two  
10 main workstreams. The first workstream we think is very,  
11 very important. And that is, we need to be able to measure  
12 full-cycle returns from private investment. And mainly, the  
13 thesis behind this is unless we can show that private  
14 investments provide diversifying and/or additive returns  
15 through the full investment cycle to a typical public market  
16 portfolio when compared to public market benchmarks, it  
17 becomes a bit more difficult to have concrete  
18 recommendations about widening access to private investment.

19 Within that workstream, we are really looking at  
20 two areas. The first area is to see what other work is  
21 being done, particularly by academics. And so we want to  
22 survey prior academic studies. Erik Sirri, given his Babson  
23 College background as well as his SEC background, is leading  
24 this sub-workstream. His initial survey of academic  
25 literature has shown limited useful studies. Potentially

1 some very specific studies, the data sets tend to be  
2 limited. But to date, we haven't found a very comprehensive  
3 study or a survey study that has looked at a whole lot of  
4 other studies and tried to amalgamate it.

5 So the way that we are progressing and ensuring  
6 that we do a complete survey of prior academic studies is to  
7 engage with the DERA unit in the SEC to determine the  
8 availability of other academic literature and make sure that  
9 we do a complete survey of academic literature regarding  
10 potential effects from including private investment in  
11 individual investor portfolios.

12 I expect by the next meeting, we will have  
13 completed this and come to a firm conclusion as to whether  
14 there is much useful information already produced. And, you  
15 know, given that we want to look at it for the full  
16 investment cycle, that becomes difficult. Because we don't  
17 want to just look at the last sort of three or four years.  
18 We believe that the returns need to be measured over a  
19 longer period. Full investment cycle means at least going  
20 back to prior to, you know, the GFC, global financial crisis  
21 in 2008. It also will therefore necessarily exclude some  
22 private investments.

23 So one of the things we discussed, and I'm open to  
24 other people's comments, is cryptocurrency. Right? There's  
25 a lot of interest in it but we feel there's just going to be

1 insufficient data, given how recent it is, to really  
2 consider it seriously as something to be providing wider  
3 access to. You know, we think things like private equity  
4 and breaking up private equity into early stage growth  
5 equity, late stage private equity, real estate,  
6 infrastructure, private debt are all asset classes that  
7 ideally we would like to be able to measure returns on and,  
8 you know, present some findings on that.

9 The second sub-workstream is if we can't find work  
10 that's already been done by academic studies, we want to go  
11 to the industry and seek out industry data providers.  
12 Hamilton Lane and Cambridge Partners are two of the largest.  
13 And we want to analyze the data that we have. I had a call,  
14 for example, with Cambridge Partners' head of business  
15 development a couple of weeks ago and, you know, it looks  
16 like they have a lot of data, 40-odd years of data. We  
17 would prefer data that we can analyze ourselves and we might  
18 request DERA assistance on that, rather than studies that  
19 they've already done. A lot of times, Hamilton Lane,  
20 Cambridge Partners, they've done studies for other large  
21 pension funds when they first look to move into private  
22 assets, private markets. I think we'd prefer -- we'd be  
23 happy to look at those, but I think we'd prefer to get the  
24 data and analyze ourselves to ensure robustness and  
25 impartiality.

1 We do -- I would flag that we expect potentially  
2 inherent limitations in comparing private market data with  
3 public market data. The most obvious one is how often  
4 private market investments are valued. With public markets,  
5 you get where there's tick-level marks on shares where you  
6 can look at the volatility on a daily basis or even on a  
7 minute basis or even more frequent than that. We expect we  
8 are just not going to have that with private data. Private  
9 data tends to be kept on a quarterly basis at best. A lot  
10 of those marks as we call it or valuations are based on  
11 marking to a model of some sort. Some people, like Hamilton  
12 Lane, have tried to get more granular than that. But  
13 whether that granularity or more frequent marks are based on  
14 models and comparing it to public benchmarks, so you are not  
15 going to get a true market price.

16 So there will be some inherent limitations. And  
17 that might flow into some of the observations or  
18 recommendations around providing access once there's more  
19 transparent valuation on certain private assets. And  
20 therefore limiting the widest access -- you might have  
21 gradients of access -- the widest access to private assets  
22 where you can get more frequent pricing. So seeking out  
23 industry data is the second workstream.

24 I expect by the next meeting that we have, we  
25 would have gathered the data and formed a view on the

1 richness and depth of the data and whether we will be able  
2 to measure returns over the full investment cycle and for  
3 what assets. I don't think we'll have concluded the  
4 analysis of that data, but we will be on the road to at  
5 least narrowing down the assets we feel that can be measured  
6 over a full investment cycle. That's the first workstream.

7 The second workstream is more a legal analysis or  
8 I think increasing the level of understanding within the  
9 subcommittee. We want to understand more fully the current  
10 exemptions and restrictions around private investment.  
11 There is a lot of material out there, for instance some of  
12 the material that I pointed to in the first bullet point.  
13 There are several SEC releases. There's the concept release  
14 on harmonization of securities offering exemptions from June  
15 2019. I provide links to all of these for people who are  
16 interested at the back of the presentation. There's a  
17 proposal to simplify, harmonize and improve certain aspects  
18 of the exempt offering framework to promote capital  
19 formation while preserving and enhancing important investor  
20 protections that came out very recently in March 2020. I  
21 think most people will have heard of the last one which is  
22 the proposed rule to amend the accredited investor  
23 definition from December 2019.

24 We want to evaluate these in terms of private  
25 investment asset classes. The information is there. I

1 think what we are trying to do right now is recast that and  
2 say, okay, we're looking at late stage private equity. What  
3 are the ways that people can invest in late stage private  
4 equity? What are the qualification requirements?

5 And the reason for that is not just to increase  
6 the understanding on the subcommittee. I think ultimately,  
7 if we are going to propose any changes or recommend  
8 modifications, we feel it's better to be evolutionary rather  
9 than revolutionary. So if we can fit any widened access  
10 within existing exemptions or with some modification, we  
11 feel that would be a better place to start, than trying to  
12 devise an entirely new access mechanism. So that is the  
13 second workstream and we are right now trying to pull  
14 together all the information and then decide how we try and  
15 pull that together more in terms of asset classes rather  
16 than specific intentions.

17 In terms of next steps, as I said, we're going to  
18 complete the academic survey and share some initial  
19 conclusions on that. We want to collect the data and start  
20 to form a view on what asset classes we can measure for the  
21 full investment cycle, as well as a view on what the  
22 limitations are of that data. And then we want to summarize  
23 the current exemptions and access framework.

24 And, you know, right now, we think private equity  
25 and distinguishing private equity between early stage growth

1 and late stage is one classification potential. We think  
2 real estate, we think private debt, maybe infrastructure.  
3 I'd be interested to hear from anyone whether they think  
4 there are other asset classes which we should be  
5 considering, which would be a function of the data that we  
6 can also find.

7 We that, I'm going to mute myself because there  
8 seems to be a lot of noise outside my window all of a sudden  
9 and ask for any questions or comments and invite other  
10 subcommittee members to add any comments if they wish to.

11 MR. BERNARD: Thank you very much, Rama. I have  
12 to say, listening to both of these, it's certainly  
13 substantial evidence for why we need subcommittees to look  
14 at both these topics, because there's a great deal of  
15 complexity and information to evaluate to draw some well-  
16 informed conclusions.

17 Can you release the screen? I think we're still  
18 sharing your screen. Or can the host get us back to a grid  
19 view?

20 There we go.

21 MS. McCARTHY BECK: Hey, Ed, I have a question if  
22 you're taking questions. I don't know if we're out of time,  
23 though.

24 MR. BERNARD: Yeah, we'll take a minute or two.  
25 Go ahead, Michelle.

1 MS. McCARTHY BECK: So, Rama, the area I have a  
2 question about is what role this can play in a private  
3 investor's -- a Main Street investor's portfolio. You  
4 started with a question about defined benefit versus defined  
5 contribution. And the question is, where does this fit?

6 And the thing that goes through my mind a lot is  
7 who is best suited to convert this into defined benefit  
8 benefits? Is it the Main Street investor or is it pros? In  
9 other words, these are the kinds of investments that  
10 insurance companies use when they provide annuities.  
11 They're the kind of investments that, you know, defined  
12 benefit -- the few remaining plans that corporates run  
13 invest in. Is the way it should go that private individuals  
14 should invest in them? Or should there be some other  
15 transformer to get that defined benefit outcome?

16 MR. SUBRAMANIAM: It's a good question. I think  
17 it's wider than defined benefits, right? I think one of the  
18 initial -- I wouldn't say conclusions. One of the initial  
19 discussion points we all had in the subcommittee is, should  
20 access to private investments be through a mechanism,  
21 whether it's a fiduciary, whether it's an investment  
22 structure where there are, you know, sophisticated, large  
23 investors also coinvesting, is something that is definitely  
24 on the agenda. I think it will partly -- and you might have  
25 a different stated outcome. I kind of alluded to briefly,

1 you might end up with different outcomes for different  
2 assets, right? With private investments where we feel  
3 there's more liquid and transparent pricing, you might  
4 provide wider access to. For example, a late stage private  
5 equity company that has a -- not a market price but, you  
6 know, there is some trading on those shares, that might be a  
7 more transparent price, versus a very illiquid  
8 infrastructure asset.

9 We also heard in the first meeting from mutual  
10 funds, mutual funds that invest in private investment. They  
11 provide daily liquidity. You know, we know they can't have  
12 more than, I think, it's 15 percent. Most of them are way  
13 below that, in the sort of single digits. There are already  
14 mechanisms for retail investors to invest in private  
15 investments. The mutual fund is probably the most well  
16 known.

17 I think the issue with that is it's a small  
18 portion of an overall mutual fund, very diluted. And also,  
19 you're not really sure what's in there, I guess, at any  
20 particular time. And now they mark that each day and  
21 provide daily liquidity is still somewhat of a mystery,  
22 right? There's not a uniform way of doing it.

23 To answer your question, I think it's definitely  
24 on the table and we think a lot of private investments,  
25 there will probably need to be some sort of shepherd or

1 mechanism to make sure that retail investors don't have just  
2 direct, unfettered access to it. But there might be a class  
3 of private investments where actually that becomes  
4 appropriate. Right? And, as I said, it might be where  
5 private investments get bucketed and they can move from one  
6 type of private investment to another, depending on  
7 transparency, primarily.

8 MR. BERNARD: That's actually a very helpful Q&A.  
9 Any other questions before we -- okay, I'm not seeing any  
10 hands.

11 Thank you, Rama. And thank you, Michelle and  
12 team. Those were both terrific and we look forward to  
13 hearing what you come back with in September.

14 We are a couple minutes behind. But since our  
15 next session goes until noon and, if need be, I may ask to  
16 borrow a little bit of that hour break that I've offered up  
17 and go a little bit into that to have time for the next  
18 three speakers. But since it will go until noon, I'm going  
19 to suggest that we take, as planned, a very quick break.

20 So I've got 10:20 on the East Coast. We will  
21 start promptly at 10:25. But if everybody wants a minute to  
22 step away from their screen, we will see you in five  
23 minutes. Thanks all.

24 (Recess.)

25 MR. BERNARD: All right, it's 10:26. I'm going to

1 be good on my word. I'm a minute late but I'll assume  
2 everyone will join us. Some don't have video on but may be  
3 in the room.

4 We are very fortunate today to have three experts  
5 -- actually, let me make sure, have I turned on my video?  
6 Yes, I have -- three experts to set the table for us to  
7 discuss the impacts of COVID-19 on the financial markets and  
8 asset management industry. Each will focus on the events of  
9 the last few months and put them into broader context, armed  
10 with data and their own observations.

11 So we are going to hear from Sean Collins, the  
12 chief economist of the Investment Company Institute, and  
13 then Marc Seidner who is CIO of Non-Traditional Strategies  
14 and Managing Director and Member of the Investment Committee  
15 at PIMCO. And finally, Ben Phillips, who is doing an encore  
16 performance, we're very grateful to him. You'll remember  
17 him from the January meeting. He's a senior principal with  
18 Casey Quirk practice at Deloitte Consulting.

19 So the plan for this is to have about a half hour  
20 for Sean, which would include questions. So, you know,  
21 Sean, I'm hoping you can leave us five, 10 minutes at the  
22 end for Q&A with you. And then we planned on about 35 to 40  
23 minutes for Marc to do a deeper dive into the fixed income  
24 markets, likewise leaving five, 10, 15 minutes at the end  
25 for some Q&A. And then finish up with Ben Phillips for a

1 half hour, including Q&A. If I do the math on that, that  
2 may put us at five or 10 after noon, but I'm hoping I can  
3 impose on folks. And if we move along and the Q&A periods  
4 aren't as long, then we'll finish by noon. But with a full  
5 hour at noon, I think we can accommodate this, because I  
6 want to make sure that we get full benefit of having these  
7 gentlemen here. So let's get started.

8 IMPACT OF COVID-19 – INTRODUCTION

9 MR. BERNARD: The ICL, as we all know, has  
10 comprehensive asset and flow data for mutual funds and ETFs,  
11 and Sean Collins, the chief economist, and his team also  
12 produce extensive economic analysis and research. And, as I  
13 said, Sean will take about 20 minutes or so to present some  
14 data and then we can have some Q&A. So, Sean, I'll turn it  
15 over to you. Thank you.

16 MR. COLLINS: Thanks, Ed. And thanks to the  
17 committee for having me here. I'm going to try and share my  
18 screen with you. Hopefully, I can do that. And hopefully  
19 you're seeing a title slide that says Fund Flows During  
20 COVID-19?

21 MR. BERNARD: Looks good.

22 MR. COLLINS: Okay, great. Thank you.

23 So here is what I'll talk about. So COVID-19  
24 created tremendous uncertainty and a real side shock,  
25 straining financial markets. And in this environment,

1 investors across the board demanded cash and credit markets  
2 locked up. The government acted to restore the flow of  
3 credit with programs that touched businesses large and  
4 small, households, municipalities and financial stuns. And  
5 these developments were reflected in the experiences of  
6 funds and their investors.

7 I'll talk just a little bit about the importance  
8 of funds to households and financial markets. And funds, to  
9 which I mean registered investment companies, including  
10 mutual funds, ETFs and closed-end funds, are very important  
11 to retail investors. Over 100 million U.S. residents use  
12 them to meet crucial financial goals, particularly to save  
13 over the longer term for retirement, but also education and  
14 health care. And in the case of money funds, as a source of  
15 highly liquid assets.

16 (Slide.)

17 MR. COLLINS: As seen here, the \$23 trillion in  
18 fund assets are spread across markets, reflecting investors'  
19 demands for diversified portfolios to meet their investment  
20 goals.

21 The other side of the coin is that funds channel  
22 savings to the real economy. Funds hold substantial  
23 portions of the U.S. stock and bond markets. For example,  
24 they hold 32 percent of the value of listed stocks, 21  
25 percent of corporate bonds, 14 percent of Treasury and

1 agencies, and almost 30 percent of muni debt. They are also  
2 a very important source, primarily through money market  
3 funds, of short-term financing, holding one fourth of  
4 commercial paper, and banks use the funding to lend to  
5 businesses and consumers.

6 But keep in mind that there are other players out  
7 there. For example, investors other than funds hold almost  
8 80 percent of corporate bonds and 75 percent of commercial  
9 paper. So funds are often the most visible and transparent  
10 players in the market, but they are not the only players.

11 So when COVID is behind us, regulators will look  
12 back and see what worked and where improvements can be made.  
13 And given the importance of funds to households and the real  
14 economy, it will be crucial to have hard facts about what  
15 funds experienced and why. And the key will be to recognize  
16 that COVID-19 is first and foremost a public health crisis.  
17 Governments sought to contain the spread of the virus  
18 through massive mandated social distancing that effectively  
19 shut down a large portion of economies. Financial market  
20 participants predicted that businesses could fail,  
21 unemployment could rise, households might be unable to pay  
22 their bills and the finances of municipalities would  
23 deteriorate sharply. And under those conditions, financial  
24 market shock was inevitable. And we have indeed seen a  
25 massive shock.

1 So current estimates suggest that GDP for the  
2 second quarter will fall at a rate of somewhere between 35  
3 and 40 percent annual rate in the second quarter. And that  
4 would be by far the largest quarterly drop in GDP since  
5 World War II.

6 (Slide.)

7 MR. COLLINS: How did markets react to the  
8 fundamentally different economic landscape? Well, as the  
9 number of COVID-19 cases started to grow exponentially,  
10 major stock indexes dropped 30 to 37 percent between  
11 February 12 and March 23. Volatility jumped, as recorded by  
12 the VIX, surpassing levels seen during the financial crisis,  
13 and that no doubt reflected tremendous uncertainty about how  
14 the virus might play out.

15 Yields on corporate debt jumped, no doubt  
16 reflecting concerns about business revenues. And the  
17 coronavirus created a massive demand for liquidity, stoked  
18 by the highly uncertain environment. And this created  
19 obvious strains in the short-term markets. For example, in  
20 mid-March, yields on commercial paper jumped. And in the  
21 muni market, at the short end of the curve, pressures were  
22 especially intense, no doubt reflecting concerns about the  
23 fiscal positions of state and local governments.

24 So with credit markets and money markets virtually  
25 locked up by mid-March, the government intervened to protect

1 the economy. The feds took a number of steps, including  
2 creating programs to lend to businesses large and small,  
3 households, municipalities and financial institutions.  
4 These facilities, which are broad based, were intended to  
5 support the flow of credit to the economy. The facilities  
6 do that in some cases by supporting primary markets and, in  
7 other cases, by supporting secondary markets. Congress and  
8 Treasury worked together to provide adequate capital to  
9 support the Fed's facilities, and the SEC worked to ensure  
10 that the markets remained open and functioning. Among other  
11 things, the SEC remained in contact with our industry to  
12 determine whether certain kinds of regulatory relief, if  
13 any, could help alleviate matters. And these actions taken  
14 together helped calm markets and restore the flow of credit.

15 (Slide.)

16 MR. COLLINS: So this backdrop and context is  
17 important to understand what funds experienced during this  
18 period. First of all, with investors of all types seeking  
19 to shore up their cash positions, assets of government money  
20 market funds, that's the blue areas here, rose in March by  
21 about \$835 billion, and most of that was in the second half  
22 of March. These demands moderated into April, as the Fed's  
23 lending facilities helped restore credit. Prime funds, the  
24 pink and red shaded areas down here, saw outflows of \$140  
25 billion in March, of which about \$100 billion, the red

1 shaded area, was from prime -- was from institutional funds.  
 2 Now, some of the money that flowed into government  
 3 money funds no doubt came from longer-term funds which, as  
 4 I'll show you in a moment, saw outflows in March. But even  
 5 that leaves a big slug of money that flowed to government  
 6 money funds from sources outside of funds, perhaps as much  
 7 as \$330 billion. In other words, investors used government  
 8 money market funds to help build their cash positions.

9 These events look pretty different from 2008.  
 10 2008 is shown on the right-hand panel here. In September  
 11 2008, which is the biggest month of outflows from money  
 12 funds during the financial crisis, money funds on net saw  
 13 \$75 billion in outflows, so very different from what we saw  
 14 in March, (Interruption to audio) in inflows. In addition,  
 15 inflows to government funds, those right there, about  
 16 matched outflows from prime funds, so very different. Very  
 17 small, relatively speaking, outflows from prime funds this  
 18 time around, relative to the large inflows to government  
 19 funds. And in addition, the drop in prime fund assets was  
 20 three times bigger than what we saw in March.

21 And one reason for the difference is probably the  
 22 SEC's 2014 money fund reforms. As you know, these led in  
 23 2016 to a vast shift of assets from prime to government  
 24 money funds. In February of this year, government money  
 25 funds now accounted for 74 percent of the assets of money

1 market funds, compared to 26 percent in August of 2008.

2 And the shift from prime to government funds  
 3 likely helps explain another difference with 2008. Eight  
 4 weeks after the Fed created the two facilities this time  
 5 around in 2020 that were of most help to the money markets,  
 6 the MMLF and the CPFF, assets in those facilities totaled  
 7 \$40 billion. And that's only 13 percent of the level that  
 8 we saw for the comparable facilities in 2008. Those were  
 9 the AMLF and the CPFF. So at the same period in 2008, a  
 10 much larger use of the Fed's facilities. And so in some  
 11 sense this time around, merely by saying to provide  
 12 liquidity, the Federal Reserve's actions helped calm the  
 13 markets.

14 Stresses in the fixed income markets were  
 15 reflected in bond fund flows. From March to early April,  
 16 bond funds saw outflows of about \$270 billion. That said,  
 17 even during the most pressing weeks, March 18 and 25,  
 18 outflows accounted for only about 2 percent per week of bond  
 19 fund assets. And that's sort of remarkable when you  
 20 consider that we've heard over the past decade that bond  
 21 fund investors would panic and cut and run during a "true  
 22 test" of the financial markets. And I would submit to you  
 23 that if this is not a true test, the financial markets will  
 24 never have one.

25 So in fact, bond fund investors appear to have

1 reacted rather moderately. Moreover, the outflows taper  
 2 very quickly as the Fed's facilities helped restore the flow  
 3 of credit to the financial markets.

4 One thing that's interesting is the outflows were  
 5 across the board hitting every category, including  
 6 government bond funds and investment grade bond funds.  
 7 Investment grade bond funds are these shaded areas right  
 8 here. And investment grade bond funds are funds that invest  
 9 very heavily or often even primarily in Treasury and agency  
 10 securities. So what this suggests was that the outflows  
 11 from bond funds were in large measure a move from the long  
 12 end to the short end of the yield curve. In other words, a  
 13 flight to cash in response to the great uncertainty about  
 14 the virus.

15 (Slide.)

16 MR. COLLINS: How did flows compare with the  
 17 financial crisis? Well, during the financial crisis, the  
 18 worst month of outflows from bond funds was October 2008,  
 19 2.4 percent, less than half the rate that we saw in March of  
 20 2020. Outflows totaled -- sorry, excuse me. But similar to  
 21 march, outflows were spread across the board, with one  
 22 notable exception right here. In 2008, government bond  
 23 funds saw inflows. And this again suggests that 2020 was a  
 24 flight to cash in the face of uncertainty. At least in  
 25 2008, unlike 2020, investors were willing to purchase longer

1 term government bond funds.

2 Pressures were particularly intense in the muni  
 3 sector. Concerns about fiscal positions of municipalities  
 4 collided with dealers' limited ability to absorb securities,  
 5 especially longer term muni debt. Outflows from muni --  
 6 tax-exempt bond funds jumped in the second half of March and  
 7 these totaled about 5 percent of the assets of these funds  
 8 over two weeks. That's only 5 percent of their assets,  
 9 showing yet again that investors did not redeem en masse as  
 10 has so often been predicted. Still, meeting these  
 11 redemptions posed challenges until the Fed's facilities  
 12 helped reignite the fixed income markets.

13 (Slide.)

14 MR. COLLINS: Funds are among the most visible  
 15 participants in the markets because of their prominence and  
 16 disclosure. But mutual funds and other registered  
 17 investment companies make up only a fraction of market  
 18 (Interruption to audio). We refer to dark matter, because  
 19 physicists tell us that the matter and energy that we can  
 20 actually see make up only a small part of the universe, that  
 21 the rest is dark matter. And the same is true in the  
 22 markets. The trading you see in funds is only a fraction of  
 23 the picture.

24 For example, data indicate that in March, funds  
 25 accounted for less than a third of the purchases and sales

1 of investment grade corporate debt and municipal debt and  
2 about 10 percent or less in purchases and sales of  
3 government bonds and high-yield debt. So why is that  
4 significant? Well, because we're hearing anew the decades  
5 old charge that fund trades destabilize markets. And to  
6 evaluate the charge and its potential policy implications, I  
7 think it will be important to recognize that funds are not  
8 the only traders but perhaps only the most visible traders,  
9 given their transparency.

10 (Slide.)

11 MR. COLLINS: High-yield funds, in aggregate, saw  
12 redemptions. That's the solid yellow line, that's the total  
13 flows, outflows from all high-yield funds (Interruption to  
14 audio) assets, totaling 4.3 percent of their assets in  
15 March. But that's not unique. We saw outflows of 4 percent  
16 in February of 2018 and 4.4 percent back here in June 2013  
17 during the taper tantrum. And moreover, contrary to the  
18 hypothesis that investors will flee en masse, during the  
19 pandemic, some high-yield funds were seeing inflows. So,  
20 for example, the upper dashed line shows you that 10 percent  
21 of high-yield funds going in this direction had inflows of  
22 more than about 3 percent.

23 So in almost every period in history, even during  
24 the most stressful periods, it's typically been the case  
25 that high-yield funds and other funds that invest in less

1 liquid securities, some of those funds continue to see  
2 inflows, even though on average there are outflows from such  
3 funds.

4 Concerns have also been voiced in recent years  
5 about bank loan funds. These funds did see outflows in  
6 March, totaling 13 percent of their assets. But they also  
7 saw outflows about as large during the Euro Zone crisis and  
8 again in December 2018. So not particularly a unique event.

9 Concerns have also been expressed about settlement  
10 times on bank loans, which for various reasons can exceed  
11 seven days. And market participants indicate that, during  
12 March, settlement times actually shortened as agent banks  
13 committed additional resources to the settlement process.

14 Now, some reports have associated bank loan funds  
15 with a drop of 25 percent. That's the dashed white line  
16 right here. It's important to recognize though that that's  
17 the percentage change in assets of these funds, which  
18 includes both flows, the orange line, and changes in  
19 valuations. It's the flows, the orange line, the 13  
20 percent, that represents investors' actions.

21 (Slide.)

22 MR. COLLINS: An underappreciated development is  
23 the growth of target date funds. Even with market downturn,  
24 the assets of these funds total over a trillion dollars, up  
25 from less than 100 billion 15 years ago. And these funds

1 periodically rebalance to maintain their target asset  
2 allocations. So as a result, they tend to be counter  
3 cyclical, buying into falling markets and selling into  
4 rising ones. But here's a hypothetical example. I  
5 emphasize, hypothetical, using market returns for one  
6 particular day in March 2020.

7 So on that day, the stock market was up and the  
8 government bond market was down, but the government bond  
9 market was up but the corporate bond market was down. So  
10 assume that there's a target date fund that wants to keep an  
11 asset allocation with these proportions right here. Given  
12 these total returns over the day, by the end of the day,  
13 because of the total returns, the fund will be out of  
14 balance. In particular, its holdings of corporate bonds  
15 will be low relative to its target asset allocation.

16 So to restore balance, this fund might elect to  
17 sell stocks, sell government bonds, and buy corporate bonds.  
18 In the case of corporate bonds, that buying would actually  
19 help buffer the market for corporate bonds.

20 How did equity funds fare? Well, despite the  
21 nearly 40 percent drop in the stock market, the stock market  
22 remained open, as did equity mutual funds and ETFs. Equity  
23 funds did see outflows of 41 billion during the week of  
24 March 25, but that was only 30 percent -- 0.3 percent of  
25 their assets, so a very small portion of their assets. How

1 did that compare to 2008? Well, the biggest month of  
2 outflows from equity funds during the financial crisis was  
3 October when they saw \$63 billion in money flow out. Bigger  
4 numbers, by a fair degree, than in March. But even that  
5 outflow was only 1 percent of their assets. In other words,  
6 during the biggest financial shocks during our lifetimes,  
7 flows out of equity funds were pretty subdued during the  
8 worst months of those two crises.

9 ETFs. During market stress, investors have turned  
10 to ETFs to take or adjust their exposures and hedge risks.  
11 March was a case in point. In normal markets, ETFs  
12 typically account for about 25 to 30 percent of the overall  
13 trading in the stock markets. Early March, as markets  
14 became increasingly concerned, the ETF share of trading  
15 jumped to about 40 percent. Since then, it's tailed off a  
16 bit as markets (Interruption to audio).

17 ETFs also provided price discovery. Discounts on  
18 ETFs, the difference between their secondary market prices  
19 and fund NAVs, widened in mid-March and then narrowed later  
20 in the month as the government's actions took hold.  
21 Discounts were pronounced in some bond ETFs. And part of  
22 the reason seems to be that, with the corporate bond market  
23 under stress and trades largely absent, the true tenor of  
24 the market was reflected in the secondary market trading  
25 prices for bond ETFs, which fell away from their NAVs,

1 opening this discount.  
2 Now, some media reports have suggested this  
3 reflects a dislocation or a failure in the ETF product. In  
4 my view, this actually represented the ETF product providing  
5 price discovery during a period when the underlying market  
6 was deeply challenged.

7 So on balance, equity markets, including equity  
8 mutual funds and ETFs performed very well indeed. Despite  
9 the huge drop in the stock market, it remained open and  
10 orderly. And in addition, funds' business continuity plans,  
11 which they've been working on for years, worked very well.  
12 Despite employees of fund advisers having to work remotely,  
13 mutual funds remained open for business, processing  
14 purchases and redemptions and responding to investors'  
15 inquiries. And the SEC deserves applause for its efforts in  
16 both of these areas. The Fed, Treasury and Congress also  
17 deserve applause for their strong actions, which helped to  
18 limit the damage from COVID-19.

19 In the fixed income markets, there were certainly  
20 challenges. But there have already been calls in the media  
21 and elsewhere for vast changes regarding the fund industry.  
22 Because the fund industry is so important to investors in  
23 the real economy, regulators should move thoughtfully, first  
24 gathering the facts and building an understanding of what  
25 happened and why.

1 So in that vein, ICI commends the committee for  
2 beginning a fact-based dialogue. As that dialogue moves  
3 forward, regulators should study the facts and experiences  
4 of all markets and all market participants and how they  
5 interacted, rather than focusing only on those participants  
6 like funds that are the most visible.

7 So I will stop there. And I am happy to take any  
8 questions if there are --

9 MR. BERNARD: Great. If someone could get us back  
10 -- actually, maybe I can do it myself. If we can release  
11 the screen -- there we go. And I'll just look for hands. I  
12 can see most people, not everyone.

13 Does anyone have a question or a comment? I will  
14 offer one just to get us started.

15 First of all, Sean, thank you. That was an  
16 excellent summary. And I always have a bias for getting the  
17 data to really illuminate what has just happened.

18 It was sort of embedded in some of your slides,  
19 but I wonder if you have any comments on -- because I think  
20 we'll hear about it a little bit this afternoon -- the  
21 relative behavior of institutional versus retail prime money  
22 market funds, in terms of the volume and speed of flows  
23 during the pandemic? It was sort of embedded into stacked  
24 bar charts so the relative impact may have been lost a  
25 little. So if you could characterize that?

1 MR. COLLINS: So outflows from prime totaled about  
2 \$140 billion in March. Of that, roughly two thirds, \$100  
3 billion, was institutional prime. So definitely more  
4 heavily weighted institutional. Some of the institutional,  
5 of course, though, would reflect retail money. You know,  
6 could be RIAs or brokerage account money being moved that  
7 are held in institutional accounts.

8 But it was certainly moving faster, I would say,  
9 than retail money. Retail investors tend to be, you know,  
10 across the board, more cautious in moving their money.

11 That said --

12 MR. BERNARD: I forget how granular your data is.  
13 Can you see daily movement, weekly movement? How granular  
14 do you have the money fund movement data?

15 MR. COLLINS: So we can -- we don't actually  
16 collect daily flows. But you can see it through Crane Data,  
17 they do have them. You can see that things turned around  
18 very quickly after March 23, you know, as the Fed facilities  
19 were announced, which really helped free up the money  
20 markets and the capital markets and restore a lot of  
21 confidence. So once those facilities were announced, things  
22 turned around very quickly.

23 MR. BERNARD: Yeah, and I would concur. The SEC  
24 and the Fed both were obviously actively engaged and  
25 responded quickly, and I think helped us navigate through a

1 tough storm.

2 Gilbert, I see your hand up.

3 MR. GARCIA: Thank you. And this might not  
4 necessarily have a real answer here. But, you know, one of  
5 the things is, this time around, the regulators, the Fed,  
6 everybody acted so much faster than in '08. Do you think  
7 that's kind of skewing the data? And do you have some sense  
8 for, you know, had they taken longer, would we be seeing  
9 something completely different?

10 MR. COLLINS: Well, skewing the data, would we be  
11 seeing something completely different? Not sure. But I  
12 would certainly -- I certainly think it's the case that the  
13 Fed and the SEC reacted very quickly, probably much more so  
14 than 2008. Part of the reason, I think, is that we had the  
15 experience of 2008. The money market liquidity facility and  
16 the CPFF were in some sense sitting there on the shelf.  
17 They were -- by that time, they were not novel. And so I  
18 think it was easier for regulators to put those into place  
19 very quickly.

20 I think probably the experiences of 2008 also  
21 taught us that it's very helpful to move very quickly. And  
22 so, you know, I think regulators did the right thing in  
23 moving very quickly. And it certainly showed up, as Ed was  
24 asking, very quickly in flows, even within a matter of days.

25 MR. BERNARD: Russ, I see your hand up.

1 MR. WERMERS: Yeah, Sean, great presentation, very  
2 informative. Good to see you again.

3 I was really fascinated by your result that stood  
4 out to me the most, which was there was a great deal of  
5 cross-sectional differentiation in outflows even among high-  
6 yield funds. Has the ICI dug into that more, to figure out  
7 which types of funds had inflows, which had outflows? Was  
8 it big management companies high-yield funds that had  
9 inflows? Or what's going on there.

10 MR. COLLINS: I think you probably just gave me my  
11 assignment for next week, Russ.

12 No, I mean, you know, we have done that in the  
13 past. And typically, you know, we haven't done that this  
14 time around. But typically, what you would see in the past,  
15 is that it depends a lot on, you know, any range of factors.  
16 So it could be the underlying investor base. It could be  
17 the kinds of securities that the fund is holding. So some  
18 funds might get their positions more with derivatives, some  
19 funds more with direct holdings. It could depend on the  
20 credit quality.

21 So, you know, even obvious -- as you know, within  
22 the high-yield sector, there will be a range of credit  
23 quality. So that can be a factor as well.

24 Large versus small, don't really know this time  
25 around. I think you have to be careful about large versus

1 small because even fairly small dollar outflows for a small  
2 fund could be, you know, sizeable in terms of percentage  
3 terms, but it doesn't necessarily have a big effect on the  
4 market. So it is much easier for a smaller fund to adjust  
5 its position.

6 MR. WERMERS: Sorry, Sean, I was actually  
7 referring to the size of the management company, not the  
8 size of the fund. Sorry.

9 MR. COLLINS: Oh, sorry. No, do not know.

10 MR. BERNARD: I'm not following my own rules; I  
11 was muted.

12 Any other questions before we move to Marc?

13 Well, Sean, thank you for that. It's terrific to  
14 have that data and those insights in the record.

15 And we will turn now to Marc Seidner for a bit  
16 deeper dive into the dynamics of the fixed income market  
17 during this period. And again, we're actually picking up  
18 some time, so thank you for that, Sean. So we're thinking  
19 40 minutes, Marc, with hopefully, by the last 10 minutes or  
20 so of that, you'll give us some time for Q&A. And if it's  
21 less than that, that's fine, just whatever you think is best  
22 with your material. So I'll turn it over to you.

23 MR. SEIDNER: Very good. I'm just making sure;  
24 can you hear me?

25 MR. BERNARD: Yeah, you're good. And are you

1 going to share a screen with us?

2 MR. SEIDNER: I will try to launch the screen as  
3 we're speaking. Wanted to make sure you could hear me. Let  
4 me just see if the presentation -- hopefully, you all can  
5 see a presentation entitled Taxonomy of a Crisis.

6 MR. BERNARD: Looks good.  
7 (Slide.)

8 MR. SEIDNER: Terrific. Well, first of all, let  
9 me start by echoing a comment made in one of the questions.  
10 First of all, well done by Sean. I thought that was a very  
11 thoughtful presentation and certainly provides a wonderful  
12 launching point for a deeper dive into fixed income markets  
13 through the crisis, particularly in the month of March and  
14 through healing.

15 Before I begin, Ed, let me say thank you for  
16 including myself and PIMCO in your committee's discussions  
17 today. Let me also just mention, obviously, that it's  
18 obviously a privilege and a pleasure to serve the Commission  
19 at any point, so thank you for including us today.

20 I'm going to -- much of what I say, assuming that  
21 I can learn how to navigate a presentation -- there we go --  
22 much of what I say will actually, as I said, dovetail well  
23 with Sean's presentation. My thought is to again give some  
24 form of a taxonomy of the crisis, give a brief overview from  
25 a portfolio manager's perspective of what took place in the

1 month of March, particularly in the weeks leading up to the  
2 weekend of March 20 and the week of March 23. I will offer  
3 some observations on the functioning of the marketplace.  
4 I'll talk a little about the road to healing. And then,  
5 similar to Sean, a few observations on the path forward.

6 Let me just obviously start by saying, as Sean  
7 did, it's impossible not to make comparisons to the global  
8 financial crisis of 2008 in terms of markets. But let me  
9 also, as Sean did, be very clear, very different causes,  
10 similar effects. 2020, as we all know, is a health care  
11 crisis that led to imposed restrictions, social distancing  
12 and other policies that led to a sudden economic stop,  
13 financial market disruption and then ultimately a policy  
14 response. As opposed to 2008 where, it's obviously hard to  
15 summarize, but one could classify the global financial  
16 crisis as causality being excessive lending, financial  
17 sector failure, financial market volatility leading to  
18 economic impact. So really the tide was turned. Financial  
19 markets caused the crisis of 2008, 2009 and led to an  
20 economic impact and an economic crisis, obviously very  
21 different this time around.

22 And then also it's hard not to observe just how  
23 rapidly events unfolded in the course of the month of March,  
24 which obviously had created significant challenges from a  
25 financial market perspective and from a portfolio management

1 and an investment management perspective. As you can see,  
2 these are the largest equity drawdowns since the '50s. 2008  
3 is the pink. Basically took a year. Sort of classify it as  
4 the failure of Bear Stearns in March of 2008, the failure of  
5 Lehman Brothers in September of 2008, and the ultimate  
6 bottoming of the stock market and financial markets  
7 generally in March of 2009.

8 What took a year in the 2008, 2009 period  
9 basically took two weeks in the month of March. So not only  
10 was the causality different but the rapidity and the pace at  
11 which situations unwound and evolved was also quite  
12 different. And I think that has important implications as  
13 we think about what occurred in markets and importantly  
14 about how we think about them moving forward.

15 Let me make what is going to sound like a rather  
16 broad based and perhaps too many of you obvious observation.  
17 But the fixed income market is a very heterogenous market.  
18 Sean made some good observations. I think he said that for  
19 the investment grade corporate bond market, mutual funds  
20 account for 20 percent of trading and transacting where  
21 others account for about 80 percent. I think the statistic  
22 was 75 percent for commercial -- for commercial paper.

23 And let me be very clear, and I think Sean touched  
24 on this as he was making his observations, that as we think  
25 about, again, the taxonomy of the crisis and possible

1 response, I think we do need to observe, as we think about  
2 fixed income markets, that it is very different market  
3 participants with very different objectives and incentives  
4 that have impact on the marketplace. As I point here, not  
5 all participants seek to maximize total return. There are  
6 discretionary investors versus rule-based investors. Sean  
7 pointed out target date funds. One can also point to  
8 pension plans and their rebalancing and their rebalancing  
9 activities, insurance companies and their sort of rating and  
10 capital sensitivities as rule-based investors that can act  
11 in a pro-cyclical manner and exacerbate market events,  
12 market turmoil or market crises.

13 There are unlevered investors such as mutual  
14 funds. Mutual funds are obviously largely unlevered.  
15 Versus levered investors. Here we could classify certain  
16 market participants like hedge funds, real estate investment  
17 trusts, business development companies and others, they have  
18 had an impact on the market. We will touch on that in a  
19 moment as well. There are mutual funds versus ETFs or, as  
20 Sean discussed it, happy to dig deeper in Q&A, but obviously  
21 they are very different. There are large differences  
22 between the behaviors of mutual funds and the behaviors of  
23 ETFs that can also be summarized in discretionary versus  
24 rule based. Regulated versus unregulated entities. Total  
25 return oriented investors versus yield, book yield or income

1 oriented investors.

2 To try to summarize a little bit on this page, we  
3 would suggest that the discretionary or those that can  
4 actively manage their cash, their cash positions, their  
5 liquidity, active management of risk and risk transfer, the  
6 possibility or the potential for liquidity tiering and,  
7 importantly, the ability to pivot from offense to defense  
8 can make a big differentiation in how market participants  
9 impact the footprint of liquidity and pricing and price  
10 discovery on financial markets.

11 Let's also add, and Sean touched on this, that  
12 this is a unique environment in which we're all learning to  
13 work from home, work from multiple locations which have  
14 issues with communication, communication lags and  
15 effectiveness in that regard.

16 So let me just again point out that the fixed  
17 income market is a very heterogenous market and the impacts  
18 can be different as you analyze the incentives and  
19 objectives of many investors that use fixed income  
20 instruments.

21 We tend to -- let me just introduce a concept of  
22 concentric circles, as this is a framing that PIMCO has used  
23 for much of the last decade, really coming out of the  
24 financial crisis. And it points to framing risk and the  
25 risk and return equation across multiple asset classes in

1 fixed income. Obviously, investments closer to the center  
2 of the universe, whether it be Fed funds, overnight repo,  
3 fills, commercial paper, short-term Treasuries tend to be  
4 more liquid. And as you move towards the outer periphery,  
5 you tend to reduce in liquidity and also increase in return.

6 In March, as we looked at these concentric  
7 circles, there was no differentiation. And Sean did point  
8 this out. But commercial paper, in many regards, became as  
9 illiquid as short-term Treasuries, which became as illiquid  
10 as longer-term Treasuries, which became as illiquid as  
11 asset-backed securities, commercial mortgage-backed  
12 securities, investment-grade credit, high-yield bank loans  
13 and the like. So there was no effective tiering of  
14 liquidity or this idea of concentric circles. The market  
15 collapsed upon itself. In the healing process since March  
16 23, there has been once again a redefinition of the  
17 concentric circles and the healing has really occurred from  
18 the center outwards.

19 Let me just touch on a few elements of market  
20 disruption, and it will speak to the lack of heterogeneity  
21 of the bond market and the incentives of different market  
22 participants. This is not meant to point fingers. This is  
23 not meant to -- this is not meant to do anything other than  
24 make observations.

25 (Slide.)

1 MR. SEIDNER: But here, we just show ETF NAVs as a  
2 function of the actual price. And this I think speaks to  
3 this notion of concentric circles. The axis on these charts  
4 are all price as a percentage of NAV, or if you do the math,  
5 the number minus one is the discount at which they traded.  
6 Obviously, that's represented in the way the graphs are  
7 structured.

8 But you can see as an example on the left-hand  
9 side of the page, a short maturity, income-oriented ETF at a  
10 point in mid-March traded at a discount of 4.5 or 5 percent  
11 of NAV. Which if you look at the chart below, investment-  
12 grade ETF, it was about the same discount. That shouldn't  
13 occur if markets are functioning in a normal manner. And it  
14 again, I think, speaks to the sudden nature and the rapid  
15 evolution of market conditions through this crisis and  
16 through the month of March.

17 The right-hand side of the page shows, on the top,  
18 a 20-year Treasury bond ETF and high yield. And, in fact,  
19 the high-yield bond ETF traded at a smaller discount than  
20 Treasuries, investment-grade credit and short-duration,  
21 fixed income instruments, again pointing to the lack of  
22 liquidity tiering or how the market -- there was no  
23 definition in terms of risk and reward. The less liquid  
24 provided less of a discount than the more liquid.

25 Just another observation, in terms of market

1 investment trust, decline -- had the price decline by about  
2 six points, that's about 60 percent loss to book value, not  
3 dissimilar to the declines we saw in agency book values.

4 The point being that there are other market  
5 participants that can drive volatility, and this is one  
6 example in the mortgage market of an area that was in need  
7 -- that was experiencing rapid deleveraging in a very short  
8 time period. Investors were being faced with margin calls.  
9 And that created or caused turmoil for the rest of the  
10 marketplace, rest of the industry.

11 In fact, some of you might recall, I was actually  
12 on a call with some from the SEC. We have an  
13 extraordinarily unusual event in the third week of March  
14 which was, while we were all trying to catch our breath and  
15 get some rest over a weekend, Saturday the 21st and Sunday  
16 the 22nd, we were receiving I don't want to say frantic  
17 calls but unusual calls for a Saturday and Sunday, where  
18 there were investor types that were looking to transact,  
19 trying to sell mortgage-backed securities. Prices declined,  
20 margin calls came in on Friday, cash was necessary on Monday  
21 to ensure that the margin calls could be met, and these  
22 investors can continue -- or these companies can continue as  
23 going concerns. And they were looking to find markets and  
24 find buyers for settlement first thing Monday morning to  
25 ensure that margin calls could be met. That's the rapid

1 disruption, there has been much in the press about the lack  
2 of liquidity in the bond market. And, in fact, there --  
3 there's references to illiquidity in markets such as longer  
4 duration Treasuries and mortgage-backed securities. Much of  
5 that, we think we can point to behaviors of levered  
6 investors or rule-based investors, again. This chart is a  
7 price chart of an agency mortgage-backed security, two of  
8 them actually, a Fannie Mae 3.5 mortgage and a Fannie Mae 4  
9 percent mortgage. It's actually a low loan balance security  
10 so it should be a little bit safer than a standard TBA or  
11 to-be-announced board settlement security.

12 But you can see the rapid decline in a very short  
13 period of time of their prices. This is the price change.  
14 So from the beginning of the year, these bonds rallied as  
15 interest rates fell, or as interest rates declined, by about  
16 four points. And then you can see that they quickly fell by  
17 about six price points. Again, these are AAA rated, what  
18 had historically been extraordinarily liquid securities. In  
19 a period where interest rates actually were declining not  
20 rising. And so spreads were widening, risk premium was  
21 increasing. This is the type of security that is often held  
22 by -- it is held by mutual funds for sure, but it tends to  
23 be the types of securities that are held by real estate  
24 investment trusts and other levered investors.

25 Take a normally 10 times levered real estate

1 deleveraging and how quickly events unfolded over a very  
2 short period.

3 As many of you will know, kudos to the Federal  
4 Reserve and others, the circuit breaker arrived on the  
5 morning of March 23, where the Federal Reserve basically  
6 went all in with the expansion of their balance sheet,  
7 expansion of the programs that had already been announced,  
8 and introduction of new programs which really provided  
9 relief for levered investors that were facing margin call  
10 and unwind.

11 (Slide.)

12 MR. SEIDNER: The next page speaks a little bit to  
13 the disruption in the treasury market. Again, the treasury  
14 market is historically known, as many of you know or as, in  
15 fact, all of you know, as the deepest and one of the most  
16 liquid markets in the world, if not the most liquid market  
17 in the world. This chart shows market depth as defined by  
18 average bid offers for on-the-run treasuries for -- in sort  
19 of a liquidity tiering or a liquidity tree. And you can see  
20 that the green line is 10-year cash on-the-run treasuries,  
21 blue line is 10-year futures. The chart goes back to  
22 January of 2019, so it encompasses the year beforehand.  
23 Liquidity has generally been fine. There was a spike down  
24 in liquidity in the repo crisis of late summer, early fall  
25 of 2019. But just to point out the obvious, even the most

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1 liquid market in the world became incredibly illiquid for a  
 2 time period. And again, that equates to about that week of  
 3 March 16 on into March 23. And just to put numbers on it,  
 4 you can see at the top of the page, treasuries were trading  
 5 about 450 -- treasury futures were trading about 450  
 6 contracts, which is about 45 million notional. And the on-  
 7 the-run treasury note, the on-the-run 10-year treasury note  
 8 was trading about 13 million of notional. So again, one of  
 9 the deepest and most liquid markets became extraordinarily  
 10 illiquid.

11 A side note, and I will come back to this, even  
 12 while liquidity declined, the derivative market provided  
 13 better risk transfer and better liquidity than cash markets,  
 14 just according to the efficacy and benefit of derivatives.

15 (Slide.)

16 MR. SEIDNER: Turning to the next page, just a  
 17 quick comment on the municipal bond market. Dramatic  
 18 funding stresses. Sean already pointed to the top chart,  
 19 which is the municipal funding rate and LIBOR rates. You  
 20 can see that even while the Federal Reserve was easing and  
 21 LIBOR was declining, municipal money market rates were  
 22 rising dramatically. The really interesting thing is  
 23 looking at the scale. You know, I mean, LIBOR was declining  
 24 from about 1 percent to zero. And SIFMA was going from  
 25 about 1 percent to I think it peaked at about 5.2 percent.

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1 Sean already covered this. There was an effect of  
 2 dealer balance sheets being much smaller and less able to  
 3 absorb the risk. There were certainly concerns about  
 4 municipal fundamentals. But importantly, the system  
 5 actually worked. Money market funds were actually putting  
 6 these securities back to the street, didn't want to own them  
 7 out of concern that they could become very illiquid. And in  
 8 classifying liquid securities, this is an example I think of  
 9 where the system worked well. And I'll come back to this in  
 10 a moment.

11 Obviously, the circuit breaker that mattered, the  
 12 primary dealer credit facility of the money market lending  
 13 facility, helped alleviate and correct those stresses and  
 14 strains. So partly fundamentally driven concerns about  
 15 municipal credit quality, more importantly lack of liquidity  
 16 and declining size of dealer balance sheets, and importantly  
 17 proper behavior in terms of liquidity tiering through active  
 18 management.

19 Sean already touched on this, but just in terms of  
 20 a time series of municipal market flows, 2019 was a year of  
 21 historically good municipal flows. But obviously 2020 and  
 22 the period of the COVID crisis was a period of dramatic  
 23 outflows. Yes, it's small in terms of the overall size of  
 24 the industry. But the delta in terms of shifting from  
 25 historic inflows to historic outflows creates these stresses

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1 and strains.

2 (Slide.)

3 MR. SEIDNER: Just another quick point on the  
 4 municipal bond market because it's so important to retail  
 5 investors. You can see here, these are municipal yield  
 6 ratios. The darker red line is a ratio of muni yields to  
 7 corporate yields. It's on the left-hand side, axis. The  
 8 more common thought is that munis trade as a percentage of  
 9 Treasury yields. Sorry, Treasury yields, that's the blue  
 10 line, that's on the left-hand side axis, corporate yields on  
 11 the right-hand side axis.

12 Normally, munis will trade at about 65 to 85  
 13 percentage of Treasury yields. They traded at a time  
 14 between 200 and 250 percent, and actually began to trade as  
 15 a percentage of corporate yields, partly reflecting the  
 16 illiquidity, partly reflecting the concern about  
 17 fundamentals.

18 And also another element, which is tax reform of  
 19 2017 or the tax cuts of 2017 changed the crossover rate  
 20 under which municipal bonds become attractive to tax-paying  
 21 or tax-exempt investors. And so that -- the threshold  
 22 became much higher for municipal bonds. But again, another  
 23 element of illiquidity.

24 (Slide.)

25 MR. SEIDNER: Let me turn, being sensitive to

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1 time, just to a few observations and then some data to  
 2 support those observations. I'll say this carefully, but  
 3 the top bullet point, I think, is important. Markets  
 4 generally functioned and the system, quote, unquote, worked.  
 5 And what I mean by that is, put this all in the context of  
 6 the communication challenges and the lag times created by  
 7 different working environments for both the buy side, the  
 8 sell side and almost all market participants. So put this  
 9 all in the context of the challenges created by working from  
 10 home or disaster recovery sites or other forms of  
 11 separation.

12 Every day was an exercise in price discovery. But  
 13 prices could be found. And it's always a challenge as a  
 14 portfolio manager or as an investor. You may not like the  
 15 price but illiquidity and not liking the price are two very  
 16 different things. Prices could be found.

17 Again, going back to the mortgage example, yes,  
 18 prices were down six points. Yes, levered investors  
 19 suffered margin calls and came close to insolvency. In  
 20 fact, some became insolvent. But the prices existed, and  
 21 risk transfer could take place. Mutual funds largely  
 22 functioned, met redemptions.

23 I think we need to be careful in the sense that it  
 24 is always easy to point to a handful, maybe not even a  
 25 handful, but a very small number of those that didn't manage

1 liquidity and other elements of portfolio management in an  
2 appropriate manner. But for the most part, mutual funds  
3 largely functioned.

4 I'll say that -- and this is a compliment to the  
5 SEC and other regulators -- regulation was both necessary  
6 and sufficient in this episode. Oftentimes, we use the  
7 phrase necessary but not sufficient. But I think it is fair  
8 to say that, in the base case, and not even in the base case  
9 but with, you know, 97 to 99.5 percent confidence, one can  
10 say that it was both necessary and sufficient in this  
11 instance.

12 I'll also say that there was a healthy -- I'll say  
13 this from personal experience and on behalf of PIMCO --  
14 there was healthy and I think very helpful interaction  
15 between investors, regulators, policymakers, that really did  
16 deliver successful outcomes. Again, in the context of how  
17 rapidly conditions unfolded. Again, what took a year in the  
18 global financial crisis took 16 days in this instance. And  
19 I think everyone partnered well together.

20 (Slide.)

21 MR. SEIDNER: A second observation would be that  
22 derivatives helped risk transfer. And I am actually going  
23 to show some data here, because we do believe it's very  
24 important to make sure that that notion is well known and  
25 well understood.

1 A third point, in terms of perhaps the path  
2 forward but also an observation, that as a buy side  
3 investor, as a buy side participant, as a mutual fund  
4 manager, as an institutional account manager, direct access  
5 to the Federal Reserve policy tools would be helpful for  
6 investors or buy side participants. It's not that the tools  
7 don't work, but they could be, in the next instance,  
8 optimized if there is direct access, because we do face  
9 challenges in terms of practical access to programs. There  
10 are timing concerns and timing challenges and there are  
11 transparency concerns, with the information asymmetries and  
12 information that the buy side needs to provide to other  
13 market participants to be able to access those programs.

14 And then the final data point which mainly  
15 dovetails with the third data point is, there certainly is  
16 the opportunity to explore, given declining balance sheets,  
17 given concerns about liquidity, there is certainly the  
18 opportunity to explore over all trading platforms. Sean  
19 should go -- his chart was very insightful in terms of, even  
20 in challenging markets, within a mutual fund type or  
21 investment vehicle type, there are inflows and there are  
22 outflows. Being able to match buyers and sellers in an all-  
23 for-all manner rather than going through an intermediary may  
24 be very helpful and may be room for further exploration in  
25 partnership between the investment and regulators.

1 (Slide.)

2 MR. SEIDNER: Let me touch very quickly on  
3 liquidity and liquidity management. I spoke about it in  
4 terms of differentiating between this heterogeneous fixed  
5 income marketplace. This is a chart that I have simply  
6 pulled out of PIMCO's risk management presentation deck that  
7 goes to clients and others. And I am not going to go  
8 through it bullet point by bullet point, but I think there's  
9 a few observations. And some of this will dovetail well  
10 with -- or should dovetail well with HLIM and other elements  
11 of regulation already in place.

12 We would suggest that liquidity management should  
13 be and is a core competency for the successful asset  
14 management firm. And furthermore, I'll say this carefully,  
15 we would suggest that it is actually a competitive  
16 advantage. Those that do it well will survive, can benefit  
17 and can provide appropriate assurances to investors.

18 Just a few points I point out on this page  
19 specifically. In our approach to liquidity management, it's  
20 not just illiquidity or liquidity tiering of various  
21 positions in the portfolio. It's also stress testing in the  
22 context of fund outflows, analyzing behavior, investor  
23 behavior in previous episodes and ensuring that we are  
24 maintaining appropriate liquidity thresholds to meet what we  
25 believe has been historic investor behavior in stressed

1 times, in stressed periods. It's also based upon historical  
2 scenario analysis, but importantly, forward-looking  
3 potential scenarios.

4 And then finally, just under monitoring, this goes  
5 right up to -- I can speak for myself as a chief investment  
6 officer, right up to the CIOs and to the investment  
7 committee if there are questions or concerns or areas that  
8 we need to research further.

9 (Slide.)

10 MR. SEIDNER: I want to touch quickly on  
11 derivatives. I already showed that in the Treasury market,  
12 the futures market was four times more liquid or had four  
13 times more depth than the cash bond market, even in a very  
14 illiquid market. I also want to point to the fact that  
15 credit derivatives, so even in less liquid or what have  
16 historically been thought of as less liquid or, in our  
17 concentric circle framework, outer perimeter assets, the  
18 credit derivatives and the derivative market can be an  
19 effective tool for risk transfer and for liquidity.

20 This graphic shows simply investment-grade  
21 derivative IG CDX credit spreads, that's the green on the  
22 right-hand side. It shows IG CDX or the credit derivative  
23 volume as a percentage of cash volume. And it also -- you  
24 know, it just shows for reference that it's a similar look  
25 for high-yield derivatives versus high-yield cash. And this

1 is so far this year.  
2 We can basically see that the spreads, the green  
3 line, and the red line or the darkish red line, began to  
4 widen in late February and early March. The credit  
5 derivative volumes became a multiple of cash volumes. In  
6 fact, went from about one times the same volume, so a  
7 similar volume between cash, markets and derivatives, to the  
8 credit derivative market being twice as liquid as cash  
9 markets.

10 (Slide.)

11 MR. SEIDNER: Even more striking is the next page  
12 and how efficient that manner was. This is, upper chart,  
13 investment grade bid offers or transactions cost in terms of  
14 price points. Lower is high-yield bid offer in terms of  
15 price points. And what we've done is we've tried to tier.

16 The black line, which doesn't look -- on the upper  
17 chart, the black line is the investment-grade CDX bid  
18 offers, so the credit derivative transactions cost. It's  
19 almost -- it's almost imperceptibly different from the zero  
20 bound or the zero axis, the horizontal axis. There's a  
21 brown line, which are most liquid, investment-grade cash  
22 credits, household names that you would find in your  
23 refrigerator or elsewhere. The red line would be tiered for  
24 medium liquidity and the blue line least liquid. As you can  
25 see, there's a general notion of increasing illiquidity,

1 increasing illiquidity through the month of March. And  
2 there was liquidity tiering, less liquid became even less  
3 liquid. But all the while, and it's a similar picture for  
4 the high-yield market as well, credit derivative  
5 transactions costs remained quite low. And so in terms of  
6 volumes and transactions costs, active risk transfer using  
7 derivatives was very effective through the month of March.

8 (Slide.)

9 MR. SEIDNER: And then finally, just one last  
10 chart. I find it interesting. But the impact of policy and  
11 the asset management industry, of which the mutual fund  
12 industry has been quite helpful here, on healing has been  
13 quite profound. This is -- it's a complicated chart but I  
14 want to point to the highlighted number, which is gross  
15 issuance of investment grade credit in the month since the  
16 peak of the crisis on March 23. Investment grade issuance,  
17 and this is through May 11, \$588 billion of new issuance,  
18 basically a pace of \$300 billion a month. We're now up to  
19 \$721 billion. Even with maturities and paydowns, there has  
20 been \$526 billion of net corporate issuance.

21 So in terms of healing, markets are reopening.  
22 They've reopened quite quickly. The funding of companies is  
23 -- is working well. And the mutual fund industry, taking  
24 advantage or partnering with and benefitting from a policy  
25 that has been put in place, is playing its role in the

1 reopening of financial markets. And I think, a linkage that  
2 should not be dismissed, the reopening of the American  
3 economy.

4 That's my last slide. Hopefully, Ed, I kept to  
5 your time horizon or your time frame. And I would be  
6 delighted to take any questions if there are any.

7 MR. BERNARD: Yeah, you did great on time. That  
8 was terrific. Thanks very much.

9 If we could get the grid screen back, that would  
10 be helpful.

11 If I could, before I -- I'll see if someone wants  
12 to raise a hand. But if you will forgive a very brief  
13 digression but I hope a relevant one, several of the remarks  
14 you made me mindful of the best analogy I've ever heard from  
15 a colleague describing a liquidity crisis. And is father  
16 actually was a finance professor, so he gives credit to his  
17 father for this.

18 So when there's a fire in a building, everyone  
19 runs to the exits and then, with any luck, they leave in an  
20 orderly fashion. In a liquidity crisis, everyone runs to  
21 the exit. But in order to leave the building, you need  
22 someone to take your place in the building. And I think on  
23 March 23, that person standing outside the front door was  
24 the Fed. But to your point, it sounds like the markets were  
25 reasonably resilient at various points in this.

1 So let me have that lead to a question for you,  
2 Marc. As you think about -- and I'm not going to ask you to  
3 predict the future. But the confluence of engagement from  
4 the SEC, the Fed and the way the markets worked and, to your  
5 point, largely effectively, we got through a very difficult  
6 liquidity crisis. What's your sense of the state of  
7 affairs? Is that resilience that's sort of backed into the  
8 system now? Is it resilience that we may have used up some  
9 of our powder? So if the health crisis were to spike again  
10 and we find ourselves, instead of continuing to open the  
11 economy, having to shut it down again, are the markets ready  
12 for that?

13 MR. SEIDNER: So it's a good question. I would  
14 say a couple things. One, noting that it is a health care  
15 crisis, I think it's remarkable how many of us around the  
16 world are unified in the same endeavor, which is finding a  
17 -- not necessarily a cure but certainly a vaccine to ensure  
18 that future episodes don't spiral to the point where we are.  
19 I would say that as an investment -- PIMCO's investment  
20 committee is extraordinarily vigilant against what we phrase  
21 -- we're all playing this alphabet game -- is it a V-shaped  
22 recovery, is it a U-shaped recovery, is it a hockey stick,  
23 is it an L, however you want to define it. We are being  
24 very vigilant against the W, right? Which is the dramatic  
25 downfall, the reopening, the reoccurrence of the disease in

1 the fall, and then the requirement to shut down again.  
2 I think what stands -- what is very different  
3 today versus two months ago is, one, policy has engaged.  
4 And so while the Federal Reserve has expanded its balance  
5 sheet and has expanded its number of programs, there is  
6 certainly more that can be done. There's no reason the  
7 balance sheet can't be larger and there's no reason that  
8 there can't be more programs under exigent circumstances.

9 Now, that said, policy was almost brilliant in the  
10 sense that the Federal Reserve has actually bought very few  
11 corporate bonds. And so in the next phase of illiquidity,  
12 there is a balance sheet that can be engaged because it  
13 hasn't been used to date. So that exists.

14 I think we've also, in a world of extraordinarily  
15 low interest rates, we would also expect that there would be  
16 additional fiscal policy measures that can help support and  
17 bridge from an uncertain data to a more certain future. So  
18 the fact that policy engagement has taken place, we know  
19 that the policy tools exist and there is in our estimation  
20 additional firepower, combined with investor behaviors. We  
21 all -- hopefully, we all understand that pandemics can  
22 occur, and sudden mandated stops of economies can occur. So  
23 I think the industry is better positioned.

24 Hopefully, there will be good behavior by many.  
25 And the post-cyclical nature of liquidity management is

1 important.

2 What I do want to caution against, and this is  
3 very important, while policy can bridge a liquidity crisis,  
4 it can't bridge a solvency crisis. And so it is still very  
5 possible, that given the dramatic sudden stop to the  
6 economy, policy can help ensure that otherwise solvent  
7 entities that had healthy business models going into the  
8 crisis can emerge from it. It's less effective in managing  
9 the less solvent, more fundamentally challenged. And that's  
10 where differentiation, independent of the V, the U, the L,  
11 the W, the potential reoccurrence of the disease, that is  
12 still an area that markets are going to have to grapple  
13 with, the growing insolvency and insolvency risk from the  
14 dramatic sudden stop of the economy and changing behaviors  
15 going forward.

16 MR. BERNARD: That's very helpful.

17 Other questions, comments?

18 Yeah, Joe.

19 MR. SAVAGE: Thanks. Before -- I just thought I'd  
20 give the normal disclaimer that nothing I say at this  
21 meeting necessarily reflects FINRA as an organization or  
22 other FINRA staff.

23 My question, one of the things that Marc said was  
24 it would be helpful if the buy side had more direct access  
25 to the Federal Reserve's policy tools. And my experience

1 has been the Fed culturally and historically is a bank  
2 regulator. So is it -- Marc are you concerned that if you  
3 did have more direct access to the Fed's tools, you would be  
4 perhaps regulated more like a bank with the Fed conditioning  
5 that access to bank-like regulation?

6 MR. SEIDNER: Well, let me be -- I don't know if I  
7 should or should not be concerned. I would make sure that  
8 we differentiate between the behavior of mutual fund  
9 investors and banks. Obviously, we are not deposit-taking  
10 institutions. Our deposits -- our financing is not insured  
11 by the federal government. We are not -- the taxpayer  
12 ultimately isn't on the hook for our activities.

13 It is not our balance sheet, as opposed to a bank.  
14 It is our investors and our clients whose balance sheet we  
15 invest on behalf of them, under the context of a fiduciary  
16 responsibility. So the behaviors, the business models are  
17 very different.

18 Joe, I suppose the way I would describe it is, and  
19 I'd phrase it as a question. This is certainly an area for  
20 further discussion, further research. But the buy side  
21 currently has direct access to buy bonds from the Treasury  
22 Department when they auction them. We do not have to go  
23 through an intermediary to participate in Treasury auctions.  
24 So we don't have to give our orders to a bank to buy bonds.  
25 I suppose the question I would ask is, if the corollary is

1 true, if we want to sell bonds back to some form of official  
2 sector participant, if we can buy them without giving our  
3 transparency to an intermediary, if we need to sell them,  
4 why are we subjected to different requirements? Why  
5 shouldn't we be able to sell them directly back to an  
6 official institution? And we can buy them without being  
7 systemically important. I'm not sure we shouldn't be able  
8 to sell them without being systemically important.

9 I hate to answer your question with a question.

10 But I would point out the different business models, the  
11 different nature of systemic risk. And importantly, the  
12 precedent exists in terms of Treasury auctions versus  
13 Federal Reserve buyback programs.

14 MR. BERNARD: Thanks. Others? Dalia.

15 MS. BLASS: Thank you, Ed. And I want to start  
16 first by thanking all the panelists this morning. The  
17 presentations have just been truly, truly educational, very  
18 thoughtful and very comprehensive in a very short time span.  
19 So I really appreciate that.

20 For both Sean and Marc, you know, a couple  
21 observations and a question. So first, Sean, when I look at  
22 the presentation you gave and, Marc, you had some of the  
23 same data, you know, the behavior -- you know, how much of  
24 the fund industry is retail oriented? And whether we can  
25 draw some -- whether there is data and we can look into

1 institutional versus retail investor behavior, particularly  
2 in the bond market, in the bond funds, given that, Sean, the  
3 data you provided, despite there being outflows, when you  
4 look at them as a percentage point of the fund industry,  
5 they were pretty contained. And not just in this current  
6 market situation, but also in the financial crisis.

7 So whether we can start looking at the behavior of  
8 the different investors? Perhaps that could be something  
9 that could help us sort of going forward, as how investors  
10 in the asset management industry react to different crises  
11 would be something that would be informative.

12 The other observation question I would have, if  
13 you will, is again something both Sean and Marc, you both  
14 highlighted in your presentation, that funds are not full  
15 players. And in fact, in some areas, they're not even --  
16 they're more significant players in the bond markets than  
17 the funds.

18 I am curious whether any thought has been put to  
19 not just the fact that there are other players in the  
20 markets but how the -- how those players impact the fund  
21 industry, how their actions, if we have insights into their  
22 actions and how the funds react to those actions? So just  
23 if you take a look globally at the corporate, you know, debt  
24 market, for example, and how funds interact in that along  
25 with other players, something more holistic, if there has

1 been ever thought to looking at that?

2 And, you know, finally, again, question,  
3 observation is, Sean, you showed in your deck that the Fed  
4 facilities, for the most part, really have not been used.  
5 Their pronouncement helped calm the market. Marc, you also  
6 pointed to that. And in fact, we are seeing for most of the  
7 Fed facilities, the participation rates are actually going  
8 down compared to the financial crisis and how much of the  
9 Fed facilities were taken up.

10 Gilbert made the remark and, you know, rightly so,  
11 sort of, you know, does the interaction between the current  
12 market situation and the Fed facilities and perhaps -- that  
13 the outflows come out of funds. But my question is sort of,  
14 this is probably premature, but why the Fed facilities were  
15 not use? Why was their announcement, just the mere  
16 announcement, something that calmed the markets? Versus  
17 back in the financial crisis, it wasn't just the  
18 announcement, they really needed to be used to provide the  
19 market with enough, you know, credit to sort of not just to  
20 calm the markets but to get the markets functioning again.

21 So just three broad observations as I listened to  
22 the COVID market impact presentations. Which again, I  
23 really thank both Sean and Marc for them. They were very,  
24 very informative.

25 MR. BERNARD: Sean, Marc, who wants to swing at

1 that first?

2 MR. SEIDNER: I'm happy to let Sean go since he's  
3 had a chance to rest. But if -- I'm happy to forge ahead.

4 MR. COLLINS: Well, I could talk briefly, Dalia,  
5 about the first and the last aspects. I'm not so sure about  
6 the middle one.

7 So on the retail versus institutional, you know,  
8 on the money fund side, it's generally pretty clean. I  
9 mean, you can do it these days just by looking at the  
10 institutional funds and more or less assume that that's  
11 institutional money. As I said, I don't think it all is.  
12 Some of it will be, you know, omnibus accounts that may  
13 reflect brokerage accounts underlying.

14 On the longer term fund side, though, we do have  
15 some numbers. We have an annual survey that we do of our  
16 members. And generally, the longer term survey suggests  
17 that there is not an awful lot of money in longer term  
18 funds, so stock and bond funds, that's truly institutions  
19 trading for their own accounts. So, you know, we have this  
20 discussion sometimes with our own members, that, you know,  
21 people in the industry tend to think of institutional money  
22 as -- or 401(k) money as institutional or brokerage omnibus  
23 accounts as institutional. Typically, I mean, so some of  
24 that money may move fast. But it's definitely going to be  
25 slower moving money than a true institution like a hedge

1 fund trading for its own account. So the numbers that we  
2 have, you can kind of do it. But it's a bit awkward.

3 On the third question about why things might have  
4 gone differently with the Fed this time around, I think, you  
5 know, two things probably. And Marc may be better able to  
6 speak to this. I mean, I think two things that were  
7 different were, one, they did it very quickly and they  
8 jumped in with both feet.

9 So I think in 2008, things were -- you know, may  
10 have gone a bit slower. And this time around, I mean, just  
11 the pronouncement sort of, you know, had the effect of we  
12 will give our balance sheet to the economy to prevent this  
13 liquidity crisis. And I think just saying that alone was --  
14 you know had a tremendous effect. That people realized by  
15 the afternoon of March 23 that, as Marc said, the Fed was  
16 all in. And that probably made quite a difference.

17 MR. BERNARD: Marc?

18 MR. SEIDNER: Yeah, happy to just add a couple  
19 observations. To your first question, Sean, I think his  
20 answer was quite accurate. I mean, there are behavioral  
21 elements. I'm not quite sure. But to me, that's the realm  
22 of behavioral economics rather than investment management  
23 insight. There's plenty of academic study on the nature of  
24 retail investors and the way they act through various market  
25 environments. But I'd probably leave it at that.

1 Just on the Fed facility usage, I agree with Sean.  
 2 I think the signaling effect is extraordinarily important.  
 3 I also think it's important to note, and you can look and  
 4 reference that last page in our deck at your convenience. I  
 5 mean, the fact that the Federal Reserve through -- I'll turn  
 6 quickly to the numbers -- the Federal Reserve bought \$1.9  
 7 trillion, or global central banks bought \$1.9 trillion worth  
 8 of global government bonds and mortgage-backed securities.  
 9 It freed up private sector balance sheet, freed up  
 10 investment management balance sheet to explore opportunities  
 11 in other -- going back to that concentric circle framework  
 12 -- other outer perimeter assets. So the healing occurred in  
 13 the center. Treasury liquidity improved, mortgage liquidity  
 14 improved, the relative value, the spread and the risk and  
 15 reward framework adjusted quickly and allowed for the  
 16 expansion into investment-grade credit asset backed and  
 17 other security markets. So one, the signaling effect; two,  
 18 the balance sheet that was made available by Treasury and  
 19 agency mortgage-backed purchases was very helpful.  
 20 I also think it's important to note that there's  
 21 been a shift in the market away from short-term commercial  
 22 paper financing, which is obviously very healthy, into  
 23 longer term financing. So the reason the programs were so  
 24 necessary in the financial crisis was just to eliminate  
 25 rollover risk. So you had -- you didn't have the same

1 immediacy of default risk and that's why the private sector  
 2 could absorb it.  
 3 And then on the role of the bonds or mutual funds  
 4 as sort of the predominant player in many of these markets,  
 5 I'm not sure what there is to be done. There's a lot of  
 6 analysis. We spend a lot of time thinking about the  
 7 technicals of supply and demand and, as I noted, the  
 8 behaviors of discretionary investors versus rule-based  
 9 investors. So we spend a lot of time as an organization to  
 10 understand how we should position portfolios. So there is  
 11 work that can be done. I'm just not sure what it will -- I  
 12 could certainly point you in the direction of the  
 13 conclusions that we think it would generate.  
 14 MR. BERNARD: So there is nothing I hate more than  
 15 to stop a great discussion. But I think I'm going to need  
 16 to do that here. We're running a little behind. Thank you  
 17 all. And I know I had a couple of hands that were raised  
 18 earlier I didn't get to. I apologize for that.  
 19 And just so you know, Ben, I'm not going to ask  
 20 you to get done in 15 minutes. So I do -- since we allowed  
 21 a full hour for the lunch break in anticipation that this  
 22 might be a robust discussion, you know, so if you could  
 23 maybe try and make your remarks in 20 minutes and leave us  
 24 five or 10, you know, I certainly want to give everybody a  
 25 break by 12:15.

1 So just what Ben is going to do, there was some  
 2 material that he was working on that he shared with me and  
 3 that I shared with Dalia and that we were intrigued by. We  
 4 just had a great view from the markets. And now Ben is  
 5 going to look through the lens of the asset management  
 6 industry and how it came into this crisis and is faring  
 7 through this, versus how it did in the global financial  
 8 crisis. And we thought that was useful to provide that  
 9 context as well for our ongoing discussions.  
 10 So with that, Ben, thanks for agreeing to come  
 11 back and see us again and it's over to you.  
 12 MR. PHILLIPS: Thank you, Ed. And I wanted to  
 13 thank the committee and the Commission for the invitation.  
 14 I am cognizant that I am going to be between lunch  
 15 (Interruption to audio) so I will try to keep it brief. The  
 16 most suspenseful moment is always sharing the screen.  
 17 If that has worked, then I think we're ready to  
 18 go.  
 19 (Slide.)  
 20 MR. PHILLIPS: This content, as Ed said, is  
 21 gleaned from conversations that we've had with leaders of  
 22 asset managers in the U.S. and Europe and in APAC as they've  
 23 reacted and adapted to what the crisis has thrown at them  
 24 over the past 11 weeks. So Slide 1 of the presentation,  
 25 where I'll begin, I'm not going to spend too much time here

1 because Sean did a great job of walking us through how  
 2 investors reacted to the crisis. What you saw in his slides  
 3 is reflected globally. It was a flight to liquidity. It  
 4 was retail investors leading that flight, with institutions  
 5 largely standing pat or, in some cases, reinvesting  
 6 (Interruption to audio) strategic allocation guidelines to  
 7 rebalancing. And it was from active fixed -- active fixed  
 8 strategies into passive equity strategies, somewhat similar  
 9 to what happened in the 2008 crisis, as investors sought  
 10 parking lots while they determined what the long-term and  
 11 the medium-term impact would be on asset allocation.  
 12 So from that perspective, at the end of March,  
 13 before the Fed defibrillated markets and capital values  
 14 resuscitated, that was the impact in terms of how investors  
 15 reacted to what we saw. As you would imagine, it also had  
 16 an impact on the industry's economics, also quite similar to  
 17 what started to happen in the 2008 crisis in terms of asset  
 18 compression. In this crisis, like the last one, revenues  
 19 flexed more and were more sensitive than costs, which led to  
 20 margin pressure.  
 21 So that, so far what you've seen mirrors what you  
 22 would have seen in the last frame of reference for most CEOs  
 23 in the asset management industry, in the 2008 to 2009  
 24 financial crisis. But this time around, there are a  
 25 significant number of differences with what they're dealing

1 with and how it's impacting their strategy. One of them is  
 2 in terms of economics overall. The starting point for them  
 3 is a much shakier foundation than it was during the 2008  
 4 crisis. The organic growth that we experienced in the  
 5 industry 12 years ago -- we talked a little bit about this  
 6 in our January session -- has started to shrivel up. Most  
 7 of the pools of assets that can be professionally managed  
 8 have been covered. And that has made the industry much more  
 9 reliant on culling share from one another to get organic  
 10 growth in their enterprises, rather than taking it from new  
 11 customers.

12 Couple that with the fact that you have entire  
 13 margins that come from a cost base that's a lot less  
 14 flexible than it was 12 years ago. During the financial  
 15 crisis in 2008 and 2009, you had a lot of firms react by  
 16 looking at variable compensation and head count and making  
 17 adjustments with that to preserve margins or preserve their  
 18 economics. This time around, the fixed cost base is  
 19 actually much more substantial as a proportion of the  
 20 overall middle line, and that creates a shift. There's more  
 21 occupancy cost from firms that have expanded into multiple  
 22 geographies and multiple locations, and there's more  
 23 technology capital expenditure as the industry continues to  
 24 modernize and use technology to create long-term leverage.

25 Couple those and what you're ending up with is

1 overall industry economics that are more challenging at the  
 2 starting point this time than they were in the financial  
 3 crisis in 2008.

4 The second big difference is, unlike that crisis,  
 5 this is a health crisis. We've mentioned this a couple of  
 6 times this morning. It's a quite different genesis, quite  
 7 more universal. And as a result, it's created a number of  
 8 challenges that most asset managers and their leaders don't  
 9 have in their playbooks and they've had to react to them on  
 10 the fly. There's been an impact on the workplace. This is  
 11 an IP-driven industry, it's an ideation-driven industry.  
 12 And having that type of connectivity across professionals in  
 13 distributed locations is something that the industry hadn't  
 14 dealt with before and is now starting to think about how  
 15 they deal with it in both the short and medium term.

16 There's a strategic focus on corporate  
 17 responsibility. Asset managers, like most financial  
 18 services firms, have a wide number of stakeholders. What is  
 19 their responsibility during a health emergency? What are  
 20 they supposed to do for employees? Which leads to a whole  
 21 series of new questions. What are they supposed to do for  
 22 clients? What are their roles as investors and how does  
 23 that align with what governments and society is calling for?

24 All of these questions don't have ready-made  
 25 strategies in most asset management firms. And that has led

1 the leadership to not only rethink the reaction to what's  
 2 been happening with the health emergency, but also in the  
 3 long term what they'll need to compete going forward.

4 Global operating models and all types of operating  
 5 models, it is truly not so much of a -- it's not so much of  
 6 a small world after all, in the sense that boundaries have  
 7 become significant again, both physical and geopolitical, at  
 8 least for the short term, for travel, for a whole variety of  
 9 things. As a result, asset managers, which typically have  
 10 been a global leveraged industry in terms of being able to  
 11 take their operating model and extend it pretty capably,  
 12 have been dealing with some of the repercussions of that.

13 I think most importantly, it's the brand and  
 14 fiduciary responsibility elements which are core to how  
 15 asset managers have relationships with their clients. This  
 16 will be a critical component for them to think through over  
 17 the next few years as the recovery begins.

18 The plurality of Americans are Millennials. And  
 19 most of them have now been burned by two recessions. As a  
 20 result, getting them to take risks again, getting them to  
 21 invest again will be significantly dependent on how asset  
 22 managers position their fiduciary role, how they position  
 23 their brand and how they position their advice.

24 So I don't think any asset manager would have  
 25 talked to any CEO at an asset manager would have talked to

1 you 10 years ago and spoke about preparing for a health  
 2 emergency. Now they are very well versed in the subject.

3 The third big difference is they're also dealing  
 4 with capital markets that were already in a secular  
 5 transformation and probably this will accelerate some of  
 6 that. While there is a flurry of short-term IPO interest in  
 7 capital markets, the secular trend remains in place that  
 8 fewer firms have been listing on exchanges, which creates  
 9 issues for public equity managers globally. Capital has  
 10 pooled with private markets players to an all-time high in  
 11 dry powder and that remains in place. And finally, you have  
 12 governments worldwide becoming some of the largest asset  
 13 managers, as central banks step back into roles as market  
 14 participants.

15 So couple this all together and two things start  
 16 to change as a result. The market participants for asset  
 17 managers, their counterparties, actually changed quite  
 18 significantly. You'll see exchanges start to think about  
 19 private markets and secondary investment in private markets  
 20 being something where they can play a role in matching  
 21 buyers and sellers, particularly given all the dry powder  
 22 and potential investments sitting in the private market  
 23 arena right now. You will see a variety of methods used to  
 24 modernize how intermediaries work with one another, to use  
 25 new technologies to improve not just efficiency but the

1 investor experience. This has moved from a long-term goal  
 2 to an immediate goal to help facilitate market recovery.  
 3 Then finally, what you'll have is a blurring of lines as  
 4 investors seek more complicated and holistic advice  
 5 potentially as part of the recovery. The blend between  
 6 protection, liquidity and capital appreciation, which are  
 7 traditionally covered by separate intermediaries, may become  
 8 blurrier as the outcome-oriented needs of customers become  
 9 much more focused on new needs, which could create one of  
 10 the biggest product development impacts the asset management  
 11 industry has seen.

12 We've already dealt with QE. So it's the idea of  
 13 how do we generate returns for investors in a low-return  
 14 environment. This could be coupled with a resurgence of  
 15 inflation. Which means inflation protection may become  
 16 just as important as capital appreciation going forward for  
 17 many asset managers to provide their clients.

18 Mixing public and private yields to come up with a  
 19 variety of new ways to generate higher return instruments in  
 20 a low-risk environment, this carries a lot of risks in terms  
 21 of how manage liquidity expectations, how to manage  
 22 regulation around these types of products and services. But  
 23 over time, this will become a more demand and supply side  
 24 oriented conversation from asset management firms.

25 And finally, the governments, as counterparties,

1 both as their balance sheets wax and as they wane, asset  
 2 managers will find themselves with bilateral conversations  
 3 with them as well as the big buy side clients to move  
 4 forward as the industry pivots out of crisis reaction and  
 5 into recovery.

6 So there were already secular trends in place  
 7 transforming this industry. The health crisis in a lot of  
 8 ways will accelerate many of those and force asset managers  
 9 to move long-term planning into a more short-term reaction  
 10 mode.

11 (Slide.)

12 MR. PHILLIPS: Moving forward to the next slide,  
 13 near-term considerations for a lot of asset managers as they  
 14 think through what to do. The past 11 weeks have focused on  
 15 two baskets of issues. One would be thinking about  
 16 operating model shifts, health and safety of employees,  
 17 virtualization and moving to a remote delivery framework for  
 18 retail and institutional clients as well as internally to  
 19 portfolio managers, and tactical considerations around cost  
 20 to defend economics. These have been the key agenda items  
 21 for many asset managers over the past three months. In  
 22 addition, risk and liquidity concerns remain front and  
 23 center.

24 Marc said it very well. It's potentially less of  
 25 a liquidity crisis but more of a solvency crisis and how the

1 two combine. The industry as a whole over the past 12 years  
 2 has invested in anticipating these types of crises. The  
 3 thing about floodwalls is you only know how good they are  
 4 when the floodwaters rise. So while the industry is more  
 5 aware of these concerns, it remains a clear and present  
 6 danger and foremost in asset management (Interruption to  
 7 audio).

8 So if you think about that in that context, the  
 9 first chapter of the reaction to this health crisis, which  
 10 is the end of business continuity protocols and the shift to  
 11 a new normal or a next normal is under way, what does that  
 12 involve? And that might be where I spend a good chunk of  
 13 the balance of the time before taking questions. Is if you  
 14 had to take all the medium-term concerns that asset managers  
 15 and their leadership have about their businesses, about how  
 16 they'll help clients, about what they will end up doing over  
 17 the next several months, they probably fall into six big  
 18 buckets. The first is a significant look at their  
 19 organizational culture, particularly among investment  
 20 professionals who have teams now working from home, which  
 21 has distributed your key talent -- and its investments. But  
 22 it's also distribution, operations throughout an asset  
 23 manager.

24 It will raise discussions about the social  
 25 contract between asset management firms as enterprises and

1 the talent they recruit and they hold. Some asset managers  
 2 are desperate to get back to -- the portfolio managers are  
 3 desperate to get back into the office. Others are starting  
 4 to say, this actually is not only what I like but actually  
 5 reaffirms that potentially there is a role for me as more of  
 6 a solo practitioner. There are a lot of industry forces  
 7 around this conversation that shape it. But it will -- the  
 8 work-from-home dynamic will raise new questions about how  
 9 asset managers acquire, retain and manage their talent.

10 The second is the operating model. So basically,  
 11 how do the processes, people and technology that asset  
 12 managers use to do their work, how will that change? There  
 13 was already secular focus on optimization here. But the  
 14 health crisis helps create a focus on the big questions.  
 15 Who should do this work? Where should it be done? And how  
 16 should it be done? Is there a better way to do it? So you  
 17 have already seen a dramatic focus by strategy officers, by  
 18 leadership around questions such as location, where is the  
 19 best place to have our people and does it have to be where  
 20 it has been for the past 20 or 25 years, particularly if the  
 21 transition to remote delivery has gone well? At most firms,  
 22 it has. Outsourcing. If there are aspects of technology,  
 23 aspects of operations, processes that firms are not good at,  
 24 are there people who are better? Are relationships and  
 25 alliances the best way forward there? And proprietary

1 technology. There are ways to not just invest money but  
2 deliver those outcomes to investors that could become  
3 competitive advantages. How is that nurtured, invested in  
4 and developed in a more agile way? These are big questions  
5 for an industry that has only recently rediscovered  
6 technology over the past few years.

7 The third in the upper right, basically around  
8 remote engagement. It's not just technology, how do I meet  
9 with clients through Zoom, how do I meet with clients  
10 through Webex or other types of videoconferencing software,  
11 but also it's about how do I position my content, the media  
12 that I use particularly for younger investors? It's what I  
13 use to buttress that relationship before asset management,  
14 particularly in the institutional world, focused a lot on  
15 human relationships, face to face communication, building  
16 trust in one another. That's still very important. But in  
17 a time-poor world that's conducted remotely, how do you  
18 think about that quantitative positioning, making the  
19 argument for an investment? It's changing how asset  
20 managers talk to their clients.

21 And it's also focus. In an environment where,  
22 despite working from home, there's more time than ever for  
23 boundaries to blur and more videoconferences to schedule,  
24 there is a lot of focus on can I actually talk about 25 to  
25 30 investment strategies in one phone call with a client?

1 Maybe, maybe not. So the whole idea of the relationship  
2 engagement with clients has been in transition.

3 Active management is in the lower left corner. We  
4 talked a lot about this in the January conversation, about  
5 how active managers reposition themselves and differentiate  
6 their offer going forward. As in the financial crisis,  
7 investment performance is going to be paramount. Many firms  
8 that consolidated flows over the five to seven years  
9 following 2008 did so with good performance coming out of  
10 that crisis, in capital market terms. But it also makes  
11 firms think about what exactly is their offer to the client.  
12 There will be a lot of focus on R&D and product development  
13 in asset management. If the recovery favors different  
14 sectors on the way out than rolled down on the way in, how  
15 do asset managers react to that thematically? How do they  
16 react to that through security selection?

17 There will be a lot of focus on asset management  
18 products and services that don't necessarily solely focus on  
19 capital appreciation but also focus on other aspects of  
20 advice. The advice is probably a big component of this  
21 equation, too. How do asset managers play a role in helping  
22 all of their clients navigate what's going to happen next?  
23 The ability to put technical considerations and technical  
24 comments around a product sale will become a key  
25 differentiator between winners and losers. There's a lot

1 that will happen there.

2 And then finally ESG, which I know the committee  
3 reported on -- the subcommittee reported on earlier today.  
4 We can debate ESG and whether it adds value and how it  
5 should be positioned. But there are demand side -- there's  
6 growing demand side elements favoring it from investors that  
7 want to see it. And there's supply side considerations that  
8 tackling this type of investing and integrating it may lead  
9 to higher competitive differentiation in a very overcrowded  
10 industry. So ESG is not only a value creation question,  
11 it's also a competitive dynamic question and that's starting  
12 to unfold with a lot of asset managers.

13 Globalization and global operating models. On  
14 average, an asset manager spends about 600 basis points of  
15 revenues creating a global infrastructure to handle clients  
16 in multiple geographies. In this environment, they may  
17 become more unwieldy, given travel, given political  
18 considerations, a whole variety of things. They also may  
19 over time force asset managers to really evaluate how much  
20 growth is secured through that expansion, leaving some to  
21 abandon some regions in favor of concentrating in others,  
22 and leading most to explore how much new technology can  
23 really play a role in supporting if not acquiring new  
24 relationships globally. The global operating model will  
25 become a critical focus going forward for many asset

1 managers to sort out in their long-term strategic planning.

2 Finally, M&A. We talked a little bit about this  
3 in January. It's practically difficult in the current  
4 environment. Capital markets over the past several weeks  
5 have started to indicate that there might be some chance for  
6 price discovery in striking deals. The secular pressures  
7 regarding consolidation remain in place. But on one hand,  
8 the new culture of working from home may lead some portfolio  
9 managers to consider breaking apart from their current  
10 employers, which creates a mitigating force.

11 And the second consideration here is that simply  
12 getting scale economic points from these M&A transactions  
13 probably is not as beneficial as finding ways to create new  
14 competitive differentiators in this marketplace. And, as a  
15 result, you'll see much more bilateral conversations between  
16 asset managers around consolidation, focused on how do we  
17 take one plus one and actually create a better, more  
18 competitive asset management.

19 (Slide.)

20 MR. PHILLIPS: Those are all things in the medium  
21 term that, if you ask leadership at asset management firms  
22 their key focal points for the next call it 18 months,  
23 they'll all be rooted in discussions like these. I think  
24 all of them are starting to think, too, about very long-term  
25 implications for asset management firms. They'll remain a

1 critical financial service going forward. They are at the  
 2 intersection of raising capital, managing risk and deploying  
 3 capital. They remain there. That actually will be a key  
 4 toolkit, all three of those, in any type of recovery that  
 5 begins. And as a result, you can see on this slide, the  
 6 final slide of the presentation, there's a lot of aspects  
 7 that the asset management industry can bring to help  
 8 facilitate this. The question is, how will asset managers  
 9 react to that challenge? They can find ways to help  
 10 investors gain returns in a QE environment, they have longer  
 11 time horizons and can mate and coordinate the capital that  
 12 needs to invest in things like infrastructure and work  
 13 programs and other potential fiscal responses, government  
 14 responses to recovering from the health emergency. And they  
 15 remain a repository of advice to guide the clients back into  
 16 sort of taking risk and thinking through what their long-  
 17 term ability for improving capital will be.

18 The same strategic questions before the crisis  
 19 remain really in play during and after it. How should asset  
 20 managers operate? How should they advise their clients?  
 21 And how should they compete? And as a result, the crisis  
 22 hasn't changed those secular trends. If anything, it has  
 23 made them more critical to solve.

24 This puts a very large burden on asset management  
 25 leadership. As regulators and advisers to regulators, it

1 creates some interesting long-term questions of what you  
 2 want that industry to look like in a post-crisis world.

3 So I will stop there -- I will try to stop sharing  
 4 my screen. And hopefully, that was brief enough so that we  
 5 can have a couple of questions before lunch.

6 MR. BERNARD: That's great, Ben. Thank you very  
 7 much. I do have the grid in front of me. Do I see any  
 8 hands coming up?

9 Yeah, Ryan.

10 MR. LUDT: Yeah, great. Thanks. Thanks again,  
 11 Ben, for your thoughts and comments. Always very helpful to  
 12 hear from you.

13 I was interested in one of your comments around  
 14 technology and where we are as an industry and investing in  
 15 technology. Perhaps where we've come from in the last few  
 16 years and where we're headed. I think you're right on  
 17 target as it relates to this benefitting from a cost and  
 18 scalability perspective and also the globalization  
 19 perspective.

20 I wonder where you think we are on that journey.  
 21 Do we feel like we're approaching some sort of inflection  
 22 point where we'll actually start to see significant ROI as  
 23 an industry? Or is that longer to play out?

24 MR. PHILLIPS: That's a great question. I think  
 25 it's still a (Interruption to audio) oriented question, that

1 these are longer term investments in transformation. Asset  
 2 managers haven't dealt with agile technology transformations  
 3 through much of their history. They are not really used to  
 4 this. They have traditionally built long projects around  
 5 full model transformations rather than doing it in a piece  
 6 by piece way.

7 The other biggest problem that we've been  
 8 discovering, which is a secular problem, pre, during, post  
 9 crisis is data. A lot of the things that we talk about in  
 10 terms of delivering an engagement model remotely, finding  
 11 efficiency, extrapolating capabilities globally don't work  
 12 if data isn't organized and has a common source. That's  
 13 where a lot of the organizational (Interruption to audio).  
 14 It's an industry that has been built through serial  
 15 acquisition. It hasn't spent a lot of time organizing its  
 16 data.

17 That's a big ask. But without that as a  
 18 cornerstone, a lot of the other things will have some near-  
 19 term impact but won't have long-term competitive advantage.  
 20 And that's what many leaders are now focusing on. They're  
 21 saying, take all of the use cases that I can have with  
 22 technology, to use the jargon, all the things I need  
 23 technology to do and then trying to say the really important  
 24 ones that come first in that sequence are those that have to  
 25 do with data.

1 MR. BERNARD: Other questions or comments?

2 Yeah, Gilbert.

3 MR. GARCIA: Thank you, Ed.

4 First, there was a slide that talked about the  
 5 starting point for asset managers being weaker today than in  
 6 2007. And I just want to highlight that I think that's  
 7 probably even stronger for smaller firms, whether they be  
 8 minority, women-owned or otherwise. Just because it just  
 9 takes critical mass, so much critical mass today.

10 But my question relates to -- everybody was great.  
 11 The Fed has done so much, it's even hard to keep up with all  
 12 the programs that they've done. Are all the programs  
 13 available to essentially all the institutions? Or is there  
 14 any truth to some of the concerns on Main Street that only  
 15 the larger institutions are benefitting from these programs?

16 MR. PHILLIPS: I think -- I think there's a lot of  
 17 validity in raising the question about how -- I don't want  
 18 to use democratized, I don't want to say democratized -- how  
 19 open these programs could be for the asset management  
 20 industry to work in as an ecosystem, more than as having a  
 21 couple of big players control components of it. I think at  
 22 this point, because of things like technology, because of  
 23 market infrastructure, you need to be assured that, as  
 24 governments, the Fed, others go into the marketplace and  
 25 look for help and look for counterparties in distributing

1 these tools, they need to (Interruption to audio) that  
2 transfer. But over time, it's quite possible the asset  
3 management industry as a consortium or exchanges and  
4 intermediaries, as middle ware, can play a role in helping  
5 to do that. It would ease -- I think what it would do is  
6 also create the ability to have innovative ways to create  
7 returns for clients, because it would be actually moving us  
8 from a defensive policy instrument, a highly necessary  
9 defensive policy instrument, into more of a market tool and  
10 market platform in which asset managers could help, not only  
11 work on behalf of the clients but also create the liquidity  
12 and the needs for the overall recovery. So I think each  
13 time the Fed acts, there are lessons learned that could be  
14 translated back into a broader interaction. Not just with  
15 asset managers, the commercial entities, but buy side.

16 Did that help answer the question?

17 MR. GARCIA: Yes, thank you.

18 MR. BERNARD: I'm going to be mindful of the time.  
19 We can take one more if anybody's got it. Actually, the  
20 tiles are kind of disappearing on me. I can't see hands at  
21 the moment. But if anybody wants to unmute and chime in,  
22 I'm open. Otherwise, I will move us to break.

23 Looks like I'm going to move us to break. So just  
24 for the public, we are now going to mute the webcast until  
25 1:00 and, Nick, if you could just confirm once we're muted.

1 And then I would just say to the committee, you  
2 know, we've now got 45 minutes. I'd love for you to be back  
3 at the top of the hour. Get away from your screen.

4 If you've got any technical issues, sound issues,  
5 anything that you want to resolve, now is a good time to  
6 check in on that with our host. And maybe a few minutes  
7 before we come live at 1:00, if everybody could come back  
8 on, we'll just make sure we're all in place.

9 We would strongly recommend that, rather than  
10 leaving the meeting and coming back, that you just mute  
11 yourself and turn off your video, take a break and come back  
12 and we'll keep you logged in.

13 So with that, we'll be back at 1:00 and we'll  
14 start with the three separate discussions led by members of  
15 the committee into specific areas of impact.

16 And let me just once again thank Sean, Marc and  
17 Ben for your contributions. This was just terrific. It's a  
18 great foundation for us and we really appreciate it.

19 Okay, great. So I think we're on break. Everyone  
20 come back, if you would, at the top of the hour.

21 (Whereupon, at 12:16 p.m., a luncheon recess was  
22 taken.)

23 AFTERNOON SESSION

24 IMPACT OF COVID-19 - DISCUSSION

25 MR. BERNARD: So welcome back, everyone. As

1 outlined earlier this morning we will now turn to discussion  
2 organized around three topics, ETFs, money market funds and  
3 operational challenges and opportunities that we have  
4 witnessed during these past couple of months.

5 Just a quick preamble and then we'll jump right to  
6 the first group. We have asked each group to essentially  
7 address the same set of questions for their respective  
8 topics. To be clear, their remarks don't need to be  
9 organized in this manner. But this is the set of questions  
10 that we proposed to them.

11 The first is, what happened? In other words,  
12 observe market activity in their particular context. What  
13 worked? What didn't work? Explain or elaborate on key  
14 observations, especially on areas of concern. And recommend  
15 two or three issues for further evaluation or action by the  
16 SEC or this committee.

17 And I just want to reiterate something for  
18 everyone, including the broader public listening. It is  
19 something I mentioned this morning.

20 We are still in the middle of this and our  
21 speakers have only had a few weeks to consider their  
22 remarks. We think it's very useful, as we have a timely  
23 reaction to ongoing events, to bring their expertise to bear  
24 to help us identify what should be on our radar, on the  
25 SEC's radar for further evaluation. So we've encouraged

1 them to share recommendations for that evaluation. But  
2 there is no expectation that these recommendations have been  
3 rigorously evaluated. We only posed the question to them a  
4 week or two ago.

5 So I want the speakers to feel free to speak up.  
6 And I want the listeners to understand that these are ideas  
7 that people who are directly engaged in the markets are  
8 saying, you know, this is probably worth a further look.  
9 And that will help us shape our work going forward. And  
10 beyond that, don't anyone think, oh, this is a formal  
11 recommendation for rulemaking or something, because it's  
12 clearly not.

13 So with that, the format will be 40 minutes each  
14 for three topics if I can stop talking here. So  
15 essentially, that's 20 to 25 minutes for each panel to  
16 divide up their remarks however they would like to get the  
17 discussion going. And then we hope we'll have active  
18 engagement from the committee.

19 And I commend everyone. Maybe we've all gotten  
20 experienced with videoconferences, but I think it has flowed  
21 pretty well. I appreciate people sort of waving at me and  
22 raising their hand when we're in grid view so I can see  
23 who's coming up. I think that's worked out nicely.

24 So we'll have remarks for 20 to 25 minutes,  
25 discussion by the full committee. I would encourage Dalia,

1 any of her colleagues, the Chairman or commissioners, if  
2 they want any clarification of anything coming from the  
3 committee, to feel free to chime in at any time. And again,  
4 everyone please mute when you're not speaking. Thanks again  
5 to Ryan, Neesha and Mike for agreeing to lead these  
6 conversations. And I will let them introduce their groups.

7 So with that, Ryan, you're up first with ETFs.

8 MR. LUDT: Okay, great. Thank you, Ed. And  
9 welcome back, everybody, for the afternoon session. Thank  
10 you, Chairman Clayton and commissioners. Thank you, as  
11 well, to Dalia and her team for helping us coordinate this  
12 work. And thanks, too, to Jeff and Reggie for joining me on  
13 this topic.

14 My name is Ryan Ludt and I am global head of ETF  
15 capital markets and broker and index relations for Vanguard.  
16 In this role, our team has responsibility for working within  
17 the ETF ecosystem on behalf of Vanguard and our 30 million  
18 clients. We manage relationships across the industry and  
19 provide oversight and education around ETF trading,  
20 liquidity and market structure. As the only client-owned  
21 investment company, we at Vanguard believe that healthy  
22 markets and sensible products along with clear and  
23 transparent education will help investors best reach their  
24 financial goals.

25 As Ed mentioned, my remarks this afternoon will

1 focus on three topics. First, I will review what happened  
2 in the ETF markets during the market volatility associated  
3 with COVID-19. Second, I will discuss what worked well  
4 during market volatility. And perhaps a little bit of a  
5 spoiler alert here, as others have mentioned earlier,  
6 Vanguard also believes that ETFs and the market structure  
7 that supports them largely functioned as designed. Lastly,  
8 I will describe a couple areas for further study and  
9 potential improvement.

10 So as we jump into what we observed and what  
11 happened in the markets during this time -- and we are still  
12 in this time, I would caveat as well -- global markets  
13 experienced extreme volatility during the first quarter of  
14 2020. In equity markets, for example, the S&P 500 lost more  
15 than a third of its value between February 19, when it  
16 closed at an all-time high, and March 23, the low point of  
17 the COVID-19 market decline. Rising volumes and volatility  
18 accompanied the market prices.

19 The CBOE volatility index or VIX, often referred  
20 to as the fear index, closed at an all-time high of 82.69 on  
21 March 16, after trading between 10 and 20 for most of 2019.  
22 Market-wide circuit breakers for stocks triggered four  
23 different times in March. Across markets, spreads widened,  
24 and liquidity worsened.

25 The volatility associated with COVID-19 has been

1 the strongest test case for the resilience of ETFs since the  
2 financial crisis. And ETFs served the market and our  
3 clients as we would have expected. Although bid-ask spreads  
4 for ETFs generally widened, just like spreads for any other  
5 security, these products and the markets in which they trade  
6 generally performed as designed. Importantly, ETFs  
7 fulfilled their critical role of enabling investors to  
8 diversify across broad portfolio securities in a cost  
9 efficient manner.

10 For investors, ETFs act as shock absorbers.  
11 During the market volatility associated with COVID-19, they  
12 provided exposure to a broad range of assets in varying  
13 liquidity. For example, although the fixed income markets  
14 experienced periods of stress, many fixed income ETFs showed  
15 to be more liquid than the underlying fixed income  
16 securities in which they invest. As a result, ETFs often  
17 serve as price discovery vehicles for fixed income markets.

18 The market volatility associated with COVID-19  
19 also illustrated the potential for fixed income ETFs to  
20 trade at discounts or premiums. Put simply, the market  
21 prices for some ETFs diverged from their daily net asset  
22 value or NAV. Although divergences are not usual and trades  
23 at a discount to NAV can be expected during stressed times,  
24 the breadth and magnitude of the discounts during the  
25 COVID-19 market volatility was notable.

1 Despite these discounts, ETFs performed well  
2 throughout the market volatility associated with COVID-19.  
3 In late March, the Federal Reserve announced a secondary  
4 market corporate credit facility which empowers the Fed to  
5 purchase corporate bonds in the market, or to obtain this  
6 exposure through ETFs. The inclusion of ETFs in this  
7 facility reflects the advantages of obtaining bond market  
8 exposure through these vehicles. The Fed's announcement  
9 helped to restore confidence in and soothe the bond market.  
10 Recognizing the important role that ETFs can play, the  
11 Federal Reserve Bank of New York started purchasing ETFs  
12 through the secondary market corporate credit facility in  
13 early May.

14 I would like to highlight a number of things, a  
15 few things that worked well during this time. As Ed has  
16 outlined, we are trying to work in that framework.

17 The ETFs and the capital markets generally  
18 functioned well during the market volatility. Trading  
19 continued in an open and orderly manner throughout the  
20 volatility, and markets remained open, which supported  
21 investor confidence.

22 Three things in particular stand out as working  
23 well. First, the equity market structure that supports ETFs  
24 proved resilient in the face of uncertainty and stress.  
25 Market-wide circuit breakers worked as designed and trading

1 halted and reopened in an orderly manner on days when  
2 circuit breakers were triggered. The same generally holds  
3 true for a single stock circuit breaker regime.

4 Make no mistake, the COVID-19 market volatility  
5 revealed ways that market structure can be optimized. But  
6 on the whole, market structure held up well.

7 Secondly, ETFs also functioned as designed. They  
8 enabled investors to transfer exposure in an orderly manner.  
9 ETFs also played a price discovery function for fixed income  
10 and other less liquid markets, and acted as shock absorbers,  
11 dampening volatility in these less liquid markets.

12 Thirdly, the Fed's creation of the secondary  
13 market corporate credit facility and other extraordinary  
14 measures helped reduce uncertainty and calm markets. The  
15 design of this facility indicates the important stabilizing  
16 role that broad based ETFs play in corporate bond markets.  
17 Specifically, the facility authorizes the Fed to purchase  
18 individual corporate bonds or ETFs that hold a broad range  
19 of corporate bonds. It is important to note that the Fed  
20 recently acknowledged that ETFs were included because, and I  
21 quote, ETF purchases can serve as an efficient mechanism to  
22 access the corporate bond market. This is consistent with  
23 our experience that broad-based corporate bond ETFs helped  
24 stabilize these markets during volatile times.

25 We also see a few areas for further study. I

1 wanted to emphasize, as others have, that the COVID-19  
2 market volatility was due to uncertainty about the impact of  
3 coronavirus on companies and the economy. The COVID-19  
4 market volatility revealed areas for further study and  
5 potential improvement. For today, I will highlight two.

6 The first area that stands out to me as needing  
7 more consideration is the discounts that the market value of  
8 some fixed income ETFs experienced relative to their NAVs.  
9 ETF sponsors, including Vanguard, should investigate the  
10 divergences between ETF market values and NAVs during the  
11 volatility. In our case the work is already under way. As  
12 I noted earlier, fixed income ETFs tend to be more liquid  
13 and trade more frequently than their underlying bonds, so  
14 the market price of fixed income ETFs is typically a  
15 reliable indicator of the current value of underlying  
16 securities and the liquidity costs associated with trading  
17 the ETF. Changes in market conditions are typically  
18 reflected rapidly in the market prices of fixed income ETFs,  
19 and sometimes much faster than the prices of the underlying  
20 bonds, which can lead to divergence from that. Fixed income  
21 ETF market prices also reflect the cost of providing  
22 liquidity in fast-moving markets where the underlying bonds  
23 may have less liquidity.

24 A second area of potential study is market  
25 structure. Although markets generally worked well, industry

1 participants and regulators should examine whether  
2 refinements to equity fixed income markets would result in  
3 better outcomes for investors. Should the market-wide  
4 circuit breakers for equity markets be recalibrated to  
5 ensure that markets fully opened before any trading halts  
6 take effect? Would providing more information about  
7 different order types or the characteristics of exchange-  
8 traded products improve investors' experience with these  
9 instruments? Would increasing transparency or making other  
10 changes to bond market structure improve price discovery and  
11 investor outcomes in the fixed income space?

12 Thank you for the opportunity to share my views on  
13 how ETFs performed during the COVID-19 market volatility. I  
14 will now turn to Jeff Ptak from Morningstar and then Reggie  
15 Browne from GTS to provide their perspective and commentary  
16 around the recent events in the ETF marketplace. Thank you.

17 MR. PTAK: Thank you, Ryan. I'm Jeff Ptak. I am  
18 head of research at Morningstar Research Services and I'll  
19 be the second speaker in this section. And what you'll hear  
20 me do is build on a lot of what you've already heard Ryan  
21 talk about. But I might approach it from a slightly  
22 different perspective, which is through different investor  
23 lenses.

24 As you probably know, we are a data and research  
25 firm that serves a number of different investor groups, can

1 be individual investors, financial advisers, as well as  
2 institutional investors. And so what we are trying to do in  
3 approaching this particular task is to see it through their  
4 eyes, what are the sorts of things they would have  
5 experienced or noticed that would have shaped the outcomes  
6 that they had, or maybe affected sort of the way they were  
7 feeling as human beings coming through what was a very  
8 volatile and, by I think a lot of measures, traumatic time  
9 in markets.

10 Ryan did, I think, a really great and really  
11 comprehensive job of chronicling the things that went on in  
12 the market. I don't think that I would have anything  
13 particularly insightful to add to that. Furthermore, I  
14 think he did a really good job of painting a picture of what  
15 worked well in the ETF market. So I'll add a little bit to  
16 that picture, but I'm going to spend most of my time focused  
17 on a couple of areas that we identified as opportunities for  
18 perhaps continual study in the spirit of continuous  
19 improvement.

20 But maybe, just as a little bit of prologue, as we  
21 know, ETFs are an increasingly significant aspect of capital  
22 markets and investing. There are around 2,200 U.S. ETFs,  
23 which in aggregate hold around \$4.2 trillion in assets, I  
24 think that was as of yesterday. You know, and according to  
25 some estimates, equity ETFs recently accounted for around

1 one third of overall U.S. equity trading volume, up even  
 2 from the previous month when it was 25 percent -- or I  
 3 should say up from 25 percent in 2019. So we're seeing  
 4 equity ETFs account for a very significant amount of the  
 5 volume that's transacted in the equity market.

6 All told, ETFs withstood the tumult of the  
 7 COVID-19 crisis well. Using daily closing price net asset  
 8 value and net asset data for the period February 29, 2020  
 9 through March 23, 2020, which is a similar period that I  
 10 think Ryan cited in his remarks, we find that the average  
 11 asset weighted daily discount to net asset value was only  
 12 0.26 percent. This means that the quoted closing market  
 13 price of the average dollar invested in ETFs closely  
 14 approximated the underlying value of the assets that dollar  
 15 owned during this volatile period. So that's really a  
 16 testament to how well the ETF market functioned, writ large.

17 That said, this period also brought several issues  
 18 to light that might warrant further examination in the  
 19 spirit of continuously improving the ETF market's resilience  
 20 and dependability. The first is, and this is a topic that  
 21 Ryan already did a really good job of covering but I will  
 22 try to add to a little bit, the divergence of ETF market  
 23 prices from net asset value, specifically the incidence of  
 24 sizeable discounts to NAV among certain types of ETFs, such  
 25 as those that held certain types of credit-sensitive bonds.

1 At one point amid the COVID-19 crisis, more than 700 ETFs  
 2 were trading at least a 1 percent discount to NAV, with  
 3 those ETFs accounting for roughly a third of assets. At the  
 4 close of trading on March 13, 2020, to pick a date, nearly  
 5 100 ETFs were trading at 5 percent or greater discounts to  
 6 NAV, with those ETFs soaking up around 4 percent of industry  
 7 assets. Bond ETFs represented the largest portion of this  
 8 cohort. At one point, nearly half of taxable bond ETFs  
 9 closed at a 1 percent or greater discount to NAV, with those  
 10 ETFs accounting for around 60 percent of aggregate taxable  
 11 bond ETF assets. In addition, about 5 percent of taxable  
 12 bond ETFs closed at a 5 percent plus discount, though those  
 13 ETFs represented only 3 percent of assets.

14 My fellow presenters have rightly pointed out the  
 15 differences in market structure and other factors can  
 16 explain divergences between the market prices quoted for  
 17 ETFs and their underlying net asset value. And as I  
 18 mentioned earlier, the divergences from NAV we saw amid the  
 19 selloff tended to be asset specific and episodic, rather  
 20 than widespread and persistent. Yet the magnitude of these  
 21 discounts to NAV and their prevalence among certain types of  
 22 ETFs was still quite striking. And so this could warrant  
 23 further analysis to fully pinpoint the underlying causes and  
 24 determine what if any steps should be taken in response.

25 The second issue that I wanted to highlight is the

1 classification of exchange-traded managed investments,  
 2 sometimes broadly referred to as exchange-traded products.  
 3 They sometimes are referred to by their acronym ETPs. The  
 4 most popular type of exchange-traded product is the  
 5 exchange-traded fund, which is a version of the traditional  
 6 regulated investment company we are most familiar with. But  
 7 the rubric also covers other types of exchange-traded  
 8 managed investments, including exchange-traded notes,  
 9 inverse to leverage ETFs, as well as grantor trusts  
 10 sometimes employed to implement commodity future-based  
 11 strategies.

12 With these different exchange-traded -- I should  
 13 say, while these different exchange-traded products tend to  
 14 get lumped together and used somewhat interchangeably, there  
 15 are salient differences we believe between them. For  
 16 instance, evidence has shown that exchange-traded notes can  
 17 function quite differently than traditional exchange-traded  
 18 products. they are a type of debt instrument and the  
 19 issuing firm can possess the ability in certain instances to  
 20 suspend issuance with relatively little notice. This can  
 21 harm investors who are unaware of these differences.

22 So, too, exchange-traded products that invest  
 23 primarily in commodity-linked derivative instruments. While  
 24 these products can serve a legitimate purpose under some  
 25 circumstances, they're prone to be misunderstood and

1 misused, as recent, well-chronicled events attest.

2 The question is whether investments would be  
 3 better served by a clearer set of standards and expectations  
 4 as to what they can expect from an ETF as well as other  
 5 types of exchange-traded products. Recently, a coalition of  
 6 ETF sponsors and market exchanges put forth a proposal for  
 7 better delineating between the different types of exchange-  
 8 traded products. We think this represents a step in the  
 9 right direction but prefer an even more tailored approach to  
 10 labeling and classifying exchange-traded products.

11 Whichever proposed framework is adopted, it seems  
 12 worth further examining the issue, one the SEC had  
 13 previously considered as part of its request for comment  
 14 under Rule 6c-11, better known as the ETF Rule. Indeed, in  
 15 the final draft of the rule, which didn't address ETF  
 16 nomenclature, the SEC agreed that the issue warranted  
 17 further consideration, something we'd applaud.

18 So that concludes my prepared remarks. And with  
 19 that I'll go ahead and hand things off to Reggie.

20 MR. BROWNE: Thank you very much. I'm Reggie  
 21 Browne. I am a principle at GTS here in New York. We're  
 22 the largest market maker on the New York Stock Exchange but  
 23 also in ETFs and equities.

24 I will make my remarks brief today but targeted to  
 25 the market-wide events of March. I have been a market

1 participant in ETFs since 1996 in various roles. I have  
2 been an AP, a market maker, a lead market maker. And I also  
3 run the ETF block trading business for institutional clients  
4 and various customer channels trading ETFs.

5 ETFs and its market structure has benefitted from  
6 30 years of empirical analysis. Given the complexity of  
7 exchange-traded products holistically, ETFs would benefit  
8 from refinement of cross-market supervision, with a refined  
9 approach with respect to the use of futures, corporate  
10 equities, equity derivatives, swaps and corporate bonds, in  
11 view of how ETFs are constructed and then deployed by  
12 various market centers.

13 Market center SROs should include retail investors  
14 as direct and indirect exposures to products on their  
15 exchange that maybe include index or mutualized products.  
16 The market shocks from March COVID-19 selloff presented  
17 several opportunities to view ETFs from several lenses.

18 First, ETFs, equity ETFs worked perfectly,  
19 especially around the circuit breaker halts. The transfer  
20 of risk and real time pricing of ETFs provided a valuable  
21 tool for market participants to use as a gauge.

22 Second, the creation and redemption mechanisms  
23 worked largely as designed. What did not work so well as  
24 just the function of market forces, is the launch of new  
25 ETFs over the period of five to six weeks, where new ETFs

1 were halted from coming to the marketplace, given that the  
2 seed capital creation costs became extremely high or  
3 expensive with calculations of LVAR, given the VIX was at  
4 historic levels. Some market participants looked to redeem  
5 small positions and did not hold thinly traded ETFs during  
6 that time period.

7 Fixed income ETFs worked as designed but their  
8 posted NAVs moved too slowly to reflect the actual valuation  
9 of underlying corporate bonds. With historic discounts to  
10 fair value in some fixed income ETFs, transparency is muted,  
11 and investor confidence became an industry focus point for a  
12 period of time.

13 I should note that the fixed income NAVs are much  
14 different than equity ETFs. Where in equity ETFs, there's  
15 real-time pricing, mark to market through a real-time  
16 trading equity basket for the underlying constituent is  
17 trading. Whereas, in a fixed income ETF, you have an  
18 anomaly where they are benchmarked to either the posted bid,  
19 the posted midmarket, or the offer of a subset of index  
20 linked bonds. And there, you have a variation to fair  
21 value.

22 I have some suggestions with respect to fixed  
23 income ETFs. First -- and my remarks are really centered  
24 around creating a better NAV so that investor confidence  
25 remains relatively stable and high during periods of stress.

1 So first, I urge a review of market structure of  
2 corporate bonds to spur innovation on how net asset values  
3 of ETFs, open-ended '40 act mutual funds are calculated. In  
4 order to do this, I think aggregate the dissemination of  
5 posted bids and offers of corporate bonds across fewer  
6 platforms. Second, implement a fixed income securities  
7 information processor or SIP. Third, mandate a firm quote  
8 rule for corporate bonds. And fourth, refine the reporting  
9 times of corporate bond trades.

10 While I don't underappreciate the complexities of  
11 my suggestions, the right mix of technology, sensible  
12 refinement of the rules, pilots to examine changed behavior  
13 to better -- to have a better road to NAV composition would  
14 yield benefits.

15 I do caution some might interpret my views as the  
16 fixed income ETFs are broken or investors aren't  
17 benefitting. It's just that with the indexing of corporate  
18 bonds and the investor response of using fixed-income ETFs,  
19 I think a methodical, measured approach to corporate bond  
20 transparency will yield benefits to all.

21 Thank you. Those are my remarks.

22 MR. LUDT: Great. Thank you, Jeff and Reggie.  
23 And thanks all for the time to present our thoughts and  
24 initial observations.

25 At this time, it would be really helpful to hear

1 from some of you as well. As you can imagine, we're in the  
2 midst of this. It feels like we've certainly seen some  
3 eventful things over the last few weeks, few months. But  
4 still looking at this as an opportunity to learn, an  
5 opportunity to share ideas. We'd love to hear what  
6 observations, what opinions you have around the recent  
7 market events, or any questions that you have as well.

8 MR. BERNARD: So any questions? That was great,  
9 by the way, all three of you. Thank you very much.

10 Michelle, go ahead.

11 MS. McCARTHY BECK: I could use a repeat on Reggie  
12 Browne's suggestions on the corporate bond market. I just  
13 was having a hard time. I was processing slowly, so having  
14 a hard time getting all of those. So if you could just  
15 repeat them, that would be great.

16 MR. BROWNE: Sure, absolutely. Thank you for the  
17 question.

18 So my views are around the corporate bond market  
19 structure and how the asset manager's firm determine their  
20 NAVs around the fixed income ETFs. And so in order to  
21 refine it, I think that you need to bring some technology,  
22 bring some innovation on how best to approach a  
23 reconstruction of the NAVs for fixed-income ETFs. In order  
24 to do that, I believe, you have to aggregate the  
25 dissemination of the posted bids and offers of corporate

1 bonds across fewer platforms. Then, once they're aggregated  
2 and you can create a national best bid, best offer,  
3 implement a fixed-income securities information processor or  
4 SIP to disseminate that information widely, similar to  
5 equities. Then, mandate a firm quote rule for corporate  
6 bonds. Meaning if it's posted, you must trade. And then  
7 refine the reporting time to trades, to move it up so that  
8 it's somewhat of an instantaneous reporting time, similar to  
9 equities.

10 Now, some may say that fixed income is different,  
11 where you have multiple series of fixed income CUSIPs  
12 associated with the issuer. I do agree with that. What I'm  
13 saying is take a logical approach to how best to aggregate  
14 information and disseminate it in the marketplace and, once  
15 it's disseminated, innovation can occur about how NAVs are  
16 constructed. And so it is a representation in realtime of  
17 where the funds are trading, versus its underlying basket.

18 MR. BERNARD: That's a really helpful review of  
19 that, Reggie. I'm curious, as a novice to this particular  
20 space, in contrast to the world you described, what does it  
21 look like today? Is it Wild West, or are pieces of that in  
22 place but it's just not all the pieces?

23 MR. BROWNE: No, I think that there's definitely  
24 been some information to move the dealer platforms forward.  
25 And the community has done a reasonable job. But I think

1 that there's still a road to travel.

2 You know, particularly, if you look at the average  
3 corporate bond ETF, its NAV is constructed at the midpoint  
4 of where bonds are trading. And so you have a premier  
5 discount, it just gives you a lens are the bonds trading on  
6 bid, are they trading on the offer? But not a real price  
7 where it's trading. So you have this variation that an  
8 implicit premium is generally -- fixed income ETFs, it's a  
9 buy, so they're trading at an implicit premium. Whereas,  
10 it's just trading on the offer and it's not really a  
11 premium. So I think investors are not well served by the  
12 information that is being displayed.

13 And as far as refine their own reporting times, I  
14 think that there is a lot of discussion around not reporting  
15 new issues real time. And then there is information in the  
16 marketplace that won't be available to all market  
17 participants. I think that's a rollback in time that is not  
18 suitable for an industry where ETFs are trading in this  
19 marketplace.

20 And then mandating a firm quote rule, where you go  
21 trade a bond, the quotes you see are not firm. You have to,  
22 you know, specify bid wanted or offer wanted. And you have  
23 to -- the nomenclature around that is are you still good, is  
24 there opportunity for negotiation. And I think that if you  
25 remove some of the negotiation out of the process, I think

1 you'll get a better market for retail investors to  
2 participate in directly and indirectly.

3 MR. LUDT: Reggie, can I follow on that for a  
4 second and maybe ask you another question? From your seat  
5 as a market maker, when you consider these enhancements or  
6 this evolution that you're thinking about for the fixed  
7 income market, what would that do for you as a market maker?  
8 How does that make your experience different?

9 There's certainly -- you know, you want to have  
10 the investor and the client lens. How about you from the  
11 market maker perspective?

12 MR. BROWNE: Well, one, I think from a market  
13 making standpoint, I could automate our transfer risk. And  
14 that the discounts or the spreads in underlying bonds  
15 inherently would close or become tighter. And so there will  
16 be more liquidity in the marketplace for direct corporate  
17 bond end users who want to get cap structure exposure. But  
18 for index investors, they would get a better price  
19 inherently, because the hedging component would become  
20 cheaper and easier to hedge.

21 And so without that innovation or technology  
22 deployment in the marketplace, you still have a dealer  
23 platform you have to call and negotiate and find bonds. And  
24 that's just how the market has been in the history of time.  
25 But I think there's enough technology in the marketplace to

1 remove some of the price discovery component that goes on on  
2 a manual basis.

3 MR. BERNARD: So, Jeff, it sounds like -- Dalia,  
4 go ahead.

5 MS. BLASS: Reggie, just two questions. One, I  
6 wanted to make sure I understood the refining of the quoting  
7 time for the corporate bonds. If you could just build that  
8 one a little bit more for me, your last one?

9 But also when I look through the four items that  
10 you list, unless I'm mistaken, I mean, these are not sort of  
11 ETF-specific items. I mean, if I look at these, these would  
12 sort of improve the quoting in the bond markets in general.  
13 So other participants in the marketplace, you know, bond  
14 mutual funds, would also benefit from the items that you've  
15 listed. I just want to confirm that.

16 MR. BROWNE: Thank you, Dalia. Nice to see you  
17 again. It's been a while.

18 So these are not ETF-specific comments. This is  
19 refinement around the market structure for corporate bonds  
20 in general.

21 And then if you look at -- you currently have a  
22 comment period for the valuation of securities by boards.  
23 And so in order to strengthen confidence that the valuation  
24 is relatively accurate and high, I think you need to  
25 implement a way for independent analysis of its fair value

1 of the underlying asset class, and in removing some of the  
2 fair value agents that are in the marketplace currently.

3 And so when I talk about refinement of reporting  
4 times, once a bond trades, once there is a negotiated  
5 transaction, that should go up instantaneously on tape, on  
6 trades, and not at a delay that it currently is. And so  
7 what I am looking to bring is transparency in the  
8 marketplace. And with that transparency, become better  
9 refined around open-ended '40 Act valuation in real time.

10 Now, look, some bonds don't trade. Some bonds  
11 don't trade for days. And so -- but in the segment that  
12 does trade, I think we could get accurate reporting,  
13 accurate fair value instantaneously. And that would, I  
14 think, bring better confidence in the marketplace.

15 And bonds who don't trade whatsoever, if there is  
16 a quoted bid or a quoted offer, capture that. And there  
17 could be some inference about where the marketplace -- where  
18 participants are fair valuing that bond real time. Even if  
19 it has not traded for several weeks. And so if there's a  
20 quoted bid or an offer in a bond on some platform someplace,  
21 that could be captured and disseminated, and the marketplace  
22 can evolve over time.

23 And I underscore that this is -- my suggestions  
24 aren't easy. It takes lots of work, lots of testing, lots  
25 of analysis. But with a slow, methodical approach,

1 particularly with a series of bonds that are published, I  
2 think over time we can make some improvements.

3 MR. BERNARD: So, Jeff, it seems to me that if  
4 that -- if some of these things were to happen, it would  
5 also address some of your questions around better disclosure  
6 and better information for investors.

7 MR. LUDT: Ed, I think I've seen Jeff bouncing in  
8 and out a little bit from this session. Not sure how that's  
9 going. And, Ed, I think you were muted as well, if you were  
10 just saying something.

11 MR. BERNARD: Oh. John, I think you had your hand  
12 up. John Bajkowski.

13 MR. BAJKOWSKI: Yeah, just a quick question. I  
14 guess in the context of we saw some differences as far as  
15 tracking error, or I guess differences between NAV and the  
16 actual trading price. Typically in the ETF world, people  
17 are expecting to buy indexes. I mean they're funds that  
18 track -- closely track a wide variety of indexes. It  
19 appeared on this volatility, did you see tracking errors  
20 increase at all as far as these funds no longer -- a Russell  
21 2000 Index fund, which may be using different methods to  
22 achieve that type of strategy, does it not trade equally?

23 And one investor could not compare one fund to another or  
24 have an expectation of how that fund would compare?

25 MR. LUDT: I can take that one. So, John, what

1 we're talking about as far as discounts between the market  
2 price at a certain point in time versus the NAV, as Reggie  
3 alluded to and certainly what we have seen, that happened  
4 mostly in the fixed income space. So from the equity market  
5 perspective -- really, what Reggie is describing is trying  
6 to take the fixed income market and probably make it feel a  
7 little bit more like equity markets. And so the equity  
8 markets in this environment performed really, really well.  
9 The underlying market structure through all the volatility  
10 trading and market-wide circuit breakers and halts,  
11 everything worked well in how the market performed. And  
12 ETFs in that place also performed well.

13 In the example of where you see a fund NAV and a  
14 market price of an ETF differing, the fund NAV is going to  
15 be processed and priced using a similar methodology to the  
16 index, and so that wouldn't manifest itself in tracking  
17 error. What you would see is different outcomes between  
18 that fund NAV at the end of the day and a market price on an  
19 ETF.

20 MR. BERNARD: Other questions, comments for this  
21 group?

22 MR. PTAK: You know, my only comment is to  
23 apologize, because I got kicked off of Webex I think right  
24 as you were addressing a question to me, Ed. So apologies  
25 if someone had to answer that in my absence. I had to come

1 back in after getting kicked out. So sorry for that.

2 MR. BERNARD: No worries. It was basically an  
3 observation that if some of the things Reggie is describing  
4 to bring things closer together and improve transparency  
5 would probably help address some of the concerns you raised  
6 about clarity and disclosure for investors.

7 MR. PTAK: That's exactly right. Yeah. I mean,  
8 it's partly -- it's a confidence issue, which I think is a  
9 term that Reggie or you, Ryan, had used in your remarks.  
10 That, you know, we don't want to create second and third  
11 order effects where people are coming to question the prices  
12 at which they're transacting, and therefore feel some  
13 hesitancy about, you know, using the investment in the way  
14 that we've become accustomed to them using it. So, yeah, I  
15 think it would certainly help to shore up some of those  
16 issues that we observed.

17 MR. BERNARD: So let me -- we are right on time.  
18 I am going to suggest we transition to money markets. Let  
19 me first thank this group. And, Reggie, I'm not sure if  
20 you're able to stay with us or not. But we are very  
21 grateful for your contribution and we'd love to have you  
22 stay. And if you can't, just want to say thank you now in  
23 case I lose you and don't have the chance.

24 MR. BROWNE: Thank you very much.

25 MR. BERNARD: It was very helpful.

1 And I'm grateful to you all for providing some  
2 recommendations and things for us to think about. I'm  
3 trying to keep up with notes but Christian and Sarah on the  
4 team are also taking notes so that I will have something to  
5 work with to come back to the whole group for some reactions  
6 in the relatively near future.

7 So with that, Neesha, we'll turn to you and the  
8 money fund discussion.  
9 ETFs, money market funds, and operational challenges and  
10 opportunities

11 MS. HATHI: Great, thank you, Ed. And I also want  
12 to thank the commissioners and Dalia and the team for  
13 providing the opportunity to share some perspective on this  
14 important topic, which we started talking about a little bit  
15 during those great presentations this morning.

16 I am not the expert. And so I am lucky that I  
17 have a panel of experts that are actually going to spend  
18 some time sharing some perspective on this, with the goal of  
19 really highlighting, you know, what was different with the  
20 way that the COVID crisis impacted money market funds versus  
21 the financial crisis, reflecting on what worked and what  
22 didn't, as Ed commented before. Some of the changes that  
23 were made after the financial crisis, like the liquidity  
24 buffers, the success of regulatory action in this particular  
25 situation, as well as maybe some of the nuances around

1 retail and institutional differences in behavior and maybe  
2 the speed at which those behaviors happen.

3 And so with that, I'm going to introduce our three  
4 experts, and we're lucky that we have both a practitioner  
5 point of view as well as a research-driven academic point of  
6 view as our panelists.

7 So first, we have Joe Lynagh who is joining us,  
8 who is the head of money market investing at T. Rowe Price,  
9 who will be kicking off our panel. Then we're going to  
10 transition to Jon De St Paer, who is a longtime colleague of  
11 mine at Schwab and is the president of our Charles Schwab  
12 Investment Management business. And then finally, we're  
13 going to turn to our very own AMAC committee member Russ  
14 Wermers, who is going to -- who, as you all know, has done a  
15 lot of research in this area at the University of Maryland.

16 So with that, I am going to hand it over to Joe to  
17 get us started.

18 MR. LYNAGH: Thank you, Neesha. And thank you to  
19 the Commission for the opportunity to speak today.

20 I think, listening to this morning's presentations  
21 in particular, I was struck by two things. One was the  
22 extreme diversity that was talked about within the fixed  
23 income markets, the heterogeneity that exists within the  
24 markets. It's not like the equity markets. We exist, in  
25 fixed income, in a world where there's many, many different

1 markets all coexisting simultaneously.

2 I think the other thing that I was struck by in  
3 listening to presentations and having just lived through it  
4 was the speed with which the events of March really overtook  
5 us.

6 And so I conclude, as I think back over what  
7 transpired in March, was that what impacted money markets in  
8 particular and the markets more broadly was a liquidity  
9 crisis and not so much a credit crisis. That's not to say  
10 credit concerns were building and that, in fact, we may have  
11 serious credit concerns ahead of us in the future as a  
12 result of the crisis. But clearly what happened in March,  
13 and that which necessitated the Fed to step in and take  
14 action was a liquidity crisis.

15 What's significantly different to my mind, having  
16 lived through 2008, was that money funds in this case did  
17 not lie at the epicenter of this crisis. Money funds, if  
18 anything, in my opinion, were sort of swept up in the tidal  
19 wave of liquidity seeking investors as events unfolded in  
20 March.

21 I know when we talk about crises in the financial  
22 markets, everybody loves to trot out money funds. They are  
23 a favorite whipping boy in a lot of circles. But if  
24 anything, with a couple of exceptions that I'll note, I feel  
25 like the money market industry performed very well.

1 Just to sort of draw back for a second and level  
2 set for this group, which I know is a broad group, to talk  
3 about the money fund industry broadly, the industry is about  
4 a \$5 trillion industry. It divides itself broadly into  
5 three investment categories, government and treasury money  
6 funds, which represent just about 75 percent of the total  
7 AUM within the industry; prime funds, which represent just  
8 about 22 percent of the industry; and then municipal funds,  
9 which make up really a pretty small portion of the market,  
10 just about 3 percent of total AUM.

11 The investor base within the money fund industry  
12 is divided into two parts, one being retail investors,  
13 typical investors like you and I, representing just about 30  
14 percent of the ownership of the market. And then  
15 institutional investors, representing about 70 percent of  
16 the industry. Institutional investors, you know, there's a  
17 lot of work that went on to defining institutional  
18 investors. But broadly, you would characterize  
19 institutional investors as a small group of decisionmakers  
20 that in fact influence a large amount of assets, and I think  
21 that's important.

22 Following the financial crisis, as was mentioned,  
23 the SEC implemented two rounds of reforms designed to both  
24 improve the credit quality of money funds and to bolster the  
25 liquidity of money funds. Among the most significant

1 changes impacting money funds was the requirement of so-  
2 called liquidity buffers, both overnight and seven-day  
3 liquidity buffers. Those liquidity buffers total up to  
4 about 30 percent of a fund's active investments that needed  
5 to be available for redemption within seven days.

6 And so if you think about the industry and you  
7 think about the changes that were implemented, you know, I  
8 guess I'm sort of left a little confused as to what  
9 transpired within the industry that required the Fed to step  
10 in. And I keep coming back to this thought that, in fact,  
11 money funds were just swept up in the larger run for  
12 liquidity.

13 We can make a couple of observations as to what  
14 happened in March. Obviously, markets were moving very  
15 fast. We've heard all the data. You saw some charts about  
16 how quickly markets were falling and how various parts of  
17 the fixed income market were moving in March.

18 The prime money markets, as measured by perhaps  
19 LIBOR rates, were incredibly well behaved. In fact, LIBOR  
20 rates, while they were moving, they weren't moving at any  
21 kind of crisis level or indicating any kind of credit risk.  
22 We weren't in the market pointing to specific credit issuers  
23 as being problematic or at risk. And yet we did observe  
24 within the prime institutional space a fairly sizeable  
25 rotation of assets out of prime institutional funds and into

1 mischaracterization in terms of what happened. In fact, I  
2 think what happened with municipal markets was that  
3 municipal bond markets were seeing significant redemptions  
4 as we went through March. As Sean had noted, municipal bond  
5 funds had been the recipients of significant inflows leading  
6 up to the crisis. But as we got into March and markets  
7 began to worry, those same funds in fact saw significant  
8 redemptions.

9 To meet those redemptions, those funds naturally  
10 sold their cash vehicles. Those cash vehicles primarily  
11 being VRDNs. We observed inventories of VRDNs piling up on  
12 dealer balance sheets totaling somewhere around 30 billion.  
13 This is an inventory level that's typically tracking round  
14 one or two billion. And so, in fact, a significant step up  
15 in inventories. Again, those same broker-dealers, bank  
16 intermediaries that the money funds used sort of cushioned  
17 asset flows in between markets. I think it's incorrect to  
18 say that municipal money market funds were losing assets and  
19 selling VRDNs. The data simply doesn't support that. While  
20 those funds did lose some assets, they were not, in fact,  
21 the sellers of most of those assets.

22 Why does that matter? Well, as was noted in the  
23 earlier presentation today, as those inventories built,  
24 SIFMA rates were in fact reset by remarketing agents. These  
25 are prescribed rates, they're not necessarily rates that are

1 government funds. This occurred sometime before the Fed  
2 took action on March 23. By observing the data, we guess  
3 that that rotation of assets was somewhere around 100  
4 billion or so.

5 Those assets are easily rotated by investment  
6 portals on the part of corporate treasurers and other  
7 institutional investors pretty much through the click of a  
8 button through these portals. So you can move quickly from  
9 a prime fund into a government fund, as an investor. The  
10 downside of that move, though, is that that same fund that  
11 you're redeeming from needs to raise that 100 billion or so  
12 of assets. And so typically money funds rely on large banks  
13 and broker-dealers as intermediaries to, you know, be  
14 temporary buyers of that paper as those funds seek  
15 liquidity. That seemed to be problematic for the industry  
16 and seemed to jam things up.

17 The second aspect of the crisis that I thought was  
18 interesting and also served to be problematic for money  
19 funds was what happened in the municipal space. Sean  
20 Collins had this morning, and the gentleman from PIMCO, had  
21 some good charts that talked about what happened with SIFMA  
22 rates. SIFMA is the index that tracks seven-day variable  
23 rate demand notes. These are liquidity instruments common  
24 in the municipal money markets and municipal bond space.

25 I'd like to correct what I think was a

1 determined by market activity. But, in fact, as noted  
2 earlier, SIFMA rates peaked out at about 5.2 percent by late  
3 March. This is on a seven-day quotable municipal  
4 instrument, highly liquid, very high quality, frequently  
5 backed by a bank letter of credit or standby purchase  
6 agreement. So compare a 5.20 yield on a seven-day liquid  
7 instrument to the 10-year municipal AAA rate around that  
8 same time, which was right around a 2.80. So, in fact, a  
9 massive distortion between two markets. You know, an  
10 inventory build on the part of money fund instruments  
11 leading to what I felt was distorted pricing in the VRDN  
12 market.

13 So all of this is happening, you know, again, as  
14 I'll point out, in the context of really no specific credit  
15 risk, simply a demand for liquidity on the part of many  
16 parts of the fixed income market. Markets had really slowed  
17 down in terms of liquidity. Enter the Fed with the  
18 introduction of the MMLF and the PDCF and confidence was  
19 restored. Those combined programs took down some 86 billion  
20 of assets, 50 billion or so in the MMLF and another 30-some  
21 billion in assets through the PDCF. But that seemed to be  
22 sufficient to restore market liquidity.

23 I was struck by Sean Collins's slides earlier  
24 today that talked about the significant difference in scale  
25 between what happened in 2008 and the need and usage of

1 those Fed programs compared to this past crisis, both in  
2 terms of size as well with which -- the speed with which the  
3 Fed rolled out these programs. They were accessed. But in  
4 fact, you now see the market's usage of those programs  
5 really beginning to taper off.

6 And so I will just leave with a couple of  
7 observations that I have that I think, you know, speak  
8 towards what should we be looking at as an industry and try  
9 to solve for to avert the next crisis. I think one is this  
10 question around prime institutional investors. Certainly  
11 not throwing them under the bus, but I think it's important  
12 to understand what was the motivation that caused \$100  
13 billion asset rotation out of an otherwise highly safe, very  
14 high quality, highly liquid investment product at a time  
15 when we weren't really seeing any stresses on those  
16 products? I would suggest that something we might want to  
17 look at going forward is this notion of the 30-day -- 30  
18 percent liquidity basket and whether in fact what we've done  
19 in investors' minds is replace the old notion of "breaking  
20 the buck" with a new tripwire in the market, which is this  
21 30 percent liquidity threshold. That seemed to be an issue  
22 that concerned a lot of investors.

23 It is a little ironic because, if you think about  
24 it, that 30 percent liquidity threshold was created and  
25 sized in response to the 2008 crisis where, in fact, the SEC

1 and the industry did studies to determine rolling 30-day  
2 liquidity requirements which fell short of 30 percent  
3 liquidity. So, in fact, the industry was highly liquid.  
4 Yet, at the same time, investor perceptions seemed not to  
5 believe in that liquidity being available.

6 The second aspect is what went on with municipal  
7 VRDNs and the extreme distressed pricing that took place as  
8 reflected by SIFMA. The impact of that for municipal money  
9 market funds was, as SIFMA reset higher and higher and in  
10 fact repriced the entire municipal money market, and so  
11 fixed rate investments such as commercial paper or short  
12 dated notes bonds quickly found themselves underwater, which  
13 has the effect of pressuring NAVs in money funds. Again, no  
14 credit crisis. And in fact, municipal money funds are  
15 extremely liquid, typically holding about 70 percent of  
16 their assets in seven-day liquidity.

17 And then finally on more of a positive vein, I  
18 guess I would also say that perhaps this Commission should  
19 consider steps it could take to increase the attractiveness  
20 of government and Treasury money funds to investors. These  
21 are funds that already dominate the space, that are highly  
22 liquid by definition. They're 100 percent liquid. They  
23 perform extremely well in a crisis. In fact, they are the  
24 asset that investors seek during a crisis. And I think  
25 perhaps some of the changes that were implemented in 2012

1 and 2016 to restrict money funds overall perhaps should be  
2 reconsidered, at least in the context of these funds, as a  
3 means to further increase the attractiveness of those funds  
4 to investors.

5 I'll stop my comments there and pass it off to Jon  
6 next.

7 MR. DE ST PAER: Thank you, Joe. And thank you to  
8 the Commission for the opportunity to talk today. Being  
9 with Charles Schwab Investment Management and Charles  
10 Schwab, many of our experiences, given our products that --  
11 actually, Joe, what you were describing resonated quite a  
12 lot. We saw a lot of those same activities. At Schwab, we  
13 manage just over \$200 billion of money market funds on  
14 behalf of Schwab's clients. So the vast majority of that is  
15 held by retail investors in government, retail prime and  
16 municipal funds.

17 I want to spend just a couple minutes to talk  
18 about our observations during the COVID-19 liquidity  
19 concerns, how they impacted money funds. And as requested,  
20 give you some thoughts on what worked and what didn't work  
21 as well.

22 In reviewing, in Q1 and then accelerating in  
23 March, worldwide health concerns, uncertainty on the spread  
24 of COVID-19 drove national and local governments to restrict  
25 travel, business activity and prepare health care systems

1 for an outsized shock. Financially, we all know we saw  
2 about a 30 percent drop in the U.S. equity markets between  
3 mid-February and mid-March, major increases in unemployment  
4 and, of course, two unexpected rate cuts, for a total of 150  
5 basis points in about a two-week period.

6 With this as the backdrop, in March, the U.S.  
7 money market fund industry actually saw net inflows of  
8 approximately \$680 billion, and that really was made up of  
9 two very distinct trends. As Joe had talked about, we saw  
10 subscriptions of roughly \$826 billion into government and  
11 Treasury money market funds. This is a 30 percent growth in  
12 those assets where we saw high liquidity, we saw stable  
13 NAVs. In fact, with the rate reductions, we saw a slight  
14 buffer or a premium in net asset values of many of those  
15 funds, and very much provided the kind of liquidity and  
16 provided the exposure clients were looking for.

17 The other side of that was roughly \$145 billion of  
18 redemptions out of prime and municipal money market funds.  
19 As Joe mentioned, the municipal money market funds have a  
20 lesser impact, roughly 6 billion of redemptions, which is  
21 roughly 5 percent of the asset base there. Whereas the  
22 prime funds saw nearly \$140 billion of outflows, making up  
23 almost 18 percent of the assets in that category. And  
24 interestingly of that, over 90 billion of those redemptions  
25 came from some of the institutional prime funds. And

1 approximately 48, 49 billion came out of those retail money  
2 market funds. So in total, we saw roughly 30 percent  
3 redemptions out of institutional prime funds and a roughly  
4 10 percent redemption rate coming out of those retail prime  
5 funds.

6 Notably, one thing Joe talked about before,  
7 those are very different behaviors, and Joe mentioned that,  
8 between retail and institutional investors. And yet what we  
9 found at the end of the day, they were both seeking  
10 liquidity at the same time in the same relatively illiquid  
11 markets. And so there was certainly more impact on some of  
12 these retail funds than maybe some folks might have expected  
13 when we were creating our rules a number of years ago.

14 At the same time, the muni money market funds,  
15 because they had less redemptions, a little bit less concern  
16 on the liquidity there, Joe I think covered the impact of  
17 valuation and the pressure of valuation on some of those  
18 municipal money market fund NAVs quite well. In our  
19 experience, the redemptions really were particularly high in  
20 that two-week period between roughly March 15 or 17 through  
21 probably about March 16, right after that money market  
22 liquidity facility was put in place.

23 Importantly, as has been called out before, we  
24 didn't observe credit deterioration at this time. We really  
25 saw the pressure here being driven by a reduction in trading

1 activity and a reduction of demand that outsized supply in  
2 the market in those redemptions not being matched as well on  
3 the demand side.

4 At the same time these redemptions were occurring,  
5 trade volume diminished, and the spreads widened as well.  
6 We heard Joe talk about that and Sean Collins talked earlier  
7 about the increase in the SIFMA rates at the same time  
8 period. The combination of those two trends did put  
9 substantial pressure on both prime and muni funds' ability  
10 to meet the redemption demands of their shareholders while  
11 also maintaining the 30 percent weekly liquidity and also  
12 maintaining the net asset values.

13 Equally importantly, it put pressure and created  
14 challenges for corporations, municipalities and other  
15 institutions looking to fund their short-term activity.

16 One of the questions we were asked to comment on  
17 is, what worked well during this time frame? And I think  
18 it's important to call out there are a number of things that  
19 worked quite well. Generally speaking, money market funds  
20 even in this time of reduced liquidity had been managing to  
21 high enough levels of liquidity that we were all able to  
22 support the redemptions that were out there, maintain the  
23 required liquidity levels, maintain stable net asset values  
24 and no funds that I'm aware of had to use gates or fees as a  
25 result of this, which of course is an option given what the

1 rule says around that 30 percent threshold.

2 Additionally among the industry, there was  
3 frequent and timely dialogue certainly that we had, and I  
4 imagine others did as well, with our pricing providers, with  
5 industry groups like the ICI and SIFMA, and even with the  
6 regulators like the SEC and with the Fed that really did  
7 prove to be very valuable sources of timely information.  
8 That information sharing to get a sense of what was  
9 happening in the market, what was happening with demand,  
10 what was happening with the development of the Fed's  
11 programs was extremely helpful at the time. And then, of  
12 course, the money market mutual fund liquidity facility,  
13 which came out on the 23rd, proved to be effective in  
14 supporting liquidity and the perception of liquidity for  
15 both prime and muni. Its impact was very helpful in  
16 establishing that stability, despite the fact that, as has  
17 been covered, only about \$50 billion of that program was  
18 actually utilized. So clearly, difference in scope and in  
19 cause, in my mind, from what we saw in 2008 and in 2009,  
20 when we saw a bigger scale of issues and we also saw more of  
21 that credit component than the pressure we saw, where this  
22 was really very much around a shock to supply and demand.

23 We did observe there were several things that  
24 didn't work as well. The uncertainty in the market, married  
25 with those large redemptions and the low level of continued

1 demand amongst dealers did have material impact on the  
2 liquidity for the funds. At the time, corporate and muni  
3 issuers were challenged to find funding. Part of what these  
4 programs were about, as well.

5 And I would echo something that Joe said. The 30  
6 percent weekly liquidity threshold was challenging for some  
7 funds to maintain while meeting the redemptions. And  
8 interestingly, the 30 percent threshold is designed to  
9 ensure that each of us as asset managers have a substantial  
10 amount of liquidity in our funds and we can support those  
11 larger levels of redemptions.

12 Now, interestingly, some clients may have  
13 increased their redemptions as the funds approached that 30  
14 percent level due to concerns about the 30 percent threshold  
15 triggering the potential for gates and fees, triggering  
16 board meetings and additional constraints or actions to be  
17 taken there. The requirement for a fund to connect with its  
18 board and consider gates and fees and look at more extreme  
19 action may have actually resulted in managers taking more  
20 action than they might have otherwise.

21 The institutional VNAV and retail prime money  
22 funds, interestingly, have the same liquidity requirement,  
23 10 percent daily, 30 percent weekly, and the same potential  
24 for gates and fees. And in this environment, they operated  
25 similarly despite the concept of the variable NAV would see

1 more movement, would see more investors who were comfortable  
2 with that movement, we actually saw that increased level of  
3 redemptions and even in some cases managers purchasing  
4 securities out of their portfolios to maintain that 30  
5 percent threshold.

6 In many ways, it does seem like that 30 percent  
7 weekly liquidity threshold may have been perceived as more  
8 of a cliff than the cushion that it was intended to be when  
9 first designed.

10 Those are some of what we observed. Many didn't  
11 work the way we had anticipated when we looked at what was  
12 happening in the industry and what we saw on how existing  
13 regulations impacted the market. Our point of view  
14 continues to be money funds play an important role in the  
15 economy today and they should continue to do so in the  
16 future. They provide retail and institutional investors  
17 with efficient, convenient ways to invest their cash in  
18 diversified portfolios where they can deliver attractive  
19 rates. And they also provide those important funding  
20 sources for businesses, municipalities and other  
21 institutions.

22 Some of the concepts in the prior reform, such as  
23 a focus on credit quality and heightened liquidity levels I  
24 think were beneficial. Most of us in the industry were  
25 managing with very high credit quality, even though that

1 wasn't the pressure, and with very high levels of liquidity.  
2 And we observe the issues we saw in March 2020 were  
3 different in source and in scale to the 2008 and 2009  
4 issues. However, despite the fact there were different  
5 causes that were different in scale, the Fed still felt the  
6 need to step in to stabilize markets, money fund securities  
7 for the second time in 12 years.

8 We recognize and the industry and regulators have  
9 debated, we have sought to address these issues and ensure  
10 very stable markets here for quite a few years. There is no  
11 silver bullet. I don't think there's one recommendation I  
12 could come up with today that hasn't been considered that  
13 would enhance the stability there. But we do believe the  
14 industry and regulators should reassess the regulations  
15 around money market funds to eliminate or at least reduce  
16 the possibility the products would again require government  
17 support in the future, and also to further distinguish them  
18 from some of the deposit products.

19 We looked at a lot of ways to do that. They have  
20 been debated through money market reform in the past.  
21 Whether that includes additional distinction between retail  
22 and institutional investors, greater usage of variable NAVs,  
23 even some of the capital ideas that are out there, there is  
24 no silver bullet. There is no one answer that is going to  
25 get us there. But we as an industry ought to spend time

1 reassessing those regulations and finding out what we can do  
2 to avoid this occurring again.

3 So I'll pause there. Thank you for the  
4 opportunity to share some thoughts with you. And I will  
5 turn it over to Russ next.

6 MR. WERMERS: Thank you, Jon. And thanks to the  
7 Commission for inviting my comments.

8 So I wanted to start with just kind of some  
9 observations about the differences between the two major  
10 money market and mutual fund run events that we've had in  
11 the past 10, 15, 20 years. 2008, of course, and March of  
12 this year. And I say two major, because we have also had  
13 some minor scares, too -- minor scares, too, such as the  
14 Euro Zone crisis, which I've studied.

15 And, you know, to be honest with you, Joe and Jon  
16 got to a lot of this. And I think we're all in agreement  
17 about it. So I hope to provide a bit of extra color. But I  
18 absolutely agree that the 2008 money market fund run crisis  
19 was much more credit driven. What I would call the supply  
20 of money fund shares degraded in quality and the demand for  
21 money fund shares by investors reacted quite vigorously to  
22 that, but in differential ways depending on what the money  
23 fund had in its portfolio and who the investors were. And,  
24 of course, we didn't have Form N-MFP, so investors were left  
25 in the dark about whether their fund owned Lehman paper or

1 owned paper of some other investment bank or bank that they  
2 now felt was maybe under duress from Lehman's failure. Now  
3 we have that, so there have been a lot of changes here that  
4 have happened to 2020.

5 But I think, you know, first, before I talk too  
6 much about that, 2020 seems to me to be -- and I was  
7 motivated by some comments that Sean Collins made. One  
8 comment that Sean Collins made that Joe and Jon have  
9 repeated, which is that with the Fed offering its credit  
10 facility to money market and mutual funds, almost none of  
11 them have taken advantage of this.

12 And then I think Marc Seidner had those concentric  
13 -- I don't know if those are Dante's concentric circles or  
14 what. I thought that was really a nice illustration by Marc  
15 from PIMCO about these liquidity concentric circles. And  
16 during this episode, the whole thing imploded like a black  
17 hole, basically, and everything became the same.

18 So it appears to me that, you know, this is a  
19 strong indication that this is about as close -- this  
20 crisis, and maybe I'll just limit my remarks to money market  
21 and mutual funds, but maybe it replies to other things, too.  
22 This crisis is about as close to a liquidity -- a pure  
23 liquidity crisis as one could imagine. And I think we  
24 shouldn't expect investors to react the same way in the face  
25 of a liquidity crisis, where it's like I don't care if you

1 have 30 percent of your portfolio available in seven days, I  
2 want my money today, I want it today at the close of  
3 business, at the latest. And so I think we need to think  
4 about that.

5 And I think a lot of the rule changes by the SEC  
6 have done a great job in terms of trying to get in front of  
7 some of those problems, like Form N-MFP, floating NAV, a  
8 potential for gating, as well as the separation of  
9 institutional from retail money. But it appears that we  
10 have a ways to go in terms of understanding -- I think Jon  
11 just said that. We need to understand better what the heck  
12 happened here in this liquidity crisis with these things  
13 that are usually considered as almost just like cash. All  
14 of a sudden, they became non-cash like for about a week or  
15 so.

16 But anyway, I think this was purely -- it was  
17 purely a demand-driven thing. So it was as close to a  
18 Diamond-Dybvig bank run as you can get in my opinion in the  
19 real world, or at least that we've gotten so far. Is that  
20 investors would have all been fine. Those -- that  
21 commercial paper is not going to go belly up in the next 90  
22 days. But if you run, it will cause the failure of that  
23 money fund. That's the Diamond-Dybvig story.

24 So I'll talk a little bit about the implications  
25 of that in a minute. I just wanted to bring up some of the

1 findings from my two papers, and I'll be brief here.

2 My first paper was documenting and studying the  
3 2008 money market mutual fund -- the week of the crisis and  
4 the months around that week. And what we found -- this is  
5 an American Economic Review paper published in 2011. What  
6 we found from that was that when retail -- the one good  
7 thing about having retail and institutional in the same  
8 fund, albeit in different share classes, was that retail  
9 investors like me, we're kind of dumb and slow. They didn't  
10 react with panic. As you can imagine, most people don't  
11 check their 401(k) accounts and get panicky and decide I'm  
12 going to get out of money funds. They don't understand it  
13 to that degree, and they aren't that -- of that mindset.

14 So I think the SEC separating things into  
15 institutional only and retail only was a wise move in many  
16 ways. It's there to protect retail investors from the  
17 actions of institutional investors, the smart money, so-  
18 called smart money. And I think that's great. But it has  
19 brought new challenges to pooling together all of these  
20 really, you know, somewhat more sophisticated entities who  
21 are very aware that -- you know, are very aware of each  
22 other's actions. That you're smart, I'm smart, everybody in  
23 this fund is smart. I'm going to try to figure out -- I'm  
24 going to try to get out before you do, to make sure you  
25 don't hurt me with your smartness.

1 So today, I think there are still -- what is the  
2 slow and the fast money in prime or in institutional money  
3 funds in general, prime in specific? We have  
4 municipalities, we have pensions, we have mutual funds that  
5 invest in money market funds, we have target date funds that  
6 invest in money market funds, and those would be considered  
7 institutional. We have corporate treasurers. So we have a  
8 pretty good mix of investors still, even though they're all  
9 considered institutions. And Sean Collins brought up that  
10 some of these omnibus accounts with people like me maybe  
11 going through Ameritrade or E-Trade may also be considered  
12 as institutional types.

13 So I think there's a good reason here to study the  
14 structure of the demand side for money market funds. I  
15 guess I tie this a little bit to the know-your-customer  
16 rules that the SEC imposes through Rule 2a-7. Maybe we need  
17 to do more study of this. Maybe there needs to be more  
18 focus on who your clients are.

19 One other thing that we found in the AER paper was  
20 that if an institution held a large position in a money  
21 market fund, it was less likely to run, which is shocking  
22 maybe to most of you. But if you think about it, that  
23 especially makes sense in this floating NAV world. If  
24 you're holding, let's say, 10 percent of the ownership of a  
25 money market fund, you're a big institution, and you run,

1 you're going to cause the floating NAV to trigger, you know,  
2 to change on your way out. So in some sense, you know,  
3 large investors may actually have run less. It would be  
4 interesting to see. We did find that in the 2008 crisis.  
5 We found that the large investors, the large scale investors  
6 were less likely to run than the small scale institutional  
7 investors.

8 The -- I guess -- okay, the one last thing from my  
9 paper on the Euro Zone crisis that I referred to earlier was  
10 that we found that with Form N-MFP, there was a lot more  
11 information during the Euro Zone crisis of 2011, which more  
12 or less happened the same time as the debt ceiling crisis --  
13 the first debt ceiling crisis. We found that this enhanced  
14 portfolio disclosure given by Form N-MFP seemed to benefit  
15 investors. They seemed to pay attention to what was  
16 actually in the portfolio and took credits into account more  
17 than they did in the 2008 crisis, when there was only  
18 quarterly disclosure. But here, the nuance we found with  
19 this was that with more of this -- more detail, we found  
20 that investors still, during the Euro Zone crisis, focused  
21 their attention on European credits, on European commercial  
22 paper, and they sort of totally disavowed -- totally didn't  
23 pay attention at all to credits in North America and Asia,  
24 which presumably had roughly the same credit risk.

25 So there is something here about the limited

1 attention of investors that I think comes into play here.  
2 Especially in this liquidity crisis, think about the  
3 corporate treasurer or even a mid-size business. Mid-size  
4 business is I'm not sure if we're going to be able to stay  
5 in business; the last thing I want to do is worry about my  
6 cash I'm holding in a money market fund. You know, besides  
7 the fact that they probably needed to pull the cash for  
8 liquidity.

9 So I think there is something to say here about  
10 that in a fast-moving crisis like this, especially a  
11 liquidity crisis, you can expect investors not to be  
12 perfectly rational, to sit down and take their time, because  
13 they've got so many things to worry about. And so, you  
14 know, I think there are some -- and in this rubric it may be  
15 so that reputation matters. Having a money market fund that  
16 is sponsored by a very reputable, large management company  
17 that you've been able to trust for a long time, that may  
18 actually have some -- have some bearing on who did and who  
19 didn't start to run from their money funds.

20 I'll stop there. You know, the only comment I  
21 had, maybe which was a question for Joe is that, Joe, I  
22 think proposed that there needs to be more emphasis on  
23 getting investors comfortable with investing in government  
24 money market funds. And maybe that's true. But it seems to  
25 me that what has happened in government money market funds

1 is the Federal Home Loan Bank has kind of played the  
2 intermediary between corporations and government money  
3 market funds. So I just don't know if that model is the one  
4 we want in the long term.

5 But I'll stop there and hand it back over to  
6 Dalia.

7 MR. BERNARD: Or to Neesha.

8 MS. HATHI: Yes, thank you, Russ.

9 MR. WERMERS: Oh, sorry, Neesha. Neesha, I'm  
10 sorry. Apologies.

11 MS. HATHI: No problem. So I think with that, I  
12 think we have, what is it, five minutes left for questions,  
13 or so?

14 MR. BERNARD: Yeah.

15 MS. HATHI: So I will open it up and see what  
16 questions you have for the panel.

17 MR. DURBIN: Joe, do you want to react to the  
18 question on government?

19 MR. LYNAGH: Yeah, I think it's a good point,  
20 Russ. Obviously, Home Loan Bank has been a big issuer into  
21 the market. At the same time, the U.S. Treasury has been an  
22 even bigger issuer into the market and I think if we sort of  
23 think forward in terms of where issuance patterns will be  
24 coming from as we go forward, certainly increasing the  
25 ability of government funds to take down more U.S. Treasury

1 debt is probably a good thing.

2 I don't know how you scale back control of the  
3 Home Loan Bank in terms of what it does. I will say though,  
4 Home Loan Bank trades with a very similar liquidity profile  
5 to the bill market. So it doesn't really create a lot of  
6 concern on my part.

7 MR. WERMERS: Thank you.

8 MR. BERNARD: Dalia, did you want to say  
9 something? Go ahead.

10 MS. BLASS: Sorry, I was just finding the mute  
11 button.

12 So, Joe, sorry to touch on this one again, but you  
13 said the retail limitations on the government money market  
14 funds because it keeps a lot of investors in this market.  
15 And the public data that Sean showed, the money that flowed  
16 into the government funds was not just from the longer end  
17 of the curve, i.e., like the longer-term bond funds, but  
18 assets moving short term. But there was a lot more coming  
19 into the government funds. So there was a flight to safety  
20 into these funds. I'm just curious what limitations, you  
21 know, should be reconsidered?

22 And then the other point that I would just -- for  
23 both you and Jon, you both mentioned a 30 percent  
24 limitation. But, Jon, you also mentioned that one of the  
25 key differences coming into this crisis was that the funds

1 came in with a much higher liquidity level. Was that by  
2 virtue of the 30 percent?

3 So, you know, we have heard through the weeks  
4 about the 30 percent acting akin to a break the buck. But  
5 sort of is there a pro and a con that should be balanced  
6 out? Thank you.

7 By the way, overall, this was such a fantastic  
8 presentation, I really appreciated the different aspects you  
9 all presented. So thank you.

10 MR. LYNAGH: Sure. Just to address your first  
11 question, my comment would be really, if you think about the  
12 weighted average maturity restraint in particular, that  
13 seems to be the most significant change that was imposed  
14 upon government and Treasury funds, that I think you could  
15 safely roll back to the pre-2008 90-day WAM. All funds  
16 these days have in place multi-dimensional stress tests that  
17 measure the ability of funds to withstand interest rate  
18 shocks, redemption shocks, et cetera. Within the context of  
19 a government fund, which is, by definition, again, 100  
20 percent liquid. I think that's something that's very  
21 manageable.

22 The suggestion around increasing the weighted  
23 average maturity simply permits that fund to invest more of  
24 its assets in longer dated treasuries, increasing the yield,  
25 therefore increasing the attractiveness of that fund

1 relative to a prime fund.  
2 Again, if you think about what happens to these  
3 securities in a crisis, a Treasury bill turns to gold. And  
4 so you don't really have to worry about price shocks. If  
5 anything, you're perhaps thinking not that your NAV is going  
6 down but that your NAV is going up.

7 And I will just comment briefly on your second  
8 question. Yes, clearly, investors were -- I'm sorry --  
9 advisers were influenced by the 30 percent threshold. You  
10 know, we all spent a lot of time thinking and talking about  
11 how will you run funds. And I think the reality of the  
12 post-2016 reforms in terms of liquidity thresholds are that  
13 fund managers all run with something around 35 percent  
14 liquidity as an operating floor against which they want to  
15 run their funds. Because no manager wants to invoke a  
16 series of board procedures, invoke a board call or anything  
17 like that, simply because we have crossed this 30 percent  
18 threshold.

19 Again, though, making the point that, wow, 30  
20 percent, if you went back to 2008, if you had 30 percent of  
21 your fund in liquid assets, you'd be very happy. Yet, in  
22 this new environment, it's a cause for concern on the part  
23 of the managers.

24 I think Jon noted as well that a number of  
25 advisers in fact stepped in and bought assets out of their

1 funds, not due to credit concerns but in fact simply to  
2 bolster that 30 percent liquidity.

3 MR. DE ST PAER: All right, I will keep it short,  
4 Dalia. I'd say, Joe, the way you've answered it is very  
5 consistent with the way I think about it.

6 The requirement to maintain higher liquidity in  
7 the portfolio, I think, has broadly been beneficial. The 30  
8 percent limit -- and I actually think the behavior would be  
9 the same if it were a 20 percent limit or a 40 percent  
10 limit. Having a limit that says, beyond this threshold, you  
11 need to have a board meeting, you can have the potential for  
12 gates and fees, just that hard limit creates a bit of  
13 behavior. So we as managers -- Joe mentioned it -- our  
14 conversation internally is, how much additional liquidity do  
15 we manage on top of that 30 percent to make sure that we are  
16 managing north and we can handle any kind of redemptions,  
17 any kind of pressure that we would anticipate without  
18 triggering that 30 percent, the complexities that come with  
19 it but, from a client perception and from a board of  
20 trustees perspective. So when I mentioned the additional  
21 liquidity that we have in the portfolio served us well, it  
22 was because we were well north of that 30 percent. But that  
23 30 percent is -- I mentioned it and Joe said as well, I  
24 think, really did almost feel like it served as a tripwire  
25 for some of those institutions looking at this and saying,

1 I'm holding this fund and they hit 30 percent. They might  
2 have to take us to more extreme steps. They're going to  
3 have to do reporting, go to boards, consider gates and fees,  
4 do other things, so I probably want to get out before this  
5 threshold.

6 And again, that would have been the same, whether  
7 it was 10 percent, 30 percent, 60 percent. That behavior  
8 and that black-and-white answer of, if you're above 30,  
9 you're good; if you're below 30, you're going to have to  
10 take some of these steps, I think really drove that.

11 MR. LYNAGH: I'll just conclude and say, you know,  
12 I think we've highlighted again, and not to throw them under  
13 the bus, prime institutional investors can cause market  
14 disruptions. At the same time, they provide a significant  
15 source of funding into the markets. And so how can we  
16 better manage that group of investors?

17 You know, one thing I've been thinking about  
18 lately is we can let those investors choose what kind of  
19 fund they want to be in. It can still be the classic money  
20 market fund but how do you create friction in the system  
21 that slows their redemptions down? Maybe it's as simple as  
22 tying their redemption, in fact, to the weighted average  
23 maturity of the fund they invest in. And so if they invest  
24 in a fund that has a two-day WAM, they can get their money  
25 back in two days. If they are in a 28-day WAM fund, they

1 can get their money back in 28 days.

2 You know, you think about something like that.  
3 But that forces the investor to choose the type of liquidity  
4 they want for that portion of their cash. We know they can  
5 get their government or Treasury money fund cash back same  
6 day. But they can create distortions that we do not see in  
7 the retail money markets simply through the action of a  
8 small group of decisionmakers that control a large amount of  
9 assets.

10 So I think there are some probably creative and  
11 fairly simplistic notions we could put in play.

12 MR. BERNARD: I'm afraid I'm going to once again  
13 need to call time. But I think it's a fascinating and very  
14 helpful discussion. And, if I may, as much as none of us  
15 would like to have two events like '08, '09 and what we're  
16 going through now 12 years apart, it's actually a remarkable  
17 lab for us to see what was done in '08, '09, see the impacts  
18 of it. In effect, I would say it was the classic, a lot of  
19 good happened coming out of those regulations. The 30  
20 percent tripwire strikes me as an unintended consequence.

21 And I think the discussion we've just had is a  
22 great example of, okay, let's look at what we learned from  
23 that and see what can we tweak for the next time around. So  
24 that's exactly what we're looking for today. So thank you  
25 all for that input.

1 And with that, Mike, just to let you know, we  
2 built a little buffer in that 3:00 to 3:15 break. So you  
3 still get your 40 minutes if you want them.

4 But we're going to switch now to the final group,  
5 to talk about operational challenges and opportunities  
6 created by this. And so, Mike, I'll turn it over to you.

7 MR. DURBIN: Sure. Thank you, Ed. And I'll add  
8 my thanks to all the prior speakers for the chance to  
9 address this group.

10 I am sensitive to the time slot. Can't help but  
11 feel like I'm hosting the Late, Late, Late Show on a major  
12 network TV channel. So we'll do our best to move through on  
13 some pace here.

14 I'm delighted to be joined by Neesha again, or  
15 still, on this panel. Neesha is not off the hook yet. As  
16 well as Joe Savage from FINRA.

17 Before I dive in with just some overarching  
18 context for the operational issue topic, just two caveats.  
19 One is, if you just sort of read the title, "Operational  
20 Issues During the Crisis," that is a vast scope. That's a  
21 vast topic. We'd need three days just on this topic. So we  
22 are going to do our best to quickly dis-aggregate that scope  
23 a bit into a couple of subtopics that hopefully are a little  
24 more descriptive and a little bit more digestible bits  
25 around this issue.

1 Second caveat, and Ed alluded to it in the tee up  
2 to this afternoon block, it's still very fluid. So we by no  
3 means are experts. I don't think Joe, Neesha nor I are  
4 going to position ourselves as experts having all the  
5 answers. The definitive view is still quite fluid, but we  
6 want to dig into a couple of subtopics in some depth.

7 Before we go to the subtopics, again, context. We  
8 all know the rapid impact of the pandemic, that created a  
9 really diverse set of challenges at levels of government,  
10 business and citizens, our end consumers, all  
11 simultaneously. As we all know from a business perspective,  
12 big structural change does not typically happen quickly.  
13 However, the arrival of the pandemic demanded just that,  
14 quick, you know, and hopefully thoughtful action.

15 At Fidelity, just one industry provider, to  
16 protect the health and safety of our associates, and  
17 continue to be a source of reliable sort of partnership or  
18 stability to our customers, we transitioned to remote work  
19 almost overnight. But beyond demands of remote work, home  
20 schooling, onscreen meetings, we've all had to contemplate  
21 unprecedented questions about really just the day-to-day  
22 conduct of our respective businesses. And that includes  
23 questions about complying with the regulatory rules of the  
24 road, which were neither conceived nor adopted certainly  
25 with a global pandemic condition in mind.

1 So as a couple of examples, and again, by examples  
2 only, with respect to some of these operational issues,  
3 we've been asking ourselves can supervisors safely enter, in  
4 this case, a Fidelity branch to perform a required physical  
5 inspection? How can we facilitate the testing and  
6 registration of new-to-industry registered representatives  
7 when physical testing centers are closed? And will we be  
8 able to deliver paper documents to investors on time when  
9 print vendors are facing service disruptions and delays?  
10 And should the SEC and FINRA rules be modernized so that  
11 paper is no longer the default delivery option in the first  
12 place? And similarly, how can we embrace the rapidly  
13 expanding set of digital tools for authentication and client  
14 -- authentication again is a use case -- tools around  
15 e-signature, e-notary and sort of, you know, all the related  
16 capabilities with respect to e-authorization.

17 There are, again, by example, multiple brokerage  
18 forms required by the SEC, FINRA and states, including those  
19 for IRA purposes, that require notarization. And there are  
20 several key states that do not yet allow for sort of remote  
21 notarization.

22 Now, it should be recognized by all of us, and I  
23 think is through the various comments throughout the day,  
24 that regulators reacted to this crisis with the same energy  
25 and attention as the business community that we've partnered

1 with. Regulators have provided guidance, answered a wide  
2 variety of questions, issued various forms of specific  
3 temporary relief. So their work really deserves, you know,  
4 our unabashed appreciation.

5 I would say, for this, today's AMAC meeting and  
6 this discussion, I personally think it would be valuable to  
7 advance with maybe two goals in mind, if I could be so bold  
8 to submit. First, maybe identify and discuss any remaining  
9 short-term pain points that we as an industry -- and it's a  
10 vast industry -- have so that, you know, we can really  
11 continue to get maximum but still productive relief to  
12 achieve our goals here? And second, as an SEC advisory  
13 committee, I do hope that today's discussion is just a  
14 starting point, because it's certainly not an end point, of  
15 a process that results in the creation of, you know,  
16 recommended and hopefully more permanent solutions for the  
17 most complex regulatory issues that we do want to discuss  
18 today, including these examples like e-delivery and e-  
19 authorization.

20 With that, before we dive into the sort of two  
21 bigger sub-segments of operational issues, I do want to  
22 transition to Joe Savage, again, joining us on the panel  
23 from FINRA, so that he can share how FINRA, one of our very  
24 key stakeholder principal regulators, has responded to the  
25 pandemic challenges. So, Joe, take it away.

1 MR. SAVAGE: Thanks, Mike. Before I begin, I just  
2 wanted to say that one of the great things about speaking to  
3 folks via Webex or Zoom from home is that when your turn  
4 comes to speak, that's exactly when your neighbor decides to  
5 mow his lawn. So if you're hearing that in the background,  
6 it's time for that.

7 So anyway, I just wanted to go over quickly some  
8 of the things FINRA has done in the last couple of months in  
9 response to the coronavirus disease. And, you know, as Mike  
10 said, everybody is working from home now. You know, the  
11 main thing that's of utmost importance, both at FINRA and in  
12 the industry, is the safety and health of their employees.  
13 So we totally get why folks need to work remotely, work from  
14 home, work from alternative locations. And so we've tried  
15 to accommodate our, you know, our regulatory mission  
16 consistent with those concerns.

17 In early March, we issued Regulatory Notice 2008,  
18 which has to do with business continuity planning. The  
19 notice provides a lot of guidance that's focused on remote  
20 operations and issues that can come up because everyone is  
21 working from home or from an alternative location. And also  
22 provides a little bit of relief, temporary relief, from some  
23 of our rules.

24 The other thing I wanted to talk about is our  
25 frequently asked questions that we've been issuing on a

1 rolling basis since March, which gets into other types of  
2 temporary relief.

3 So Notice 2008 started by talking about BCPs, that  
4 firms should have BCPs that consider pandemic preparedness.  
5 We actually issued a notice some years ago on precisely this  
6 topic that encourages firms to talk to their risk monitoring  
7 analyst, which is their main contact at FINRA, to talk about  
8 the activation and implementation of their BCPs. We do  
9 expect firms that are going to use remote locations to, you  
10 know, modify their supervisory systems so that they have a  
11 reasonable basis for supervising work that's being conducted  
12 from remote locations. And ideally, firms will document  
13 these changes to their policies.

14 It does get into a little bit with some tips about  
15 cybersecurity. Obviously, when we're all working from home,  
16 there's risks that can come up that don't exist when you're  
17 working from an office building where things are more  
18 secure. Like even if you're using a virtual private  
19 network, there's all kinds of things that can come up. So  
20 those are important to think about.

21 In terms of temporary relief, it's in the notice.  
22 One of the things we say there is we've suspended the  
23 requirement to maintain updated Form U-4 information  
24 regarding the office address of relocated registered  
25 persons. And firms aren't required to submit branch office

1 applications for newly opened temporary offices or space  
2 sharing arrangements.

3 We do say if you do relocate to a temporary  
4 location -- and by that, I mean actually a temporary office  
5 building rather than working from home -- we do ask that the  
6 firm notify FINRA or use its best efforts to notify their  
7 RMA of the new address, the firms that are involved at this  
8 new office and the names of the persons working there.

9 And then lastly, there are just some tips about  
10 communicating both with customers and FINRA when you're  
11 working from home.

12 And also I wanted to talk about our FAQs. And I  
13 will go through them fairly quickly. On advertising  
14 regulation, we gave some guidance about meetings that occur  
15 through video platforms like Webex or Zoom. You know, one  
16 of the things we say is you're not required to record those  
17 meetings. If you do use written communications such as  
18 slides or text messaging, that kind of thing, I think, you  
19 know, the SEC recordkeeping rules do kick in in those  
20 situations, so you need a way to keep track of those. We  
21 also remind firms that if you're sending out communications  
22 that are nonpromotional in nature, such as communications  
23 about changes that have been made due to the COVID-19  
24 pandemic, those are not communications that have to be filed  
25 with FINRA. So we don't want firms to be worried about

1 that.

2 We gave -- we extended a bunch of deadlines. for  
3 example, due dates for assessments on anti-money laundering  
4 testing were extended. We gave some guidance on net capital  
5 issues that come up, if firms are going to take those loans  
6 that came out of the Cares Act and how to account for those.  
7 We said basically that if you're going to use remote offices  
8 or telework arrangements, that's certainly fine. And again,  
9 as long as firms establish and document reasonable  
10 supervisory procedures for these arrangements.

11 We encourage firms to talk to their RMA if they're  
12 having trouble responding to inquiries or investigations.  
13 You know, some of our firms, people have gotten sick because  
14 of the coronavirus disease. I think in a few situations,  
15 sadly, I think we've even had firms where major persons have  
16 actually passed away. And certainly, we understand those  
17 situations. We want to do our best to work with our firms,  
18 you know, to deal with those kinds of tragedies.

19 We've given extensions on filing annual and FOCUS  
20 reports. We've given exemptive relief from fingerprinting  
21 requirements or submitting fingerprint information.

22 The other thing Mike mentioned is that there's  
23 problems with qualification exams because the Prometric  
24 offices, which is what we use to give our qualification  
25 exams, a lot of them have been closed in a number of states.

1 So we've given extensions for the time period by which a new  
2 employee has to pass the qualification exam to keep working.

3 We do understand some of those Prometric offices  
4 are starting to reopen and we've also a little bit tried  
5 online exams. All that's kind of a plus and minus.

6 And then we talked about forwarding branch office  
7 mail to a residence. Again, that's fine as long as firms  
8 are supervising that.

9 In terms of our exams, you know, we've been doing  
10 remote exams well before the COVID-19 crisis. We tried in  
11 recent years to do less onsite and more offsite. So we've  
12 been going to full offsite since this has happened. In  
13 March, we took a two-week hiatus basically, where we didn't  
14 issue any new exam requests or any requests to reexamine  
15 firms. We've tried to be accommodating when firms need more  
16 time to respond to requests. And generally, I think,  
17 overall, things have been going well. Firms have been  
18 receptive to what we've been doing and generally I think it  
19 has worked well both for our staff and for our firms.

20 So with that, Mike, I'll turn it back to you.

21 MR. DURBIN: (Interruption to audio) crisis, you  
22 and your FINRA colleagues. It's made a big difference.

23 So I'm going to start with the kicking off a  
24 deeper dive discussion on two of the subtopics that we want  
25 to talk about here as a panel. The first, which I'll kick

1 off, and then again be joined by Joe and Neesha along the  
2 way, will be around e-delivery and e-authorization.

3 So it's pretty clear to this group, I know,  
4 digital tools have become deeply embedded in our everyday  
5 life. I'm not so young that I don't recall when my family  
6 headed out on summer road trips, we ordered that fabled AAA  
7 TripTik, you know, so we had in hard copy form precisely how  
8 to get to our destination. But, of course, today, a digital  
9 app will not only give us directions directly to our  
10 smartphone but in fact guide us around traffic, around the  
11 occasional state trooper, et cetera. Those of us who  
12 choose, you know, to use digital tools and technology are  
13 acutely aware of those benefits. So it's through that lens  
14 of modernization and technological change that we'd like to  
15 approach our discussion of electronic delivery and  
16 authorization.

17 There is little doubt that mailed paper delivery  
18 of regulatory documents is less efficient and less reliable  
19 than direct electronic delivery, and this period has sort of  
20 exposed that. As we consider the policy considerations  
21 related to the pandemic, we think it's reasonable to  
22 encourage the SEC to transition towards electronic delivery  
23 as the default method for delivering a broader set of  
24 documents, including statements, confirmations,  
25 prospectuses, et cetera.

1 The harder question for our collective  
2 consideration and discussion is how the SEC proceed in order  
3 to ensure that investors remain properly and fully informed.  
4 Fidelity again, as one industry participant, is confident  
5 that the SEC can modernize its regulations without  
6 sacrificing investor protection or ignoring investor  
7 preferences. After all, some people may still wanted  
8 printed driving directions and, in fact, still want paper  
9 confirms. And we should continue to certainly accommodate  
10 that.

11 We think as a first step to making electronic  
12 delivery the default method, the SEC could consider  
13 amendments to its e-delivery guidance and specific rules to  
14 permit a firm to send regulatory -- required regulatory docs  
15 to customers by email. And if a customer wants to opt back  
16 into paper, they should be able to exercise that option very  
17 easily.

18 On e-authentication, again, a bit of a repeat from  
19 my opening salvo again, by example, using sort of e-notary,  
20 the current state-based rules for notarization have proven  
21 difficult in the pandemic period. While the vast majority  
22 of states have moved quickly to embrace the digital  
23 capabilities of e-notary providers, a few key states remain  
24 largely still sort of offline. And so, you know, again, as  
25 Ed noted teeing up this afternoon's session, it is far too

1 early and fluid for formal recommendation.

2 If I could submit a humble informal  
3 recommendation, it's that at least this group or other  
4 venues keep this kind of topic sort of alive and the  
5 discussion alive, and explicitly engage the clear expertise  
6 of the SEC and other interested parties to create a more  
7 formal recommended solution to modernize the SEC regulations  
8 and interpretations to facilitate this electronic delivery  
9 and more ubiquitous use of these growing e-authorization  
10 tools and processes.

11 So with that, I'm going to take a breath. And  
12 before we shift subtopics, invite either Neesha or Joe to  
13 chime in on e-notary and these related sorts of e-items.

14 MS. HATHI: Great. Thanks, Mike.

15 I will just share a little bit more of a context  
16 just from a Schwab perspective, which I think is very  
17 consistent with what Mike shared basically at Fidelity. And  
18 I would start with just client preference around digital  
19 delivery.

20 So today, if you look at our -- let's just take  
21 our retail business as an example. Over 85 percent of our  
22 retail accounts that are opened are opened online. And 95  
23 percent of those accounts choose paperless. That means that  
24 -- you know, and we continue to see that trend increase. So  
25 we continue to see more and more investors appreciate the

1 benefits of digital.  
 2 And what we saw with this COVID crisis is that  
 3 that small population that Mike alluded to that actually  
 4 does prefer paper, we started to see an acceleration of the  
 5 shrinkage of that population as well, as more and more  
 6 investors started to prefer a contactless or were not in the  
 7 -- staying in the residence which was their primary when  
 8 they created their brokerage accounts. So they started to  
 9 prefer digital.

10 On top of that, we recently saw the disruption  
 11 with the USPS and international delivery, where we had  
 12 investors who were living abroad who were unable to receive  
 13 their documentation by mail, their traditional channel, and  
 14 we had to guide them to electronic delivery. And so this  
 15 trend that we already saw with client preference was just  
 16 kind of exacerbated during this period of time, as we saw  
 17 investors change, but also the immediacy and the  
 18 dependability and resilience of digital delivery.

19 So another example that was alluded to earlier is  
 20 just the disruption that some of the print vendors in our  
 21 industry experienced when -- during those first weeks of the  
 22 shelter, where there were not individuals to actually  
 23 process maybe the prospectuses or regulatory documents that  
 24 needed to be delivered to clients, and so the investors that  
 25 were able to receive those documents electronically were

1 able to receive them in a timely manner. So it's a  
 2 preference we continue to see, and we think that there's an  
 3 opportunity here to modernize. And it would be very  
 4 consistent with the trend that we're seeing with client  
 5 preference.

6 I also think that in order to ensure investor  
 7 protection, there are mechanisms that many firms like we  
 8 have put into place to ensure that investors are getting  
 9 timely information. Those include, you know, email  
 10 verification upon enrollment to make sure that an investor  
 11 can indeed receive communication at the email address that  
 12 they enroll. Options and rules around email bounce back.  
 13 So when an investor has an incident with their email account  
 14 and they decide to move to a different provider, there are  
 15 rules and best practices that are put in place that result  
 16 in that investor receiving electronic communication and if  
 17 we can't get to that investor electronically, we can get to  
 18 them by paper and devolve them back to paper. So there are  
 19 controls and protections that can be put into place that I  
 20 think ensure we can protect investors and get them the  
 21 information that they need while modernizing and moving  
 22 towards this digital experience which they're seeing in so  
 23 many other aspects of their lives.

24 The last thing I would say is there is clearly  
 25 also an environmental benefit as we think about moving to

1 digital. And just to give you just an example, we pulled  
 2 the data for the number of pages that Schwab mails per month  
 3 is 10 million pages. So depending on which set you decide  
 4 to use, that's equivalent to about 1,500 to 2,500 trees  
 5 every month and we are one industry firm. So it's a pretty  
 6 significant amount of paper. And again, I share with you,  
 7 we have a very high percentage of clients who enroll in  
 8 digital. So it's a significant amount of paper that's  
 9 created by our industry and we think that there's an  
 10 opportunity to continue to make progress in modernizing.

11 So maybe I will transition us, Mike, if that's  
 12 okay, to the second area that we have talked about as an  
 13 opportunity. And here I would reinforce the words around  
 14 the actions that we saw the SEC and FINRA take with regard  
 15 to temporary relief, which we all very much appreciated,  
 16 with regards to helping our employees work from home when  
 17 this disruption first hit, and extending that as we are all  
 18 adjusting to this new environment.

19 So today, we have over 95 percent of our employees  
 20 are working from home. And we're happy to say that things  
 21 are going smoothly in their new environments. We're able to  
 22 serve our clients, even as we see record engagement and  
 23 record volumes month after month at this point.

24 As Joe highlighted, there are -- these reliefs  
 25 have been temporary and there are a number of accommodations

1 that have been created. And we think that there is an  
 2 opportunity to think about how might there be an opportunity  
 3 to extend these temporary reliefs into something more  
 4 permanent. I think there are a couple of benefits that we  
 5 see here. Well, first of all, there's a method that we  
 6 could think about which is, you know, creating a new  
 7 category that's not an OSJ or not OSJ but a resident  
 8 classification that would allow an employee to work from  
 9 their residence, their primary residence. And it would  
 10 enable the industry to continue to serve investors during  
 11 disruptive periods like this.

12 Hopefully, we don't see another global pandemic  
 13 anytime soon. But it really creates an opportunity for us  
 14 to be a more resilient industry.

15 On top of that, we think that there is an  
 16 ancillary benefit around talent and our ability to continue  
 17 to attract diverse groups of talent who actually may be  
 18 better served working out of their residences, whether  
 19 that's increasing gender diversity or accessing the talent  
 20 pool around disabled employees who are potentially unable to  
 21 work in an office, in a traditional office environment. So  
 22 we think that there's an opportunity to take the temporary  
 23 relief that has been created and potentially extend that and  
 24 make our industry more attractive and more resilient in the  
 25 long run.

1 Mike, I am going to stop there and turn it back to  
 2 you.

3 MR. DURBIN: Joe, anything you want to add here on  
 4 either topic?

5 MR. SAVAGE: Well, I mean, I will say on the idea  
 6 of creating a new topic, a new category of home work, we've  
 7 heard that before. I mean, what Neesha has said is  
 8 something a lot of others in the industry have said as well  
 9 and, you know, so we do hear that. I don't have anything to  
 10 report or predict on that. But I just want folks to know  
 11 that we are hearing that and that's something we're thinking  
 12 about.

13 You know, the other thing, I guess, I just want to  
 14 talk about is sort of offsite versus onsite exams again. As  
 15 I said before, FINRA has been doing more and more  
 16 examinations offsite through emails or through requests,  
 17 rather than coming onsite. And so really, we are trying to  
 18 think about sort of a data-driven approach, you know, what  
 19 works best offsite, you know, why would we still want to  
 20 come onsite.

21 I mean, what I've heard in terms of -- there are  
 22 some advantages for onsite exams. Obviously, we're not  
 23 doing any these days during the pandemic. Sometimes, you  
 24 can just, through the power of observation, learn things  
 25 that you would never learn through, you know, requests by

1 email or other sort of offsite type of requests. Sometimes  
 2 firms, you know, are easier to interact with and, you know,  
 3 things run more smoothly when you're sitting across the  
 4 table from them, versus, you know, exchanging emails or text  
 5 messages. And, of course, there are always that small  
 6 minority of high-risk firms that you really do want to be  
 7 onsite because, you know, things can happen.

8 But generally, I think we've been very open to  
 9 offsite supervision, to offsite exams. And, you know, I  
 10 think we'll continue to be so.

11 MR. DURBIN: Thank you both very much. Ed and  
 12 others, just sensitive to time, we've covered the bulk of  
 13 the topics. Don't know if you want to open up to any other  
 14 -- any questions or discussion on these subtopics or the  
 15 vast scope of auditing.

16 MR. BERNARD: I certainly think we can go a few  
 17 minutes past 3:00, because we've got 15 minutes here for a  
 18 break and we're actually getting into the home stretch here.

19 So anyone who has questions or comments, please  
 20 chime in. Whoops, and I'll mute to stop the phone.

21 Erik.

22 MR. SIRRI: Yeah, I have a question and the topic  
 23 didn't come up, and that's the robustness of the work-from-  
 24 home arrangements. The fund company on whose board I sit, I  
 25 think things work fine. But in talking to management, one

1 of the things they mention is, well, we had a windstorm up  
 2 in Boston. The windstorm brought down trees and we lost a  
 3 little bit of power around the edges. Nothing serious  
 4 happened.

5 But had it been stronger, had things been a little  
 6 rougher, didn't need to be a hurricane, some key personnel  
 7 would have been isolated information wise. I wonder if  
 8 folks have given thought to that if that was accommodated?  
 9 People are working on that problem, or it's just one step  
 10 too far? You can't plan for a pandemic and a hurricane?

11 MR. DURBIN: It's a good question, Erik. If I  
 12 have proper context of the question, just by specific  
 13 example, it wasn't a windstorm, but Fidelity has significant  
 14 presence in Salt Lake City. And in the early days of the  
 15 pandemic, some of you may know, there was an earthquake  
 16 there.

17 And so our concern in the work-from-home format is  
 18 loss of power. You know, whether that's fiber cut, natural  
 19 disaster, et cetera. So our firm is going through a fairly  
 20 methodical planning of employee recall, separate and  
 21 distinct from employee reentry. The distinction is, recall  
 22 is, hey, Erik, we need you to come back because you've lost  
 23 power, we've lost continuity, et cetera. Reentry is the  
 24 more plan for methodical how do we want to bring certain  
 25 roles back in sort of a measured pace. But we are

1 explicitly quite focused on both recall and reentry to  
 2 ensure, you know, consistent platform resilience and  
 3 availability of key roles to make these donuts every day.

4 You know, in each of these roles, the chain needs  
 5 to be maintained through workflow, et cetera. So we are  
 6 quite focused on both.

7 MR. BERNARD: Yeah, Dalia.

8 MS. BLASS: This is a really great presentation.  
 9 Thank you. And, Neesha, the numbers that you shared were  
 10 really interesting. I'm curious if there is a way of sort  
 11 of seeing how these numbers play out industrywide, so we get  
 12 a more global view of where it is today.

13 One of the things that I would -- and this is off  
 14 of Erik's question, sort of tacking on that one, as well.  
 15 As you look sort of into the future, and Neesha used the  
 16 word resiliency. So as we move forward in the near term and  
 17 perhaps not so near term, looking at, you know, continued  
 18 sort of at least some people staying at home instead of, you  
 19 know, coming back inside an office building, are there  
 20 functions where sort of we've observed any latency from  
 21 having them be, you know, dispersed remote functions? Or  
 22 are there functions that we should be bringing back to the  
 23 office once that starts rolling? Or even if there are some  
 24 latencies, some delays, some frictions, if you will, in some  
 25 functions? I'm thinking in particular trading desks, for

1 example. That this is just a -- we've never had this  
2 happen; we are learning how to make it work. And we should  
3 not say, ipso facto, no, they should come back into one zone  
4 and should further experiment.

5 Any thoughts around -- aside from like the  
6 powering of -- when you're dispersed, you know, buildings  
7 have generators, they can continue functioning. Not all our  
8 homes have generators. So aside from things like that, that  
9 increase the risk.

10 Somebody mentioned cyber, another risk that's sort  
11 of perhaps increased with dispersed remote locations. But  
12 I'm looking more at particular functions and whether there  
13 are certain functions that we should not be thinking of as  
14 a, you know, permanent, long-term stay-at-home function.

15 MS. HATHI: I can start on that. And I think  
16 there's probably two categories. One category is more on  
17 the environmental kind of modifications and refinements that  
18 we've seen happen.

19 So Mike alluded to the earthquake. One of the  
20 other challenges we saw in the early days was just  
21 bandwidth, that the ISPs were running out of bandwidth in  
22 some geographies of the country. But over time -- because  
23 we have all kinds of industries now using Zoom and Webex all  
24 at the same time.

25 Over time, what we've seen is that's gotten

1 better. So I do think that some of the latency and some of  
2 those kind of -- the friction during those early days has  
3 actually gotten better. And actually us all operating in  
4 this environment has helped us figure out what those choke  
5 points were and actually made some improvements in them.

6 I think when it comes to kind of a productivity  
7 and efficiency and latency within the firm, which is a  
8 second category, I would say, I think for the most part what  
9 we have experienced and the first time, right, having all of  
10 our, for example, contact center folks all be working  
11 remotely, is that it has worked well, much better than what  
12 we might have anticipated. But it has taken a lot of  
13 investment in things like wireless Aruba devices and making  
14 sure that they have, you know, good connectivity, doing  
15 things like shipping additional monitors and equipment to  
16 employees to ensure that they have the equipment they need  
17 to be able to do their work from their residence.

18 But it hasn't -- as I said, it's been kind of more  
19 refinements as we've gone. And if we didn't -- hadn't had  
20 this extended period of time, I don't know if we would have  
21 known which refinements to make. So in some ways, I think  
22 of it as a really, you know, great lab -- I think that's a  
23 word that was used earlier -- to figure out what are the  
24 challenges that we see as we kind of think about this  
25 environment going forward.

1 I don't think that there are -- you know, if I  
2 think about whether it's our contact centers or functions  
3 that are not already on -- so, as I mentioned, 95 percent of  
4 our employees are working remotely, 5 percent are working  
5 onsite. I don't think that any of those 95 percent we look  
6 at right now and say, we are anxious to get them back onsite  
7 because they are not, you know, as efficient or we're seeing  
8 latency or loss of productivity, anything significant like  
9 that.

10 MR. DURBIN: The only thing I'd add to that,  
11 Neesha, Dalia, it's a great question. I agree with  
12 absolutely everything Neesha just said.

13 But to your specific point, Dalia, the question,  
14 two role types maybe to think in mind, you hit one, which is  
15 trading. Which is, the reality is it's working quite well  
16 right now. But for that eventual gradual return, we're  
17 planning to not just bring traders alone. You've got to  
18 bring those critical adjacent roles. The technology person  
19 on the desk, the operations associate, the compliance lead.  
20 So we're creating the role clusters that, as we come back,  
21 they all should come back.

22 The other thing I'd say, the other role type, is  
23 really the service population we have against our  
24 intermediary business, where we serve RIAs, independent  
25 broker-dealers, et cetera. Again, in the early days of the

1 crisis, what we watched when everyone worked from home  
2 overnight, we watched the service levels stay high but the  
3 way we measure productivity dropping. And the way to solve  
4 that formula means everyone is just working longer hours, so  
5 the day stretched to still get the work done.

6 So that has come back, where we have sort of more  
7 normalized. But again, in some of those core service  
8 functions, there are handoffs along the opening of account,  
9 transferring assets, initiating the ACAT, et cetera, et  
10 cetera. So making sure that, again, role clusters. So to  
11 finish a core process end to end, bring the roles back  
12 together, not just pick off one to bring back. Because  
13 we're not really sure what we're gaining. And we don't want  
14 to run the risk of -- everyone has sort of figured out the  
15 new remote-from-home workflow. So we just want to be smart  
16 around role clusters that come back.

17 MR. BERNARD: And if I could chime in, and I  
18 realize I'm out of the workforce now, but at a place like T.  
19 Rowe Price, another example would be, you know, culture is  
20 so central to how T. Rowe operates as an active manager, and  
21 part of that is the proximity of investors, analysts and  
22 portfolio managers in covering different sectors. And  
23 literally the hallway chatter and so forth. Now, they've  
24 obviously -- you know, we're a global firm. So you have to  
25 learn how to -- you can't all be in the same hallway.

1 You know, my sense is that for a long, long time,  
2 the default has been you work in an office space together.  
3 The one thing I think we can predict is that genie is out of  
4 the bottle now. The extent firms debated, you know, should  
5 we let people have flexible work arrangements, you know,  
6 they want to work at home on Monday and Friday and be in the  
7 office Tuesday, Wednesday, Thursday. I think that genie is  
8 out of the bottle.

9 Now, I will say in terms of how effective it's  
10 been, I read a great observation the other day that we've  
11 been working together for so long that in this two, three-  
12 month period, we had a lot of relationship capital built up.  
13 We all know our coworkers, and you can go for a certain  
14 time, based on those relationships, being apart. But over  
15 time, there will be desires to bring people together to  
16 build cultures, to build relationships and so forth.

17 And while I wouldn't begin to try and predict  
18 outcomes to your questions, Dalia, I think you can predict  
19 direction of travel in that companies will look at more  
20 flexible work arrangements, look at work at home as a more  
21 viable proposition. But they'll lay job types out on a  
22 continuum of which ones really, like trading or whatever and  
23 the tech and ops sort of associated with them, are better  
24 together and which ones are okay remote. Are there various  
25 gradations of is it fully remote or partially remote?

1 And to Erik's point, I think you then just go and  
2 revisit all your business continuity plans, too. And you  
3 say, all right, what do we do when there's a power outage?  
4 Where does everybody go so they can continue to work? So  
5 you'll have new types of continuity plans.

6 The good news is, you've now got a great  
7 continuity plan for when the building goes down. Everybody  
8 goes home. And that was the one that everybody used to  
9 solve for.

10 And that's why I think it's particularly  
11 interesting here, and you and Joe would know better the  
12 implications of it. But I think Neesha commented on the  
13 things that FINRA has done on a temporary basis, you know,  
14 which ones could be made permanent.

15 I think you all should assume, as you think of how  
16 regulatory guidance, you know, evolves that this trend  
17 toward increased e-delivery and the trend toward increased  
18 usage of remote work is a secular trend that will come out  
19 of this thing and stay to some degree. I don't know if  
20 others agree or disagree with that.

21 Sorry, I went more long winded than I anticipated.  
22 Gilbert.

23 MR. GARCIA: Yeah, just to chime in on you, one  
24 thing that we've seen is our clients enjoy doing the Zoom.  
25 In other words, I think another thing that will change is

1 the concept of traveling across the country for a 30-minute  
2 presentation to tell a client how their money did in the  
3 quarter, I think that's going to change a lot. We're seeing  
4 more and more clients getting very comfortable with it,  
5 they're learning how to do it, they're learning how to  
6 practice. And I foresee that being a big change and that  
7 will be a very interesting cost savings element for a lot of  
8 us in the business.

9 MR. BERNARD: I think that's right. And that will  
10 address some of the pressures that Ben raised.

11 So I want to -- now I've got to police myself.

12 Yeah, Dalia, go ahead.

13 MS. BLASS: Sorry. I know you want to go on  
14 break. But just a quick follow up and it doesn't have to be  
15 answered by anybody right now, but just something people can  
16 keep in their minds.

17 As part of our experience with pandemic, there are  
18 offshore teams that people have really relied on. For  
19 example, I spoke with, you know, a lot of folks in the  
20 industry about reliance on offshore teams in India. So as  
21 sort of as you look through a retrospective review of what's  
22 going on, the presence of those teams, the provision of that  
23 team, the technological capacity of, you know, Erik's point,  
24 you know, teams like that, it's one thing to work in office  
25 buildings, it's a different equation completely even than

1 here when you are working in dispersed locations.

2 So just wondering if thought has been given to the  
3 offshore teams, the reliance on them, supervision, controls,  
4 infrastructure, et cetera? And again, it doesn't have to be  
5 answered now. I know we're going into a break. But just a  
6 question I want to make sure is in people's minds.

7 MR. BERNARD: Does anybody want to take a quick  
8 swing at it, or do you want to save that one?

9 MS. HATHI: Dalia, I can just provide a little bit  
10 of input from our perspective. You know, there are two kind  
11 of key ways that we outsource in India. One is around  
12 processing. So some processing of our paper, essentially,  
13 our forms and other documents. And then the second is from  
14 a development standpoint.

15 And the processing that we were offshoring to  
16 India, we were able to get back onshore within three days.  
17 And that was through kind of just beefing up some of the  
18 activities that were going on onshore. But as we go forward  
19 and we plan that BCP and how we make ourselves more  
20 resilient there, the solution as we look at it is actually  
21 more electronic workflows and electronic delivery. Because  
22 that gets the paper out of the process and that was actually  
23 what we were doing with a significant part of that  
24 offshoring that we were doing on the processing side.

25 The other way that we outsource to India

1 specifically is for development. And that's actually, I  
2 think, a more complex situation that we're looking at.  
3 Which is we do a lot of development onshore as well. And we  
4 are looking at how much of that development that we are  
5 doing onshore would -- or offshore would we want to bring  
6 onshore and actually looking at bringing more of that  
7 development onshore. And then when we use offshore, how do  
8 we create increased backup plans for those particular  
9 development teams.

10 So I think it did highlight, at least for us, that  
11 India was a specific location that we needed to think a  
12 little bit differently about in our resiliency plans. But  
13 again, almost similar to the first conversation that we had,  
14 I think it was a global pandemic that actually pointed to  
15 that as a challenge and probably would have been -- I don't  
16 know if we would have anticipated that we would have been  
17 able to move all of our processing back onshore in three  
18 days if we hadn't had to go through the process.

19 MR. BERNARD: For what it's worth, on the company  
20 I serve on the board of, it's actually very similar. They  
21 have much less exposure, I think, than Schwab. But on the  
22 one hand, for the manual tasks that are outsourced, they're  
23 basically accelerating their investment in technology  
24 robots, you know, bots to do that work, and just make it go  
25 away. And then they're looking at onshoring some of it.

1 So the short answer is, yes, they're going to try  
2 and reduce their reliance on India. And I know you had  
3 mentioned you've seen this across the industry. I don't  
4 think everyone can eliminate it. But I think certainly  
5 folks will be thinking about it differently.

6 So I do want to -- I'm going to suggest that we  
7 take a five-minute break and I think what I'll actually do,  
8 if you'll allow me, is introduce now what I want you to do  
9 when we come back so that you have five minutes to think  
10 about it. We found it very helpful last time -- well, last  
11 time we went around the table and introduced one another,  
12 which I don't think we need to do this time. But also just  
13 a quick impression from the day. And we found it really  
14 helpful while it's fresh. Again, in my email, you'll have  
15 time for more thoughtful reflection.

16 So I'm literally going to run down the list. I'm  
17 going to go -- actually, the participants on the right  
18 include Staff and so forth, so I'm going to work from a  
19 printed list I've got. So, just so you know, John  
20 Bajkowski, you're going to be up first. I'm going to go  
21 alphabetically by first name -- by last name rather.

22 And I just want to run through the committee and  
23 ask each of you to take no more than one minute, so that  
24 will give us 20 minutes, to share one to two things you  
25 heard -- one is fine -- that struck you today. Can be a

1 recommendation, observation, whatever. I think of this as a  
2 bit of a pulse survey. It's entirely fine if what struck  
3 you is similar to what you've heard from other folks ahead  
4 of you, because that will enable us to see dominant themes.

5 So put differently, you can feel free to introduce  
6 a new issue that struck you and ideas based on, you know,  
7 what you really took note of. But don't feel the need to be  
8 different for difference sake and make things up because you  
9 happen to be number 18 on the list. Because I think that  
10 will give us a false sense of what your first take was.

11 Redundancy is okay; it's called there's a theme there.  
12 So with that, I will -- let's take literally a  
13 five-minute break. So actually, I've got 3:15. Let's come  
14 back at 3:20. We'll do -- I'm grateful for the stamina of  
15 everyone here. And we will wrap it up.

16 And let me, before I sign off on this section,  
17 thank Mike and Joe and Neesha for yet another great session.  
18 It may have been the Late, Late Show but it was well  
19 delivered, and I think the energy level in the room is still  
20 very good. So thanks for that.

21 And in five minutes, we'll get going around the  
22 table. And then we'll wrap it up. Thanks, all.

23 (Recess.)

24 SUMMARY AND DISCUSSION

25 MR. BERNARD: It looks like we've got the makings

1 of a quorum back. So let's just do a quick around the table  
2 what struck you.

3 John Bajkowski, could you start us off?

4 MR. BAJKOWSKI: Can you hear me?

5 MR. BERNARD: Now we can.

6 MR. BAJKOWSKI: Okay, thank you.

7 First of all, it was a great day, a lot of great  
8 presentations. I have to commend everybody; they just did a  
9 wonderful job. And overall, you know, the general consensus  
10 was the markets generally worked very well. But of course,  
11 there are always lessons to be learned in the process.

12 You know, two things that stood out perhaps in the  
13 ETF world, we had a short-term disconnect, especially in  
14 some segments of the bond market, where the NAVs and the  
15 prices that were being quoted on the cages were kind of  
16 disconnected and you had big discounts in that regard. And  
17 Reggie Browne presented a number of interesting ideas as far  
18 as how to help provide some clarity to the prices behind  
19 some of those fixed assets that might help us in the future  
20 keep a better handle on the pricing and help keep that  
21 discount from growing any worse.

22 Another interesting area was in the area of -- for  
23 me, anyway, it was the area of money markets. And there's  
24 always unintended consequences and the 30 percent liquidity  
25 buffer was obviously one attempt to try to deal with

1 providing adequate redemption liquidity to the money market  
2 world, and how that acted as almost a tripwire. And there's  
3 always a chasing of yield. And from the investor's  
4 perspective, you know, people are willing to go longer term  
5 with the potential of higher yield. You know, tying the  
6 weighted average maturity to the reduction period was an  
7 interesting idea that was put forward. Probably easier to  
8 explain to institutional clients but a clever way of  
9 reminding people of the relationship between maturity and  
10 redemption and the impact that it has on short-term prices.  
11 So two takeaways from me.

12 MR. BERNARD: Great, thanks. And you did it  
13 within your one minute. That was great.

14 So I'll skip me for now. So Michelle McCarthy  
15 Beck, you're up.

16 MS. McCARTHY BECK: Thank you. I, too, was struck  
17 by the discussion on money market liquidity. And I've been  
18 part of some industry groups where I've heard a lot of  
19 others talking about how swing pricing on their identical  
20 European vehicles worked better during the crisis than what  
21 happened with their mutual funds, that they saw less  
22 redemption activity, less runs.

23 So the concept that there is some liquidity  
24 transformation that can go on in certain vehicles, when  
25 we're talking about bank loans or we're talking about high-

1 yield debt, the ability to get your money out of a mutual  
2 fund in one day, that would be difficult to liquidate the  
3 individual bonds, is a form of transformation. And so I  
4 think we just need to give some thought or some study to  
5 that.

6 And the role of the mutual fund vehicle is huge.  
7 But do you need that daily liquidity for everything? Do you  
8 need it for retirement vehicles or, as was discussed, these  
9 institutional money market vehicles? So I think it's just  
10 really worth some study on that difference on pricing and,  
11 you know, what is the meaning of daily liquidity and where  
12 is it best applied.

13 And then also, as we were talking about the  
14 different interventions in 2008 versus 2020, I was reminded  
15 a little bit of hearing people who have had Lyme disease  
16 caught early versus late. So, you know, the best thing in  
17 medicine is prevention. The next thing, early treatment is  
18 way, way better than late treatment. And that's better than  
19 no treatment in certain kinds of circumstances.

20 So here, it felt like we were practiced, we were  
21 ready. The responses were quick. The corrections to them  
22 to make them a little bit better were quick. And that does  
23 seem to have stopped a liquidity issue and an uncertainty  
24 issue from becoming a solvency issue at this point. So that  
25 was fascinating to see the difference between the two.

1 MR. BERNARD: Great, thanks.

2 Jane Carten.

3 MS. CARTEN: So for me, I think also I was struck  
4 by the industry practitioners and the regulators both  
5 working together and using the lessons learned in past times  
6 of extreme volatility to inform the decisions that they've  
7 made in the past few months. And I think that those  
8 actions, just as Michelle said, taking those quickly as they  
9 did, really have made a tremendous positive difference.

10 Another thing that struck me was probably a small  
11 thing for most. But the question of environmental benefits  
12 of the pandemic, not just in this industry but so many  
13 others, seemed to me to be an area where we have some deep  
14 research. And finally, just the sort of on again, off again  
15 reminder that innovation in fixed income pricing does seem  
16 to be imperative to the industry.

17 MR. BERNARD: Great, thanks.

18 Scot Draeger.

19 MR. DRAEGER: Thanks, Ed. Yeah, I want to commend  
20 the two committees that reported out on the work that they  
21 have done so far, Michelle's committee and the ESG  
22 subcommittee, if you will, and then Rama and Erik and the  
23 others on the Private Investment Committee.

24 The thing that jumped out to me is the complexity  
25 of the data that these groups are having to struggle with.

1 And it's evident that both groups are conscientiously in  
2 search for data that offers both integrity and independence  
3 from conflicts of interest. And I just wanted to say how  
4 much I appreciate that. That's something that I think  
5 should bring great comfort to the investing public and  
6 reinforce, I guess, the importance of that and my  
7 appreciation for it.

8 I think sometimes, it's hard to have the fortitude  
9 to avoid despair or paralysis when data sets are very hard  
10 to come by. But you guys are doing the hard work. So thank  
11 you for that.

12 And then finally I guess I'll just reinforce Mike  
13 Durbin's thoughtful remarks on e-delivery as something  
14 that's not a trivial but truly important issue. Something I  
15 shared with Ed and Mike that has kept me up at night is the  
16 fact that, you know, certainly the (Interruption to audio)  
17 officers in our firm have all been able to work remotely,  
18 while the most humbly compensated, those in the mailroom and  
19 the administrative staff engaged in the paper-heavy  
20 quarterly process have had to risk their own health to be  
21 together in the office environment. And I think if we did  
22 move to e-delivery as a default method, that certainly could  
23 (Interruption to audio) some of those issues. So thank you,  
24 Ed.

25 MR. BERNARD: Those are great thoughts, too.

1 Thanks.

2 Mike Durbin.

3 MR. DURBIN: Thank you, Ed, and others for a good

4 day. Two things on my mind coming out of it. One was,

5 because it came up in several presentations, is I wonder if

6 we should resist the urge to talk about segments being way

7 more complicated than just institutional or retail. There's

8 31 flavors in between of the presence of an intermediary, a

9 home office firm that sits between the end customer and

10 let's say an issuer or a supplier. We talk in the context

11 of money markets, privates, ESG, operational issues. The

12 issues are tackled differently, depending upon the persona

13 that you're really embracing. And I think the world is more

14 complicated than institutional and retail alone.

15 The second thing, and you can just delete me from

16 this if it's opening Pandora's box, I wonder at some point

17 if we should spend any time on a negative rate environment

18 along a number of these themes. I think there's great

19 lessons that have been learned that have been shared by the

20 experts -- I'm not one of them -- throughout the day. It's

21 been fantastic. But I think it would be good preventative

22 care, Michelle, if some portion of this group or some

23 subgroup, you know, think through implications of negative

24 rates for a protracted period.

25 MR. BERNARD: It will not be deleted and it's a

1 great point. So thank you for that.

2 Gilbert.

3 MR. GARCIA: Thank you, Ed. The thing that jumped

4 out at me, the two things, the first is, the breadth of the

5 topic, the subject matter of ESG. And I think that what

6 that really means is there's incredible opportunity for us

7 as a committee to do some real good here. And so I

8 congratulate them for laying it out. I think there's a lot

9 there.

10 The second is, I was just amazed by Neesha and the

11 progress that she described, the number of trees, the

12 paperless, and how many people are now totally paperless. I

13 think they have set a very high bar that hopefully all the

14 industry will turn to. So those are the two things that

15 jumped out at me.

16 MR. BERNARD: Great, thanks.

17 Alex Glass.

18 MR. GLASS: Yeah, thanks. As a state securities

19 regulator, you know, my main mandate is to protect Main

20 Street investors. So I was very happy to hear the reports

21 from ESG and Private Investment subcommittees that they're

22 considering those disclosure concerns and, as Rama

23 discussed, the key guiding principle being the best

24 interests of these Main Street investors. I look forward to

25 continued development of those recommendations from the

1 subcommittees as they continue that work.

2 That being said, also another thing brought up a

3 lot today is balance. You know, during a number of

4 discussions today, there was the balance between, you know,

5 protecting Main Street investors. As a regulator, we have

6 to look at not only that protection but balancing that with

7 capital formation, also the requirements on the industry.

8 So again, when it comes to that, the access to private

9 investments, NASAA has been very hesitant about expanding

10 that. So I look forward to seeing the research that

11 supports why that should be expanded or why it should be

12 left where it is.

13 And finally, based on the final conversation

14 today, you know, in the states, similar to FINRA, we very

15 proactively granted a lot of relief. And it was interesting

16 to have that conversation of can some of that relief become

17 more permanent? You know, what would be helpful to both

18 regulators and industry? So, you know, it's definitely a

19 worthy endeavor to review those and see where we would go

20 with those.

21 MR. BERNARD: Thank you. Paul Greff. You still

22 with us? May have lost him.

23 Rich Hall is not here.

24 Neesha.

25 MS. HATHI: Thanks, Ed. And thanks everyone for

1 all the great insights today. It was even energizing on a

2 Zoom at this point in the day.

3 So, you know, I would say there were probably

4 three things that I would point out. Two of them, I called

5 the two conundrums that I heard of the day. One of them was

6 around ESG and just the complexity of that topic. And I

7 echo the appreciation that I have for Michelle and the team

8 that's working on that, because I do think that there is

9 opportunity there to figure out how we go forward. And the

10 balanced approach that the team is taking really struck me.

11 The other conundrum that struck me was the money

12 market fund conundrum and, you know, knowing that the

13 actions that were taken over the past decade really did put

14 us in a better position, but also that they didn't stop the

15 event -- an event from happening. And so where do we go

16 from here? And knowing that there's not a single, simple

17 answer to that.

18 And then I would just kind of step back and say

19 just generally what also struck me is just I think it was

20 Ben Phillips's presentation, is just the amount of change

21 that I think our industry is going to see over the next 12

22 to 24 months. If we just step back and think about whether

23 it's work from home or electronic delivery or the fact that

24 he put up that great slide which was a little bit

25 depressing, but how it shows that the industry is actually

1 in a worse position now than going into the financial  
2 crisis. And you think about that with all these macro  
3 changes going on, and it's a little bit daunting to think  
4 about what will this industry look like 18, 24 months down  
5 the road, and all of the changes that all of our firms will  
6 have to make along with our regulatory partners in order to  
7 be ready for that future. So a macro comment based on all  
8 that I heard today.

9 MR. BERNARD: Great. Adeel.

10 MR. JIVRAJ: Great, so I won't repeat what others  
11 have said. I do agree on the ESG complexity as well as the  
12 money market fund reform and the 30 percent threshold and  
13 how investors reacted during the crisis. It was certainly  
14 interesting to explore the impact of the pandemic on our  
15 industry and understand some of the similarities and the  
16 differences between the current crisis and the one that  
17 occurred in 2008 and how investor behavior might have been  
18 similar and different, and certainly the impact on markets  
19 and products.

20 For me, I'd like to just take some time to digest  
21 some of the information that was shared today and determine  
22 some suggestions the committee may want to take forward in  
23 the future.

24 MR. BERNARD: Sounds great.

25 Ryan.

1 MR. LUDT: Yeah, great. Thanks, Ed. And nice to  
2 see everybody today, even if it is virtual. And certainly  
3 great sessions and great conversation.

4 I feel like the things that resonated with me are  
5 kind of this mindset that a lot of us are coming into this  
6 -- and, Ed, you and I have talked about it a little bit --  
7 that we're in this learning mode, we're not yet in this kind  
8 of let's run out there and fix something. We're trying to  
9 gather data, gather information, gather perspective. And so  
10 whether I think it's taking that to the topics around ESG or  
11 market structure or some of the other things, taking that  
12 approach is really refreshing.

13 The one or two things that I would think about  
14 are, you know, I was involved in talking with Reggie about  
15 market structure and what that looks like. And we're  
16 certainly thinking about what the market has done and what  
17 we've experienced from a fixed income perspective. And  
18 we're going to continue that work and would hope that others  
19 would as well.

20 And then the point that the last panel made really  
21 was interesting to me and it's something that we've been  
22 thinking about as well, the use of technology and something  
23 like e-delivery and what that looks like going forward, I  
24 think both of those sound like great topics.

25 MR. BERNARD: Great, thanks.

1 Susan -- I can't -- there you are. I think you're  
2 muted.

3 MS. McGEE: Okay. Is this better?

4 All right, thank you so much for your hard work,  
5 Ed, that you put into the meeting today, and for the two  
6 subcommittees. It's very evident that they have put a lot  
7 of thought into their work.

8 What struck me was the ESG complexity. And it's  
9 not a one size fits all. So I really hope that the  
10 committee takes some time to think about a good way to  
11 attack that issue, where it's not over-regulated, but  
12 investors understand what they're getting into. I thought  
13 that that topic and that discussion was really thorough, and  
14 I enjoyed that. So congratulations to that committee.

15 MR. BERNARD: Thanks.

16 Aye Soe.

17 MS. SOE: Hi, sorry. I was on mute.

18 Thank you everyone. I definitely learned a lot in  
19 today's presentations.

20 You know, going back to the market structure  
21 discussion, you know, coming from an index provider, I  
22 definitely lived and saw through this market volatility and  
23 what it was doing to the market structure, especially with  
24 the equity ETFs and then the fixed income ETFs. So it was  
25 good to hear from the leaders in the space and to learn

1 that, you know, equity products behaved the way they should  
2 have, but then we saw the divergence with fixed income ETFs  
3 with some, you know, substantially trading at discount to  
4 the NAV.

5 And for me, so the key takeaway really is, you  
6 know, I think it might have been Reggie who said that we  
7 have to work towards creating better NAV. And that becomes  
8 very, very important in light of, you know, what we went  
9 through in March.

10 There were a few things that, you know, I didn't  
11 see but I just wanted to bring up. Might not be relevant.  
12 Because I still feel -- I feel that we're still in the  
13 middle of the storm and it's not over yet. And it's really  
14 the impact of the historic collapse in the oil market and  
15 the negative settlement prices. You know, that is something  
16 product providers are still working through and index  
17 providers like ourselves are still working through.

18 The other one is the, you know, we brought up the  
19 market-wide circuit breaker working exactly as intended, and  
20 I couldn't agree with that more. But, you know, from our  
21 point we're also thinking through, okay, if that, you know,  
22 third level circuit breaker took place right before opening,  
23 only about 20 percent of, you know, securities have just  
24 traded. What happens to the settlement prices for SOP  
25 calculation for the derivative (Interruption to audio)? So

1 that's something I think that, you know, we didn't touch  
 2 upon. But perhaps that we could think through later.  
 3 And all because, you know, we're still in the  
 4 middle of the storm. We're not out of it yet. So that  
 5 would be my point, yeah.  
 6 MR. BERNARD: Great. Thanks.  
 7 And, Jeff, I've probably confused you. My  
 8 alphabetical list is not alphabetical. So let's go back to  
 9 Jeff Ptak.  
 10 MR. PTAK: No worries at all. Yeah.  
 11 So thanks for a good day, everyone. I appreciate  
 12 that. I guess I was struck by a couple of things.  
 13 One, which was I think it wasn't a throw-away  
 14 comment, I think it was a reinforcing comment actually from  
 15 Chairman Clayton at the beginning of the day that was  
 16 pertinent to ESG. You know, I think he was casting maybe  
 17 some constructive doubt on how one brings together E, S and  
 18 G to form sort of a pinpoint overall view on the ESG merits  
 19 of a particular issue or investment. And I thought that was  
 20 -- that was resonant to me, just given the fact that that's  
 21 going to be an area of focus for our subcommittee and  
 22 something that I'll be focused on in particular, given my  
 23 workstream, which is issuer disclosure and sort of best  
 24 practices with respect to that.  
 25 As far as some of the macro presentations that we

1 got, I thought it was quite helpful to get color from Sean  
 2 Collins on what I guess might be termed sort of the great  
 3 liquidations that we saw. So much of the activity that we  
 4 saw in the fund space was investors who were rushing to  
 5 liquidate certain categories of investments to basically get  
 6 flush and defray expenses that they were suddenly facing  
 7 without other funding sources available to them. So I would  
 8 say that was reinforcing as well, in certain ways.  
 9 And then finally, I would say, my co-presenters on  
 10 the afternoon's ETF session, Ryan and Reggie were both  
 11 great. I was especially struck by some of Reggie's  
 12 comments, which were just very practical. I think that it  
 13 still does tend to be an article of faith in some quarters  
 14 of the industry that, you know, the divergences that we see  
 15 between bond price and NAV is a function of price discovery.  
 16 And I respect, you know, those perspectives. At the same  
 17 time, I look forward to, you know, us and I think others in  
 18 the industry continuing to dive into that topic to  
 19 understand, you know, how much of it is price discovery, how  
 20 much of it could be other things, what of that is  
 21 addressable. I just thought that Reggie's comments were  
 22 very sort of practical and certainly informative to me. So  
 23 that's kind of three or four quick things from me.  
 24 MR. BERNARD: Great, thanks.  
 25 Back to our S's. John Suydam.

1 MR. SUYDAM: Can you hear me? Am I on? Still on  
 2 mute?  
 3 MR. BERNARD: You're good.  
 4 MR. SUYDAM: Okay. I would say the thing that  
 5 struck me more today, there was a lot of good information  
 6 covered in the meeting, but was the resiliency of the  
 7 industry, particularly it seems like the effectiveness of  
 8 BCP plans, where people have basically been able to migrate  
 9 and work from home in an almost seamless manner. And I  
 10 thought there was very good commentary at the end to focus  
 11 on things that could additionally be done to facilitate that  
 12 in the future. Because I think we do need to continue to  
 13 create a more resilient industry model.  
 14 MR. BERNARD: Great, thanks.  
 15 Joe Savage.  
 16 MR. SAVAGE: Thanks, Ed. I'm glad you said  
 17 initially that it's okay to repeat other people. Because  
 18 when you're towards the end of the alphabet, it starts  
 19 happening more.  
 20 So I'm going to repeat a couple things. I mean,  
 21 first of all, I just want to commend Michelle and her panel  
 22 on ESG issues. I really found that panel very interesting.  
 23 It's not something I focus on in the day-to-day activities  
 24 in my job. I certainly read about it in the press and so  
 25 forth. But hearing a little more of a deeper dive into the

1 issues that face, you know, ESG funds and groups that want  
 2 to achieve ESG goals, I think that was really interesting.  
 3 I also want to commend Reggie Browne's discussion  
 4 of ways to improve the bond market. Certainly FINRA has a  
 5 role there in terms of TRACE and in terms of some other bond  
 6 programs. And, you know, again, it's not something I do on  
 7 a day-to-day basis but, you know, from my colleagues, I know  
 8 this is an area that there's a lot of diverse views and  
 9 maybe contentious views. But overall, I agree with his goal  
 10 that there needs to be better price discovery. And I think  
 11 in the long run, the industry will be better off if we can  
 12 get there. Thanks.  
 13 MR. BERNARD: Great, thanks.  
 14 Erik.  
 15 MR. SIRRI: Yeah. I think I have two comments.  
 16 Thanks for running a great meeting, Ed.  
 17 For the fixed income ETF discounts, my thoughts  
 18 went to the pricing vendors and to third party service  
 19 providers, generally. I wouldn't claim to be an expert on  
 20 what they do, but I think a lot of their models are tuned to  
 21 normal times and they have their processes they use. But  
 22 there can be weaknesses there. And when you get a sudden  
 23 shock like you did in mid-March, if you're using the same  
 24 models, you can end up with results that, you know, can  
 25 cause real problems for the funds. So, for instance, we've

1 seen if you're using averages for your computation of  
2 liquidity, well, you're going to grossly overstate liquidity  
3 when liquidity falls off a cliff. You don't want to be  
4 using averages there.

5 And, you know, for fund pricing you may be -- for  
6 individual securities pricing, you may be matrix pricing.  
7 But maybe at those times, you should take advantage of  
8 information that's in the ETFs to reprice individual  
9 securities. After all, we do that. I mean, that was one of  
10 the lessons out of the market timing crisis in the early  
11 2000s, is that you take advantage of U.S. indices to reprice  
12 individual securities when the foreign markets are closed.  
13 Maybe some of that intuition needs to be brought there.

14 The only other thing I would say as the VRDN income  
15 and those rates spiking, we've seen this before. In 2008,  
16 the AAAs traded above the AAs in August. And I think that's  
17 because of the demand for liquidity. We know the pools are  
18 going to sell their most liquid securities when they need  
19 cash. And the reason why it's trouble is we can't tell  
20 whether it's liquidity and the price of liquidity or it's  
21 fundamental information about the underlying credit. And  
22 now that we know this happens, we've seen instances, we need  
23 to be able to disentangle that.

24 MR. BERNARD: That's a great observation.  
25 Ross Stevens.

1 MR. STEVENS: Thanks, Ed. I thought the  
2 presentations were fantastic. For everybody who prepared,  
3 they were outstanding.

4 And I guess two things that struck me most,  
5 they're related, there was a lot of conversation this  
6 morning, a little bit this afternoon, about things working  
7 in orderly fashion. I think it's helpful for us to be a  
8 little self-critical about the counterfactual, what if the  
9 Fed didn't come in or didn't come in in such an  
10 unprecedented fashion. I think we should ask ourselves what  
11 it says about our capital markets and our structure that  
12 effectively we needed that to happen again, and particularly  
13 in unprecedented size.

14 I don't take a lot of comfort from the fact that  
15 the facilities weren't used, quote, that much. I think  
16 there is such a credible threat from '08 and from what the  
17 BOJ and ECB has done in the interim, and from the language  
18 of the Fed, that they didn't have to deploy all their  
19 facilities. And let's not also miss the story. I mean,  
20 they bought an enormous amount of Treasury bonds, a  
21 staggering amount of Treasury bonds. So it wasn't like they  
22 weren't extremely active.

23 So that's one thing that struck me, is maybe we  
24 should pause a little bit on being sure that things weren't  
25 orderly in the absence of the government. Is that something

1 we want to rely on in the future?

2 And relatedly, what does it mean for risk premiums  
3 going forward for the Main Street investor or the insurance  
4 company investor, for all investors, that by taking such  
5 unprecedented action, there was really a decoupling of risk  
6 taking and the consequences of risk taking? People didn't  
7 feel the consequences of risk taking with such unprecedented  
8 action from the Fed.

9 And a little bit related to Mike's point about  
10 negative rates but a more general comment. If risk premiums  
11 are now compressed because the consequences of risk taking  
12 have been reduced, that does have profound implications for  
13 all investors, including Main Street investors. I think  
14 that's -- may be nothing we can do about it but a worthwhile  
15 topic as we think about disclosures going forward, and just  
16 for this group to consider.

17 So fantastic day. But those are the things that  
18 struck me for sure.

19 MR. BERNARD: You know, it's funny. With each one  
20 that comes, it reinforces to me why it's so valuable to do  
21 this little round here. These are all great observations.

22 So, Rama, you're up next.

23 MR. SUBRAMANIAM: Thanks, Ed. I want to echo what  
24 everyone has said about the quality of the presentations,  
25 external and internal, particularly the external people

1 that, you know, turn up and put a lot of time into it.

2 Two comments from me. I think first on the ESG  
3 side, I'd echo what everyone said about the quality of the  
4 presentation as well as the breadth of the topic.

5 I think one suggestion to Michelle and the team  
6 is, given the time line that we have around delivering, you  
7 know, whether it's recommendations or whatever the final  
8 form is of what we do toward the end of this year, and  
9 frankly being a two-year committee, one of the thoughts  
10 might be kind of staging this and trying to work out what we  
11 can achieve in the first stage versus the second stage.  
12 Otherwise, it can be overwhelming. Kind of a similar  
13 approach we're trying to take in, you know, what can you do  
14 in the shorter term and then, you know, some longer-term  
15 goals. That's one.

16 And then the second one is on fixed income. I  
17 found, you know, the data that was provided by Sean from the  
18 Investment Company Institute and Marc Seidner from PIMCO,  
19 you know, very interesting in terms of some of the  
20 differences from 2008, as well as what happened in that  
21 stress period and how quickly it recovered. But I was  
22 hoping to make a noble point, but I guess Ross beat me to it  
23 just one ahead of me, S-t instead of S-u. I do think there  
24 is a big amount of either direct Fed support or indirect Fed  
25 support here that is whether you want to call it propping

1 the market or helping the market normalize as quickly as it  
2 did.

3 And, you know, it probably wasn't the right forum  
4 to talk about it. But, you know, there is, I feel, a long-  
5 term support in place. And how the market weans itself off  
6 it is a very interesting question. I'm not whether it's one  
7 for this committee to think about.

8 But, you know, exactly what Ross said around --  
9 and you're seeing hedge funds and other money managers  
10 buying up debt on the basis that there's a Fed put on it,  
11 right? There's a Fed backstop to it. You see Boeing not  
12 taking government support because they realize they could  
13 issue debt because people would buy because people could  
14 give it to the Fed, turn around and give it to the Fed.

15 And so that, I think, is a fundamental change to  
16 the market structure of fixed income. I'm not sure what we  
17 do with that but, you know, how long it lasts. But there is  
18 a very different dynamic going on right now with the Fed in  
19 play. And how they get themselves out I think is even  
20 harder than it was back in 2008.

21 MR. BERNARD: Great, thank you.

22 Mark Tiberghien.

23 You need to -- you're on mute.

24 MR. TIBERGIEN: Is that clear?

25 MR. BERNARD: That's good.

1 MR. TIBERGIEN: Okay, great.

2 So I spent the day trying to connect the dots,  
3 because there were so many complementing and competing  
4 points that I was trying to imagine what decisions we might  
5 make out of this. And one conclusion that I came to is we  
6 have to be very careful about a postmortem because we are  
7 very early into this crisis.

8 I think as an example, when I listened to the  
9 discussion around the money market situation, I don't recall  
10 who said it, it might have been Jeff, that policy addresses  
11 liquidity but not solvency. And I just cannot help imagine  
12 what's going to happen to money market funds when states and  
13 municipalities begin to default because of the economic  
14 crisis. And that's a very real concern that I think we have  
15 to take into account with these funds.

16 The second is really dealing with the operation  
17 and work-from-home and technology question. What's very  
18 clear, because we're so early into this process, is that  
19 adrenalin has driven much of our behavior. Our response to  
20 crisis for the most part has been quite remarkable. Even  
21 though there hasn't been a national policy, there have been  
22 state policies that have been inconsistent.

23 And so when I look at it from a work-from-home  
24 standpoint, as an example, I think all of us can say that  
25 our employees responded quite well to the new normal, the

1 new situation in which they had to operate. But eventually,  
2 fatigue is going to set in. And the need for social  
3 interaction that is not a remote happy hour by Zoom is going  
4 to set in.

5 So the real question we have to think about is  
6 around that human engagement and the social aspect that  
7 actually has a touch and feel to it. And so I think, and  
8 this may fit more into the diversity and inclusion and  
9 equity initiative that we're talking about, but I think the  
10 issues around making this a compelling career choice, if  
11 this is the new normal, is going to be a challenge that we  
12 have to contemplate.

13 MR. BERNARD: That's very helpful.

14 And Russ, with your help, next time if you remind  
15 me, we'll go in reverse alphabetical order.

16 MR. WERMERS: Yeah, I've been last my whole life  
17 and you've been first.

18 (Laughter.)

19 MR. WERMERS: Thanks, Ed.

20 Look, I was struck -- I learned a lot today, and  
21 you're forcing me to funnel down a couple of thoughts here.  
22 So I'll do the best I can here.

23 So I was struck by Sean Collins's presentation  
24 that showed some statistics about flows, including the one  
25 that I cited that money market funds didn't really use the

1 credit facilities. So investors, all they needed, it seems,  
2 was just some reassurance from somebody. Investors were on  
3 a knife edge in that case. And Marc Seidner of PIMCO, I  
4 thought, kind of reinforced this by stating that everything  
5 became kind of equal liquidity.

6 But between these two, and with the other  
7 presentations, including the great presentations by my  
8 fellow panelists Joe and Jon, there is some cross-sectional  
9 differentiation between which funds fared better and which  
10 funds fared worse during this what I think is a pure  
11 investor panic.

12 So I guess the takeaway -- and again, I need to  
13 think about this a lot more -- the takeaway is I think that  
14 we don't know a lot about investor behavior. And I think  
15 that was brought up by somebody earlier today. I think in  
16 investment management, we know a lot about portfolio risk,  
17 about things like that. But what is it that investors  
18 really care about in a big drawdown event? Do they care  
19 about the reputation of the manager, management company? Do  
20 they even look at the holdings? Do they care about who else  
21 is in the fund? Do they react to institutional realities as  
22 somebody is pressuring them? All that stuff I think is  
23 great fodder for further study.

24 Thanks, Ed.

25 MR. BERNARD: Great, thanks.

1 I'll follow my own rules and I'll give two  
2 observations. Then I'm going to, other than a quick  
3 housekeeping thing, I'm going to give Dalia the last word  
4 here.

5 So mine are really more inwardly focused. Which  
6 is, number one, and it has to do with this committee and I'm  
7 so grateful to everyone here. I think we, the collective  
8 wisdom of this group is prioritized well. You know, when I  
9 look at the four topics I talked about at the outset, and  
10 two of them we started to update today, the richness of the  
11 discussion around ESG and private investments, we know these  
12 and diversity and inclusion and the data and technology  
13 issues are very important. I think we now also see from the  
14 first two how rich and complex they are, and I think we'll  
15 see that as well when we get with the others.

16 And the SEC has various tools available to them,  
17 and Dalia can comment on this better than I. But these  
18 topics strike me as ones that there can be real value to  
19 have a dynamic dialogue with industry practitioners, as  
20 opposed to, you know, issue a rule proposal, get a lot of  
21 comment letters and so forth. So I think we've picked well  
22 as a group.

23 And the other thing I would comment that's related  
24 is that this committee is a truly remarkable resource. I  
25 mean, we pivoted our entire agenda five weeks ago. In some

1 cases, the conversations were two and three weeks ago. And  
2 in the middle of a pandemic, the expertise of this group --  
3 and I commend you all for drawing upon the resources of your  
4 firms as well. In the middle of a pandemic, we put together  
5 what I think was an extraordinarily rich day. And that just  
6 says to me that this group of people can create a lot of  
7 value for these discussions.

8 So I'm grateful, as the guy that drew the short  
9 straw to chair this, I'm very grateful to you for all your  
10 efforts and your insight and really excited about what I  
11 think we can do going forward.

12 And with that, Dalia, I don't know if you have any  
13 closing comments? And then I've got literally a  
14 housekeeping detail and we'll let folks go.

15 MS. BLASS: Thank you to all of you, for the  
16 members and other panelists who gave their time today and  
17 presented really very, very thoughtful observations  
18 throughout. And to all of you for spending an entire day in  
19 front of the screen, especially as we did this virtually.

20 A couple of just quick things. On the two  
21 subcommittees that presented today, very, very thoughtful  
22 work today. I am looking forward to your recommendations  
23 and the continuation of your workstreams here. And on the  
24 ESG panel subcommittee, Michelle, one thing that struck me  
25 from something you said is whether a stepped-up approach, if

1 you will, as you tackle one thing, whether that can help in  
2 other areas, because it is a very, very broad -- the issues  
3 you identified are extremely broad. And I think you made  
4 one point where if you improve the disclosure, can that help  
5 with the rating and the benchmarking and et cetera? So  
6 whether one part of what you look at is, you know, can you  
7 sort of segment it and take a stepped approach? And I  
8 think, Rama, you mentioned the same thing.

9 On the private, you know, the retail access  
10 subcommittee, two areas that I was wondering whether you all  
11 would sort of have looked at, and maybe as part of  
12 workstream one would look at, are different structures that  
13 retail investors could use if retail access is appropriate.  
14 And also, how to make sure that the retail access is on  
15 equal footing with institutional access, in particular with  
16 respect to fees.

17 On the macro panels in general, one thing that  
18 really struck me is the data presentations were very, very  
19 thoughtful. And, you know, I firmly believe that, you know,  
20 any informed movement forward in anything really should be  
21 driven first by data, so they are well informed. So, you  
22 know, again, I think all of us have said it, that, you know,  
23 we're still in the midst of this, it's still too early to  
24 draw conclusions. I know I began my remarks with that. You  
25 know, I will reiterate that.

1 But it's never too late to look at, you know,  
2 where the data is, what is happening and, you know, be  
3 cognizant of that rule set.

4 I look forward to our special meeting end of June  
5 and beginning July. You know, Gilbert and Neesha, thank you  
6 so much for the work that you have put into the two  
7 workstreams, diversity and inclusion and technology in  
8 investment management space. So we look forward to readouts  
9 from that.

10 And finally, I would be remiss if I don't again  
11 thank the Staff of the SEC for helping us, you know, make  
12 this day what I think has been a very successful day. So  
13 thank you to the folks in IM who support this committee, and  
14 thank you to our Office of Information Technology, our OIT  
15 office, you guys are incredible. And what you have done  
16 today and what you do every single day for us to do our work  
17 is really remarkable, so thank you.

18 So with that, Ed, thank you. Thank you to all the  
19 members. And I look forward to our next meeting.

20 MR. BERNARD: All right. And let me just  
21 reiterate Dalia's thanks, certainly to the committee, as I  
22 said, but to the IM team and the technology group. I mean,  
23 if you all -- if you realize, we've just done an all-day,  
24 web-based meeting with the public watching in, with speakers  
25 coming and going, as far as I can tell, without a hitch. So

1 kudos for that.  
 2 My two housekeeping things: I will be coming back  
 3 as promised for some reflections, but I will give you a few  
 4 days to think about it because we're going to have to write  
 5 up -- we're going to have to sort of summarize all of this  
 6 first to come up with something to -- I want to provide  
 7 something for you to react to. So it will take us a little  
 8 while to pull together some things that we'll come out and  
 9 ask for your input on.

10 And secondly, you will be hearing from the team  
 11 looking for some dates. And just so we're real clear, that  
 12 will not be an all-day event like today. That will be a  
 13 three- or four-hour meeting. So we'll pick a day part that  
 14 works for everybody and focus on two issues, rather than  
 15 have a full day. But I think it will be a great discussion.  
 16 Like Dalia, I look forward to it.

17 So thanks, everyone. I said I'd get us out of  
 18 here by 4:00. It's four after 4:00. So I'm going to just  
 19 call that a win.

20 So thank you for your perseverance throughout an  
 21 entire day in front of a screen. And take care, everyone.

22 (Whereupon, at 4:04 p.m., the meeting was  
 23 adjourned.)

24 \* \* \* \* \*

25 PROOFREADER'S CERTIFICATE

1  
 2 I, Beth Roots, reporter, hereby certify that the foregoing  
 3 transcript is a complete, true and accurate transcript of  
 4 the matter indicated, held on  
 5 5/27/2020, at Washington, D.C., in the matter  
 6 of:  
 7 SEC ASSET MANAGEMENT ADVISORY COMMITTEE.  
 8 I further certify that this proceeding was recorded by me,  
 9 and that the foregoing transcript has been prepared under my  
 10 direction.

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13 Date: 5/27/2020

14 Official Reporter: Beth Roots  
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1  
 2 In the Matter of: SEC ASSET MANAGEMENT ADVISORY COMMITTEE  
 3 MEETING  
 4 File No: OS-0527  
 5 Date: Wednesday, May 27, 2020  
 6 Location: Washington, D.C.  
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