THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION

MEETING OF THE
SECURITIES AND EXCHANGE COMMISSION
ASSET MANAGEMENT ADVISORY COMMITTEE

Tuesday, January 14, 2020
9:00 a.m.

U.S. Securities and Exchange Commission
100 F Street, NE
Washington, D.C.
<table>
<thead>
<tr>
<th>Page 2</th>
<th>Page 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARTICIPANTS:</strong></td>
<td><strong>PARTICIPANTS (CONT.):</strong></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Page 3</th>
<th>Page 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARTICIPANTS(CONT.):</strong></td>
<td><strong>CONTENTS</strong></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C O N T E N T S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PAGE</strong></td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>28</td>
</tr>
<tr>
<td>93</td>
</tr>
<tr>
<td>147</td>
</tr>
<tr>
<td>217</td>
</tr>
<tr>
<td>250</td>
</tr>
</tbody>
</table>
MR. BERNARD: Wow, that's a very fine group.
Thank you.
Welcome, everyone, to the first meeting of the Asset Management Advisory Committee. I'm Ed Bernard. I've been asked to be the initial chair of the committee.
And I'm actually -- I think it's pretty self-evident we have a quorum. So I'll just skip with the parliamentary procedure.
I'd first like to thank the Chairman and the Commissioners for approving this committee. And Chairman Clayton is unable to be with us, but -- where did Sean go?
Oh, Sean Memon from his office -- I'll just turn it over to you to kick us off, if I could.
MR. MEMON: Great. Thanks, Ed. Hello, everyone.
My name is Sean Memon and I am the Chairman's chief of staff. And with me is Eric Diamond, Senior Adviser to the Chairman.
To the members of the committee and those members of the public that are joining us in person and online, we are very glad to welcome you to the SEC. We are very excited that you are all here.
Chairman Clayton regrets that he can't be in person today, as he is currently out of the country, representing the agency in meetings with foreign regulators.

But he wanted to make sure to welcome you here himself, and we are pleased to be able to share with you some video remarks that he recorded before his departure.
So, without further ado, we can roll the video.
CHAIRMAN CLAYTON (via video): Good morning. I am delighted to welcome you in this new year to the inaugural meeting of the Commission's newest advisory committee, the Asset Management Advisory Committee, or the AMAC. I apologize that I am not there to speak to you in person. I am in Europe for meetings with my international counterparts on matters that relate directly to the evolution and globalization of the asset management industry, including, one, whether there is a mismatch in investor expectations and market realities regarding liquidity depth in various equity, fixed income and alternative asset markets; and, two, issues raised by the reference rate transition and the discontinuation of LIBOR.
I am pleased, however, that my fellow commissioners are joining you this morning. I thank them for their support of the AMAC.
I believe we have all benefited from the insight, perspective and experience that advisory committees have brought to the Commission in recent years. I would like to thank all of the committee members for your willingness to serve. I recognize that all of you have significant demands on your schedules. And a special thanks to Committee Chairman Ed Bernard, who has already undertaken significant work on behalf of the committee. I would also like to thank Dalia Blass and her team in the Division of Investment Management, as well as the Office of General Counsel for conceiving and then helping to form the AMAC. Ideas are one thing, execution is another. And I know bringing this experienced and thoughtful group together was no small task.
It is incumbent upon the Commission to hear from those with experience and expertise from outside this building. The AMAC was established to do just that, to provide informed, diverse perspectives and related advice and recommendations, which will inform the Commission's policy decisions. More specifically, I believe the AMAC will help ensure that our regulatory approach to asset management meets the needs of retail investors and market participants at a time when the asset management industry and our markets more generally are rapidly evolving.
In my posted remarks, I have provided some statistics regarding how significant a role the asset management industry plays in helping Main Street investors achieve their financial goals. These numbers make clear that, on a macroeconomic level, Main Street investors are a primary driving force of not just the asset management industry but the broader capital markets. And on a microeconomic and far more personal level, the ability for these investors to access our markets on fair terms is central to their ability to meet their long-term financial needs.
That tens of millions of Main Street investors entrust their hard-earned money to the capital markets and, in particular, to fund complex and other investment professionals, is a stark reminder of why the issues you will address are so important. Indeed, this is why we have focused a significant part of our regulatory agenda on advancing policies designed to promote access and choice for Main Street investors, including more recently focusing on ways to increase access to the private markets while at all times ensuring appropriate investor protections.
I am happy to see that the committee is going to begin its own discussion of this topic today and I applaud the Commission Staff, including the Division of Investment Management, for their significant efforts to improve the investor experience to date. I am hopeful that the committee will focus on this perspective, promoting access and choice for our long-term Main Street investors, while ensuring appropriate investor protections.
As you provide your advice and recommendations, I also ask that you be candid. Tell us where we can improve our markets and our regulations. Strive to identify ways we
can promote efficiency, capital formation and investor protection. History shows this is not a zero-sum game and viewing it as such is unnecessarily limiting and, frankly, can lead to suboptimal policy decisions.

Markets today provide more investor protection, are more efficient and provide more investor choice than they did 30 years ago. My hope and focus is that a decade from now, our capital markets will provide more investor protection, be more efficient and provide more opportunities for our Main Street investors than they do today.

I am also very pleased that this committee will be focusing its efforts on ways to promote diversity and inclusion in the asset management industry. For the same reasons that hearing from the diverse perspectives of the members of this group is critical to the success of the committee, it is critical that the asset management industry include women and men with diverse backgrounds and perspectives. As you may know, the Commission recently announced the appointment of Robert Marchman as senior policy adviser on diversity inclusion. Robert will help us develop and implement strategies to promote diversity inclusion both within the Commission and through external engagement with agency partners and market participants. I encourage the committee to engage with Mr. Marchman, Pam Gibbs, the director of our Office of Minority and Women

Inclusion, and me in this area.

I’ll close by saying that I also look forward to continuing to work with my fellow commissioners to ensure that our regulatory approach to the markets is sound and continues to meet the needs of Main Street investors and other market participants. Thank you and enjoy the day.

MR. MEMON: Great. I’d like to thank the audiovisual team for helping with that video. And now I would like to turn the microphone over to Commissioner Roisman.

COMMISSIONER ROISMAN: Good morning everyone. I am truly happy to be joining you today in this inaugural meeting. Our expert Commission Staff worked hard to establish this committee, making sure to include members that are distinguished in their careers and rich in their experience. I am grateful to Director Dalia Blass and her team in the Division of Asset Management for all their work in getting us here today. And thank you, obviously, to the committee members for agreeing to serve. We really look forward to your input.

You are here because of the insight you can offer about what’s going on in the real world, whether you invest for yourself or for others, design investment products, run investment businesses, offer products or services to those firms, or study this industry, you have a unique perspective on current dynamics in the asset management industry and how these trends could ultimately affect investors. Let me also thank our knowledgeable panelists for being here today and sharing your wisdom.

Insight that each of you in this room can share with us is incredibly valuable to me, as a commissioner, and undoubtedly to our SEC Staff as well. It has not taken long serving in my role to see that the asset management industry is undergoing fundamental changes. Technology has introduced new opportunities, new risks and new costs. New or amended regulation, whether from this agency or elsewhere, has altered the landscape of compliance and clients’ preferences are constantly involving. After all, today’s investor base includes those whose baby pictures were taken on the iPhone as well as those who fought in World War II.

Related to all these and other changes, a trend of consolidation has swept through the financial industry. The biggest firms have grown bigger and the smaller firms have found it harder to compete on their own. I want to know how these trends are affecting firms’ ability to serve investors. In particular, are they able to innovate to serve customers and clients? Or are investors choices of products and services becoming more limited as these trends persist?

I believe we need to maximize the investment choices available to people while enabling access to information or advice for them to make their financial decisions. From this group, I hope to learn what the SEC can do to help investors in this way. Where can we remove barriers to innovation at financial firms, alleviate regulatory burdens or other costs that may be accelerating consolidation, or otherwise reexamine aspects of our rules that ultimately work against the interests of investors?

These are broad questions that I will be thinking about as you bring topics on your agenda to our attention.

Finally, as comprehensive as your experience and viewpoints are, I hope you will seek to hear from even more people. There are many working in different parts of the asset management industry and pursuing investment opportunities who do not have the time or opportunity to visit us in Washington, D.C. I encourage you to engage with these outside the political and financial centers so we can account for their viewpoints when considering policymaking.

Again, I really appreciate all of your willingness to take part in this committee and I look forward to all of your hard work and recommendations. Thank you again.

COMMISSIONER PEIRCE: Good morning. Welcome to all of you. It is a delight to be here with you to be here for the first Asset Management Advisory Committee meeting.
I appreciate your willingness to make the considerable investment of time and talent to participate in this committee. You will provide us an invaluable perspective as we sort through problems and potential regulatory solutions.

The breadth of experiences represented by the committee's membership will no doubt provide the Commission with much-needed insight as we consider the many challenges that are facing asset managers as they seek to serve the investing public. As today's committee agenda evidences, you're set to tackle some of the thornier issues that the industry will be facing in the coming years, from the evolution of public and private securities markets to the globalization of asset management. An important part of the role that you can play is to draw our attention to the issues that are consuming your time and attention.

Along those lines, if I may, I'd like to suggest one potential topic for you to add to the many that you will be able to consider. And that is various issues surrounding customer privacy and data protection and the unique and pressing challenges that these matters are now posing to asset managers. One of the aspects of my job as commissioner that I really enjoy is the chance to meet with a cross section of market participants. And the difficulties of complying with the ever-increasing obligations associated with customer privacy and data protection are clearly among the issues that are at top of mind for the asset managers with whom I've met. And it's not surprising.

Not only do asset managers have to grapple with GDPR, but there are many states that are now considering implementing or already have implemented customer privacy and/or data protection legislation. The most prominent of these just came online this year, that's California's Consumer Protection Act, which went into effect just in 2020. And among other things, it effects businesses with more than 25 million in annual gross revenue. It grants consumers the right to request that their personal information be deleted upon the receipt of a verified request, as well as the right to opt out of having their data sold or shared and provides for a private right of action should there be a data breach. The CCPA could change. There are upwards of 10 bills that are now being considered in Sacramento that could further alter the CCPA, so there is a state of flux around that bill, as well as around legislation in many other states.

Privacy regulations of this sort can be very difficult for investment advisers and others in the financial services industry who are also subject to extensive federal regulation. While it's true that some of the CCPA's obligations as well as those found in a host of other state initiatives would be preempted under Reg SP and Gramm-Leach-Bliley, asset managers are still faced with the costs and potential liabilities associated with determining just where and how they are to comply with a growing multitude of overlapping regulatory regimes.

As the Commission continues to consider how best to protect privacy and data security, having a greater understanding of what challenges asset managers and other market participants face will be invaluable.

Your insights on these and other issues are very welcome. I look forward to following your discussions in person or later by video if I can't make it in person. I want to thank you, to the Division of Investment Management, particularly to Mark Uyeda, Christian Broadbent and Sirimal Mukerjee for making this committee a reality. Thank you.

COMMISSIONER LEE: Thank you. I'll be brief so you can all get started with your work. I want to second the remarks of the Chair and my colleagues on how important the asset management is to American investors. Clients of all types, from retirees, retail investors, large institutions and pension plans rely heavily on the people in this room and your colleagues to manage their finances, help them save and invest for the future and exercise independent judgment in voting their shares.

So I want to thank Director Dalia Blass for helping to establish this committee, and I want to thank everyone here for your willingness to contribute your time and expertise.

There are many issues worthy of this committee's attention and I do look forward to your assessment of how best to spend your time and resources. I want to highlight one area of increasing significance to the investors you all serve, and that is the ability to accurately assess, compare and invest in companies with sound policies on sustainability, ethical business standards and good governance. Evidence continues to mount regarding how critical this information is for investors in their decisionmaking process. Indeed, a recent academic survey indicates that over half of the institutional investors surveyed globally considered climate risk disclosure in particular to be as important as traditional financial disclosure. And yet it has been a decade since the Commission addressed climate-related disclosure. And I don't want to see us fall behind the rest of the world in ensuring that investors receive the sort of material information that the market is demanding.

So as you start to think about this committee's agenda and how you can help both the Commission and the public, I hope you will consider some of these issues. How can the Commission ensure that asset managers and their
clients can meaningfully pursue their investment goals and have access to critical and comparable information related to climate risk and more broadly to ESG issues? What set of standards will best serve investors and asset managers in evaluating a company's exposure to climate risk and in assessing and pricing that risk? What should it mean when a fund calls itself an ESG fund? And how can the Commission and investors ensure that asset managers are not only investing in line with the long-term goals of their clients but also in line with those goals?

So again, this is just one of a number of important areas where I hope we will benefit from your expertise. And I do sincerely thank each of you for your time and dedication and I look forward to your analysis and recommendations.

COMMISSIONER JACKSON: Thank you so much, Commissioner Lee. And thank all of you for being here this morning. I will also be brief.

I want to echo the comments of all of my colleagues, and again by extending my tanks to Sean Memon and the Office of the Chairman, the tremendous Dalia Blass, our director of Division of Investment Management, for putting together this truly exceptional group of professionals and thinkers in this important space.

And my colleagues have said this already but, just to make the point clear, by being here today you make a sacrifice of your time and expertise that we appreciate deeply, and it makes us better at our work and we are very grateful for that.

My colleagues have highlighted several high-level important issues and I am going to be much less interesting and focus on a particular issue that's been on my mind over the last few years and one that you might consider among the many important, pressing issues that you will study over your time together as a committee. And those issues have to do with closed-end mutual funds, a subject that I have published about and spoken about in the past.

Closed-end mutual funds are a crucial vehicle for ordinary investors to participate in a number of markets across the economy, whether it's fixed income type saving in municipal securities with a unique liquidity profile or other types of instruments that are important for retail investors. The data show that retail investors are overwhelmingly the holders of these funds and that they play an important role in the marketplace. And among other things, a study of that area is something that the Commission hasn't undertaken for some time and may be worth reevaluation.

In a study I released before I took this job, I examined the effect of the Commission's determinations with respect to the use of takeover devices in those funds, and the degree to which that use protects or does not protect individual investors who participate in that asset class. Without making any judgment on that point, I hope you'll lend your expertise to the subject. It's certainly something that's been on my mind and may be something worthy of our attention down the road.

With all that said, thank you so much to our colleagues for bringing this group together and I look forward to the conversation.

MS. BLASS: Good morning. I am also truly delighted to be able to welcome you all here this morning for this inaugural meeting of the Asset Management Advisory Committee.

Since the beginning of my time as the director of the Division of Asset Management, I have been focused on ways to engage with and better regulate the constantly evolving asset management industry. I believe that forming this committee is a significant step towards creating diverse investor and industry perspectives to the most pressing issues facing the industry today.

This committee is the result of a tremendous amount of effort by many people. I would like to thank the committee members, all of you for being here today and participating and willingly giving your time to this effort.

And Chairman Ed Bernard, your generosity in agreeing to participate is truly participated.

I also want to thank my team, Christian Broadbent, Mark Uyeda and Sirimal Mukerjee and IM's managing executive office. They were instrumental in getting us here today and they worked tirelessly to help make sure that, hopefully, this day goes off without a hitch.

I also want to thank all who are going to be participating on today's panels. I expect the discussions to be highly informative as well as conversation starters for issues that the committee may ultimately decide to tackle.

Finally, I want to thank the Chairman and the Commissioners for their support of the committee. Last March, I announced the Division was considering the formation of an asset management committee. I said that many of the debates surrounding long-term trends in the asset management industry, such as the rise of index investing, increased globalization, increased scale and trends in retirement funding would benefit from thoughtful discussion among experts with diverse viewpoints. Today,
this committee is an important step forward in this discussion.

To put this discussion in perspective, let’s consider changes in retirement trends for the post-millennials. After getting their first job, it’s unlikely that they will have similar access to pension plans like their parents. Instead, for retirement savings, they will likely need to look to defined contribution plans. So right with their very first paycheck, they will need to know and understand how to access and invest in the markets, how to allocate those investments and how to monitor their allocations.

While some could choose to invest directly in the stock of a company or a bond, data shows that Main Street investors access the markets through the asset management industry. They invest in mutual funds, exchange-traded funds, business development companies and variable annuities. This enables them to build a diversified and professional managed portfolio, spreading cost and risk.

Therefore, the asset management industry is a key player in helping investors to meet their retirement and other financial goals, and its role is growing.

This makes it critical that we approach potential trends and risks by engaging in thoughtful dialogue that hears from and accounts for diverse views. I believe this is how we can discover effective and actionable solutions.

To this end, this committee was designed with representation across the asset management industry. It includes members of different backgrounds, from different sectors of the market, fund sponsors, retail and institutional investors, broker-dealers, liquidity providers, fund directors, data providers, research analysts, index providers, custodians and auditors. The members come from all over the United States and the full spectrum of funds are represented here today, large, small, active, passive, alternative, closed-end, BDC and private equity. I cannot think of a better informed group of individuals to give us their thoughts on potential trends and risks.

As the Chairman noted, diversity increases familiarity with investors, enhancing access to the services provided by the industry. Therefore, the diversity of this committee is important to discovering effective and actionable solutions that I mentioned earlier.

Before the committee begins its work today’s panel discussions, I am delighted to introduce the chairman of the Asset Management Committee, Ed Bernard. I know most of you probably know Ed quite well. During his more than 30 years at T. Rowe Price, Ed served in several capacities, including as vice chairman of the corporate board of directors and chair of the board of directors of the T. Rowe Price mutual funds.

For those who have had the opportunity to know Ed, underneath all the titles is an infectious enthusiasm for his work. And with that, Ed jumped in feet first from day one. He has spent quite a bit of time thinking about potential topics that may be of interest to the committee, talking with other committee members, thinking about and contacting potential panelists through discussions with the committee and planning today’s agenda. So please join me in welcoming Ed to this inaugural meeting of the committee.

MR. BERNARD: Thank you for that kind introduction and thank you to the Chairman and all the Commissioners, both for your remarks and your support in creating this committee. And my especial thanks to Dalia and her team, who conceived it, worked it through the Commission, got approval, helped define the charter and so forth, and here we are.

I’m going to make just a -- we’re doing okay. I am going to try to keep my remarks to about three or four minutes as well. I want to speak a little bit to why we’re here and how we’re going to operate and then turn it over to our first speakers.

Dalia mentioned actually the breadth of the committee, which I think is particularly exciting. And I would say that the committee has been designed with that broad representation to create a strong, broad and balanced dialogue, contributing market perspectives to inform the work of the Commission. Over two years, we will prioritize issues and explore them in depth, via subcommittee work and in discussion, formal meetings like this, and seeking to create a strong public dialogue and raise the level of understanding of all stakeholders and make specific recommendations as and when appropriate.

I thought as chair -- I don’t want to be overbearing but I thought I’d share just a couple principles of how I think about this. And certainly, as we get to know one another, I welcome other thoughts.

First, I think in any endeavor like this, our North Star is the investor. In all of our work, our ultimate goal should be to provide our best thinking, as measured by serving and protecting investors. You’ll find that I always fall back to that.

Second, my experience has been that actively embracing diversity of thought and respectful debate leads to better ideas and solutions. The context of public policy work makes this all the more important, given the need for a balanced record reflecting multiple perspectives. So, as we identify areas for focus, we’ll design work plans and discussions to ensure multiple perspectives. And in our discussions, I obviously hope you will all freely express
your own views. I will say one caveat. I doubt I need to
say this. But on each point, I won't be polling the entire
group for a point of view; we will just have it be a natural
evolution of engagement.

And actually, I would echo both the Chairman and
now Dalia have mentioned the broader issue of diversity.
And in my view, that remains an important challenge for the
industry. And I hope to find a way for us to bring some
to that as a group.

The final view that I wanted to share is my view
that effective regulation is a neighborhood issue. And what
I mean by that is, while our committee includes varied and
sometimes competing interests by design, our ultimate stake
in this is a collective one. And that calls for us to seek
the greater good. Asset management is a business of trust
and, when that trust is damaged by any participant, whether
by poor execution or bad behavior, it damages trust for the
entire industry.

So with that, we've been given a fairly broad
mandate and we concluded for this first meeting, if you'll
forgive the industry jargon or the consulting jargon, we're
going to zoom out in order to zoom in.

We've structured this meeting to examine broadly
significant trends and certainly don't plan to fully
prosecute those issues today. Rather, we hope to provide a

Michael Goldstein is managing partner of Empirical
Research Partners, an independent research firm and broker-
dealer. It's subsidiary, FMML provides research on the
business of money management, and has done so for, what, 35
years, something like that. He's been looking at it for a
while. Over 75 of the top hundred equity holders in the
U.S. are clients of his firm, so he's had great success with
that. And, importantly, Michael has followed the money
management industry since the early part of his career in
the early '80s.

Ben Phillips on Michael's right is senior
principal with the Casey Quirk practice at Deloitte
Consulting, also has over 25 years' experience consulting
with asset management firms and wealth managers.

So the way we've elected to do this, I think
rather than get bogged down with questions, we've asked them
each to speak for about 20 to 25 minutes, just share their
thoughts with us, and then we should have a good half hour
left for us to engage in discussion. So with that, Michael,
I think you're up first.

MR. GOLDSTEIN: Thanks, Ed. Thanks for having me
attend. My day job involves giving advice to money managers
about what to do in the stock market, which I've been doing
for about 35 years. As an avocation, I've followed what's
gone on in the money management business over that period of

The evolution of public versus private securities
markets. Globalization of asset management -- and there, we
will have an emphasis on regulatory aspects, given the
breadth of that topic to avoid, forgive the cliche, of
trying to boil the ocean.

We will also have some administrative work for
those on the committee over lunch, with some briefings from
various offices of the SEC, and we will talk about our
bylaws.

So unless there are any questions from the
committee members, I am going to introduce our first two
speakers and we're one minute behind time. So we're doing
well so far. We've got a long day ahead, though.

EVOLUTION OF ASSET MANAGEMENT AND VALUE PROPOSITION

MR. BERNARD: So the Evolution of Asset Management
and Value Proposition, if I had to sum up the last three to
four decades in our industry in one word, I think I would
use the word "change" on just about every dimension. And in
this first session, we wanted to capture a robust view of
that as a foundation for our work.

I can't think of two better people to guide us
through it. They each bring lots of informative data and,
more importantly, given their expertise, we've asked them to
focus on what they view to be important trends and the
trajectories of those trends.

MR. PHILLIPS: So the Evolution of Asset Management
and Value Proposition, if I had to sum up the last three to
four decades in our industry in one word, I think I would
use the word "change" on just about every dimension. And in
this first session, we wanted to capture a robust view of
that as a foundation for our work.

I can't think of two better people to guide us
through it. They each bring lots of informative data and,
more importantly, given their expertise, we've asked them to
focus on what they view to be important trends and the
trajectories of those trends.

Seeking to shed light on potential implications of
that, I would suggest that we avoid the temptation to link
every issue or trend back to regulation. Linkages and
implications can be developed as appropriate in more focused
work to come, and that obviously will be a key focus of our
work. But there are many factors that drive evolution of
our industry that aren't regulatory.

So after discussions with each of you, other
industry experts and observers and especially with Dalia and
her term, we have organized today's meeting around three
broad topics. The first is the evolution of asset
management and, if you will, the asset management value
proposition from circa 1980 to present. You may have
noticed there's been a fair bit of change. I'm going to
guess, and Michael will probably tell us, in 1980, there was
probably 400 or 500 billion in assets under management in
the entire mutual fund industry. It's now 21 trillion,
something like that.
time and have advised CEOs on business strategy.

I brought along a presentation today consisting of 40 slides and I have 25 minutes, so I am going to have to move right along. I have no way to change the slides, so I hope they are magically going to move forward.

So we can turn to number two, which is the topics I brought along today. Given we only have 25 minutes, I'm not going to talk about everything. I'm going to start with a review of the very big picture or talk about indexing and what's driven the rise in particular, then talk about what constitutes advice and how that may have changed over time.

Turning to slide three, the next slide, this looks --

MR. BERNARD: Actually, I'm not sure who's driving slides. But I will tell you from experience, Michael moves like a buzz saw through the slide, so I would keep your finger on the button.

MR. GOLDSTEIN: Yes, things are going to move right along.

The green bars look at the size of the U.S. money management industry. We think at the end of 2019, it was between 45 and 50 trillion in size. Since the value of financial assets has grown faster than the economy, the relationship to GDP has gotten bigger, which is reflected in the black bars. And the money management industry is just over twice the size of U.S. output at any year.

Turning forward, this slide looks at the makeup of assets at the end of -- thank you, do it myself -- at the end of 2018. In the upper right are institutional monies, in the upper left are retail monies of various categories. And at the lower right are various forms of retirement assets controlled by individuals. So you can see the traditional institutional business is now about a quarter of the industry itself. This looks at the evolution of those components.

If you go back to 2000, the institutional business was about a third of the assets of the industry and it's now a quarter. That share has gone to retirement assets controlled by individuals directly, primarily IRA accounts. And the retail share shown at the top has been largely flat.

So as was mentioned earlier, it looks like the defined -- traditional defined benefit plans sponsored by corporations are in hospice care. So you can see here, the number of participants is back to what it was in 1975. Just over a third of those are still employees of the company.

So only about 7 percent of the private sector work force is covered by a traditional pension plan, so the dynamic that long drove the industry of institutional buyers making bulk decisions has faded quite dramatically.

Turning forward, the history of the industry is one of booms. Something happens to make something hot. Either it's interest rates, regulation, deregulation, changes in the global economy itself. And this looks at the major booms since the late '70s. Money market funds, equity mutual funds, hedge funds, and the two booms of this decade, the rise of ETFs and the rise of private equity. Once again, the bars -- the black bars at the right relate those to the size of the U.S. economy. You can see at the far right, the flows in traditional equity mutual funds and ETFs have been puny in this decade compared to the categories that boomed, shown to the immediate left. So consistent with the history of the industry, something has been hot.

And those two things have been ETFs and private equity.

So this looks at their share of the industry, which is the yellow and black bars respectively. If you go back to 2000, each was less than 3 percent of the size of the industry and now they're both about 9 percent of all the assets. So this has been a pretty dramatic transformation in the makeup of what constitutes money management that's not dissimilar from what's happened in prior decades.

When one tries to figure out how people make decisions, past returns seem to have something to do with it. So this looks at trailing 20-year returns, which is probably the right horizon to figure out long-term decisionmaking. The blue line is the returns of the S&P 500 on a trailing 20-year basis and the green line, I guess, are Treasury bonds. So people like bonds because they've been better than stocks for 20 years. There are many other reasons, but this has something to do with it.

Interest rates have also had a lot to do with institutional behavior. The green bars are the rate of spending rates of endowments, how much they plan to spend each year as a share of their assets, and the black line is the yield of the U.S. bond market. So today, the yield is about half the spending rate. So you try to manufacture yield, which has been one of the driving dynamics of the money management industry over the last 15 years. If it's not there, you figure out some way to create it, sometimes with some unexpected consequences.

Another big aspect of all of this has been demographics. You just can't get rid of the Baby Boomers. So they still -- the Baby Boomers and their predecessors still control between 70 and 75 percent of all of the financial assets in the U.S. under the direct control of households. So people always bring up to me millennials. It's a very interesting group. But from the point of view of the money management business, the basic problem is they don't have money; the Baby Boomers still have the money.

And so the inertia created by this has been sizeable.
The other reality of the money management business is that the business and policy issues are not at all the same. Because the money management business is essentially an asset-weighted business and the assets are very skewed towards the top end of the wealth distribution. So you can see here on the order of 80 percent of the assets come from the top 10 percent of the distribution. So this has had a big impact on how the industry has evolved over time because the distribution has become more upwardly skewed over the modern history of the industry.

What's also happened is this looks at inheritances by age and wealth. So the blue line looks at the probability of getting an inheritance for people in the top 10 percent of the distribution. So most of the inheritances go to wealthy people that are in their sixties. So what's happened is the Baby Boomers' parents have died off, those assets have gone to the top end of the distribution, furthering the trends already in place.

So this has had a big impact on the rate of change in the industry. I believe the demographics have had the effect of slowing the rate of change because inertia among the existing asset holders has remained the dominant dynamic up until this point. So this chart looks at a survey where they asked people, what do you like better, people or machines? So the blue bar tells you they like people better, the black bar tells you they like machines better. And so younger people prefer machines. Older people kind of like them too, but not to the same extent. So the demographics have had the effect of slowing what would have been disruptive change in the business.

The private equity business has had a real boom. This looks at private equity and venture capital investments divided by the capitalization of the entire U.S. stock market. And you can see the investments have equated to about two and a half percent of the cap of the equity market every year of this decade. This is kind of a remarkable chart because the history of these businesses is you want to buy near the bottom. You make the most money when you buy immediately after a recession when multiples are their lowest and so are interest rates. But you can see here, this has been a very different dynamic. The money is coming consistently because it has been a fundraising success and it has become very material to the size of the economy and the industry itself.

What's also happened is companies stay private longer than they used to, in part having to do with regulatory changes that date back to the mid-90s and for many other reasons as well. And so this has also changed the dynamic. It used to be they would go public after three or four years; now it's about double that length. And part of it is you sell companies from one private holder to another because the private pool is so much bigger than it was before. There has also been a melding of the channels here. This looks at what share of venture capital-based IPOs was money from mutual funds over time. So what's happened is the traditional mutual fund channel has become involved in the venture capital world in a very material way and so the two are no longer distinct; rather, they're operating in much the same space on the margin.

There are all kinds of consequences of this. One thing I've learned is when things get bigger, they change their character. And I think this is the character of the private capital business. So this chart looks at the sectoral mix of debt. The red bar is the sectoral mix of the leveraged lending market and the green bar is the sectoral mix of the debt of publicly held companies. So increasingly, the private market looks like the public market because it's gotten bigger and bigger and it has a decidedly pro-cyclical bias to the mix of debt, which may have consequences in the next recession.

I am now going to turn to the topic of indexing and price sensitivity. The blue and black bars respectively here look at what share of the mutual fund and ETF business is indexed. So you can see, if you go back to 2000, the share was about 10 percent and now it's very close to half.

This is the biggest thing to happen in the history of the money management business, in my opinion. And the striped bar at the right looks at the index share of institutional monies with professional decisionmakers.

I tried to figure out why this has gone on? And one thing I did is I just looked at ETFs and I said what is their Morningstar ranking? And I noticed if you look at the various ETFs, they have four stars. So I think making no decision has become a viable decision because the base index is very well regarded. And so it has been a combination of cost, political correctness and performance itself that produced this outcome.

There are a number of reasons for it. The most obvious is, since the financial crisis, active managers in every category have been unable to beat their benchmarks. And so the index has become the dominant source of investment flows because it, in fact, was the winner over what is now more than a decade.

We tried to figure out why that is. And active managers always have some deficits. Some of it is they hold cash, so if the market is going up, that's a problem, which is the orange bar. The yellow bar is they charge fees. What's been different in this period is, as you've had globalization, U.S. funds are more likely to hold non-U.S. stocks. And in the last decade, that's been the wrong thing
to do. So it’s been about a 50 basis point drag on domestic
fund performance by active managers was the freedom to go
global has actually sort of backfired. So that’s also part
of the story.

There are a couple of other reasons. The green
bar here looks at what share of the time the economy did
better than people thought it was going to do. And the red
bar is what share of the time it underperformed economists’
expectations. So if you look at the period in which active
management was ascendant, the economy was consistently
beating expectations and you wanted to have a value bias,
because the surprises were largely to the upside, and this
went on for 30 years. What’s gone on since 2000 is the
economy has largely fallen short of expectations. So having
a value bias was wrong and active managers have
系统地支付了这种暴露的代价。

One of my associates put together this analysis.
This looks at did you want to be active. One of the ideas
that has sprung up in the money management industry, dating
to the mid-2000s, is the idea of active share. That you
want the fund that you’re managing to be considerably
different than the index itself, so you have a bigger chance
of winning. Well, paradoxically, the outcome was, having
more active share has been a huge problem. So if you look
at this decade, the sectors with the lowest tracking error
that had the biggest impact on the index were the best
performers, to a degree never seen before. So being active
was more problematic than at any time in the history of the
stock market, which also has been deterministic to the way
things have gone.

Finally, there’s the real economy itself, which is
the most important thing that tells the story. The green
line here are the free cash flow margins of companies in the
top quintile of capitalization, the very biggest companies
in the market. And the dotted line is everything else put
together.

So what’s happened is the biggest companies are
now considerably more profitable than everyone else, to a
degree heretofore never before seen in the history of public
companies. They also grow faster and have lower capital
intensity. So all of this has made the cap-weighted index
extremely hard to beat because of the concentration of
profitability of relatively few companies.

So one of the upsides of all of this is pricing
behavior and you can see the last five or six years has been
decidedly different from what came before.

This is a survey done of ETF investors in 2018.
And they asked them, what’s most important to you? And you
can see the first two things are, it’s cheap. The next two
things are, I’ve heard of it. And I noticed Morningstar
ratings came in 10. That’s not what was I was particularly
used to in the history of the industry. So you’ve largely
changed the dynamic having to do with the fundamentals of
the economy itself.

So my clients are professional equity investors.
So one thing they frequently ask me about is, is the tail of
the dog now big enough to wag the dog? Has the rise of
indexing changed price formation in the market such that the
flows into index funds are deterministic?

This is a very hard thing to figure out. We’ve
concluded, on an investment basis, if you look out a year,
that’s not the case. One reason is shown here. This looks
at what share of the money, either from institutions in
green or retail products in blue, what share of the
capitalization of the entire equity market is into index
vehicles. And while it’s up, it doesn’t look up enough to
create the kind of effects on an investment horizon that
people are fearful of. Although on a day to day basis, I
would say the issue is far more debatable.

I think one other issue raised by all of this is
if you give people liquid assets that are narrowly defined,
they can mistime. So the history of the business is the
biggest problem is people buy high and sell low. And over
time, it got to be smaller as they had more diversified
portfolios and made fewer decisions. What’s happened
though, as you fragment the ETF business into more narrowly
defined products that are in and of themselves liquid and
susceptible to trend following, you could raise the
mistingime element in the equation, which we believe is
what’s gone on, which is the bar at the far right.

Finally, I am going to talk about what constitutes
advice. I came across this survey a little while ago and
they asked financial advisers, how do you describe yourself?
And I thought the interesting thing about it is, nobody
thinks they’re a broker anymore. Everybody is either a
wealth manager or a financial planner, which should probably
tell you something about something. Then, on the next page,
I took a look at what share of the holdings of these various
channels of distribution of their mutual fund and ETF
holdings are indexed. And you can see, in most of the
channels, the indexed holdings are now the majority. So it
seems to me this is one of the biggest changes in the
history of the business, because instead of picking
something, you’re now buying an exposure, making asset
allocation a much bigger part of the value equation because for the moment.

Turning forward to slide 34, this looks at the history of pricing as a share of the underlying assets. The black bars are the fees for giving investment advice divided by the assets in custody of the largest brokerage firms going back to the mid-’80s. And the red bars are the asset-weighted expense ratios of mutual funds and then, at the far right, ETFs. So if you go back to the mid-’80s, the 10-year Treasury bond yielded 10 and a half percent and the price of advice was 100 basis points and the price of mutual fund management was 70. By 2000, the Treasury bond yielded six and they both had prices of 82 basis points. Flash forward to today, the Treasury bond yields two, the price of mutual fund management is 50 and the price of advice is 60. If you buy an ETF, the price is 17. So there have been pricing declines as rates have fallen for three decades.

My guess is that the price of advice is going to come under more pressure for a variety of reasons. One, is there's all kinds of competition for advice, including from computers. So this looks at the various asset-weighted fees based on size of the client relationship. And then I looked at the pricing of robo-advisory services, both by the largest firms themselves that offer full-service advice, and by other providers. And generally, the price of automated advice is something less than half the existing pricing level.

There's a service that tracks robo-advisers of all sorts. And I took a look at the latest results. The yellow bar describes, for the 13 major firms, what share of the asset allocation is in stocks, and the black bar is what share of that stock allocation is in U.S. equities. What struck me about this chart is all the bars looked alike.

There wasn’t like a really big difference that I could observe. Then I looked at the two-year trailing returns. COMMISSIONER JACKSON: Sorry, just one quick question. So in this slide, you show that there is a low standard deviation among the trailing two-year returns among the various robo-advisers. Is that surprising?

MR. GOLDSTEIN: No, because they have the same asset allocation. That's the point.

But I think there's another point, which is as you automate things, you are creating a de facto benchmark. Because the more times you – you convey this information, the more things you have to compare to. So I’ve kind of thought one of the more important implications of technology is to liberate the information and create comparators that were not there before, which have had a big effect on pricing in the history of this business. That's the point of this slide.

Finally, there has been, I would say, convergence between money management and distribution. The green bar here looks at retail assets held by these various organizations at the end of 2017 and the black bar is at the end of ’18. So if you add up the individual assets of the Vanguard Group and Blackrock's iShare business, today they are probably about $6 trillion, which would make them almost three times the size of the largest brokerage firm. So I think there's just great convergence as you've kind of changed what constitutes advice and you've brought more technology into defining that outcome.

So to summarize – oh, I have one last slide, on page 39. I came across this survey the other day, which I thought was kind of very telling. They asked sponsors of defined contribution plans, do you think you have a responsibility for employee financial wellness? I'm not even sure what that means; maybe I'm not very well educated. But I noticed that most think they do. And I think this is the other element of change in the business, that what you're responsible for keeps changing and expanding, which has been a real challenge in the defined contribution business, and it looks like there's further to go along that direction.

So to summarize, on page 40, in following the money management business over many years, I don't think it's distinct from the economy itself, rather it's a byproduct of it. So what we've seen in the last 10 or 15 years is largely a reflection of what's happened in the global economy, the rise of mega-profitable companies, falling interest rates, globalization. And those things are all showing up in the way the money management business in fact operates.

I finished in 25 minutes.

(Applause.)

MR. BERNARD: I do think that's noteworthy. You don't see many people get through 39 slides in 25 minutes.

If I can ask people to be – that was phenomenal, Michael. Thank you so much.

If I can ask people to sit on your hands for a little bit, I think it would be best if we let Ben go through his remarks first. And then I think we'll have a good, solid half hour for discussion.

MR. PHILLIPS: Thank you, Ed. I would like to thank the Commission and the committee for giving me the opportunity to speak today.

As expected, Mike led us through an excellent review of the asset management industry. My colleagues and I have assembled something similar. These slides are more
from the perspective of the asset managers themselves. They are the industry actors that we advise as a practice. They are the ones that the Commission regulates. And most importantly, they are going to be the industry actors that Americans use and trust going forward.

Ed framed the situation for the industry very well at the beginning. The past 40 years have been a different story for the asset management industry. It's one where a manufacturing paradigm was what drove a lot of the decisions made in it. Investment management firms took their intellectual property, packaged it up, put it on the loading dock, intermediaries backed up trucks and took it away somewhere. Like most American industries over the past century, that is now changing for a variety of reasons and the industry is now adapting more of a service paradigm, which is creating a lot of different and new situations and decisions to make for the asset managers, for their customers, and for all the parties that are in the ecosystem of asset management in the United States.

So that's the main theme that will drive through my slides today, is that transition from product to service. I think it is something that, in a variety of ways, either obliquely or directly, the committee will continue to address as you go through your work over the coming months.

There's a data summary in the front of the deck, for those playing along at home. But I might ask the committee to turn to page 5 and we'll use the data slides to walk through some of the discussion points today.

Again, three acts in this story: changing demand, changing supply, and the impact on the asset management industry. So spending a little time to begin with talking about changes in demand.

As Mike rightly pointed out, the Baby Boomers have inertia in this industry and continue to drive a lot of its shape and direction. However, increasingly, they have some people coming along for the ride. As you can see on this slide, it's a growing proportion of the industry. Nearly half of its wealth by 2030 is going to come from post-Boomers of one age or another. They don't have money now; they're slowly accumulating it. But increasingly, their needs and wants are going to become part of what asset managers and intermediaries have to think about and service.

More importantly, the Boomers are still that driving force. But how they drive is a little bit different because by 2025, nearly half the wealth in the asset management industry or in retirement funds that are part of the asset management industry will come from retirees, not pre-retirees. Which means the shift from accumulation and deaccumulation is no longer a tangential part of the industry, it could become more front and center overall.

This dynamic has a lot of psychology embedded in it. Younger Americans tend to be more indebted, awaiting inheritances, in general have a different view of capital markets than their parents. And usually, as a result, and somewhat counterintuitively, are more risk averse. Older Americans like to carry risk, but they like it expressed in income. All of this means that you have a wide variety of changing needs that have created a more multifaceted consumer demand than we've had for the first 40 years of the industry, where most of the demand boiled down to accumulation as a primary driving force.

And that leads to slide six, which is a second big change in demand throughout the industry, which is the advent of advice being demanded in customized, outcome-oriented forms. So if you look at some of these factoids on this slide, three quarters of U.S. investors now value specific outcomes more than they would asset appreciation in their portfolio. This derives from income needs; this comes from having specific cash flow obligations to meet. And as a result, what you're seeing is the more complicated set of metrics that individual investors are bringing to their asset managers to fulfill.

Four fifths of investors in the United States value outcomes that don't only extend from investments but actually embed a whole host of other services, so tax management, debt and liquidity management, and effective protection through insurance. What they're looking for is the answer to a question, not outperforming a benchmark. Help me pay for my kids' college, help me make a certain retirement income. While the industry has always talked about meeting these needs, they've mostly done it through the asset appreciation lever. Now they have to think about other ways to do it to meet demand.

This is going to require customization. When we talk about benchmarks, we think of them as peer groups. When individual investors increasingly talk about them, regardless of their age, they're thinking about themselves. They are the benchmark. And as a result, the need and the desire to have financial services and financial advice customized for a specific person, creates a profitability challenge for providers in the industry and an implementation challenge throughout the industry to be able to meet that demand by individual investors.

Slide seven talks about the impact of that on the market structure in the demand side of the industry. If you think about where advice is provided, as Mike pointed out, there's lots of people who provide it, calling themselves all sorts of names. At the end, a lot of this decisionmaking tends to be centralized for economies of scale. And if you believe that providing advice is becoming
a more customized effort, that requires two things. It
requires more technology to give you that mass
customization, and it requires more heft in enterprise
services that provide the fiduciary protection, the
compliance and the legal and the regulatory and the
financial oversight to ensure that advice meets demand
specifications and meets legal requirements.

Put that together and you are seeing that there is
a scale dynamic unfolding among those centralized
gatekeepers of advice, those investment decisionmakers. By
2021, we expect the number of these decisionmakers will drop
by about 40 percent. Part of that is, as the traditional
providers of this advice, brokers, leave the system through
retirement. But part of it is as the platforms that provide
the advice consolidate.

The net result of that also on the right-hand side
of this slide is that the types of intermediaries that are
thinking about that customer demand for holistic advice,
which is consultant speak for bringing in tax, debt and
liability management, applying advice across multiple
financial sectors and silos to achieve a single result. The
centralized gatekeepers that provide that at scale, and the
types of those, would be the private banks, would the home
office groups within broker-dealers that can handle a lot of
the centralized advice provision through their sales forces,
services are delivered.

In general, this is accelerating. Earlier in the
decade, fees fell about 3 percent per annum, compounded. In
the last few years, they've started to fall about 5. Part
of this is due to indexing, but not the majority. Most of
it is simple same-store discounting. It is that, by and
large, the wholesale acquirers of asset management products
and services are demanding deeper and deeper discounts. In
the institutional world, the rack rate discount now on offer
is an average of 15 percent. So it's not only structural on
the rack rate but increasingly as part of the sales dynamic
in the wholesale part of the industry, fee pressure is
becoming an always and everywhere phenomenon.

On the right-hand side of this slide, if you add
up all of these factors of demand and you start to say
what's the impact overall for the industry at a global
level, one key takeaway is that the organic growth in the
industry will begin to slow. For most of the first decades
of the industry, the first 30 years, you would see organic
growth in the industry at about 6 percent per annum. That's
new money coming in on top of what's already being managed.

Going forward, this will be more about 1 to 2 percent, due
to the fact that you have most pools of assets being
collected worldwide, be they sovereign funds, pension
schemes, individual investors, private assets are now

outsourced chief investment officers, which now control a
rising proportion of U.S. endowment assets, and customized
401(k) provision within U.S. defined contribution schemes.

Going forward over the next five years, we feel
that they will represent, these types of intermediaries,
will represent most if not all the organic growth in the
U.S. asset management industry. The traditional
institutional buyers of defined benefit plans and the
traditional retail advising through broker-dealer sales will
be on the decline as a result. Again, partly reflecting
market structure but also partly reflecting the changing
demand of the customers, both at the retail and the
institutional level.

There are economic results from this. Slide eight
talks about two of them. The first, on the left-hand side,
is fee sensitivity. And, as Mike pointed out, with lower
returns historically, larger fees come out in sharper
relief, so there's clearly already traditional pressure on
fees. There's also demand-oriented pressure on fees that
increasingly, if investors in the United States value the
outcome and asset managers are just one of the actors
providing that outcome, they may not receive as much of the
fee budget going forward. And as a result, we'll see in
some upcoming slides, that has an impact on the value
proposition and the so-called value chain of how these
already tapped by asset managers for professional
management. And as a result, there are very few new worlds
to conquer.

So those are some of the trends that are changing
demand in the asset management industry. So let's take a
look at those demand trends as they change are actually
revealing some fundamental shifts in how suppliers are
acting in the asset management industry. If you look at how
asset managers have grown over the past 40 years, they've
done so reliant on tail winds from that organic growth. But
going forward, if that growth is slowing, they'll have to
compete with one another to grow and realize value for their
shareholders. So if the story used to be about a rising
tide lifting all boats, then going forward it's going to be
much more about naval warfare. Asset managers will have to
find ways to continue to grow their economics by culling
assets from one another rather than waiting for new money to
show up into the industry.

As a result, there's probably several trends that
are impacting how the suppliers are acting. We've picked
two to look at here, beginning on slide nine. One is the
simple and sheer oversupply of vendors in the industry. The
death of active management has probably been exaggerated.

As you can see from the left-hand side of page 9, about 41
percent of the assets in the industry still exist in
investment strategies where there has been consistent excess return net of fees over the past 10 years. However, it's a concentrated bunch of vendors that can deliver that. Only about 23 percent of the strategies that are in -- only 23 percent of the strategies in the asset management industry hold those assets. And if you think about how firms are built, barely 4 percent of asset management firms are able to deliver that type of performance across their entire product set. What the shifts in demand plus the capped organic growth have revealed is a glut of vendors in the asset management industry, which is further illustrated on slide 10. You continue to have, because there are still relatively low but rising barriers to entry into the industry, you've got more asset managers pouring into a constrained environment and fewer and fewer are able to realize positive net inflows, which reflects the competition that's beginning to develop within the industry. Part of what has challenged active asset management to some degree is the changing capital markets, not just in the U.S. but in most developed markets worldwide. So if you look at slide 11, what you see is that the number of quoted U.S. companies over the past 20 years has fallen by about half. Yet you've seen just in the past four years, nearly a one third increase in the number of investment products that are being brought to market in the United States. There's too many stock pickers chasing too few stocks. And as a result, what you have are some of the phenomenon that led to indexing. But you've also had throughout the industry the beginning of a discussion of trying to figure out, how do we reinvent investment processes for this new world, not just in quantitative easing but in figuring out how to work where there's fewer and fewer listed companies. Slide 12 is something that Mike spoke a lot about, which is indexing, another big supply side trend that has redefined the industry. No need to go further into detail here. But in short, the numbers will match Mike's. The flows into index products have doubled.

Some of this is cyclical but more and more of it is secular. Again, if you believe that outcomes are what investors buy, then the net result of that is that what they're looking for is the asset allocation and how the portfolio is put together and that's where the value is. And there is increasing secular usage of index to create exposures underneath those allocations. So this is not just a matter of a pendulum back and forth between active and passive. There's probably some portfolio construction and structural issues as well taking place in the industry.

So from the supply side economic impacts, they end up being pretty self-evident. Rising fixed costs. Again, technology and enterprise services. If asset managers are no longer portfolio managers and salespeople but actually have to think through the technology to support more mass customization and they have to think through all the business-related aspects of being an enterprise in a more competitive world, their fixed costs, their non-salary costs, begin to rise. And this is something that is new for the industry. It has always been viewed as very inherently scalable. And the net result of that has been that there has been a lot of investment in many ideas that have turned out to be subscale in the long term. There is now a lot of review of financial prudence in how asset managers are run.

And if you have rising fixed costs and revenues are capped by organic growth, as you can see on slide 14, you have shrinking margins as well. Which most of the people on the committee and in the audience will realize is becoming a larger hallmark of this industry over the past five years.

So based on that, changes in demand and supply, that's the operating environment. The question would be, what does that mean for asset managers and how they compete going forward? And then also for members of the committee and the Commission, how do they think about regulation and how do they think about how industry actors interface with...
to the clients they serve, both because it protects their 
fee budget but it also gives them access to information and 
flattening out within the adviser channel and increased use 
of individual securities in managed accounts. Going 
forward, those numbers will continue to diverge. So in a 
world with less registered product, it becomes an 
interesting question about how asset managers organize how 
they get their IP to market and how that market is policed. 

Going forward to slide 17, in an industry where 
you had asset growth and accumulation being core drivers, ad 
valorem fees aligned interests potentially more correctly. 

Going forward with outcomes, that may not necessarily be the 
case. And as a result, you see on the left-hand side about 
35 percent of asset managers in the U.S. and Europe have 
already started to explore, either proactively or 
reactively, using fees that may not just depend on assets 
under management but a whole variety of things, particularly 
around trying to create the outcomes that customers seek. 
And it's a rising proportion of the business dynamic, as 
well. 

These are difficult to implement, they're 
difficult to measure. But increasingly, they stand out as 
differentiators and ways to realign asset managers with what 
clients are demanding and needing. 

If you have performance fees coupled with the 
desire to provide an outcome and get the credit for it from 
the investor, understandably, asset managers as depicted on 
slide 18 to some extent, will look at how do they get more 
direct distribution to clients. Mike had similar data in 
his presentation about people who prefer technology, meaning 
mostly younger investors, versus older investors. The 
takeaway here is technology has now opened the door further 
for asset managers to have more direct access to clients. 

The question is, what are the repercussions to the industry 
that data, the actual competitive dynamic of securing the 
information either through third parties or directly. 
Increasingly, competitive advantage isn't measured by assets 
under management in this industry, but it's about data under 
management, which is becoming a profound and different way 
for new actors to potentially get into the asset management 
industry. 

Slide 20, and Mike also talked about this, if we have shrinking numbers of quoted companies in the United 
States, the issue going forward is that you'll see a large 
component of the industry relying more and more on private 
markets to meet the outcomes that are required for customers 
and to serve as product offers. If you look at forward 
growth of industry revenues, out to 2024, more than 40 
percent of the growth in revenues will come from private 
market offers and that potentially won't just be big buyout 
firms, but it will also be more democratized and individual 
approaches to try to get exposure to private markets, which 
creates a huge number of industrial issues to think through. 
It's about transparency, it's about liquidity, it's about 
the technology to make it more diverse and allow people to 
invest at lower account sizes. The industry is seeing where 
the growth in economics and will make a lot of innovations 
to try to tap this market and align it with broader and 
broaden client bases and that will reshape a lot of the 
business decisions that are made by asset management firms 
over the next few years. 

Two -- one final point, or actually -- if I can 
turn this -- one final point. If we are thinking about a 
world where there is an oversupply of asset managers and 
they're trying to differentiate themselves from one another, 
many of them will not only rely on investment performance 
and advice but also additional ways to innovate what they 
offer as active asset management. If you couple this with
changing demands from investors in some quarters regarding social impact, leadership diversity and board management and board performance, you'll see the asset management industry increasingly start to portray their active asset management processes as not only around pure investment performance but other types of ESG criteria. This raises a lot of long-term questions because it will create a lot of claims and expectations in the marketplace, all of which are going to be needed to be assessed and verified by somebody. So that raises a number of issues going forward for how active asset managers are compared to one another. It won't just be on investment performance but potentially on a broad range of issues which will create opportunities for firms to figure out how to measure that and compare asset managers to one another.

In conclusion, it's -- there's a lot of data here but I would focus on the narrative. And the narrative is that the demand and supply changes that I outlined are secular in nature. They're not really dependent on cyclical market performance. They've taken multiple decades to make and they'll have impacts for multiple decades. Asset managers are going to need to redefine their industrial model around client service expectations and, as they do that, they are going to have to think about how they make their IP relevant in an outcome oriented and much more advice-dependent world. And this is going to probably -- not probably, it's going to definitely redefine how they act with one another, redefine how they act with intermediaries and certainly it will create a number of issues that regulators, not just in the U.S. but globally over the next several years will have to consider as they start to think about what their marketplace and what their actors look like going forward.

So thank you very much for your time.

(Applause.)

MR. BERNARD: Thank you. And, as promised, we've got plenty of time for discussion. But Dalia wanted to make a quick comment.

MS. BLASS: Just really quickly, just for myself and Staff members as well, I should have given a disclaimer that anything you hear from us today are our own viewpoints. We don't -- for myself and other Staff, it's our viewpoints, not the views of the Commission, the commissioners or our fellow colleagues on the Staff. So disclaimer made, if any of our colleagues in OGC are here.

MR. BERNARD: And with that, first of all, thank you both very much. I've done a lot of talking already, so I was going to actually look to the committee. Maybe if someone wants to kick us off with a question? Russ?

MR. WERMERS: Michael and Ben, I very much enjoyed your super presentations. Michael, I had heard you before, I think at a Wharton conference, and I was very happy to see that you're here today.

One thing I wanted to see if you could comment on specifically that I think you danced around a little bit, was the impact of increasing technology speed of computers, more dense DRAM chips, 5G, et cetera. And I kind of think of the impact of technology as more hitting on supply side offerings of lower fee funds, rather than demand side, demand for lower fee funds. I think it's just cheaper to do active management, especially now with technology. Passive management, a little bit cheaper. But I think active management has really been hit, you know, with lower costs in a very good way. And so if you could comment on that a little bit? And also whether this -- whether technology has kind of done the opposite of what we thought it would do, which is it -- in my view, it's concentrated the leverage of technology in larger asset management companies rather than democratizing asset management. It's actually created this huge economy of scale. So I don't know what you thought about that.

MR. GOLDSTEIN: Well, I think the biggest impact of technology has been on the economy itself and the way that played into the stock market. So it ended up the biggest companies aren't capital intensive and they seem to have the possibility of almost infinite scale, which is different than the known history of investing. And so you've ended up with this market that's very top heavy in the technology leadership of the economy itself in a way we've never seen before. So this has fed into the hegemony of indexing and all kinds of things that have gone on. So in my mind, that is the single determinant trend that has driven everything. And then, as you point out, you can do things cheaper at scale. And so that has played into it, too.

We see another impact in our base business, which is that the competition for information has totally changed. So it is very hard to be first because you're competing with a machine that's also trying to be first. And so the very nature of money management has been transformed, where you have to be more right on the longer term thesis about something because your ability to get a short-term edge is less because the amount of competition has grown dramatically. So I think there have been all kinds of consequences having to do with the scalability of technology being different than other businesses.

MR. PHILLIPS: Mark, you bring up a really good point. There's a cost of delivery aspect to this that, in a fixed cost intensive environment is clearly resonating with chief investment officers throughout asset managers. So
that's number one. Number two, though, there's an investment quality component that's rising as well. If we have fewer public companies and alpha is harder to find, which we can debate as a committee, increasingly finding alternate data, finding signals faster, these are all becoming investment quality issues.

Five years ago, had we as advisers gone into chief investment officers of many asset managers and said, we should think about automation and technology in your process, we would have been thrown out of the room. Now, we're actually being invited in to discuss these things.

But there are two important contexts behind that. One is -- I think I have this number right and, if not, somebody is going to correct me right away -- it's one of the largest CFA classes in history. So obviously, human capital is still driving a lot of the IP in this industry. So that's number one.

The second is, you bring up a good point about technology being a scale, a force multiplier here, which means that could edge out a lot of the boutiques that have been the IP in asset management historically. That's potentially true. But two things. One is, there's going to be a lot of third party technology providers that begin to create that core platform on which IP can sit in one way or another. I think that will become a disruptive set of market entrants. The other is potentially technology firms realizing that they can, too, use an already sunk cost in big technology projects and leverage that into the industry for new clients. That may create some disruption. It's quite likely that, in 10 years, we will be looking at a lead table of asset managers that looks quite different because of that. If firms have already made the sunk cost into technology, it's easier for them to build a value proposition potentially than for some firms through retro engineering.

MR. SIRRI: Ben, you in one of your early slides talked about investors wanting outcomes, outcome-oriented things, which I take to mean life cycle solutions, college, housing, those sorts of things.

MR. PHILLIPS: Or even more basically, income. Most of it is cash flow defined.

MR. SIRRI: Well, then you pointed out that we're going to go to an asset allocation model. Security selection hasn't done as well, asset allocation seems to be where, at least, in your presentation, you talked about the importance of it. It just wasn't clear to me how asset allocation solved outcome problems.

MR. PHILLIPS: It doesn't. I think the industry has tried to move toward that for years, thinking that everything in the investment silo somehow can be harnessed to create that -- that outcome. But go back to the equation that the investors are demanding, the slide where we talked about what they want. And four fifths of them get that. They say, if you give me just a life cycle fund or asset allocation, that's not going to do it. You're not doing anything about my debt or liquidity. And for many Americans, liquidity management is the primary financial concern they have. You're not talking about protection at all, which is this is great until everything falls out so how is that going to get protected. And then, most importantly, you're not talking about tax. Although the industry, the asset management industry as a whole, has become better about thinking through tax-effective investing.

So for the asset management industry, the big question is this, will you continue to try to develop market-based solutions on the existing skillset so asset allocation, security selection to generate income? Or will you open up your business model and say, we actually need to things to do that. We can be the advisers but either we are going to have to figure out some way to provide tax advice, some way to provide debt management advice, or we'll have to bring that in. Those are really some of the decisions CEOs with asset managers are grappling with right now, as many of you know, which is their investment proposition alone probably does not get them to the outcome most -- most Americans demand when they say, I want cash flow. So I think you're spot on. If you think of asset allocation more holistically, pulling everything together, that's the goal.

MR. GARCIA: Ben, this is for you, too. If you were thinking in our chair, do you think it's the SEC's role to somehow standardize ESG goals among managers themselves as managers continue to try to differentiate themselves on how they run their own business?

MR. PHILLIPS: I don't know if any regulator should be in the role of saying what the ESG standards should be. Somebody has to be responsible for puncturing claims of people who say they are and aren't. That's the role that I think regulators are now grappling with globally, particularly in Europe where ESG has taken off from the demand side more effectively. Which is the biggest problem for breaking fiduciary trust will be if firms say they're compliant with some sort of ESG standard that they're putting forward and they're actually not or the standard doesn't make sense.

How greenwashing is addressed and punished, if that needs to be taken that far, is probably the principal regulatory question that the Europeans are grappling with right now. So does the SEC have to set those standards? That's a policy decision for the SEC. But I think some
actor in the ecosystem has to be responsible for saying, this firm said they are compliant, or this firm said they are socially impactful, and they are not. Whether that's outsourced to third party policers or not is a good question.

MR. GARCIA: What are the lessons that the Europeans are learning on all this? Have they outsourced to anyone yet?

MR. PHILLIPS: That it's harder than they thought. The lessons have been leaving it up to demand, so leaving it up to the large sovereigns and parastatals in Europe to set the guidelines isn't good for a couple reasons. One is, if you do that without any influence, it could be bad on market structure. What if all ESG participants began using negative screens? You would basically start to shrink capacity of an already shrunk stock market by knocking out a lot.

And the second is, how do you then -- how do you then test to see whether this is actually true? ESG is not a product, it's an investment process. So how do you audit an investment process for ESG? Is this something that Big Four auditors should do? Is this something that other third parties should do? Is there an auditing function that has some public oversight that may be the result of this? I don't know. The Europeans don't know, either. That's the outcomes, you know, when the defined benefit plans started to go away, I'm not sure that it was the participants in them that didn't want them; it was the companies who didn't want the additional burden. So if outcomes of having, you know, known check a month is something that people actually still want, do you think -- is the insurance industry that can come in? Or, I mean, are there other players. We've seen the SECURE Act passed in the last few weeks, and that focused on the insurance role. What do you think is the way to replace that lifetime income?

MR. PHILLIPS: It's a great question. And from our aspect, it's a jump ball. It's not just insurers. With multi-employer plans now being a greater component, a possible greater component in the marketplace, you can see that retirement service providers may start to say that they hold the data and the information to do this. Asset managers will argue that investors will need returns for longer than they think in a low interest rate environment and therefore they should be in the driving seat.

Retirement income has been like the weather for the past 20 years. Everybody talks about it and nobody does anything about it. We're to the point where the demographics are showing somebody has to do something about it, particularly if entitlements globally begin to become less and less. So I do think the biggest industrial issue that's starting to unfold now, as everybody is realizing it's pretty easy to put three letters on a marketing campaign and off you go.

MR. GOLDSTEIN: Yeah, I'd like to say something about this. We have a group at Empirical that advises people on ESG and has studied it. And I would say what we've concluded is it's very confusing. If you look at the various providers of ESG and what they call ESG, they are in no sense the same. I don't think anyone even knows what it is.

I think a second problem with ESG investing is it's conflated with other things. So if you look at the last 15 years, what's worked is businesses that have low capital intensity. That has been the dominant trend in the market. Which also looked good on ESG screens. The two may not actually have a causal relationship.

So despite our considerable efforts in advising of people on this topic and studying it, I think we've had a great deal of difficulty defining exactly what it is. I tell our clients; we don't have a client that's not an ESG investor. Everybody is. But the flows into dedicated ESG funds are trivial. So it seems like there's a very big gap between the rhetoric and whatever the reality is going to end up to be.

MS. BECK: The discussion you're having about question that crosses not just asset management but crosses most advisers right now is, who are the natural providers for that? Because I think without some form of access to protection, it becomes financially risky to offer and somewhat infeasible for people to believe.

But conversely, if you don't have a component that allows for market activity and some flexibility in delivery, you're not going to be able to add all the value that investors say that they need from advisers going forward.

Mike, I don't know if you'd add to that?

MR. GOLDSTEIN: With the 10-year Treasury bond yielding below 2 percent, I don't think there is any answer to the problem. I think the only way is to systematically sell down assets in an intelligent fashion. There's no other answer.

MR. TIBERGIEN: Ed, I have a question here. So it's interesting, as you lay out the data, as if when the last Boomer dies, the world will come to an end is pretty much the conclusion of some of the demographics. I'm a little bit concerned about the age demographics and how it reflects in some of the data. As an example, when we show the reduction in fees at the brokerage firms in particular, generally that may be happening because firms are pushing people to deal with older, richer clients and Gen X and Gen Y is not being dealt with. Secondly, it's reflected in
basis points and not in dollars, and clients may be paying for it. So one of the questions that each of the commissioners raised was how do we be relevant to the consumer and how do we ensure protection? One of the things that seems to be missing from the discussion is exactly the answer to that question. It seems like we can deal with the retirement assets or preretirement assets. But what do we do in terms of choice in accumulation and how is this reflected in any of the data now we think about this?

MR. GOLDSTEIN: The reason – one of the reasons the composite is down is the average account size is up a lot. And so you’ve decided to focus on the big ticket high end and that’s what’s showing up in the data.

In terms of providing cheap advice or understanding the cost of advice, it seems like there’s a lot of possibilities there as you go to more automated alternatives, because my kind of view is the degrees of freedom on advice actually aren’t that large. That’s why the robo advisers all have the same asset allocation. So I actually think there’s a big prospect to change the way things work with technology, important to like you said the forthcoming generations more than the Boomers themselves.

MR. PHILLIPS: Mike’s spot on. I think that it’s -- it’s not only about consumer finance not really having a solution yet but it’s also where is the right point of entry. So if you think about the 99 percent below that 1 percent that holds a big chunk of the asset management industry’s products and services, is the right entry point in that traditional format or is it more about debt and liquidity management? So in other words, student loan providers start providing advice. Banks off liquidity management start providing advice.

So technology is a big lever here to allow that mass customization. The technology now exists to do it, which is why this is becoming a more feasible question. If we had the discussion 10 years ago, all of this is nice to talk about but really unfeasible at a profit. Consequently, though, I think what that does is it creates much more competition and confusion in the industry because the people who naturally would have held of these clients aren’t the asset managers because they gravitated away, they gravitated upstream. So have their intermediaries. It’s going to be other financial services providers that probably have the data to start offering this advice.

MR. BERNARD: If I could, I will actually jump in. So both of you -- maybe I’ll start with you, Mike. But your data is -- it’s a very interesting case of a lot of things that have evolved have evolved because of the underlying market trends, the market structure and so forth and not necessarily the relative skills of the various actors involved in it, right? Despite what they might claim, right?

So what I’m thinking about is, as you think about the trends in place and their trajectory, back to my North Star of the investor, and the relative -- so where the puck is moving and the relative skills of who’s going to have the puck, what does that portend for the end investor and what watch-outs might you say to this committee, boy, you guys might want to take a look at this, this is a scary mismatch?

So, for example, retail advisers doing asset allocation. Is that an okay thing?

MR. GOLDSTEIN: Yeah, that’s an issue. Because it’s kind of hard to be right, because you get very few swings at the plate. And you usually want to be in a game where you can swing a lot of times. But in asset allocation, inevitably, you can’t. So I’d say it’s a hard game to play. It’s like calling the market.

I don’t know. It just seems to me there’s been two basic trends. Declining interest rates to very low nominal levels and the rise of an elite set of corporations dominating the market which has shown up in the index. If anything changes one of those two things, something is going to happen here that is going to be surprising to most people, given how you got to this point of the size of the

allocations that have developed over the last 18 to 19 years. So it ended up that the new economy era of the ‘95 to 2000 era was correct in its proposition about what was going to happen in the U.S. economy and how that’s played out over 20 years and it’s been embedded into all of these things. Anything that changes it, which could be regulation, it could be so many different things at a larger scale, will have big consequences because you’ve been compounding the same trends for 20 years in one direction. And that’s what shows up here.

And you’re right, it is better to be lucky than good.

MR. PHILLIPS: I think Mike’s right. The downside risk of errors early on in any of these advice processes, so if you think about consumers at the millennial level, now giving them advice, it’s very hard to correct it going on.

The other big issue which I think the committee should keep in mind is that asset managers and intermediaries don’t know anything about their clients. This value chain, supply chain, however you want to describe it, has become so hyper-extended in the past 40 years, and as a result asset managers believe that all investors act like the professional gatekeeper that they’re interfacing with. That end user data link doesn’t exist. And, as a result, what you’ve started to see asset managers realize is
if we can actually find out from investors enough data to be able to tell them what they need -- because asking investors what they need, asking anybody what they need, does not give you a fully articulate response. Most people don't know

By getting that data, then they will have the chance to actually build the offer in a way that will immediately start that cycle, rather than trying to guess in the dark at it. Or try to leverage something that's built for a wealthier, bigger client that won't be applicable to a smaller client.

I think that goes back to what the commissioners all said in their opening statements to varying degrees about data. That becomes the new war for asset managers to compete with one another. How much can we know about the end users? Which really upsets the current competitive dynamic. Because before, you only needed to know the intermediary at the top of the house to get the supply chain started. Now, you need to know the data that the intermediary probably doesn't want you to see. So that becomes a very difficult tug of war among industry participants that formerly cooperated to mark things up the chain as fee budgets were spent.

MR. BERNARD: Other questions? Jeff?
MR. PTAK: Thank you for the presentations this morning. They were very informative.

I wanted to build on Ed's question, maybe through the prism of disclosure. You talked about the primacy of advice and how it will be increasingly important for asset managers as they wage battle against one another to differentiate on the basis of holistic advice. But then as we reflect on, for instance, the current reporting and disclosure regime, which is very product centric, it's designed to help the investor to assess the risk and reward the type of exposure, the objective, it's not so much about advice, it's about a particular product. And so as you think about the comprehensiveness, the adequacy of disclosure today and what will be relevant in the future as you anticipate asset managers, for instance, trying to deliver more holistic advice to compete, do you think that we're going to need to shift meaningfully in terms of the information that we're making available to investors so that they can make an assessment of how good an advice provider an asset manager is?

MR. PHILLIPS: I do think yes to that. But there's even a bigger shift that has profound repercussions, which is the customer's data and how it's disclosed and when they choose to disclose it is going to become a bigger component of this dynamic of this competition as well. And what I mean by that is, if you look at what the Indian government and Indian parties are starting to experiment with this year, it's the idea of having a financial data set that the regulator sets up but gives the citizens the right to disclose as and when they want, they open up their data to let advisers use. So it becomes less about we have products, here's all the disclosure information, you choose, customer. It's more about, you give us the data about yourself and your needs and your current financial situation and then we will use that data that you allow to react and solve.

That gets to the data privacy, data usage, data communication issues. And I think also shifts from product to service because the product disclosed information matters somewhat to audit and tests that everybody is doing what they're saying they're doing. But the biggest dynamic in actually providing the advice is the consumer data.

Regulators and data providers worldwide are grappling with the fact that throughout financial services, it's less about what's in each market silo, which is how we've typically policed financial markets as the cops walking around, insurance, as the cops walking around banking. But it's more about how does the client get protected, how does the consumer get protected? Which means, if the consumer is revealing the data and gives that proactive permission, suddenly that's the framework in which to operate.


MR. WERMERS: So for the bottom 90 percent of wealth, I guess, portion of your slides, Michael and Ben, for these consumers if they have -- or these individuals, if they have retirement savings at all, they probably have retirement savings in a 401(k) plan and that's probably about it. You know, and beyond that, they have maybe Social Security, they have Social Security and they might have a house.

So how does this intermediary, 401(k) plans and their fiduciaries, how does that affect this, the landscape ahead? And I think this is probably especially relevant for millennials who, I think, have been born into a 401(k) defined contribution society?

MR. GOLDSTEIN: I guess that's why they say they're going to be interested in financial wellness. Look at the picture and tell somebody how they're doing. Which seems like probably the limit on what they can do.

The other thing that's happened is the cost of providing those services to the end participant has fallen dramatically over time. But I think it's pretty limited what's actually going to happen for the bottom 90 percent, given the reality of what you're talking about. Because you're right, it's a pretty simple problem that comes down to a couple things.

MR. PHILLIPS: I would agree. I mean, it's -- the
401(k) provision, it's only going to be a minority of what millennials need to think about for their long-term savings, if they use it at all. Which is another issue is, do takeout rates start to drop? So as a result, if that happens, what I think will star to happen is 401(k) providers, so the platforms involved in the space, will have to start thinking about, okay, the assets themselves aren't really the core proposition here. What other information can we glean? We have the participant. We might have data if they disclose it to us. What other things can we provide?

If you look at industry M&A over the last the past five years in that space, it's starting to move in that direction, which is, how can we get the various components of the life cycle of somebody who's saving for retirement including, most importantly, rollover, which is where a lot of this can either break down or get solved, and think through what other services can we inject into that if we know what to do and where to do it. But I don't think you can see a structural 401(k) change dramatic enough to do it. The Australian government, as most of you if not all of you know, already forces 12 percent compulsory contributions into 401(k)-like systems and everybody is still short, everybody is still short. Exactly, the superannuation guarantee. So I think the industry centering on 401(k) makes sense because they have a participant that has a somewhat, depending on the jurisdiction, mandatory or at least encouraged effort to utilize it. But it's not going -- it's necessarily but not sufficient.

MR. SUBRAMANIAM: A question for both of you but, you know, Ben, you kind of described it as a demand change and a supply chain change. On the demand side, the requirement for solutions and income. On the supply side, there seems to be a narrowing of choices, right, in the traditional investments. Michael referred to fewer public companies, very large companies, not really high dividend paying stocks. Interest rates very low, zero, negative in some countries for the foreseeable future.

Can you give some thoughts on -- you sort of touched on bridging that gap. We talked about private markets. We talked about tokenization investments. But there's a whole swath of, you know, real estate and other private credit investments, making those somehow more available, accessible in 401(k) plans has to be part of the solution, with guardrails, obviously. But I'm not sure how else you, you know, in the next 20 years, bridge that gap between the supply side sort of narrowing and having less choice with very low rates and the demand side, you know, having a demand for income and solutions.

MR. PHILLIPS: I would agree with that. I think your next panel will talk about the private markets provide a lot of tools. But the biggest tool would be if people saved more. I mean, that's the reality of the situation here. The biggest lever to bridge those income gaps is catching -- and there's a lot of data that shows this -- is the program by which people put money aside to do it. That's actually the most influential component in driving retirement portfolio size.

So to some extent, the asset management industry can continue to innovate toward that solution. But as Mike said, with Treasuries as low as they are, it's going to require more than just the asset management market solution to bridge that gap. It's going to take a full-court press.

And I think private markets play a big role. I think technology allows us to have the discussion about injecting them into things like 401(k), injecting them at smaller and smaller investment sizes. It raises a whole host of issues for how you police, monitor, price, regulate.

MR. GOLDSTEIN: Could I say something about that? I would be cautious on this front. You know, interest rates went from 11 to 1.5. And the 1.5 is what's imbued the valuation of these alternative asset classes, because everyone wants the same thing. So now, after 30 years in one direction, we're going to liberalize at 1.5 percent interest rates as the coupon rate to let everyone get involved. So I would be particularly cautious about changing the asset allocation paradigm after the decline in rates has, in fact, already occurred.

MR. DRAEGER: Thanks, Ed. Before we get to the first break here, I just want to say thank you so much to the commissioners, the Staff and to Ed for putting this together. Humility is such an impressive leadership trait and this initiative really reflects an earnest demonstration of that trait. So thank you.

I have a question. So Ben and Michael, as a group of industry and government leaders who are trying to support the shifting and reshaped landscape of the value proposition that you guys so eloquently highlighted, in the manner that we can best serve and protect investors, I'm interested in your view on the impact of the scale and consolidation that's happened in the industry and the business models that are in pursuit of that scale, and whether there is a decreasing utility to that evolvement for the alternate investors, given that scale generally decreases the ability to provide customization and creates distance from your client?

MR. PHILLIPS: I think it comes down to -- I think you're right. I think scale does create that distance. It's very difficult to mass customize, the bigger you are. Mass scale does provide the technology to give you more and
more leverage to do that, but it still makes you more
distant from the client.

I think what you'll start to see in the industry
is not necessarily a full hundred percent shift toward a
consolidating number of players. But you will see a number
of asset managers, wealth managers, all providers of advice,
let's call it, and begin to segment the type of clients they
want to cover so they can mitigate this.

The asset management business model to date has
been all things to all people. And there hasn't been a lot
of selective segmentation because, with low barriers to
entry and high margins, you could afford a lot of projects.
That is no longer the case. And as asset managers look at
how do they maintain profit margins, they also look at are
there certain types of clients that we ring fence around,
certain types of products that we ring fence around.
It's going to involve a dynamic where a number of
the asset management firms that we know now decide that they
would much rather work on a business model where they
subcontract purely what they have as asset management skills
and accept those economics. Others will point out that that
if they have the client data and the advice, that's what
they'll focus on and they'll outsource other components to
other providers.
So I think there's consolidation in the industry

in the sense of the same business models are coming under
pressure and starting to pull themselves together. But I
think what we're starting to see at least the early stages
of asset management firms saying, maybe we should only do
one part of this or maybe we should only focus on one client
base and therefore maintain a degree of size that allows us
to have a higher touch interaction with clients while at the
same time maintaining enough mass customization elements to
remain profitable.

MR. GOLDSMITH: Well, I guess the reason the
biggest firms are the biggest is they're the cheapest. That
that's been the commonality that drove them to this level
and this environment. So I personally think that's probably
been a good thing, on balance. But I do think it changes
the dynamic in the industry itself. I've always thought
there would be segmentation in the money management
business. But I've been wrong on that for 35 years running
now. So I'm going to be cautious on that forecast because I
haven't been right so far.

Basically, it's ended up that what you wanted was
a solution that was pretty easy to understand. And cheap
was easy to understand, especially when it had the best
returns. And so until something really changes, I'm
guessing that is it.

MR. BERNARD: So as a slightly different angle on

that, I wanted to come back to a point that was raised
earlier. What do you think is the current environment for
small asset managers to survive, thrive or whatever? And
how much does it matter to innovation in asset management?

MR. GOLDSMITH: Well, it does matter to innovation
because the history of the industry is somebody is either
smart or lucky or both and they start small and become big
through one idea. And I'm guessing that will remain the
case. But I do think that the environment is less open to that.
I think what fostered that was the defined benefit pension
plan era, that the cost of marketing was quite low compared
to the fees because you were acquiring very large accounts.
And that is what fostered the rise of many small firms.

Now that you're -- that has become a de minimis
part of the industry and involves reaching many people at a
time, I think you are right about that, Ed, it is less open
to creating that kind of an outcome because the business
itself is structurally different.

MR. PHILLIPS: I would agree. The long-term issue
with scale in investment management is the type of people
who create the lightning in the bottle, those who can create
alpha, those who are good active managers, tend to like to
work in certain ways. The one correlation over the last 40
years is a partnership ownership model is the one that's
correlated with better performing asset managers.

The question is how do you scale that. And when
you can't scale it any further, what decisions, what
tradeoffs do you make. And for many of those boutiques,
most of them will say, we're more than happy to take the
portion of economics from just being a subcontracted part of
other people's advice chains and advice offers because we're
quite happy with those economics as individuals and as a
team we know what we're doing to generate that talent.

The question is whether the rest of the industry
finds ways to accommodate, cooperate and work with those
types of businesses going forward, in which case you have a
vibrant, IP-driven set of vendors. The question will be
whether you have the advice providers believe that they can
comfortably outsource that component and continue to retain
the clients' interests, most of the client fee budget and,
more importantly, the client data.

I think increasingly, more and more firms will
realize they are good at some things and not others and
adapt their business model accordingly.

MR. BERNARD: We're out of time. But Neesha, did
you want to close this out with a quick question?

MS. HATHI: Yeah, I was curious, both of you have
talked about the -- kind of the broadening of the value
proposition. So not just on the product but on the service
and tax and debit/credit management. But this is an
industry that implicitly has priced based on asset
management fees traditionally. And you talked a little bit
about performance fees as a growth. I think we have talked
about different fee models for a long time but there hasn't
been much traction there. I'm curious if you see that
happening in other places or if there's a catalyst that you
see coming that will drive different value -- different fee
models into the industry?

MR. PHILLIPS: I mean, it is about 35 percent of
U.S. and European asset managers now offer them and they are
becoming more prevalent. They're not becoming as widely
prevalent as many people would have you think, primarily
because they're difficult to implement. Performance against
what? How do you measure it? Where are collars, where are
hurdles? And the technology and the numbers that you need
to record that are not operationally easy.

If we move toward a case where asset managers view
their propositions as more of a service, then they will
start to think through, is there a way we can differentiate
ourselves and offer pricing that is more like that and more
of a subscription, more of an ongoing fee. The math here is
really illusive right now because you still have this book
of business that needs to be charged ad valorem fees.

But I think the industry as a whole is starting to
put a lot of effort into figuring it out. Clients like the
idea. They don't necessarily understand how it's
implemented but they like the idea that they get -- that the
asset manager gets paid when the client benefits. And so I
expect it will be an ongoing discussion for the next several
years and something that regulators will have to start to
think through, because both the industry and the consumer
side will bring these ideas forward. But it's not an
overnight transition. It's not how the book of business
works now and, particularly in an upward market that we've
had in the past several years, there's not a lot of
motive to shift to a different system.

(Appause.)

MR. BERNARD: So we are now scheduled for a break.
And I know facilities and so forth are right outside the
door.

If you'll forgive me, I'm going to be that tough
chairman that says we're going to start at 11:15 sharp
because our next panel has sort of a tight schedule.

So thank you all very much. And we will be
reconvening in 13 minutes.

(Recess.)

MR. BERNARD: So as promised, I am going to get us
going on the next panel, who have a pretty tall order in an
hour and 15 minutes. And I think if we slip a little into
lunch break, it will be okay. We'll keep an eye on that and

we'll see how our discussion goes.

But clearly a trend we've all observed, and we
heard a little bit about in the first panel is the outsized
growth of private companies and investments, even as the
number of public companies has shrunk materially. And that,
of course, affects the raw material available to asset
managers to create returns for the investors they serve and
the ways they do that.

There's a host of reasons, including liquidity
risk, funding practices, regulations that private
investments are typically available to a narrower -- a much
narrower set of qualified investors. And there is growing
discussion, including at the SEC, as to whether that should
change, what guardrails you would need and so forth.

So it seemed a topical -- a timely topic to have
on our first agenda. We are delighted to have three
speakers to help us think about that.

Stephanie Drescher is a senior partner and global
head of client and product solutions at Apollo Global Asset
Manager and her colleague, John Suydam, is a member of our
committee, and serves on the firm's management committee.
She oversees product development innovation, as well as
fundraising, ongoing client management relationship for the
firm.

John Finley to her left is senior managing
focused on alternative investment investing, the last 15 years at Apollo and prior to that, 10 years at JP Morgan. So my role, as referenced, is to focus on the segments of the business that touch our clients, our third party investors and the products that we design for them. And just to give you a little bit of context on the firm, very briefly, so as we approach our thirtieth anniversary, we are over 300 billion now in assets, focused primarily on private equity, credit and real assets. When I joined 15 years ago, just to give you context of the industry at that time, we had approximately 15 billion under management. So quite an evolution over that time frame. And hopefully, that just gives you context from here. If you look at the next page -- let me advance the slide -- the product offerings of the firm, again illustrative of the industry overall, have continued to develop meaningfully, over the last 10 years, I’d say, in particular, a trend we’ve seen in private markets more broadly. So when you look at this slide, you see a number of underlying asset classes that we can offer our investor base globally. And many of the talented professionals that we now have that are looking to originate from these underlying asset classes joined us around, during, kind of right post the financial crisis which, when you think about it, was a time where the banks were no longer in a number of these businesses and those talented professionals were looking to join firms such as ours that had the appropriate longevity of capital and structures to match the liquidity or illiquidity of the underlying investments. So if you think of nonperforming loans or aviation, insurance among other opportunities, you can see how this spectrum of opportunities has filled in over time. And when you do look at risk/reward, the span within private markets is quite broad, from the most liquid, at least as we offer it, of the senior loans, for example, to more illiquid, private equity types of opportunities with respective return profiles that are appropriate for the underlying investments.

The majority of our investors, what I may refer to as limited partners, access our funds through private limited partnerships. And those are typically commingled. They can be bespoke. Those that are looking to deploy in scale and look to create mandates that are specific for their objectives can have managed accounts that we offer as well.

So here is a look at our third party investor base, which complements that of our affiliated insurance balance sheets. So approximately 85 percent is institutional and about half of that is from public pensions and/or sovereign wealth funds. The balance, 15 percent or so, is made up of wealth management partners, such as the private banks, wires, RIAs, where their underlying client base are sophisticated, high net worth individuals. In addition, we have a growing number of family offices that we do interact with on a direct basis and we have four publicly listed vehicles in the realm of credit, BDCs, mortgage REITs, et cetera.

So it sounds from Ed’s commentary that the prior session did reference shifts in the public markets, both equity and potentially fixed income. I thought as the first panelist within the alts framework that I would just speak very briefly to some of these market trends. Specifically, the passive to -- the role of active shifting to passive and/or alternatives. And then importantly, the role that alternatives are playing in the portfolios of our investor base today, kind of why and how. So just very high level, clearly, we’re all taking note of the shift that we’re seeing to passive and to alts.

And the beneficiaries of that in part are the alternative managers, where we can ideally be able to provide additional incremental return with that exposure versus active public managers, at least in the equity space in particular, that have had their challenges in beating the benchmarks. And I’ll showcase some of that outperformance in a moment. So within alts, I think there’s a growing appreciation that, for certain strategies, daily liquidity just simply may not be in the best interest of investors and returns can be maximized or certainly excess return can be achieved if some illiquidity is taken through longer term structures. And happy to speak more about that in time.

In addition, obviously, a trend of overall decline in the number of public companies, 40 percent decline when we look over a 20-year period, and while there has been some growth in public companies off of a lower base in the last five years, the growth clearly pales in comparison to that in the private markets, where you can see the very considerable rate of growth. So multiple drivers are behind that, where there’s more private capital available to companies, a preference among certain companies and management to maintain control or their entrepreneurialism, and a view that potentially the public market structure is not best suited for their company, given a shorter term view or potentially a larger competitor in the public space, among other reasons.

What’s interesting is, when we look at it, out of our private equity pool of capital, five of our most recent seven investments that we have made through our current private equity fund have been bought by -- basically, take private, so public-to-private transactions which we see as an attractive source of opportunities as we think about the
risk/reward and value equation that's present in the markets today.

By the way, looking at the credit markets before I go into the investor perspective, I thought this chart was interesting on page 7, where you can see the increasing percentage of private debt as it contributes to the total pie of total debt raised annually. So you see the CAGR for private credit including leverage loans at approximately a 14 percent level, so strong growth. And we do see reason to believe that will continue to increase.

Now, that said, overall context is that the private credit markets are still relatively small in comparison to public, so half a trillion, let's say, accounts for 14 percent of the volume out there in the debt markets. And issuers of higher quality companies are increasingly interested in speaking about private capital solutions and playing a strategic role in their companies.

So with that as a backdrop in terms of what we're seeing in the public markets and some shift to alternatives, I thought maybe I would turn to the investor lens a bit and look at what our investors are evaluating in terms of relative returns and risks in the marketplace. So as I speak to investors globally, and we have a very healthy cross section of investors, the common theme is the search for yield. So I'm sure no surprise to you.

And given the impact on portfolio returns, turning to the next slide, both absolute and risk adjusted, we've certainly seen the continued broadening of the investor base, both by number of organizations, geography, allocations and maybe through this process we'll continue that broadening. We'll see. But the institutional investor LP's of different types each have the liabilities that they are trying to achieve based on their portfolio needs or funding requirements. And the environment has been a challenge. If we think about where the markets currently stand, there's still about 12 trillion of negative yielding debt globally out there. So investors are looking for opportunities to generate the returns that they need. And when we look historically over pretty long periods of time, five and 10-year data, the allocations to private equity and/or private credit has created meaningful outperformance relative to their public equivalents, typically roughly the 300 basis point return profile in excess of the publics.

And while this outperformance clearly is kind of a strong indicator, let's look at the worst five-year periods over the last 23 years. And this is data supplied by Hamilton Lane, who sees a very healthy cross section of alternative allocations. And when you look at the data, interestingly, even the worst five-year periods for buyouts and private credit have generated positive returns, in contrast to what you see for -- for the public markets. In the case of real assets, the private options for infra and real estate have offered more metered downside than their -- the public market options.

So as we look at asset classes on a risk adjusted basis, which of course is important to do, we thought it would be helpful to look at data that highlights Sharpe ratios. And again, this is compiled by the same source.

And, as you all know through your day-to-day evaluation of investments, Sharpe ratios continue to help investors perform decisions based on evaluating the return of an investment compared to its risk, often measured by volatility. So the higher the Sharpe ratio, obviously, the better. And as this data shows, each case, in each case, the private markets, whether it's private equity, credit or real assets are showing Sharpe ratios here that are more than double that of the market benchmarks. And for those that might be thinking, well, when are they priced? How often can you measure that volatility, they do have an approach and a methodology that accounts for that kind of de-smoothing of volatility for the private markets. So I thought this was just interesting context as we think about the relative not just absolute returns but relative returns of asset classes. And this generally holds true over long periods of time. So if we look over 15 years, looking at that data, it's a very similar trend.

So over my career, turning to page 11, we've certainly seen the continued broadening of the investor base, both by number of organizations, geography, allocations and maybe through this process we'll continue that broadening. We'll see. But the institutional investor world today, as we look at it and this data shows, about 76 percent, so more than three quarters of the investors globally today are invested in alternatives, one or more of the underlying asset classes. And private equity and real estate seem to be the most commonly held, where two thirds more are rounding it out with other exposures, hedge funds, real assets, et cetera -- other real assets.

And given the impact on portfolio returns, turning to the next slide, both absolute and risk adjusted, we're continuing to see strong flows of capital to alternative managers. And over the past five years, we've seen greater inflows than any prior five-year rolling period.

On page 13, if we look more holistically across allocations to private markets, they have expanded meaningfully. And this data shows that there is continued and significant interest in the investor population to allocate to these underlying areas of exposure and at meaningful rates, often doubling or tripling in size of the exposures to private markets. But that said, I think important to keep in context, the total AUM of private markets today, depending on your source, is roughly five and a half, six trillion of dollars under management, that's typically by NAV and unfunded commitments. In the context of the global listed equities and debt markets, it's roughly
6.7 percent. So lots more room to grow in these asset classes, certainly on a relative basis, where they’re only call it one eighth of the size of the global public markets today.

As we look one level down at a particular type of investor in our base today, I thought it might be instructive to take a quick look at the allocations made by U.S. pension, just by way of example, and the role that it’s played in their portfolio. So not surprisingly, significant increase, you can see, over the last 10 years from, on average, 7 percent to 26 percent. And on the next page, let’s take a closer look at an illustrative view as to why.

So just looking at the role private equity can play in a client’s portfolio, the top portion of this slide shows funding status. And you can see that with private equity, the funding requirements were able to be met in this illustrative example. And without the allocation to private equity, they could only achieve 67 percent of the funding liability. So that’s a significant gap that would be created but for the allocation to private equity. And therefore, probably not surprisingly, that over 90 percent of the U.S. pension in the U.S. allocate to private equity and are frankly able to do so.

So in closing, before I pass it over to John, on the last slide you can see the continued interest from the community of investors in alternatives today. This is a survey of a very robust number of allocators, investors, managers that include alternatives in their portfolio and really across the asset classes, you can see desire and interest in continuing to add to their exposures. I’m sure in large part based on many of the trends that I spoke about thus far.

So, with that, I will pass it over to John.

MR. FINLEY: Thank you very much for having me here today. You are really working with the big issue that is reflected in the concept release. And, before I go any further, do you have my written materials? Yeah, fine. Just checking that got out.

You know, the public markets are shrinking. The returns are terrific in the private markets. And yet you want to be cautious and one wants to -- certainly at Blackstone, we want to be cautious in providing access to those better returns. And so, as part of that, very pleased to, you know, trying to provide assistance in giving you information from our perspective. I will say, inspired by Dalia, and in case you give a question that’s too tough, the views that I express are not necessarily those of Blackstone but are mine also.

We have -- with Stephanie, we tried to make sure we complemented each other rather than go over the same material. So in my materials, you will see there is a fair amount also on the returns that are available in the private markets, which I won’t go over. The one point I’ll make which Stephanie mentioned is that the volatility is actually lower in the private markets, private equity for example, and that’s really for two reasons. One, the valuations are often done as a function of DCFs and so they don’t swing like the public markets. But maybe even more fundamentally, with private investing, you have the ability to intervene and anticipate in ways that you can’t with passive investing. And that allows -- that anticipation can sometimes provide an ability to smooth things out. And that’s one of the reasons why the volatility is lower. And there’s actually, in a way, you could say less risk associated with the private markets.

So just a bit about Blackstone and myself. I’m the general counsel at Blackstone, and so we are very much -- I am very much on the front lines in dealing with, in coordination with our head of regulatory affairs, Wayne Berman, these frontiers, these issues, what is available, what would be -- how should we be thinking about what -- how to offer private markets to a more retail customer.

Blackstone, the only two points I’d make that come out of looking at Blackstone is, number one, it’s much more -- much broader than a private equity firm. And, in fact, as we’ll talk a little bit later, alternatives are already being available in the public marketplace through real estate, through liquid credit and through hedge funds. So there are alternatives and private market opportunities that are not available. But the breadth of the firm and what’s available is already -- is already out there.

Skipping pages, because I’m going to again try and not hit some of the same thoughts that Stephanie did.

So if we move to page 10, page 10 is talking about the global retail investor demand. And as you can see from that chart, the mass affluent, a million to five million, is about 20 percent of that retail investor universe. They’re over -- in the U.S. alone, there are over 18 million millionaires in the United States, according to data provided by Credit Suisse. And that retail demand for alternatives as you see on the right-hand side is quite strong and, as you see -- I’m sorry, on the left-hand side of that. And on the right-hand side, you can see the declining in mutual funds and in money markets, another way of looking at the perspective of what we’ve been talking about.

But at the same time, with that demand ramping up into alternatives, you will also see that the allocation to individual investors for alternatives is much lower than pensions and endowments. And this is something that maybe...
was referred to earlier today that has relevance in the 401(k) space, but not only. Which is that if you're saving through a pension plan, you've got great exposure to alternatives. If you're saving through a 401(k) or even outside a 401(k), you're looking to the future, that tradeoff of illiquidity and returns is resulting in a great -- a lack of returns, but there is also a tremendous under-allocation. And that only with a greater allocation to alternatives can you match those kinds of returns that you might be getting if you did participate in a pension plan which is, of course, declining.

So there is a great under-allocation. Then the issue comes back to what we were talking about. Which is, can you manage the risk of getting that greater allocation to individual investors? Because clearly, the most sophisticated investors in the world are investing more in alternatives.

Page 12 is really getting back to what's framing this issue, which is less access to private companies, meaning retail investors are missing out on the opportunities. And if you flip back -- I won't do it on the overhead but if you flip back to page 3, this notion of the private markets, the private markets offer less correlated returns. They are much more manager driven, they are much more -- greater innovation by the manager and it tends to have more patient capital. And so that then comes back again to the extent that liquidity and low fees are everything, you're going to be missing out on the private markets because there is a tradeoff, particularly for the alternatives that are not available today, to getting some less liquidity.

Page 13, you've really seen so I'll skip over that. It's just the decline in the listed companies relative to the market cap.

On pages 14, the shrinking of the public markets, why is it happening and the implications, the real point that I wanted to raise from this is that this is really here to stay. This is not a temporary or a regulatory burden that is causing this. There have been fundamental shifts of the domination of institutional investors who have less interest in small and microcap firms, the loosening of regulation on the private market, that private companies can now get ample funding and don't need to do the IPO route. And therefore, this is going to be a persistent issue that either will be addressed or won't be addressed in terms of the access to these markets. And moreover, you even have increasing liquidity in the private markets which makes it even more accessible.

So this is a fundamental change that regulators in the industry will have to deal with. And it's reflected that, in a sense, the pre-IPO market has become the IPO market of the past. And you see this with companies like Amazon, Google and Facebook, who the returns relative from investing in their IPO over the years, you get much less on a Facebook than you do on Amazon, because Amazon came to market much quicker. So these opportunities are much less available, the strength of the opportunity.

From a Blackstone perspective, private wealth is about 8 percent, which doesn't seem incredibly impressive relative to the whole. Except for the fact that over the time I was there, it's kept pretty constant. But when I joined, the assets under management were around 100 billion, close to 10 years ago. And now it's 550 billion. So that ability to drive into the private market has expanded, which is the only reason that it's been able to keep up at that kind of percentage.

In terms of where we are seeing the demand, and we are seeing the demand, it really comes through the independent broker-dealers, the registered investment advisers on behalf of their clients. And to date, the typical products have more been, let's say, for example, talking about the mass affluent, more on the BDCs, the non-traded REITs. But we do feel that there would be, if this product were available, there would be the demand from these areas.

And as we focus on delivering, so what are we -- when we look at the product that we're offering to the public, what we're trying to do is offer products that are fully drawn up front, perpetual with periodic liquidity, 1099 reporting, income-oriented investments, potentially one-stop multi-asset solutions, which we have the ability to deliver given the breadth of our investments, institutional quality performance, perpetual capital structure, transparency. These are what have driven our ability to date to be able to do registered products for retail investors.

So if you take, for example, the one on the top, BREIT, that's an alternative product. It's stabilized, income generating, commercial real estate. It offers periodic liquidity through a repurchase program. And it has been, as I'll get to, extremely well received by the public, a lot of demand for that.

Most of the products, as you see here, are more heavy on either liquid credit or real estate. But that is partly a function of what the regulatory framework offers. There are challenges in broadening that. The investment portfolio flexibility within a retail structure, to the extent that you want to invest, the fees are up front. So you have to deal with, to deal with the fees being up front, you have to deal with things like buying secondaries so that
people don't have the J-curve problem, having a lot of fees up front while they wait for the investments to be made. There are complicated tax diversification requirements that we have to deal with in terms of good income versus diversification. Sometimes, you have to block certain income and that can raise a diversification issue for registered investment companies. You have the inability to compensate on a carry basis, contingent compensation, which in a way could drive those who can't get institutional money and carry to be the ones that are offering. And they're happy to just take retail money for a fee. And affiliated transaction rules, which make it difficult from an equity standpoint. For example, you can't do follow-on investments with equity. So it is a lot easier with credit, for example, than it is right now for equity in the framework that's there now. BREIT is just a good example because it's an alternative. We started -- if you look at where it was in terms of the demand, 742 million in 2017, 10.6 billion now. So there is a thirst for this kind of product. This is a product we could do within the existing framework. But it is reflective of the demand out there for that product and we believe we've developed compelling returns with a very strong institutional quality.

I'd also say that when we invest in these areas, we -- a lot of education goes into it. We have a Blackstone U for dealing with the independent broker-dealers, the financial advisers. Coming close to trying to wrap up with my time. So what could be done to change the framework that would make a difference? One would be eliminating the accredited investor -- I'm up on page 21 now -- eliminating the accredited -- this is what commenters have put in and this is sort of summarizing where it would make a difference and what could change. Eliminating the accredited investor threshold for offering regulated funds of private funds. For the moment, offerings of more than 15 percent in private funds require accredited investors. Right now, a registered open fund can't invest more than 15 percent of its net assets in illiquid securities. This is a real issue for target date funds. And a target date fund, which is dealt with in more detail on the next page, is really a way of replicating a pension fund, in a way. That is, it's more illiquid in the early years for a long-term investor, more liquid in the later years, and can replicate on an allocation basis the kind of allocation you'd see in a pension fund. But you can't do that now because you're limited to 15 percent on the illiquid securities.
specifically private equity through the Fidelity ecosystem and working within the current regulatory framework that we're operating under. And then I want to spend some time highlighting what I think are some of the key questions that we should collectively be considering as we explore opportunities to further broaden access to the private markets, in particular private equity beyond qualified purchasers and accredited investors.

In the interests of time throughout the rest of my prepared remarks, I'll refer to those higher net worth individual investor segments as QPAI just to shorten that down. And then all other individual retail segments as non-QP, non-AI investors.

So a little bit of background. As of September 2019, Fidelity serves more than 22,000 businesses managing employee benefit programs, more than 13,500 financial advisory firms and more than 30 million investors. These customers hold $7.8 trillion in assets under administration with Fidelity. And that figure includes about $3 trillion of assets that are managed by Fidelity on a discretionary basis. All told, these assets, both the administered and managed assets, span across a total of 72 million customer accounts. So we have a long history of working with investors of all types. And, as Ed mentioned, both institutional intermediary as well as retail clients, to meet their long-term goals and objectives and their needs and preferences in particular.

So I think particularly relevant to today's discussion is that, you know, we have been serving the needs and preferences of millions of retail investors for decades. And certainly, we're always trying to provide the best customer experience we can for those investors. And we do look for opportunities to innovate, to enhance customer outcomes, and certainly to provide as much choice and value as we can to our clients. At the same time, we're keenly focused on ensuring our customers are provided the highest level of investor protections and oversight of their investments.

So it's with those objectives in mind that we look forward to working with the Commission and the advisory committee as we further explore opportunities to broaden access to the private markets.

So let me spend a few minutes on how Fidelity's individual investors access alternative investments today. Let me start by telling a little bit more about some of the characteristics of our asset management business. They're not particularly well known. And what I'm referring to is the fact that millions of our customers already are indirectly invested in pre-IPO private equity companies through our existing active equity mutual funds and collective investment trusts.

So working within the current regulatory framework that exists today, those funds opportunistically invest a modest portion of their assets in later stage pre-IPO private equity investments. And so while current '40 Act regulations allow for up to 15 percent of a mutual fund's assets be held in illiquid securities, the prospectus for a typical Fidelity growth equity fund limits that to around 10 percent. And generally speaking, we're holding a lower allocation than that in our funds.

And the reason I just point that out is we currently have the ability, operating under the existing regulatory framework, to expand access to pre-IPO private equity investments for the benefit of mutual fund investors at Fidelity, assuming our investment team feels that that's in the best interests of our shareholders. I think it's also worth noting that those equity funds and collective investment trusts which allocate a portion of their assets to private equity investments today have over six million shareholders, with average customer fund position size of approximately $60,000. So there is a broad swath of our existing individual investors who already have an indirect exposure here. And, you know, we think that it's an area that's not very well known to the community at large.

So additionally, I would just mention that we offer a number of multi-asset class solutions, both mutual funds as well as CITs, including the Fidelity Freedom Funds, which invest in underlying equity fund building blocks, which also have a modest portion of their assets allocated to late-stage, pre-IPO private equity investments.

In our retirement plan business, which we refer to as workplace investing, there are nearly four and a half million participants holding an active or blended target date solution that invests in those building blocks. And the average participant position size in one of those target date funds is approximately $40,000. So again, I think this just demonstrates that a large segment of our existing 401(k), 403(b) retirement plan participants are already benefiting from a modest indirect allocation to late-stage, pre-IPO private equity investments.

So I think, generally speaking, it's been, you know, our historical experience that these active equity and multi-asset class mutual funds, again, operating within what is the existing regulatory framework, have been pretty effective delivery vehicles for delivering non-QP, non-AI individual investors with access to private equity investments for a modest portion, of course, of their assets in a diversified, suitable and, I think importantly, a cost effective manner.
I'm certain that most of you in this room already know this but I thought it would be helpful to reiterate some of the key benefits and protections the mutual fund structure provides today. Daily liquidity, which is valuable to individual investors. And, you know, individual investors don't always know when they're going to need to access their savings due to a life event, such as a job loss or a sickness. And so daily liquidity is important, and the mutual fund structure provides that.

The professional active management of a mutual fund by an established market participant does provide access to attractive private market investment opportunities to the non-QP, non-AI retail investors that likely they would otherwise not be able to access. And even if we broaden access further, the question becomes are those investors going to get access to the best investments and the best opportunities in the private markets?

Mutual funds minimize concentration risk and they ensure appropriate diversification across holdings in the portfolio for the investor. And, you know, our active growth equity funds provide investors both public market as well as private market exposure at attractive fees, and there is no minimum investment required. So these are extremely accessible vehicles today for getting access to both parts of the market.

And then finally, it's worth noting that retail investors that have accounts that are held on our Fidelity personal investing platforms, so our retail direct-to-consumer platform, have access to more than 100 liquid alternative investment options that are managed by third parties in the mutual fund structure. And they can be purchased in their accounts with no transaction fees. So for clients that are looking to diversify their portfolios with exposures that have a lower correlation to traditional asset classes such as stocks and bonds, they do have options available to them today in the marketplace. And these liquid alternative products include long-short equity, market-neutral equity, options-based strategies, currency, long-short credit, et cetera, and multi-alternative strategies. So the breadth of what's available to retail consumers in the market is considerable today.

As far as individual investor demand for private security investments, you know, the qualified purchasers and accredited investors we serve have demonstrated some interests in dedicated private equity vehicles such as limited partnerships that my colleagues were referring to earlier. In our direct-to-consumer platform, we serve more than 45,000 qualified purchasers today and over 700,000 accredited investors directly. And we provide those customers under the current regulatory framework with access to private funds through either proprietary vehicles or referral to third parties that manage those solutions for them. And, you know, this is an area we're certainly quite focused to continuing to expand in and expand our capability set, in order to make sure that we're providing the high net worth investors with access to a comprehensive set of investment options.

I'd say in contrast, we have not historically observed a tremendous amount of demand from non-QP, non-AI investors with lower assets for dedicated, illiquid private funds. Now, certainly, they're not accessible to them today, so that's probably driving that demand profile a bit. But we're not hearing from our non-QP, non-AI investors that there's a huge demand here.

Rather, I think it's safe to say that many if not most of these retail investors tend to gravitate towards goal-based, outcome-oriented diversified investment solutions. They are helping them meet a life need, such as saving for a house or saving for retirement, saving for college. And what was discussed earlier, I think, in particular generating enough income in retirement to ensure that they can live comfortably and cover their health care costs.

So I think with all that said, I would just reiterate, you know, we certainly look forward to working with the Commission and the advisory committee to explore additional opportunities to further broaden access. But as we collectively sort of explore this opportunity, I think there are a number of questions and considerations that should be at the forefront of these deliberations. And that's where I wanted to spend the remainder of my remarks.

So here are some additional questions for consideration by this group. So first, what is the optimal allocation of an investor's assets to private equity or other alternative investments? For an individual investor, the appropriate allocation to any asset class is typically determined by multiple variables, including their time horizon, their liquidity requirements, their investment objectives and their risk tolerance. So determining the allocation to alternative investment exposures including private equity should be approached in a very consistent manner as we go forward. We should be very thoughtful before making a general assumption that all retail investors are underallocated to alternative investments, including private equity. It's not likely a one-size-fits-all solution. And we need to make sure that we're cognizant of the individual investors' needs and preferences as well as where they are in their life stage and what their goals and objectives are.

Second, specific to private equity, does it
provide an appropriate portfolio level diversification

benefit to the individual investors? Over the last 10
years, Cambridge Associates Private Equity Index has had a
pretty high correlation of .77 with the U.S. public markets.
So the question would be, are there other alternative asset
classes that might provide a better diversifying exposure?
For example, direct real estate, commodities and other
things that happen to have a lower correlation to U.S.
public equity markets than private equity.
The third point, staying on the topic of
diversification, should a retail investor diversify their
equity investments further geographically prior to
ingcreasing their allocation to illiquid U.S. private equity
securities? So while it’s true the number of listed
companies in the U.S. has dropped from a peak of just over
8,000 in 1996 to approximately 4,400 at the end of 2018,
during that same period of time the number of listed public
companies globally including the U.S. has grown from just
over 36,000 to 43,000. So there remains a significant
opportunity for investors to continue diversifying their
equity investments in the public markets globally. And
we’ve found, through our experience with retail, self-
directed investors in particular in our direct-to-consumer
platform that they’re often quite underweight to
international and emerging markets public equities. So what
is the hierarchy, if you will, of diversification that we
need to think about for those customers?

Fourth, you know, can we broaden access in a
manner that ensures reasonable and transparent fees that
investors understand and that are commensurate with expected
returns? For example, as of June 30, 2019, the Russell 1000
Growth Index outperformed the Cambridge Associates Private
Equity Index on a one-year, a three-year, a five-year and a
10-year basis. A Fidelity retail investor can purchase an
indexed mutual fund benchmarked to the Russell 1000 Growth
Index for as low as three and a half basis points with no
minimum initial investment. They can purchase an active,
large-cap growth equity fund managed by Fidelity that’s
outperformed the Russell 1000 Growth Index on a three, five
and 10-year basis for less than 100 basis points with no
minimum initial investment. And, as an aside, that fund
invests a modest portion of its assets in private equity
today. So we need to be confident that a dedicated private
equity vehicle for non-QP, non-AI retail investors would
compare favorably to these types of existing investment
options from a fee and expected return perspective.
Next, what is the optimal delivery vehicle and
client experience for achieving broader access? Is a
dedicated, illiquid vehicle of private equity investments
appropriate for a non-QP, non-AI investor? Or is a

professional managed fund, fund of funds, multi-asset class
solution or managed account with daily or periodic liquidity
a more appropriate delivery vehicle for providing exposure
to private equity and other diversifying alternative
investments? I mean, those vehicles often today provide
access to alternative asset classes and in some instances to
private markets.

Next, if we broaden access to dedicated, illiquid
private market funds, can we ensure that the lower asset
retail investors in those funds receive similar access to
attractive investment opportunities that QPAI clients
receive today? The current regulatory framework governing
pooled vehicles such as open-end mutual funds enables
individual investors to leverage the scale of large market
participants like Fidelity to gain access to the most
attractive late-stage private equity investments. Dedicated
illiquid private equity funds that accept investment from
non-QP, non-AI investors, if we broaden access there, should
provide a similar experience.

And then finally, if we broaden access to illiquid
private funds, can the client experience be streamlined and
simplified for the individual retail investor? Private
funds often have very complex terms and legal documentation
requiring costly review by an attorney prior to investing
and this may be cost prohibitive to retail investors.

Furthermore, individual investors may struggle to understand
all of the terms associated with private funds, in
particular the concept of capital commitments, capital calls
and lockup periods. Additionally, private funds can have
complex tax treatment that results in delivery of K-1s and
often requires utilization of a tax professional for
incorporation into an investor’s returns. This can be
pretty confusing and costly to even the most sophisticated
individual investor. So in this space, investor education
is going to be critical.

So I think, you know, to summarize those seven
questions, I think it’s, you know, in short, it’s going to
be very crucial that we are able to deliver a streamlined,
transparent, digestible and affordable end-to-end customer
experience for non-QP, non-AI investors if we are going to
broaden access to that population. And that’s just really a
sampling of the questions that I think this committee and
the Commission will need to consider as we think about this
particular question.

And I just close with my opening remarks and we
can take questions by stating that, you know, Fidelity has
always supported customer choice and our history shows, you
know, we’ve made a lot of innovations that provide greater
access to a range of investment strategies, products,
solutions, vehicles, structures. And those values are going
to continue to guide our approach to customer service and
the development of investment products and solutions for our
customers. And I think when it comes to how to broaden
access to the private markets and in particular to private
equity for non-QP, non-Al investors, there are a number of
complex issues that this group is going to need to consider.

But it is instructive to recognize to the extent
at which individual investors already benefit from access to
pre-IPO equity through mutual funds and other pooled
vehicles offered by Fidelity and some of the other firms
represented here today.

And with that, I'd just say that, you know, we
look forward to further exploring this interesting
opportunity with the group. Thank you.

MR. BERNARD: I thank the panelists for covering a
ton of material. And sure enough, they kept to their time.

We still have 20 minutes for questions.

So, Joe.

MR. SAVAGE: Thanks, Ed. I'm Joe Savage, I work
for FINRA. And I just wanted to give a similar disclaimer
that whatever I say here doesn't necessarily reflect the
views of the FINRA board or FINRA staff or my wife and kids,
for that matter.

So listening to these presentations, I kept having
a question go through my head constantly. Which is, what do

we mean by private equity? And you know, obviously, there's
tons of -- you know, millions of, you know, unregistered
private companies in the United States, ranging from
unicorns down to one-person LLCs. I'm assuming this data
doesn't cover the one-person LLC.

But more than that, the reason this hits home for
me is one of the things FINRA does is it reviews certain
private placements. And these -- these are not the deals
that just go to the, you know, the institutional investors
and venture capital funds. These tend to be the deals that
go down to the retail investors who meet the AC definition.
Some of these deals are situations where the issuer has
already used up all of its venture capital. The VC fund
says, sorry, that's it, so they look for other investors and
they're going after retail investors at that point. Some of
these entities are not going concerns anymore so you've kind
of wondering what they're going to do with the money.

So I'm wondering, do you -- can you explain, at
least for my benefit, what does private equity mean? Is it
-- what are the thresholds? Are there asset sizes or
revenue thresholds or does it depend on who the investor is?

MR. FINLEY: Well, just distinguishing, so you
start with private markets, private equity. Private markets
can be anything, real estate, private debt, natural
resources, infrastructure. So then if you go to private
equity, that can include different stages. So venture --
for Prequin, which does these stats, usually includes
venture as part of private equity. You'd have venture,
you'd have growth which is later stage, and then you'd have
private equity, which can be middle market shops, it can be
the big shops like Apollo and Blackstone, and that's the
range. And that is going to take up, you know, virtually
almost any firm that you run across.

Now, it may be at FINRA you're going to see some
firms that wouldn't be the 98 percent of what I just
covered, but that's the basic core of private equity.

MR. PENZONE: I would just add, when I was
referring to sort of pre-IPO venture capital, private
equity, sort of start with what I think one of the general
problem statements or considerations here has been, which is
companies are staying private longer. And therefore, how do
we get access to later stage companies that maybe
historically would have been public entities already for
customers who don't have access to them today? And as I
mentioned, currently, a number of not just our products but
funds from across the industry, some from T. Rowe Price, for
example, as well, invest in those deals. And so it's a
mechanism for what I was referring to as sort of late-stage,
pre-IPO venture capital.

MR. FINLEY: The only other -- one other -- there

are thousands of private equity firms. And that's one of
our concerns, which is as you expand into the retail
universe, how do you make sure that retail investors are
protected and there is the adequate transparency and
experience and scale? Some of it, that's one of the
advantages of the target date fund, because you have an
intermediary and you also can -- the target date fund
investor, you could restrict the way it happens. That is,
the private equity firm that can come into a target date
fund or could be a fund of funds would be -- would be only
funds that have substantial institutional capital. Because
that way, you are avoiding funds that are 100 percent retail
that can't attract institutional capital.

MR. GARCIA: So, John, I'm going to follow up with
you, if you don't mind. So is it the SEC's role to somehow
standardize these documents or standardize all the legal
paperwork and so forth so these investors are protected?
Who is going to protect them? And how do you make sure they
have the right information to make choices among all these
different funds?

MR. FINLEY: The SEC is both in the protection
business and the choice business. So these are -- like
what's the definition of negligence? These are all -- they
require a balance. And from our point of view, the SEC in
looking at the protections, what are the ways as they make a
change that there can be adequate protections and yet
preserve choice? And so as it is with reporting generally,
there can be transparency that they put in. There can be --
that are required. But I'll come back to, again, I think
the best protection for retail investors is you allow
private equity, would be firms that have a very strong
institutional component. Because then the retail investor
is leveraging off of, drafting off of the institutional
player.

And I also -- it's a pretty easy fix. You know,
providing more flexibility for either target date funds is a
very discrete way of doing it in a pretty safe way of
allowing more entry into private equity. It addresses
Colby's concerns, whether they're overstated or not, others
can address. But certainly by putting it through a
registered investment adviser into that target date fund,
you get both diversification and the additional layer of
protection.

MR. DURBIN: Since the mic's on, Stephanie for you
and John in particular, perhaps, I'm assuming but I'm happy
to have others debate this, that if we see a further -- a
greater democratization of access to these products, it
likely passes through an intermediary rather than a leap to
broader direct to consumer as the leapfrog. I'm assuming
that likely shows up through professional intermediaries
first on its way to broader consumer access.

If you believe that, can you two comment on what
you think is the state of the financial intermediaries'
ability to position these kinds of exposures in portfolios?
You know, how steep is the learning curve, what you're doing
to try to educate? Because it's a short path to these being
sales practices issues, if you agree my assumption, my
assertion that they pass through financial intermediaries.
I observe that the curve is still quite steep to really
understand how to engineer some of these exposures into a
portfolio. I'd just love your comments on what you're doing
to help with that learning curve and the state of that
curve.

MS. DRESCHER: Sure, I'm happy to start and pass
it to John. So can everyone hear me? So look, a lot of the
interactions that we've had to date, admittedly with more of
the high net worth buyer of today, is through
intermediaries, whether it's the banks, private banks,
wireless, increasingly RIAs. Multi-family offices, I think, is
another form of intermediaries. And that base of education
is quite strong.

I think even in Colby's remarks, as he speaks to
the experience at Fidelity in different ways through
different structures, also a good wealth of experience that
could be expanded over time to include more variety of
exposures to the underlying private markets.

So the evolution, as I've seen, having started off
actually at JP Morgan in the alternative investment group
that was that intermediary was a learning curve of education
and it's obviously quite significant in those populations to
date. I'm sure that, just building off of some of the
comments that Colby made, that there would be a natural
evolution in education in the additional channels that would
then start thinking about this exposure as a percentage, as
appropriate, with suitability, et cetera, as those
conversations were potentially allowed to evolve.

So clearly, there is one framework right now for
allocations and diversification without -- without the kind
of regulatory changes that could be potentially envisioned
where there would be an evolution over time. So education
clearly would continue in channels where it's less relevant
today.

MR. FINLEY: I would just circle back to one of
the points I made before, which was the role of the
intermediaries is critical and we play a big role in
educating those intermediaries with something called
Blackstone U and we bring in the intermediaries to inform
them about the products, educate them about the products.
When we have independent broker-dealers, we work with them
in terms of what materials are provided to investors,

oversight of those materials.

And taking one of the points you made, the
combination of the intermediary and putting investors in
more funds that have more diversification, whether through
multi-asset or the fact that it's the target date fund, is
really -- it may not be the end point but it is a way to
sort of move down what ILPA was saying, which obviously
doesn't represent retail investors. Saying, look, the way
we think, we look at it, we think the target date funds make
the most sense.

But in that, it would be independent broker-
dealers who really are the ones that we see are dealing with
the mass affluent going from, let's say, 100,000 to a
million, that independent broker-dealer working with them,
overseeing them, is a major part of how we would see it
playing out. And that really goes to thinking through,
well, how do you -- let's say you say to yourselves; you
know, I don't have any worries about Apollo doing this but,
you know, we've got thousands of firms out there. That's
another area to be thinking about, as you open up the
floodgates.

You saw the bad experience in the REIT area, in
the entire to REIT area. Now BREIT, really, one of the big
selling points we had, we're going to bring in
in institutional, high quality, lower commission framework to
that industry. How do -- as you sort of look at it, how do
you channel ways in which that can happen?

MS. BECK: Speaking of suitability, one of the key
things I think about a lot is how -- how do these fit in a
portfolio? How do you bring things that don't have mark to
market alongside those that don't?

Stephanie had a Sharpe ratio slide, where you
talked about volatility de-smoothing. I was wondering, what
are your thoughts about how do you make sure there's not
misleading combining of these assets together in portfolios
and portfolio risk and performance metrics? How do you
approach it?

MS. DRESCHER: Look, the experience to date has
been more on the institutional side, although clearly
there's data points and experience throughout the products
that have been offered in the channels that we've spoken
about. So private banks work through this, the RIAs work
through it. Increasingly, others will. So the context that
I shared is reflective of a broad data set of underlying
investors, predominantly institutions, that are taking
advantage of the asset class to date.

I think going forward, and I don't spend, you
know, my time on kind of portfolio construction, so I am
sure there are others that can give you that much more
insight. But clearly, there's work to be done to make sure
that we focus on the right percentages of the whole. And
that's been done for decades now, for the institutions and
high net worth individual investors that are taking
advantage of private market exposure, as broadly defined,
private equity, credit, infra, natural resources, and
understanding the liquidity or illiquidity and correlation
or lower correlation of each of those and how it relates to
their time horizons, their objectives in terms of liability
needs and making sure that there's an overlay, understanding
their specific objectives.

So it absolutely has been done and can be applied
more broadly, depending on the needs to that underlying
investor.

MR. HALL: I wanted to follow up with John a
little bit. Because in your initial comments and in your
subsequent comments, you've talked a lot about how being
able to kind of ride on the coattails of institutional
investors is a great protection for retail investors who
want to access private equity. So professionally, I've
spent a lot of time on private equity, working through the
two asset allocators or three asset allocators that I've
represented over time and that exposure has definitely
suggested to me, you know, I'd love on an individual basis
to have access to these returns.

But I'm curious why you are so strong in your
assertion that riding on institutional investors' coattails
is an appropriate safeguard for a retail investor. Because
institutionally, we think very comprehensively about the
risks that we're taking when we do invest in private market
vehicles. The underlying leverage that's used in the
investments, the lack of liquidity. The overall
diversification scheme that we employ in investing our
clients' money and what this brings to that diversification
scheme in total in terms of return and risk.

So, number one, why is it appropriate to just ride
on the institutions' coattails? And then, secondly, what
else do you suggest should be added to this safeguard,
because that can't be the only one.

MR. FINLEY: The context in which I'm looking at
the institutional investor is not simply, well, if an
institutional investor can invest in the fund, then private
equity investors should be able to invest in the fund. So
that's sort of the test as to whether it's a fund that's
accessible. I was really thinking it more if you were to
have either a target date fund or a multi-asset fund,
because right now in terms of the fund of funds, you have to
be an accredited investor to get into that as you manage
funds. And if you had an intermediary investing funds and
then picked funds that had that, the intermediary picked
funds that had the institutional, to me that would provide
an additional layer of protection because that, as a target
date fund, if you then are picking funds that institutions
have looked at the fees and the transparency and all the
other issues like that, that would provide a level of
protection. Of course, you have to make an independent
decision, am I going to make this fund available to -- a
registered investment adviser would have to make -- you'd
have really two layers. You'd have an investment -- an
independent broker-dealer with fiduciary duties who's
saying, I think it makes sense to put my customer in here,
and you'd have to have a manager who's saying, I think it
makes sense to be able to market this to retail. To me,
that provides some layer of protection.

In terms of what else protections that you need,
not being exhaustive with it but, again, as we think about
we want to change the definition of accredited investor or
provide more flexibility, we don't put bells and whistles on
that but it's only for a certain -- like how are we going to
provide an additional layer of protection? We rely on the
investor expertise, we rely on the adviser, either the
independent broker-dealer or the registered investment
adviser to provide more expertise, and that provides layers
of protection.

MR. PENZONE: I would like to just add something
to that, because there's a lot of discussion around target
date funds on this particular topic. And I think our experience, we manage a reasonably sizeable target date franchise. And it has certainly been our experience on the institutional side of that where we will have very large institutional clients, plan sponsors, you know, large companies and consultants, that have occasionally requested certain exposures to alternative investments, which you can deliver, you know, in a customized fashion. Historically, that's largely been sort of small exposures to real estate, or direct real estate, versus private equity or increased private equity.

But I think there's something to keep in mind that's very practical from an implementation perspective on target date products. Which is, the defined contribution market and the clients in that market, plan sponsors and consultants, tend to be very focused on, A, their fiduciary responsibilities and, B, pricing is very important to them. And so whether or not there is a significant expansion in the regulatory framework to allow increased amounts of illiquid investments into a target date structure, and that can be debated, of course, by the group and the Commission, but I think the practical uptake of that is -- is likely to be somewhat muted, simply because these investment exposures have fairly significant manager selection overhead. Right?

So you need to make sure it's the right managers managing the exposures. And it can be very expensive. And so therefore it can change the pricing dynamic and increase the overall expenses associated with that target date exposure.

And I think as some of the previous panelists said, the surest path to success or a good outcome in saving for retirement is saving more, saving frequently, staying invested and being diversified. Now, certainly, I think there can be a lot of debate around increased diversification to other types of asset classes could provide a very positive risk premium that is good for the overall outcome. But I think that has to be balanced with the practical implementation considerations of increased cost and perceived fiduciary risk associated with increasing that type of exposure.

MR. FINLEY: Can I respond to that? Yeah, so that's true, if you're looking at 401(k)s, you're looking at the DOL space, it is a lowest cost provider is often the route. But that's partially because that is what's encouraged by our courts and litigation, and that and inertia. And there has not been -- those who have sort of stepped out a little bit to offer a higher-priced product have gotten hit. And it's really an issue whether DOL would want to focus sponsors, that we really need to look at cost on a net basis.

And you're right, on a net basis, if it's higher, so be it. But if you're just looking who's providing the lowest fees and encouragement that that's not really the way to look at it. You really need to look at a level of return based on cost relative to that level of return that's available. Because it -- right now, the 401(k) space is limited to CITs. Certainly, that's another area the SEC could look at, expanding to mutual funds, which have their own benefits, and it's outside the scope generally of DOL.

But in the 401(k) space, that certainly is an area that, if you look at somebody who's young, who's not in a defined benefit plan, trying to replicate what they can get through a pension plan with higher exposure to alternatives on a cost effective basis, on a net basis, if it's not the right solution, so be it. But it shouldn't be because of a discouragement and a fear of litigation.

MS. HATHI: I actually had a question for Colby.

So you talked about the protections of the mutual fund structure and the 15 percent limit on the private investments, and that Fidelity funds, in the prospectus, you limit to 10. And then typically, a lot of your funds are actually much lower.

And I'm curious, if you think about if there was a demand from your mass affluent client base, your retail investor client base, to have more exposure to private, would that change the way that you manage those portfolios?

And is that -- and what has driven the below 10 percent?

MR. PENZONE: Yeah, so a couple of things there. So I think, first and foremost, you know, the mutual fund structure in our growth equity portfolios are typically, you know, positioned as largely being public market exposures. And so that's, you know, what we view we're delivering to our clients. And the private piece of it is often an opportunistic investment. So when there's opportunity in the marketplace to make an investment that is incrementally beneficial from the potential for driving alpha in the portfolio, they're going to make that. But I think liquidity concerns, ensuring that there's always appropriate level of liquidity in the portfolio, how the fund is being positioned, which is typically relative to a public market benchmark, and making sure that there is an opportunistic opportunity, you know, in the portfolio and in the investment is what we're primarily looking at.

So I don't think that if there was increased demand in the mass affluent space where customers were saying we want more, that it would necessarily drive it. But I think the most important thing is that we certainly have opportunity to increase it if we feel that it's in the best interests of our shareholders and that's a decision
that's being made by the investment organization and the
investment managers of those particular products.

MR. SIRRI: I just wanted to try and understand
how correlated these assets were. I think, John, you
mentioned -- excuse me. Colby, you mentioned 77 percent --

MR. PENZONE: Point seven seven.

MR. SIRRI: Yeah, I'm sorry, 7.7, but John, you had
mentioned they were relatively uncorrelated.

MR. FINLEY: I was saying private markets. And I
think what you're -- what Colby's point was about private
equity more -- and I was saying that private markets was not
highly correlated. Again, private equity is still not an
overlap with the S&P; otherwise, it wouldn't show higher
returns over time. And Colby mentioned time frames of one,
three and 10 years. We tend to look more 15, 25, 30 years.
Just because, you know, the market's long. Some of the
studies go back to the '30s.

So a little bit how much correlation and how much
it's the same, whether it's competing is when you turn the
faucet on. And if you turn the faucet on one and three
years, you're just going to get a very different answer than
20 and 30 years.

MS. DRESCHER: And when you look at underlying
asset classes, because what you're hearing is, I think, a
need to speak about alternative investments, private
investments, and then within that, numerous underlying asset
classes. If you remember the beginning of, maybe slide two
or three of my presentation, when you look at the
risk/return spectrum and you look across what you can see
within private equity, credit, real assets, is a number of
underlying exposures where it's not one size fits all. It's
different, depending on the needs of the investor and where
it fits in the portfolio.

So I know we're using lots of labels. I think
maybe one -- one goal is you kind of go through and looking
for analysis that appreciation of the breadth of
opportunity that now exists --

Just quickly summarizing, I was mentioning that
private markets is quite broad now and has great depth in
what it can offer an investor, broadly defined. So labels,
I think, are something to make sure that we parse through.
because when you look at private markets, they can offer
different correlations, depending on the underlying asset
classes. They offer different liquidity both based on the
nature of the asset as well as the structure that they're a
part of. And they have different characteristics. So
credit versus private equity versus real assets and the
options within those areas are all within kind of an
umbrella but offer the underlying investor a variety of
different attributes.

MR. SUBRAMANIAM: A couple comments. I get the
sense from Colby everything is okay. But I'd say, you know,
the fact that you have illiquid investments in a daily
liquidity vehicle just seems incongruous, right? I think
that's one point. So I think it's a very imperfect solution
that mutual funds can have some unlisted investments.

To Stephanie and John, obviously, you know, biased
the other way of great access to private markets. I take
issue with the Sharpe ratio, as well, the smoother Sharpe
ratio. And I Cliff Aston has had a comment on this in the
last couple of weeks about you don't get smacked with the
volatility, there's no market price and therefore your
volatility is lower.

I think the main issue is actually transparency of
pricing of those investments and the lack of liquidity, and
whether it's a combination of educating people in the lack
of liquidity as the quid pro quo for investment returns,
whether it's trying to bring more liquidity to some of these
markets. You know, the REIT space is relatively easy, even
some of the private equity markets when late stage
companies, pre-IPO, you can think about -- and there are
some marketplaces out there for them.

But I didn't hear a lot about, you know, kind of
the price of illiquidity as a tradeoff, and probably a fair
tradeoff, for the returns on these investments, and somehow
trying to -- trying to measure that as one of the ways of
measuring relative performance as well as trying to bring
liquidity to some of these markets.

MR. FINLEY: Two points. One, if you're saving
for retirement and you're a 25-year-old, whether you're in a
401(k) or outside a 401(k), the idea that as you save for
retirement you want to maintain 100 percent liquidity for
the entire period makes no sense to me. So you have to
sacrifice some illiquidity and it makes sense if you're
convinced you can get better returns overall and a better
composite mix of investment to have a better return over
time. That's like one of the things you have to decide as
you sort of look at this. Number one, the private markets
do offer better returns.

There is a -- in our materials, we show that you
do get better returns with more illiquidity. There is an
illiquidity premium, in effect. And with the mutual funds
that provide, whether it's 10 percent, 15 percent, 25
percent, that liquidity in my mind still can be managed
pretty well. I think you -- it sounds like you're a little
bit skeptical that you move up, have a fund that has 15
percent liquidity -- illiquidity and be able to manage
redemptions. But I don't think it's any different than a
bank being able to manage the fact that it's put out some
money and it can't meet the demands of the day.
The one thing I would let you -- you should take a look at the stats, because it's sort of interesting, by analogy in the 401(k) space. The actual amount that people look for to take the loans and to get loans because they have that emergency, it's extremely low. And in fact, the degree to which people transfer securities is extremely low. It may not be as low as below 1 percent, but it's in the low single digits. And it's reflective of again, as you approach this and you look at this, you know, to what extent do we want to provide liquidity at the cost of returns?

Because that really is a fundamental issue that you just raised. How much of a benefit are you getting? Some of the materials show that you get better returns with more illiquidity. And is it worth it? Is it worth the cost?

And as you look at that, the degree to which people look for liquidity on average, which I think is the relevant way to look at it, is something that you should study. And I think the 401(k) space offers an interesting insight into that, given the numbers are so low.

So Alex D'Amico, who is next to Raquel, is a senior partner in McKinsey's asset management insurance practices. He'll provide the foundation, addressing gross scale key trends for global asset management, much as we did this morning largely with the U.S. market. There were a few brief mentions of global markets. So he's going to cover the world. But we've only given him 15 to 20 minutes to do that. But I saw he had an exceedingly brief deck. But I'm sure it will be more than four minutes.

And then the director of the SEC's Office of International Affairs, Raquel Fox, will then take -- we really only allocated her five minutes and she graciously agreed -- to explain the role of her office and the current scope of the SEC's activities engaging with regulators around the world. And to be clear, while we have limited time today, the reason for that is we wanted the committee to be aware of it as and when we as a group decide to do further work on global regulation and maybe form a subcommittee around it. We will obviously take time to have a better understanding of what they're already doing, so that we're not recommending to them things that they already do. But this is more just to make an introduction for the office, if you will.

After Raquel, Dan Waters is a Harvard-trained U.S. securities lawyer who has spent over 20 years working for U.K. regulators, the FSA, now FCA, including as the asset management sector leader. More recently, he was the founding managing director of ICI Global, the international arm of the Investment Company Institute in the U.S. So he's been dealing with regulators all over the world. And he has the tough task of summarizing global regulatory trends in 20 minutes.

And after those three speakers, we've asked our other two speakers to discuss a mini case study regarding MiFID II and the specific issue of payment for research, which I was saying over lunch to someone -- and, if you can imagine, giving them each 10 minutes. This is craziness. I am grateful to them for taking on this task. It is, to me, one of the more vexing compliance issues I've seen in my career. So they will each have 10 minutes and provide an example of the significant impact of foreign regulations as well as how they can affect different firms differently. So we've got a large firm and a smaller firm telling us how something like MiFID II is affecting them.

So those two folks, Paul Roye is the senior vice...
possible AUM, the industry has recovered, recovered nicely from the financial crisis. That said, we would say, in terms of the industry's performance, very interesting in terms of operating leverage and margins across the industry, as you all feel every day, it's a more pressured industry. Right?

And so while AUM has recovered nicely, we are seeing two things that are actually putting real downward pressure on margins. First is just fee pressure. And fee pressure is a function both of the rotation to passive but also rotation to cheaper share classes and what we just call gross fee concessions. In fact, about 80 percent of fee pressure we're seeing today is generated by the first two share classes and rotation to passive, this is globally. It's actually much less around just gross fee concessions in the market.

Look, the other thing we're seeing is the industry does have an issue with its cost structure. And the fastest growing line items in terms of cost continue to be technology. Both investment technology, so core investment infrastructure as well as investment in what I call artificial intelligence and data analytics north of the trade. Right? But also distribution analytics, distribution technology, digital engagement, customer engagement, you know, all of that customer experience south of the trade, right, those two are the fastest growing line items, along with technology as well as regulation and compliance. And that actually explains the fact that we're not really seeing much operating leverage in the industry despite the significant run-up in assets. And that is a global phenomenon. In fact, the U.S. has weathered it remarkably well compared to, for instance, Europe, where in western Europe we're seeing operating margins in the low teens.

Now, nobody is going to shed any tears for the industry. But the reality is that it's a less economically creative place to be than we've seen in a while. So the next page takes the global -- the global view and looks at it by region. And we are seeing some pretty meaningful differences across regions. So at the headline number, we'll say that APAC is really driving -- driving global flows. And by APAC, I'm including Australia, I'm also including Japan. I'll talk a bit about Japan in a second.

But if you go back roughly to 2014, 2015, over 50 percent of net flows in the industry have actually come out of APAC, right? And that's actually off of a significantly smaller base. APAC today is roughly 20 trillion, 20 percent of the global market, right? But it's still accounting for roughly half of the -- half of the gross flows -- or net
flows, I should say, over the past five years. Interestingly, western Europe, despite the macroeconomic challenges that western Europe has encountered over the past five years, western Europe has actually outpaced the United States in net flows by over a trillion dollars since 2014, a very significant — significant amount of flows in western Europe.

A couple of implications. First, for U.S. managers, if you want to grow and you're looking at this sort of chart, the growth is actually overseas. And so your ability to operate and engage with overseas regulators, reach overseas customers, has never been more important than before. Right? Otherwise, you really are playing a home game, and in reality, growth has been more muted in the United States.

The second implication is you do need to look underneath the covers on each of these regions to understand that there are some pretty meaningful differences by region, by country, by geography. So let's talk about the active versus passive split, right?

So in the United States today, roughly 21 percent of assets are passive, third party assets are passive, 79 percent are active. In APAC, right, that split is 91 percent active, 9 percent passive. Except in Japan. That's APAC ex Japan. In Japan, it's actually 39 percent active, 61 percent passive.

In western Europe, right, which is — we are seeing a real pickup in the past couple years of passive strategies. It's still 86 percent active, 14 percent passive. By the way, and look under the covers there. Some of you guys saw just recently, it was really very interesting. Switzerland, right, is roughly 30, 35 percent passive, 70, 65 percent active. Conversely, Germany, right, just to the north, an equally industrialized, equally mature economy, it's actually only 10 percent active. So we're seeing meaningful differences — sorry, 10 percent passive, excuse me. We're seeing meaningful differences by country and by region in terms of the pickup of passive activity.

Another point, couple points I'll make quickly, APAC ex Japan continues to be a much less mature market. We're seeing — as evidenced by the following. So 16 percent of the assets are actually in money market funds, compared to in the U.S. which is only 8 percent. We expect that over the next five years, as the mass affluent — group of mass affluent consumers grows in these emerging market economies, they're going to move increasingly out of money market funds and towards, you know, less liquid strategies.

Interestingly also in APAC, only 23 percent of managed assets are in equities, whereas 42 percent of them are in equities in North America, and in Japan it's also 44 percent in equities. So you can expect to see some degree of rotation out of money market funds in APAC countries and into equities.

We also, interestingly, will note though that it's actually the growth of alts in these emerging APAC countries that's particularly noticeable. They have the highest percentage of third party managed assets invested in alts of the four major groups I've talked about today. So nearly one in five dollars in APAC ex Japan is invested in third party alts, whereas in the United States, it's actually only 12 percent today and as low as 6 percent in Japan. So we do expect to see growth in alts, and we do look at APAC ex Japan as actually an interesting test case for more of how frontier markets may evolve and perhaps some things that we can learn domestically.

Finally, in terms of net flows, as we peer into the future, everything I've talked about has largely been rearward looking. The dark blue arrows on this screen — and I apologize, if you don't have the chart in front of you, it can be a bit hard to read. The dark blue area shows our projected net flows. These are compound annualized growth rates from 2020 to 2024, so where they think the future growth is going to be. I'll start by saying North America is essentially going to be trending in the same direction it has for the past few years, you know, largely anemic growth rate, 1 percent.

In western Europe, we do think it's going to slow somewhat, down to 1.7 percent. The growth really is going to come from China and the rest of Asia, where we see sovereign wealth funds, high net worth individuals, again, the mass affluent community that I had talked about, as well as insurers with retirement-linked offerings continuing to see truly significant growth. And if you look at a place like mainland China, which has been experiencing double digit growth in the asset management industry, we think that's going to continue, right, along with a couple of the other emerging markets.

So we do think that the story for the industry in terms of growth, albeit off of a lower — lower base is going to be in Asia, with continued intense competition in western Europe and North America, where the bulk of the assets continue to reside.

I'll close with five quick trends that we're paying attention to in terms of how the world is going to evolve on a global basis. The first is barbelling. We do believe that barbelling — what I mean by barbelling is essentially the rotation toward passive strategies as well as alts and solutions. We believe that barbelling is going to continue. We think that the movement to alts is a global phenomenon that's not going to abate, particularly illiquid.
We think that's driven by some pretty significant
need for return from liability-driven investors.

We see passive most pronounced obviously in the
U.S. and Japan, but rapidly growing in Europe. And we're
starting to see evidence in places like mainland China with
the growth of ETFs of a real acceleration of passive as
well. So we don’t think that passive is showing any real
signs of deceleration, particularly outside the United
States.

The next trend we're focused on is fee pressure.
We do think fee pressure is going to continue. We think
there's structural excess capacity in this market and that
we expect to see continued mergers. Interestingly, the
number of managers, the number of asset managers has grown
over time. Where we’re seeing real pressure is in the
midmarket. Right? So if you're managing call it 250
billion to a trillion, that's a metric for midmarket. But
that's the area where we see the business models most
pressured. We're seeing growth and success with boutique
managers that are typically more niche and illiquid
strategies. And we're seeing the growth of the trillion-
dollar-plus-club managers that have and are able to exploit
real scale. If you think forward though in five years, what
happens to those managers in the middle, those shops in the
middle? We think that there's going to be continued
consolidation and some folks will merge for scale and others
will essentially fall slowly, slowly down to the more
boutique type of structure.

Third broad category we're paying attention to is
the disruption from technology, digital and analytics. We
can think this is going to work through the industry value chain
in a number of ways. At the retail level, we're seeing the
real growth of robo offerings, both in the United States but
this is actually a global phenomenon. We're seeing it in
Europe and we're seeing it in Asia, in China. Immediately,
we think that this actually does put real pressure on target
date fund, right, the wrap solution. Interestingly, what a
managed account or robo fund does is essentially unbundles
what the management overlay was doing in terms of asset
allocation. And so that has actually some pretty profound
-- profound implications for managers that have gone big on
target date funds and bundled solutions. If you actually
look in the U.S. with our 401(k) market, the fastest growing
segment in the market is managed accounts. We think that's
a harbinger for things globally.

And it also calls into question what the future of
wealth management and traditional advisory will be. We did
a survey of 10,000 highly affluent and affluent investors
and asked them how comfortable they would be working with a
remote adviser, so not a robot, not a pure algorithm but a
remote adviser. And what was quite surprising is we ran the
survey in 2016, we did it again in 2018. What's quite
surprising is, across affluence levels, so starting with,
you know, 250,000 in assets all the way over 5 million in
assets, as well as age, everybody showed significant
increase in acceptance and willingness to work with a remote
advisory model. So we do think in the future the way retail
investors are being served is going to be through this
remote advisory type of system, where it's going to be human
intervention plus something else, right? And if you look to
markets like China, right, we're seeing real evolution
there. And it's on the back of some very dynamic companies
that we can all name that are essentially building platform-
based ecosystems that are open architecture in nature, are
holistic in terms of the advice that they provide. So it's
not simply going to the platform to get your asset
management or investment advice. You're going to go get
your insurance, your banking, a broader, holistic financial
wellness. Right? And they've been actually able to
aggregate eyeballs and consumers at a rate that's actually
quite stunning. And with that comes real market power,
right? So who's actually able to get on their product
shelf, who's not. Their ability to extract economics from
product manufacturers as a platform provider is actually
quite -- quite fascinating. And again in a market -- in
some of these emerging markets where, frankly, the market is
less -- less stable and so you can come to market and
disrupt things more quickly, we are seeing some very, very
disruptive plays in the way that assets are getting -- asset
management is getting intermediated by third parties.
Right? We think that's actually a real harbinger of things
to come here.

Similarly, we think technology is going to
unbundle the value chain in a very subtle way. So we're
seeing this across financial services. But the emergence of
what I would just call utilities, so middle back office
utilities that essentially are going to be aggregating so
much of the value chain and allowing asset managers to focus
on core competencies. In the case of active managers,
that's obviously security selection. But things like AWS
with the cloud is an example of a utility which is
essentially providing the big data or the infrastructure for
technology backbone for the industry and extracting
economics along the way.

We think things like data services, you know, also
allow themselves -- lend themselves to more utility type
providers. Obviously, custody services, as well. And so I
think the question is, when you think about where the
industry is going globally, do we have third parties that
are coming in and essentially taking pieces of the value
41 (Pages 158 to 161)
chain and aggregating it, right? And leaving asset managers
actually fewer and fewer employees, you know, a smaller and
smaller cost base in terms of direct costs that they own,
and more focused competencies going forward. We think,
again, that's a trend that's going to work its way across
geographies and across financial services.

And the last two points I'll make. One is on
longevity and retirement. So if it's -- I think we're all
familiar with the Baby Boomers retiring in the United
States. Longevity issues are a global issue. They are
particularly manifested in a number of emerging markets.

China, due to the one-child policy, has got
significant longevity issues. Japan, obviously not an
emerging market, but I think everybody knows about the
challenges with the Japanese population growth rate. Russia
as well. A number of these markets are facing real
structural imbalances.

We're not seeing much innovation that's really
what we would describe as a game changer in terms of
retirement savings and addressing this longevity challenge.
You really have three levers. One is just inclusion, so
getting more people to save. Two is increasing the savings
rates. And three is hoping for returns. Can't really
control three. And, in fact, McKinsey Global Institute
published a paper a couple years ago that was, in fact,
really quite bearish about real returns going forward. That
is going to push and is pushing liability driven investors,
which I include all of us in this room who are saving for
retirement as our own personal liability. That's going to
push more yield seeking, riskier activity that will need to
get regulated.

We can try to induce greater savings, which is
what China recently did, I would argue, with its third
pillar in its retirement -- retirement changes. And we can
try to push for more inclusion. I do think if there's one
thing that I would point to with inclusion, and I do credit
Australia with this, I think superannuation is actually
quite a better program in terms of convincing people to save
for retirement because it's not linked to the employer. In
superannuation, there's one of a, you know, handful of
platforms, it's portable, you don't lose your access to your
superannuation when you lose your job.

Here in the United States, we have a retirement
...
delivering specific outcomes. That could mean, by the way, partnering with balance sheet providers to deliver a nonguaranteed -- or guaranteed components of a nonguaranteed solution.  

MR. BERNARD: Thank you, Alex. And actually, some of you may not have seen our earlier panels. As we've done with the earlier ones, we're going to go through the panel and then have an open Q&A session. So Raquel?  

MS. FOX: I want to thank Ed for inviting me to speak. I have a brief period, so I will try to go through this very quickly.  

And Alex provided a great overview. And actually his very first slide is probably the reason why I'm here, so the sharp increase in the asset management industry. So just the growth of the asset management industry has really been a driving factor in the work plan of international organizations such as the Financial Stability Board and the International Organizations of Securities Commissions, which is known as IOSCO. And so it's a topic that we discuss extremely frequently with foreign regulators, I mean just on a very regular basis. So today, I'm going to focus on really two aspects. And I will start with the SEC's engagement and how our Office of International Affairs, which we call OIA, coordinates on the Staff's engagements on these international policy matters. Then I'll talk about the importance of stakeholder engagement, particularly by contributing concrete and relevant data to support your views on some of these policy matters in the international forum. So before I go further, I will have to give the standard disclaimer that, of course, these are my views, they are not the views of any commissioner, Staff or any others at the Commission. But I also want to start off by saying that in the international arena, we've greatly benefitted from Chairman Clayton's leadership and active involvement in this space. He's actually, as you probably heard, he's in Europe right now talking with our counterparts about many of the issues that we're talking about here today, which is why he can't be here. But he's been a tremendous asset to us in all of our coordination efforts in helping to build strong relationships with the other regulators around the world. So OIA helps to support Chairman Clayton's efforts in a lot of ways. So we lead the SEC's cross-divisional efforts on international initiatives that have a broad scope, such as those involving data protection, so GDPR, Brexit and then we did a lot of work with Dalia and her team on MiFID. We also coordinate bilateral discussions with foreign regulators, including in-depth meetings that focus on the asset management sector, mainly talking about the SEC's approach to regulation, our recent rulemakings and how the U.S. market differs from markets around the world. We also lead the SEC's engagement on international organizations such as the FSB and IOSCO. As you know, they've done a lot of recent work in the asset management space, particularly with respect to liquidity and leverage. But in practice, our work involves just daily contact with foreign regulators on a wide range of topics in order to advance the SEC's regulatory interest. And our relationships, I would say, with our foreign counterparts are very strong and they've been very good, which makes it extremely productive and helpful. So just turning to the international focus on asset management, as Alex described of course this sector has grown quite substantially since the financial crisis and international bodies and our foreign counterparts are looking at this very, very closely. For example, the FSB recently put out their 2019 report on it's called Global Monitoring Report for Nonbank Financial Intermediation. It's actually a report that the SEC co-chairs and helps with the drafting with quite substantially. But that report found that the nonbank assets reported represented roughly 30 percent of global financial assets. And recently, the Bank of England also put out a similar report, where they said that the nonbank financial system accounted for about half of the financial sector, both in the U.K. and globally. So you will see that various organizations may define or measure the nonbank sector slightly differently or view it through a different lens, particularly if you are a macroprudential regulator or a capital markets regulator, which Dan is going to touch on in more detail later. But the takeaway is that the growth of this sector has broad implications for financial markets generally and it has come under the microscope of international regulators and international bodies. So this is not all bad. The FSB has said that this shift toward nonbank financing represents a welcome increase in the diversity of the sources of funding and is in line with the G-20 initiatives, provided that such financing is resilient. So for those reasons, among others, there is a strong desire among organizations such as the FSB to analyze and evaluate the nonbank sector, test its resilience and discuss potential policy approaches to address perceived risk if any. So this brings me to my final point, which is the importance of market participants engaging in this discussion. And really, proactive, ongoing engagement, especially at an early stage, is really important in what we're looking for. And there are several ways and

<table>
<thead>
<tr>
<th>Page 166</th>
</tr>
</thead>
</table>
| delivering specific outcomes. That could mean, by the way, partnering with balance sheet providers to deliver a nonguaranteed -- or guaranteed components of a nonguaranteed solution.  

MR. BERNARD: Thank you, Alex. And actually, some of you may not have seen our earlier panels. As we've done with the earlier ones, we're going to go through the panel and then have an open Q&A session. So Raquel?  

MS. FOX: I want to thank Ed for inviting me to speak. I have a brief period, so I will try to go through this very quickly.  

And Alex provided a great overview. And actually his very first slide is probably the reason why I'm here, so the sharp increase in the asset management industry. So just the growth of the asset management industry has really been a driving factor in the work plan of international organizations such as the Financial Stability Board and the International Organizations of Securities Commissions, which is known as IOSCO. And so it's a topic that we discuss extremely frequently with foreign regulators, I mean just on a very regular basis. So today, I'm going to focus on really two aspects. And I will start with the SEC's engagement and how our Office of International Affairs, which we call OIA, coordinates on the Staff's engagements on these international policy matters. Then I'll talk about the importance of stakeholder engagement, particularly by contributing concrete and relevant data to support your views on some of these policy matters in the international forum. So before I go further, I will have to give the standard disclaimer that, of course, these are my views, they are not the views of any commissioner, Staff or any others at the Commission. But I also want to start off by saying that in the international arena, we've greatly benefitted from Chairman Clayton's leadership and active involvement in this space. He's actually, as you probably heard, he's in Europe right now talking with our counterparts about many of the issues that we're talking about here today, which is why he can't be here. But he's been a tremendous asset to us in all of our coordination efforts in helping to build strong relationships with the other regulators around the world. So OIA helps to support Chairman Clayton's efforts in a lot of ways. So we lead the SEC's cross-divisional efforts on international initiatives that have a broad scope, such as those involving data protection, so GDPR, Brexit and then we did a lot of work with Dalia and her team on MiFID. We also coordinate bilateral discussions with foreign regulators, including in-depth meetings that focus on the asset management sector, mainly talking about the SEC's approach to regulation, our recent rulemakings and how the U.S. market differs from markets around the world. We also lead the SEC's engagement on international organizations such as the FSB and IOSCO. As you know, they've done a lot of recent work in the asset management space, particularly with respect to liquidity and leverage. But in practice, our work involves just daily contact with foreign regulators on a wide range of topics in order to advance the SEC's regulatory interest. And our relationships, I would say, with our foreign counterparts are very strong and they've been very good, which makes it extremely productive and helpful. So just turning to the international focus on asset management, as Alex described of course this sector has grown quite substantially since the financial crisis and international bodies and our foreign counterparts are looking at this very, very closely. For example, the FSB recently put out their 2019 report on it's called Global Monitoring Report for Nonbank Financial Intermediation. It's actually a report that the SEC co-chairs and helps with the drafting with quite substantially. But that report found that the nonbank assets reported represented roughly 30 percent of global financial assets. And recently, the Bank of England also put out a similar report, where they said that the nonbank financial system accounted for about half of the financial sector, both in the U.K. and globally. So you will see that various organizations may define or measure the nonbank sector slightly differently or view it through a different lens, particularly if you are a macroprudential regulator or a capital markets regulator, which Dan is going to touch on in more detail later. But the takeaway is that the growth of this sector has broad implications for financial markets generally and it has come under the microscope of international regulators and international bodies. So this is not all bad. The FSB has said that this shift toward nonbank financing represents a welcome increase in the diversity of the sources of funding and is in line with the G-20 initiatives, provided that such financing is resilient. So for those reasons, among others, there is a strong desire among organizations such as the FSB to analyze and evaluate the nonbank sector, test its resilience and discuss potential policy approaches to address perceived risk if any. So this brings me to my final point, which is the importance of market participants engaging in this discussion. And really, proactive, ongoing engagement, especially at an early stage, is really important in what we're looking for. And there are several ways and

<table>
<thead>
<tr>
<th>Page 167</th>
</tr>
</thead>
</table>
| international policy matters. Then I'll talk about the importance of stakeholder engagement, particularly by contributing concrete and relevant data to support your views on some of these policy matters in the international forum. So before I go further, I will have to give the standard disclaimer that, of course, these are my views, they are not the views of any commissioner, Staff or any others at the Commission. But I also want to start off by saying that in the international arena, we've greatly benefitted from Chairman Clayton's leadership and active involvement in this space. He's actually, as you probably heard, he's in Europe right now talking with our counterparts about many of the issues that we're talking about here today, which is why he can't be here. But he's been a tremendous asset to us in all of our coordination efforts in helping to build strong relationships with the other regulators around the world. So OIA helps to support Chairman Clayton's efforts in a lot of ways. So we lead the SEC's cross-divisional efforts on international initiatives that have a broad scope, such as those involving data protection, so GDPR, Brexit and then we did a lot of work with Dalia and her team on MiFID. We also coordinate bilateral discussions with foreign regulators, including in-depth meetings that focus on the asset management sector, mainly talking about the SEC's approach to regulation, our recent rulemakings and how the U.S. market differs from markets around the world. We also lead the SEC's engagement on international organizations such as the FSB and IOSCO. As you know, they've done a lot of recent work in the asset management space, particularly with respect to liquidity and leverage. But in practice, our work involves just daily contact with foreign regulators on a wide range of topics in order to advance the SEC's regulatory interest. And our relationships, I would say, with our foreign counterparts are very strong and they've been very good, which makes it extremely productive and helpful. So just turning to the international focus on asset management, as Alex described of course this sector has grown quite substantially since the financial crisis and international bodies and our foreign counterparts are looking at this very, very closely. For example, the FSB recently put out their 2019 report on it's called Global Monitoring Report for Nonbank Financial Intermediation. It's actually a report that the SEC co-chairs and helps with the drafting with quite substantially. But that report found that the nonbank assets reported represented roughly 30 percent of global financial assets. And recently, the Bank of England also put out a similar report, where they said that the nonbank financial system accounted for about half of the financial sector, both in the U.K. and globally. So you will see that various organizations may define or measure the nonbank sector slightly differently or view it through a different lens, particularly if you are a macroprudential regulator or a capital markets regulator, which Dan is going to touch on in more detail later. But the takeaway is that the growth of this sector has broad implications for financial markets generally and it has come under the microscope of international regulators and international bodies. So this is not all bad. The FSB has said that this shift toward nonbank financing represents a welcome increase in the diversity of the sources of funding and is in line with the G-20 initiatives, provided that such financing is resilient. So for those reasons, among others, there is a strong desire among organizations such as the FSB to analyze and evaluate the nonbank sector, test its resilience and discuss potential policy approaches to address perceived risk if any. So this brings me to my final point, which is the importance of market participants engaging in this discussion. And really, proactive, ongoing engagement, especially at an early stage, is really important in what we're looking for. And there are several ways and
opportunities to engage with the international regulators, and really two things that we're looking at.

First, we want to know your perspective about the impact of foreign laws on U.S. regulated entities, particularly if you think that action by the SEC or SEC staff is warranted. MiFID II is a good example. I think Dalia said that's our clearest recent example. So the SEC staff, as you know, recently extended the no-action letter related to the MiFID II research provisions. But they also continue to emphasize the importance of feedback from market participants.

So we urge you not to wait until the expiration date of that letter. So don't wait until close to 2023 to start thinking about that. The time is really now to be coming in and thinking about providing input to those letters and what we should be doing and thinking about.

Second, we also want engagement and input on the work of international bodies such as IOSCO and the FSB. Engagement with these organizations really does have an impact and can help to inform their work and shape what they're thinking about and how they're approaching these issues.

So I will close with some examples of how you can actually get engaged and there are quite a few ways to do so. So the work plans of these international bodies is one place to start.

So the FSB under the leadership of the current chair, Randal Quarles from the Fed, has emphasized transparency. And as part of this, he started publishing a detailed workplan of the FSB on the FSB's website. And it also includes an estimated schedule for their main publications. IOSCO has a similar process where they make their workplan available. If you have any questions about these workplans or the issues under consideration, I would urge you to come to us to talk about them. Our door is always open and we're willing and ready and able and do engage on these matters.

Another example is public consultations. So when international reports are published for consultation, we highly encourage you to submit written responses and, where possible, submit data or research that supports your perspectives and your analysis. IOSCO had a consultation last year about leverage in investment funds and it greatly benefitted from the input from market participants and stakeholders.

A few other ways that you can help. So workshops, the FSB and IOSCO hold workshops and stakeholder meetings with industry representatives. And we recently held a workshop here at the SEC for the FSB and it was all about ETFs. That workshop was incredibly valuable because it actually helped change the course of the FSB's work. So it was really great, and we thought that it was productive.

IOSCO recently held a workshop on sustainable finance, and they issued a survey to market participants about sustainable finance. So stakeholder participation in these forums and surveys is valuable and it helps shed light on current market practices.

One final thing that I will say in closing is another opportunity is the FSB is undertaking a series of evaluations on the effects of various post-crisis financial regulatory reforms, including looking at money market fund reforms. So many of the FSB's evaluations will include public consultations and the opportunity to meet with them to discuss them.

So I look forward to engaging with the committee in the future and I hope that you engage with these international bodies, as I've outlined. I thank you.

MR. WATERS: Thank you very much, Ed, for the invitation. Thank you, Dalia, and to the Commission for setting up this committee. I think it's a terrific idea. I'm offering a personal perspective today on these regulatory issues. I am not proposing to sort of do a comprehensive review of everything that's happening internationally in regulation in 20 minutes, which would be impossible. And, even if I could do it, would be incomprehensible.

I am going to talk about principally regulated funds and ETFs and the retail side of that. Those are the markets and the investors that I know best. And I am just going to focus on, as I said, a number of key regulatory themes.

An underlying current in my remarks is that the investment funds industry is in some ways a victim of its own success. As Alex's presentation has made clear, the global industry is huge, both in absolute terms and in terms of its size relative to other sectors of the financial system. Even if the great financial crisis had not happened, central banks who are responsible for overall stability and security of the financial system, would have become very interested in mutual funds and wanted purview over them. But of course, the great financial crisis did happen. And to put it simply, the Financial Stability Board, as well as the IMF, the OECD and many others will never again look upon mutual funds as simple, benign investment structures. Which brings me to my first theme of regulation of fund management in the 2020s, which is that central banks will continue to take a close interest in the mutual funds industry and their view of the vulnerabilities and risks in mutual funds will continue to have a very important impact on how those funds end up being regulated.
So where are they coming from and why do they care about mutual funds? Even after significant reform of the money market funds after the crisis, the FSB, supported by the IMF and others, pressed for further mutual fund reform, pushing very hard to designate the largest funds and the largest managers as systemically important financial institutions. The need for this designation arose, it was said, from their size and from a fundamental vulnerability in the investments funds industry, namely the so-called liquidity mismatch in open-end mutual funds.

This mismatch, it was asserted, is the disconnect between the expectation and entitlement of fund investors to redeem their shares on demand, and the reality that the underlying fund assets might not be sufficiently liquid to let them do that. And although the battle of the SIFI designation was won at least for the moment by funds, the focus on liquidity mismatches in mutual funds is very much alive and well in the FSB and in central bank thinking today.

Last summer, Mark Carney, the governor of the Bank of England and the former very influential chair of the FSB, responding to the collapse of the Woodford Fund in the U.K. and also the difficulties in properties funds after Brexit in the U.K., took aim at mutual funds with significant exposure to illiquid assets. And he said, you can see something that could be systemic. These funds are built on a lie, which is that you can have daily liquidity for assets that are fundamentally not liquid, end quote. Built on a lie. Just let that sink in.

I think that means we must expect continuing major focus on fund management liquidity in mutual funds. So first of all, at the systemic level. The Bank of England has developed a systemic stress testing model that predicts threats to the stability of financial markets from investor runs on corporate bond funds.

The IMF has already taken to using systemic stress testing of mutual funds in its work in its FSAP program. The securities regulators themselves are, of course, sensitive to these concerns. ESMA, the European Securities and Markets Authority, published guidelines last September on individual fund liquidity stress testing, which included a recommendation of stress testing across a group of funds with similar strategies. Both ESMA and the SEC have very substantially ramped up their economic and macroeconomic analytical teams and are themselves now producing assessments of systemic vulnerabilities.

But make no mistake, it’s the central banks who have the resources, the deep resources, and the level of anxiety about mutual funds to match, who will continue to push the thinking at systemic level. I would expect to see pressure for securities regulators to develop and mandate such systemwide stress testing in their regulatory frameworks.

Secondly, the individual fund level, liquidity risk management will continue to be a major focus of fund regulation in the 2020s. The IOSCO 28 report on liquidity risk management announced a sensible, principles-based approach to this issue. And securities regulators around the globe have been addressing these challenges very actively. The SEC led the charge with an elaborately detailed set of requirements in 2016.

While I don’t see evidence that other regulators around the world are taking this prescriptive approach, it is an area of intensive focus internationally. For example, ESMA last September published its guidelines on liquidity risk management for funds. The Australian Securities and Investments Commission, ASIC, is reviewing its regime against the IOSCO recommendations. The Hong Kong Securities and Futures Commission, the SFC, a very influential and respected regulator in Asia and globally, has been testing funds’ compliance with its own updated code.

But the bank regulators are not satisfied with the work that has been done by securities regulators so far. Dismissing the IOSCO work as inadequate, the Bank of England last summer said that it would work with the U.K. Financial Authority, quote, to examine the costs and benefits of aligning redemption terms, including pricing and notice periods, with the typical time it takes to realize market prices for funds’ assets in normal and stressed market conditions.

There are potential threats here in terms of the application of typical banking liquidity tools to a fund’s situation. Liquidity in the banking context, as everyone will know, is something very different from liquidity in the context of an individual fund and could quickly veer to calls for liquidity buffers and the like.

Nonetheless, it may be that the Europeans, in considering alignment of redemption terms in mutual fund funds to the underlying liquidity of the investment assets, might end up meeting the SEC coming from the other direction. Namely, the SEC’s consideration of whether mutual funds ought to be permitted more liberal access to private pools of wealth, notwithstanding the lack of liquidity, as has been discussed, as I understand it, in another session today.

That brings me to my second major theme for the coming decade, and that is that securities regulators, I think, will continue to focus on protection of retail investors as a top priority. That seems obvious. But they will be less reliant on disclosure as the cornerstone model
and more focused on investor outcomes. I see a number of component elements to this.

First, a series of regulatory interventions directly around investment products themselves. Second, an unrelenting emphasis on the impact -- the impact of costs and charges on investor returns, especially over the long run. And, third, evidence of a growing interest in assessing whether investment funds are providing value for money to investors.

On the first component, MiFID II introduced a strong focus around investment products that directed -- created new organizational and operational requirements around governance arrangements around product design and approval, identification of a product's target market, including analysis of attendant risks and alignment of distribution strategy with that target market, provision of adequate information by product manufacturers to their distributors about products and target markets, and then regular product reviews to ensure that the target market and the distribution strategy continued to be appropriate.

The underlying purpose of these interventions was a desire to try to minimize damage to investors from misselling of products. The idea being that a product should be well designed with a clear sense of who should buy it. Seems sensible. This focus on investor outcomes is not just a European initiative though. Legislation in Australia, in 2019 picked up precisely the same investor outcome theme very much following the MiFID II model.

There is a difficult and risky regulatory line to walk here. I think, in discriminating between products that are missold as opposed to products whose investment strategy just didn't work out. Nonetheless, I would expect further global regulatory traction on this line of thinking.

The second element is a firm focus on the impact of costs and charges. Fund management regulators have been focused on disclosure of costs and charges and a huge amount of work has been done over several decades to improve the quality of this. In recent years, however, I think there's been a shift, with regulators focusing increasingly on the impact of fund fees, on fund performance over the long term. This is probably unsurprising, given the growing need for investors around the world to contribute to their own long-term saving needs, with longer lifespans as has been touched on, growing pressure on government-sponsored pension systems. This, in turn, has caused regulators to become concerned about the adequacy of the long-term returns investors are deriving from their investments.

In this regard, it's notable that U.K. authorities and the Hong Kong mandatory provident authority were so concerned about the possible impact of high charges on their pension arrangements in their jurisdictions, that they imposed a cap on fund and other fees. There is a link here, I think, to the active/passive debate. Regulators who are concerned about information asymmetries, investor inertia, long-term saving needs, et cetera, are attracted to low-cost funds. While they may not outperform, and they don't, the best active funds, the promise to deliver market-level return, I think, looks simpler and perhaps less risky a proposition to the regulators. Indeed, the FCA, in making recommendations based on its asset management market study, was forced to explicitly deny that it was advocating that investors should choose passive funds over active funds.

In addition to worries about the impact of fund fees, there's growing awareness about the impact of fees right across the increasingly complex value chain, and that's going to be an area of focus as well.

Then we come to the third element of this theme and that is an evolution, in the U.K. at least, into a focus on value assessment, sometimes called value for money. Beginning at the end of this month, U.K. managers of U.K. domiciled funds must publish a fund-by-fund assessment of the value they provide to investors. This is a summary report based on a detailed internal assessment on seven mandatory criteria. I won't delve into those, but they are very much like the Gartenburg principles, which people in this room will be aware of, used by the U.S. mutual fund boards in doing their evaluations. I think this is going to prove a quite interesting and challenging exercise for the U.K. fund industry. I don't think that bland assertions that value is being provided are going to be accepted by the U.K. press. And those of you who know the London press will know whereof I speak.

I would expect a quite robust debate about what standards and what metrics should be used in making and justifying these claims of providing value. I think we should expect a high-profile discussion to emerge in the U.K. around this process, which could be influential as in thinking in regulators elsewhere in the world.

I link this regulatory shift to outcomes to an underlying conclusion after nearly 30 years as a regulator that many and probably most retail investors really don't want to spend much time worrying about their investments. I suppose that sounds shocking. I think they want to rely on a trusted adviser or a brand to do it for them. Is that unreasonable, given the complexities they face in these decisions? But how to provide this support across so many investors with relatively modest ability to save?

I think technological support for investors, and this has been mentioned today, whether advised or otherwise,
is going to be critical in providing sound investment outcomes for the future. Considering the growing scale of mutual fund distribution in China by mobile phone, which is surely coming globally, the challenge of providing low-cost advice at scale suggests to me that a firm focus on products that are likely to deliver good value quality outcomes will be key.

Let me turn to the third and the last regulatory theme, which is that ESG and sustainable investment generally will become a major if not the major driver of fund management regulation at global level in the 2020s. ICI data on sustainable USITs and '40 Act funds shows a growth in ESG funds from $567 billion at the end of 2016 to nearly $2 trillion just two and a half years later. The fund management industry at global level has responded very proactively to growing demand from institutional investors, intermediaries, underlying retail clients for more sustainable investment products and investment opportunities.

As climate change is the strongest driver of ESG at the moment, let me just focus on that. I see two principal regulatory risks here. First, divergence and potential conflicts in regulation across jurisdictions. And, second, inappropriate reliance on fund management regulation to deliver through the back door, as it were, outcomes that have not been fully articulated or agreed at political level.

First of all, the risk of divergence and conflicts, intensive work at global level on delivering the commitments to the Paris Accord continues, albeit without the support of the United States. Getting down to the more nitty gritty deliverables, however, is proving very challenging, as the outcome of the U.N. Climate Conference in Madrid last month amply demonstrates. The Europeans, however, are pressing ahead ambitiously and at speed on both the legislative and regulatory levels in ways that will directly shape fund management regulation globally.

I am pleased to see that in ESMA's advice to the Commission on disclosure technical standards for funds and fund managers, they have stuck to a principles-based approach and one that keeps an assessment of material financial impact as central to the analysis. And I think this is absolutely key. But, to be clear, the work on technical standards this year will yield detailed requirements that will affect both issuers and fund managers alike. The timeline for implementation of the new regime, including these detailed requirements, is January 2022, two years from now.

The takeaway point for us today is that the Europeans are doing again what they've been doing. That is, not waiting for anybody else including especially the United States. The focus on sustainable investments is by no means just a European initiative, it is global. IOSCO's growth and emerging markets committee has developed a set of recommendations directed to regulators in large growth and emerging market economies like China and India. Proactive approaches to mandatory financial disclosure are being taken by the China Securities Regulatory Commission, the Hong Kong Securities and Futures Commission and other regulators globally.

Faced with significant new disclosure and operational requirements in Europe and elsewhere, I would expect global fund managers to do what they generally do, that is, try to implement them in a manner that is consistent with or at least doesn't damage their overall global policies and operations. I fully expect that this is going to mean that the E.U. sustainability requirements will become the regulatory baseline from which global fund managers will work. This brings a very significant risk of clashing standards at global level, perhaps running as deep as the scope of the fiduciary duty of asset managers, but almost certainly setting up conflicts and inconsistencies definitionally and operationally for fund managers. And this underscores the importance now more than ever of the global funds industry continuing to be closely engaged in the development of E.U. legislative and regulatory policies.

The second major risk, and I wonder if I'm right about this, but I do worry about it. I worry that the regulation of investment fund disclosure could front run agreement at political level on underlying definitions of what is or isn't sustainable economic activity. Indeed, Mark Carney made a remark like this just the other day in his farewell interview at the F.T. One of the current challenges for fund managers is the plethora of international standards and systems for assessing whether economic activity is sustainable or not in different sectors. And there are all kinds of different bodies out there with different approaches to this, as I'm sure you know.

Getting agreement at a political level on a common understanding of what is sustainable economic activity, sector by sector, is very, very challenging as the failure to reach consensus in Madrid demonstrates. In Europe, this risk of disclosure regulation for funds front running regulation that defines the criteria is already crystalizing, actually. The E.U. disclosure regulation, which sets the website and product disclosure requirements for funds, has been agreed and detailed work under delegated acts is ongoing on technical regulatory standards. This has been running ahead of the taxonomy regulation, which is
going to define the criteria for what is and isn't sustainable economic activity. The risk is that the fund manager ends up more by accident than design being required to make disclosures about things for which they do not have and cannot obtain adequate, consistent and reliable information.

To be fair, ESMA is aware of this disconnect between the two regulations and has been urging the Commission to ensure the necessary linkages are made as the standards for both regulations are elaborated over the coming year. This is one year for both of these regulations. This is very, very intense.

The industry should remain alert to and engaged with that interaction, I think, as they are both elaborated. The SEC, as I am sure it knows, would do well, I think, to keep apprised of what's going on here and maybe even try to identify potential clashes as they begin to materialize, as one might say.

And I hope that the SEC also stays close to IOSCO, which is going to be looking at global guidelines and frameworks in this area, too.

That concludes my remarks. I hope that my thoughts about the role of central banks in asset management regulation, the role of securities regulators and the increasing focus on outcomes and the move to sustainable investments has been helpful to the committee today. Thank you.

**MR. BERNARD:** Thank you. If Raquel’s encouragement to get engaged wasn’t enough, I think you’ve now seen the case study for why you might want to get engaged to work with the SEC. And if all of that wasn’t enough to brighten your day, we have now asked Paul and Jason to talk about a particular case with MiFID II and payment for research. And I think Paul has taken on the unenviable task of explaining what I just said in simple terms so that everybody is on the same page as to what the regulation is we're talking about and then they can talk about how it's impacted two very different firms.

**MR. ROYE:** Okay, thank you, Ed. And thank you to the Commission and Dalia and members of the committee for the opportunity to be here.

I was feeling good until I heard Dan. You know, Alex talked about, you know, how there is a future for active managers. Raquel talked about international cooperation and how there's hope for international regulators to work together. And then Dan just put a damper on everything. So, wow.

So, you know, clearly based on what you heard, for global asset managers, navigating regulatory complexities is a constant concern for us. You've heard, you know, issues such as systemic risk, risk management being a focus, particularly of the bank regulators who are driving a lot of this, liquidity, leverage. We've heard about privacy today, anti-money laundering and Dan talked about ESG.

You know, Alex focused on, you know, from a distribution standpoint where asset managers can go for growth outside the U.S. I think one of the other themes that you guys focused on today was, you know, how do asset managers generate superior returns for their investors?

There are a shrinking number of U.S. companies. You can go into private type investments; you heard a lot about that in the earlier panel. But another way asset managers can generate superior returns for their investors is to invest globally, invest outside the U.S. And to do that, you've got to have good research. Either they've got to go out and develop the capabilities within your own company or you've got to have access to good research around the world. And that's where Jason and I come in.

As Ed alluded to, we've been asked to highlight an issue that the Commission is wrestling with and trying to navigate through, and that's the impact of the European Union's Markets and Financial Instruments and Amending Directive, which is referred to as MiFID II.

So effective in January of 2018, MiFID II required asset managers subject to their jurisdiction to pay for research services separately from execution services, and either charge clients transparently through what they call a research payment account, and these are accounts where you negotiate with your clients how much they're going to pay for research and set aside in a separate account, or the firms would have to pay for the research themselves out of their own resources or P&L. So therefore, it requires the unbundling of research costs from execution costs.

Now the European Union's stated goals in enacting MiFID II were as follows, to first improve accountability over costs passed on to asset management clients, to improve price transparency for both research and execution services and reduce conflicts of interest of asset managers by unbundling research buying decisions from trade execution services. Now, these requirements apply to managers that are located or domiciled in the E.U. or otherwise under contract to comply with regulations in the E.U. such as now MiFID II.

So I think as many of you know, historically, asset managers globally got paid for third party research with brokerage commissions in connection with equity trades. So the result therefore is that U.S. regulations and MiFID II requirements were exactly at odds, resulting in massive uncertainty in the marketplace about how to comply with both
MiFID II and U.S. regulations when acquiring research. As has been alluded to, to address this uncertainty, the SEC stepped up and issued several no-action letters which facilitated the continuing ability of U.S. and global asset managers to access research from U.S. broker-dealers. In a no-action letter to SIFMA, the SEC provided temporary relief that permitted a U.S. broker-dealer to accept hard dollar payments or payments from a research payment account for research services, provided to an asset manager subject to MiFID II requirements without being required to register as investment advisers.

Now, the legal issue here is that, in providing research services, U.S. broker-dealers operate pursuant to an exemption from registration under the Investment Advisers Act of 1940. And under this exemption, the performance of such research services must be, quote, solely incidental to their brokerage dealer services and they can't receive any so-called special compensation for providing that research.

Now, hard dollar payments made in accordance with MiFID II could be considered special compensation and therefore disqualify broker-dealers from relying on the broker-dealer exemption in the Advisers Act. Many broker-dealers don't want to have to register as investment advisers because it imposes additional burdens and restrictions on their business. One of the principal one is, again, principal transactions where there are special requirements under the Advisers Act that they have to adhere to. They don't, as a broker-dealer. And they don't want to separate their trading from their research staff into separately registered investment advisers because they view this as substantially diminishing the unique value of the research services provided by those who are actually involved on a day-to-day basis in the markets.

What's been the response of various managers to MiFID II and the SEC's relief? Some global managers have determined to pay for research for their clients in the European Union, because they are required to pay hard dollars or use a research payment account, and I think the actual result, and I think the FCA knew this, is that most managers in the U.K. and in Europe, rather than trying to negotiate with their clients about a research payment account and how much the client is going to have to pay for research, just elected to pay hard dollars for the research. And even those who initially came out and announced that they were going to charge clients for research, when they saw the wave of other managers indicating that they were going to pay hard dollars for it, they backed away. I think the FCA, in their construct, my sense is they knew this was going to be the result and they were going to drive the payments for research out of hard dollars.

Now, other firms viewed this approach as unfair, resulting in a subsidization, where only certain clients benefit from an asset manager's willingness to pay the expense of research. So some firms like my own firm, we didn't think it was fair to pay out of our own pocket for research in Europe but have our clients in the U.S. bear those costs through brokerage commissions. So we set up a situation or an arrangement whereby we pay -- in the U.S., we pay brokers through commissions and then we have a reimbursement arrangement. We use a commission sharing arrangement to facilitate that. We can see the credits that are being used for research and then we reimburse those payments for research to our clients, including our mutual funds.

From a fund director standpoint -- you'll appreciate this, Dan, as a fund director -- our fund directors were ecstatic that we were stepping up and paying the research costs and reimbursing the funds because this is a cost that otherwise the fund shareholders would bear. But again, we thought from a fairness standpoint, it made sense for us to treat all our clients the same.

Unfortunately, we have to go through this administrative process of calculating the credits and reimbursing and, indeed, we filed comment letters with the SEC, urging them to maybe provide some relief in that area so we don't have to go through that administrative burden.

So other impacts and, you know, how are the regulators analyzing this and thinking about this? There's a lot of information and noise out there. Jason probably has a better perspective because he's living this and trading and having to interface with research providers. But the FCA, Dan's old regulatory agency, major proponent of unbundling in the E.U., they did a -- they published a survey in September of 2019, findings from what they call a multi-firm review of the impacts of MiFID II. But, Dan, they only surveyed 40 funds, so I'm not sure -- so take it for what it is. But the FCA found that most asset managers, not surprisingly, have chosen to pay for research from their own resources instead of using client funds. They assert that this has resulted in investor savings in the U.K. in their equity portfolios of around 70 million euros in the first six months of 2018, and they estimate that there will be a saving of one billion euros over a five-year period.

They did observe that budgets for research fell on average 20 to 30 percent. But despite those budgets for research falling, they -- a survey indicated that these reductions, that in spite of these reductions, that the asset managers still concluded they were getting sufficient research to support their investment process. They also assert that research coverage of small
and mid-size companies listed in the U.K. has not seen a material reduction in coverage. But then they did acknowledge that research pricing is still evolving and that there were wide ranges being offered by brokers and independent research providers. And they observed that, in some cases, research providers seemed to be low pricing some aspects of research and charging premium prices for other aspects of research that they were going to monitor.

Now, the CFA Institute conducted a follow-on survey one year after the effectiveness of MiFID II and this one is a more robust survey. They surveyed 500 members of the CFA in the U.K. -- E.U., U.K. and Switzerland. And their survey suggested results of MiFID II are really mixed at best. That most buy side respondents reported using less research, and this is consistent with a report that came out by Liquidnet that indicated that 61 percent of asset managers surveyed reduced the number of research providers dropping between 20 and 70 percent of the brokers that they normally used or had previously used. The survey noted a reduction in sell side analyst jobs, with many going to buy side firms. And they also observed that this may be a function of the application of technology and growth in passive diminishing the demand for third party research. The survey noted an average 6.3 percent decrease in research budgets, with the percentage being higher for larger firms managing over 250 billion euros. For those firms, the budgets were reduced by 11 percent, the larger firms.

Buy side respondents indicated that research quality was unchanged, but 44 percent of sell side respondents indicated that the quality of research for small and mid-cap companies had deteriorated. And then 39 percent of respondents asserted that the research marketplace is more competitive.

Now, the E.U. itself is, I guess, and Raquel may be familiar with this, is in the midst of doing a study on the impact of MiFID II on research markets. And so we can await that.

So again, there's a lot of information, you know, floating around. I think that MiFID has been in place for two years. I think it's fair to say things are still evolving. And the SEC has indicated, as Raquel indicated, extended the no-action letter relief for another three years and is waiting to see how all this sorts out. So with that, let me turn it over to Jason really just to give his perspective from the smaller firm viewpoint.

MR. VEDDER: Good afternoon. I want to thank Ed and the entire asset management advisory committee for inviting us to participate this panel. I will not go into my background and maximize my time to present but I will spend a couple minutes describing what my firm specializes in.

Driehaus Capital Management was founded in 1982. We have five investment teams. U.S. growth equities, which consist of micro-cap, small-cap, mid and life science products; international growth equities; emerging markets; alternative investments, which includes an active income fund and an event-driven fund; and value equities. We spent most of our investing life around the smaller cap space across the entire globe. We are a boutique investment firm. Our products are capacity constrained yet our investment strategy touches more than two million investors. All of the operations of our firm are based in Chicago.

In my 25-plus years of experience in this industry in various capacities, I am always amazed at how our industry has been able to adapt to the changing regulatory landscape. We have seen U.S. rule changes transform many components of this industry. People and firms have had to reinvent themselves with a new role or a new product line. The U.S. securities market is the most efficient and transparent in the world. In fact, over the last 25 years, I would posit that non-U.S. markets have tried to replicate what we have created so far. But this is the first time that I know of where a foreign regulating body has decided to implement a set of rules that have the potential to upend global firms and cause disruptions to the individual investor. It's the unintended consequences around MiFID II that, if left unchecked, could end up leading to a global marketplace left with a concentration of large asset managers and bulge bracket brokerage firms.

When we started to engage with the asset management community to understand how MiFID rule changes would impact a U.S.-based firm like Driehaus, we along with many other participants concluded that if a firm did not have any MiFID in-scope clients, nor did it have any operations in the E.U., the impact would be minimal. The majority of our concerns centered around adjusting trade processes and venues in Europe to maximize execution efficacy for everyone. The concern was not too daunting, simply because our industry has always done an exemplary job of adapting to an ever-changing trading landscape. That was our focus as the implementation date neared.

It wasn't until I was in Washington, heading to this building in September 2017, that our opinion and concern levels changed. Large U.S.-based global asset managers decided to circumvent the operational headaches of implementing these rule changes and pay for all their research costs out of their firms' P&L wherever possible. That was our uh-oh moment.
Our firm immediately knew that if we were told by our clients to pay for all of our research costs out of P&L, it would significantly alter how our firm would look in the future. Our firm was now at a competitive disadvantage. If we were competing with larger firms that could easily absorb these increased costs, we would be a higher-cost option. The longer term concern is that our business model is not designed to pay for all our research costs with hard dollars. That is because we have commission sharing agreements in place with many of our executing broker-dealers which enable our firm to provide best execution and, at the same time, accrue soft dollar credits to pay for research our investment teams deem valuable.

When I got back to Chicago after my trip, our firm started to consider who else in this industry would likely be in the same situation as Driehaus? How many other firms would see a significant impact to their business models if in the future they were effectively forced to pay for research out of their P&L via competitive pressure, even though they may have no business in Europe?

The decisive action by the SEC to provide temporary relief just before MiFID II went into effect prevented what could have been an operational nightmare for large, global asset managers. These no-action letters provided much-needed support to these firms to pay their global brokers for research with hard dollars. However, our primary concern continues to center around U.S.-based asset managers that can't afford to pay for research costs out of their own pockets in their entirety.

With asset management fee compression, increasing compliance and operational costs and growing competition from passive products, smaller U.S.-based asset managers will feel the brunt of MiFID II rules which may force firms to take draconian measures to stay relevant.

To support our concerns, we have highlighted the areas within the asset management universe that would most directly be affected by a change in who was paying for research. To look at this impact, we identified the variables of an asset manager's model that would affect the potential problem. They were, one, assets under management; two, average management fee on that assets under management; three, the amount paid for research on a basis points of assets under management; and, four, EBITDA margins of the asset managers.

To preface, we understand that having these variables will not create a complete picture. Furthermore, some firms will argue that they won't have a problem based on their knowledge of specific variables at their firm we do not have access to. That notwithstanding, the industry averages and public data we use to compile our calculations should help frame the discussion around the impact to a specific set of asset managers if told to change their business model by their clients and should not go unchecked.

For our calculations, we assumed a general EBITDA margin of 32 and a half percent. We also believe most active managers on average would have EBITDA between 40 and 70 basis points. As for the amount paid for research, industry estimates put the average amount at around 5 basis points of AUM, though these can be as high as 25 basis points or as low as sub one basis point.

We know that large asset managers and small asset managers don't have the same values for these variables. Just by sheer economies of scale, a large asset manager is not going to pay 15 basis points of their AUM to the sell side for research services. Nor is a smaller asset manager going to charge his clients 40 basis point management fee for an actively managed emerging markets vehicle.

With these assumptions, it is apparent that a firm with a larger AUM will be able to absorb research costs more easily. We found that firms below 30 billion in AUM with a 65 basis point management fee and four basis points of AUM in research costs could see as much as a 20 percent reduction in their EBITDA profit by having to pay for research out of their own pockets. A firm with 10 billion in AUM, 65 basis point management fee and 10 basis points of research costs, however, could see as much as 50 percent of their EBITDA being used to pay for research. Obviously, earmarking 50 percent of a firm's EBITDA is not a small impact that can be easily absorbed. This impact is transformative. Again, this exercise is not a perfect analysis and variables may be meaningfully different from firm to firm.

Other variables, most notably portfolio turnover, could also affect profitability potential. However, this reduction in profits clearly will impact a firm's strategic plans, including less money to reinvest into growing the asset manager, hiring new employees or creating new products. Worst case scenario, a firm sees their situation as fight or flight and chooses the latter as the necessary course of action.

The impact on the buy side of the industry will reverberate to the sell side as well. If asset managers see meaningful disruptions to the profitability because they have to pay for research entirely with hard dollars, the most logical business solution is to reduce those costs.

We've already seen this play out in Europe. There have been studies done that already show the fallout of adopting MiFID II compliance protocols. Firms are consuming less research, but they are also starting to underperform their respective benchmarks.
<table>
<thead>
<tr>
<th>Page 202</th>
<th>was one study in Europe that indicated that it did have some impact on European funds.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MR. GARCIA: It does.</td>
</tr>
<tr>
<td>2</td>
<td>MR. VEDDER: It was an ISL research report that was done, I think, in April last year. Granted, it was a smaller subset of performance after MiFID was implemented, but --</td>
</tr>
<tr>
<td>3</td>
<td>MR. GARCIA: Are you able to educate your clients that it will impact their performance and therefore turn around and pass the costs on to them? Or does that not work? Or is that not viable?</td>
</tr>
<tr>
<td>4</td>
<td>MR. VEDDER: It's a tough discussion to have with an existing client or even a potential. Especially when you have other firms that are, you know, talking about doing it --</td>
</tr>
<tr>
<td>5</td>
<td>MR. ROYE: Let me elaborate a little bit. I mean, there's -- you know, MiFID II is kind of a continuation of a trend. You know, so in 2006, the SEC basically signed off on commission sharing arrangements, which what commission sharing arrangements do is allow transparency around what you're paying for execution and what you're paying for research. And, you know, I sort of think about it as, you know, my kids, you know, when they were growing up and they wanted a toy, when I was spending my money, it was okay to spend it. But when I said, you've got to use your own allowance or your own money to pay for it, all of a sudden the calculation was different in terms of whether or not they bought that toy or not. So I guess what I'm saying is, as my sense is that, you know, there has been sort of overuse of research, overcapacity, people employing research that really wasn't needed because it wasn't transparent. In 2006, you started to see a migration away from that because of use of commission sharing arrangements and you started to see research budgets come down. And so what MiFID II though has done, where the regulators in Europe have said effectively it has to be hard dollars. And our position is that we'd like to see choice. I mean, I appreciate Jason's, you know, concern about their business model. But, you know, our view is it shouldn't be hard dollars, necessarily. There should be choice in terms of how managers -- if you elect to pay for it in hard dollars, that's okay. If you elect to do it through commissions, that's also okay, as long as your investors understand.</td>
</tr>
<tr>
<td>6</td>
<td>MR. GARCIA: Let me just quickly follow up, if I could. Was the information unique enough that you cannot just get it yourself somehow on the internet or through other sources? I think that's the key, information --</td>
</tr>
<tr>
<td>7</td>
<td>MR. ROYE: Well, that's -- but that's also another</td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Page 203</th>
<th>the SEC in general. The payment for research out of P&amp;L issue should be at the heart of the list of concerns this committee tackles.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I look forward to more discussion and debate around this topic and our market structure in general.</td>
</tr>
<tr>
<td>2</td>
<td>Lastly, I want to thank Director Blass and the entire SEC for their inclusion of smaller firms within this process. Including firms like Driehaus to add our experience to the fact-gathering process is much appreciated. We encourage other boutique firms to engage in these discussions and help improve the overall dialogue the SEC is requesting from our investment community. Thank you.</td>
</tr>
<tr>
<td>3</td>
<td>MR. BERNARD: Well, I'd say mission accomplished on the case study. Thanks to the two of you. That was terrific. But I talk too much. So I'd love some questions.</td>
</tr>
<tr>
<td>4</td>
<td>MR. GARCIA: I'll start us off. Jason, I'm very sensitive to your comment. I'm an entrepreneur myself at a small firm. So, Paul, do the statistics show or justify or say when you cut back on your budgets and so forth on research, that somehow that affects performance? I mean, have we seen some statistical significance to that or not, one way or the other?</td>
</tr>
<tr>
<td>5</td>
<td>MR. ROYE: Yeah, Jason referred to, I think there</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Page 204</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>52 (Pages 202 to 205)</td>
</tr>
</tbody>
</table>
factor, in terms of, you know, when you start seeing, you know, reductions in number of analysts in places like that. And this is where technology is coming in and disrupting. There's a lot more information that you can access without having to go through and pay for it.

So, you know, there are a lot of factors here that are coming in. And, you know, the other issue you hear, you know, that's, you know, people focus on is whether or not small and mid-size companies are going to have adequate research coverage. And I guess my own view is that, you know, the market will solve that issue. That if there are companies that aren't being covered and you're providing good, valuable research on those companies, you will be sought out and you will be compensated for that.

MR. DRAEGER: Thanks, Ed. Jason and Paul, your perspectives were great analogies. Just from the perspective of another small firm, Jason, you know, our firm also, we have internal research but it's heavily reliant on outside research resources as well. And we did move to entirely use of hard dollars to get access to the research.

And some of the examples that you were giving as far as AUM and your assumptions on, you know, basis points for fees were right on relative to our firm. But it didn't have the dramatic impact, you know, that it may have on your firm or others, and I'm just sharing that.

Because inside of our corporate board room, the discussion was one where there was a recognition that it wasn't the regulatory obligation to support a business model that was reliant upon a conflict of interest. So we sort of viewed it as not incongruous with the mission of the Commission plus the market working itself out, as far as what people were willing to pay for the research and how much was needed to do their job.

So I guess I'm just sharing that as another smaller firm but that maybe has a different perspective.

MR. ROYE: Yeah, I guess the thing that I would add to that is, you know, you're probably hearing this, Jason. But, you know, institutional investors, consultants, I looked at a piece from Mercer saying the five questions you should ask about, you know, your asset manager, one of which is, you know, are they paying for research because we, Mercer, think they ought to be paying for research. You know, so the direction of travel here is toward hard dollar payments for research. And I think that many -- many view that as a best practice now.

MR. VEDDER: I was just going to say like I understand, you know, the perspectives about everything in terms of what you're saying. But it's a black or white issue, it's not in the middle. It's not a negotiated -- say, you know, if our business model can't afford to pay for all of our research costs, is there a middle ground that we can come to with our clients? Say, can we pay for half of it? Or can we -- can we push some of the 2080 eligible services that we usually pay for through -- you know, that may not be specifically broker research but other tools that we use in the investment process, is there a way to do that in terms of maybe coming to a common ground with the clients or even with potential clients, if we're in a situation where we're considered the higher cost option? But it's black or white; there's nothing in the middle. And that's where our concern is, is that if Mercer decides that they want to have all their investment managers basically pay for research out of their own pockets, then that's it.

MR. BERNARD: I'm curious, Alex, if you could give us some perspective? We see the obvious and, I think, understandable difference at scale of the impact. But in your travels with all sizes of asset managers, how big a blip is this on the radar? I mean, you know, you talk about the cost of tech which is a ginormous number. Where is this in that context?

MR. D'AMICO: We're seeing it candidly more as a headache and I think it's direction of travel point, about where is the overall market going, I think some folks are accepting it as this is -- whether we get there explicitly through MiFID II by itself or five years down the road, there's more, you know, alignment from a regulatory standpoint, this is the direction of travel. And so you're seeing, I think, folks just getting on board with paying for research directly. I fully appreciate the point that you're making about boutiques and the economic drag.

Look, I will say one thing about research as it relates to fees and overall fee structure that is important to keep in mind here. We did an exhaustive analysis, looked at I think 7,000 plus strategies and looked at were they returning -- generating alpha net of fees. We looked at institutional and retail. And what we found was quite clear. Active management generates returns, generates alpha. Particularly when you get institutional pricing. You get retail pricing, it doesn't. Right? You flip a coin, the average active manager on a retail pricing structure does not generate alpha.

And so I think that there's this question around, over the long term, A, what's in the best interest for investors? It goes back to the fee point. And, B, can an industry that's not systematically generating value survive? And I would argue that when it's generating value on an institutional pricing regime with institutional fee structures versus a retail price regime with retail fee structures, anything that's going to help correct this imbalance and allow active managers to more consistently...
generate alpha, right, is key to the industry's long-term viability.

MR. WATERS: Yeah, just that long-term viability point and the value point, I think one of the things -- one of the drivers of where the FCA ended up, I think, too, was its competition analysis of the market and its conclusions that really the retail investor themselves were really not performing much of a discipline on the market at all. And you kind of see that differential performance on the institutional side where there's a lot of very intense pressure. On the retail side, not so much. And I think that's some of the regulatory interventions are in that space.

MR. ROYE: One of the problems I've had in listening to the presentations today and the analysis, it's all aggregate numbers. It's all about, well, asset managers, active managers as a whole don't outperform. The trick for investors is to figure out which ones do and have done it over long periods of time.

And I think investors, some of the data I see where investors are focusing on funds that have low costs, good long-term results, are getting flows. So, I mean, I think there are some investors out there who have figured it out.

MR. D'AMICO: To be clear, there are funds that are getting flows and there are shops that do tend to outperform. It gets harder, by the way, when you get over 250 billion in assets at a complex level. It does. But the percentage of assets that are not delivering value in this industry is very, very high. And the number of strategies in funds that are not delivering value are very, very high. And there is a lot of end investors out there that are, at the end, losing out because of the fee structure.

MR. ROYE: Well, maybe Regulation Best Interest will have some impact on that.

MR. BERNARD: So I might offer a comment also for the committee, as we think about -- and I'm about to get myself in trouble because I'm going to offer an observation for which I'm not qualified. And so Dalia and her team can correct me if I'm wrong.

But even if everybody in the U.S. decides to pay for research, they still have work to do. Because under this whole issue of broker-dealers who provide transaction services and research, if they accept payment, they still don't want to register as investment advisers. And I heard someone comment that you'd sort of have to drive a truck through the Investment Advisers Act to accommodate that. So there may still be work for us to do, if we choose to even focus on this, even if, despite Jason's best wishes, the whole industry decides, you know what, let's just pay.

Well, the counterparty doesn't want to receive the money without things changing. That's what's vexing --

MR. ROYE: I mean, to me, the policy that's in the Investment Company Act that says that you become a broker-dealer by the form of payment that you take, be it a commission is okay but if you take hard dollars, all of a sudden, that trips you over into investment adviser land makes no sense. Form of payment shouldn't dictate whether or not you have to register as an investment adviser.

MR. GARCIA: And it just has to be recognition that research is different for different asset classes, too, see? Like in the fixed income, it's hard to justify, because everything is so efficient in the investment grade space, it's hard to justify passing on any sort of research cost to clients. But that's because it's high quality fixed income. So not all money management is the same. So I think we've got to be sensitive to that, too.

MR. BERNARD: To that point, if we as a committee could define what research is, define what advice is and define what ESG is, we'd -- we'd probably all be in some kind of hall of fame.

MR. GARCIA: I'm sorry, can I go back to one more? I'm sorry. I'll be quiet. No, Erik, you.

MR. SIRRI: So I was going to just ask Dan, your institutional side where there's a lot of very intense macroprudential analysis. Because if they do that, then you get a dialogue with the central banks that is informed by a deeper understanding of capital markets and an understanding that doesn't come from the banking perspective where everything, wearing my banking regulator glasses, everything is either a bank or a shadow of a bank and the central banks and the securities regulators would begin to collaborate more closely. I was encouraged to hear I think Raquel mention that the recent work of the FSB, where the SEC was itself involved in that, which is good. And the fact that the SEC and ESMA, as I mentioned, are building up their own capabilities in terms of macroeconomic and macroprudential analysis. Because if they do that, then...
there's nothing in between.

And so some of that thinking has gotten improved by significant efforts by, among others, the SEC, the ICI, my former employer, and others. But in jurisdictions where capital markets finance is not yet as powerful, there is still a lot of that suspicion and a lot of that old thinking, the shadow banking thinking. And you don't have to look any further, unfortunately, than the European Central Bank, which is pretty important in this game. And there's a lot of education and work together that needs to continue to happen. Because otherwise, Europe is not going to get where it wants to get to in this kind of schizophrenic world where they keep talking about capital markets and developing their capital markets and at the same time the central banks are kind of nervous about it and don't like it and where they kind of want to keep things on the banking side. So there's an iteration that I think should happen.

MS. FOX: So the SEC is a very active member of the FSB. We're at every single meeting. That's where the Chairman was yesterday. And one of our main goals or priorities in the coming year is to have more dialogue and engagement with central bankers and capital markets regulators to make sure that we -- I talked about kind of the two different lenses, to make sure that we understand where each other is coming from. But what that means and how we can move forward together, especially in the FSB, as they start looking at the effects of reforms and closely looking at the asset management space.

And also IOSCO is an active member on the FSB, too. So that gives another capital market lens. We also have bilateral meetings where the SEC talks to large central bankers, where we sit down for hours. Dalia has been engaged in those, where we say, this is how our market works, these are the new rules that we've put in place and go back and forth. So that's something that we're actively engaged on and is one of our priorities.

MS. BLASS: One of the things I hope you got from the presentation, from Raquel, is the amount of resources actually from the Commission towards the international, you know, space. Not only the Office of International Affairs, which is an office, a full staff, Raquel, all her staff that's full time their job. But from our perspective in Investment Management, we also have an office the substantial amount of the Staff's time is dedicated toward international work. This is taking a tremendous amount of time and resources on our parts. And I think that's fair.

I think you've seen from Alex's presentation and the presentations from, you know, Dan, Paul and Jason how much globalization is just part and parcel of the asset management industry. And so I think it is fair that we are dedicating that amount of time and resources. It's a lot.

And I think fair to say growing.

MR. BERNARD: It's 3:27. I am going to suggest --

MR. DRAEGER: I just have a question for Raquel and Dalia while you're here. You know, years ago I know the Commission did wonderful work in working with the Securities and Exchange Board of India, China, you know, just as their markets were really getting started. You were helping them, along with the World Bank and Agency for International Development, get their securities regulatory structures up and running.

Is that type of work ongoing and to what extent?

MS. FOX: So I am glad you asked that, because in my presentation today I really just focused on one part of the work we do. We really have four different things that we do in the Office of International Affairs, one of which is technical assistance, which we still do weekly. And we also reach out and go on extensive trips, where we help emerging markets and economies to get up to speed and we tell them what we do and try to help inform as they build their markets up.

The other two aspects that I didn't mention, we also help with international enforcement cases, so we help our enforcement team here as well as regulators across the globe when they're doing enforcement cases if they need resources from us. And we also help our OC team, so our securities examiners, as they go out to look at investment asset managers across the globe. So multifaceted in OIA.

And we do that, of course, all with the help of many offices throughout the Commission.

MR. BERNARD: So with that, I'm to call it. And I am going to ask if you would join me in thanking our panelists.

(Applause.)

MR. BERNARD: We do appreciate it. It was very insightful.

So it's 3:30. We were due to finish at 3:15. But this was 15 minutes well spent.

I am going to ask that we come back at 3:40, so we will have a 10-minute break instead of 15. And we'll have a wrap-up session. And I promise I will -- I don't have a gavel, but we'll, at 4:30 anybody that's got to run for transportation can run. We also have facilities if anybody wants to hang out and yak a little bit.

(RECESS.)

DISCUSSION OF COMMITTEE: AGENDA ITEMS, NEXT STEPS, FUTURE MEETING TOPICS, AND SUBCOMMITTEES

MR. BERNARD: First of all, it felt like a pretty good day to me. I hope you all agree. It has been
The objective that we came to for today, recognizing that we were starting with a broad remit and we've got to narrow it down, was essentially to cover lots of information, trends and so forth in hopes of shaking out some issues for us to focus on, as opposed to -- I was certainly not going to come in as chair and say, hey, they called me chair so here are the three things we're going to do. I want to leverage the intellectual capital in this room.

But given the amount of information we've taken on board, I also don't propose to do that in a 45-minute discussion among this group. I'd love for people to be able to go away, reflect on it a bit and so forth.

What I would like to do -- I'm going to recommend -- actually, this was the way I hoped to proceed, is probably this evening, in fact, almost certainly this evening, I had in my notes shortly after we adjourn. Actually, I'm going to go up and hang out in the room. If anybody stays behind, I've got a train to Baltimore.

But sometime tonight before I go to bed, I'm going to send all of you an email with a series of open-ended questions about today. Some around the content of -- the substance of what we discussed, some around process just so we can continuously improve. And also ask for what areas you think are worthy of further discussion and any

MR. BERNARD: Great. Michelle.
MS. BECK: I'm Michelle Beck. I'm the chief risk officer of a retirement of TIAA. I came to TIAA through its acquisition of Nuveen, so I used to be the risk officer on the asset management side, so I've kind of been on both sides of that. And in my background, I've done portfolio management of derivatives portfolios. So that's kind of the -- makes it a little easier on that side of life for me. I don't have to remember as much.

So today, one of the things that struck me today is that we've actually come a long way from where folks were sort of hawking stocks to people that are trying to retire. And I think it is -- we're not all the way to an area of maturation but asking instead what cash flow needs do you have and what are the best products for that, which often includes a lot of fixed income. You know, it's an awkward period for the industry because we're kind of halfway done on that. But it's a better place to be because stocks are not the whole story on the way people need to invest. So I liked that.

I think the other thread that came out of today that, you know, we've been discussing and that will be interesting is that choice and protection on illiquid assets for investors. You know, what is the right balance there? Because they may be part of that story of meeting those cash flow outcomes. Maybe through intermediaries like pros or

may be through individuals being able to participate, so an interesting thread to follow.

MR. BERNARD: Great. Scot.

MS. CARTEN: Hi, I'm Jane Carten. I represent Saturna Capital. I'm president and CEO there, as well as a portfolio manager on one of our small ESG portfolios. I think, for me, we have a little over $4 billion in assets under management, so it was a good reminder of just how very tiny that is in the large scheme of things. And I am thrilled to be able to participate and I thank all of you for including me.

Some of the most interesting feedback or things that I'll take and think about a lot were some of the things from the earlier presentations, especially, just that although robo advisers ended up with similar allocation strategies and similar but not seemingly excellent returns. And I'll definitely go back and research that a little bit because it's interesting to me. And just the idea that being full service to our investors is going to be important, not just on the investment side but on insurance and debt management as well. So that and the thinking about the illiquidity of private equity in mutual funds and how -- how that can be put together with the fact that people are wanting access to these companies before they have IPOed. thank you.

I think the value proposition discussion was a really wonderful one because I think, without question, we all feel that from our clients, that the value proposition of the value we add is changing and we're trying to get our arms around that. And so trying to understand what we can do as a group of industry leaders and regulatory leaders to help investors have access to the tools that they want to have access to, if we can do something to facilitate that, I think we will have done good work.

I'm approaching this not from representing my company or any particular interest but just trying to bring experiences to bear to be of service.

MR. BERNARD: Great. Mike.

MR. DURBIN: Hi, Mike Durbin from Fidelity Investments. I look after a line of business called Fidelity Institutional, which is our clearing and custody business, through which we're serving third party intermediaries of all shape, size and form. We have a capital markets business which includes a prime brokerage offering as well as all the firm's securities lending, securities financing activities. And then we have the asset management distribution company.

Two things struck me from the day. Great day. The first was the discussion in the middle panel about, you know, sort of alternatives generally, private equity more
specifically. I think it would be -- if we're going to go
deep on this as a committee, I think it would be helpful to
narrow it a bit, because there is such a broad waterfront of
vehicles, expressions, asset classes, channels that we were
just noting one thing that we all conveniently avoided, I
think, is the notion of hedge funds. Which I'm not sure the
term was ever actually voiced, hedge funds and fund of
funds. There's probably something temporal around that. So
I think narrowing that, because it's such an important area,
might be helpful.

The second thing is, every panel, every
discussion, we touched on the disruptive power of
technology. Might be helpful to go a little deeper in some
of the use cases that are germane to the choice and
protection mandate, dual-hat mandate, you know, of the
Commission and the Division. Just as one example, there's
rentable technology now -- not from us, this is not an
advertisement. There's rentable technology now where,
mostly through startups but not exclusively, where you can
do index or strategy replication.

The bigger firms' role in that is we now can open
an account at zero minimum with zero commission and
fractional trading. So these are technologies going right
at the core of the collective vehicles, the mutual funds and
ETFs. And so I'm not saying we have to focus on that but
just representative of -- maybe go a little deeper when we
say disruptive technology, don't just say it and move on but
really go a little deeper, you know.

MR. BERNARD: That was on the short list of issues
we considered for today. So that's a point well made.

MR. DURBIN: Thank you.

MR. GARCIA: I'm Gilbert Garcia. And I always
enjoy, you know, dialogue like this. And ultimately, you
know, we have an incredible opportunity to do a lot of good
here. And I think keeping focused on the North Star is such
an important thing. And, you know, I got in the bond
business in 1983 at Salomon Brothers. And so I've been in
the bond business ever since. And I'm very sensitive to,
you know, small firms. I'm an entrepreneur. We're 15
billion, which I'm glad to know is bigger than the one
billion average but again way below 200 billion. And I also
see the North Star in someone like Jason because, you know,
we've got to be sensitive to these smaller firms, these
entrepreneurial firms. And of course one of the types of
firms that is so disproportionally represented in some of
the larger dialogue are women and minority-owned firms.
And so I have a keen interest in that because I
think it's important if they survive and participate in the
American dream. And so I would welcome the opportunity to
have a panel or something that talks about some of the
things that they face. They're probably similar to Jason's
but they'll be unique as women and minority-owned firms.
And I think it would be very interesting to hear their
perspective and the things that the SEC or we could do to
make sure they survive. So that would be my two cents.

MR. GREFF: Hi, my name is Paul Greff. I am the
chief investment officer for Ohio Public Employee Retirement
System. We manage about over $100 billion in assets for our
members, the bulk of which is defined benefit. And our job
and staff is primarily to implement the board's asset
allocation and that's really, because we have a large
internal staff, we manage about 45 percent internally, is
always trying to figure out the optimization between active,
passive, external, internal. So a lot of what I was hearing
today really struck home, particularly the gentleman from
McKinsey talking about the trend in barbell. You know, here
I am thinking, you know, we're quite witty, but we're
tending to bring assets in house and reduce fees in those
asset classes that struggle to have active value and
reallocate that to those asset classes that add value net of
fees, whether the fees are large or not, such as, you know,
private equity and real estate. You know, we, like other
large pension plans, have large dollar amounts to allocate
to the private markets. So it's particularly of interest
and I think we have a good perspective when we discuss the
private/public aspect. And, you know, when we talk about
giving access to retail which I'm all -- you know, you would
think that, from a nonpartisan view, is the right way. But
from a selfish view could really impact our returns and our
ability and leverage to negotiate terms that we feel are
important.

You know, I think I can bring some perspective, at
least for the large pension plans, you know, who have dollar
amounts to put in this area and assumed rate of return that
are very difficult to hit if you don't include the
alternative asset classes.

MR. HALL: I'm Rich Hall. I'm the deputy chief
investment officer at UTIMCO, which is the investment
management company that manages the endowment assets for the
University of Texas and Texas A&M Systems. Deputy CIO means
I do everything the CEO doesn't want to do.

Our mandate is to, you know, create a perpetual
entity that can provide or maintain the purchasing power of
a $50 billion endowment and have that available to future
generations of Texans to support scholarship and other
research endeavors.

I think two things struck my mind today or caught
my ear today. One, I didn't realize the impact of MiFID,
particularly on small investment managers. And the thought
for me is that supporting smaller firms or individuals who
are high talent and spinning out and creating their own
businesses has been one of the biggest alpha drivers for us
because these people are good enough that they actually can
spin out and create their own firms. And so if there are
structural disadvantages in place or put in place, that
would be detrimental to us in our mission.

The second thing is to think about the impact on
private markets of retail inclusion and how that works.
Kind of have three voices in my head arguing for different
perspectives. One is as an individual, I would love to have
access. As a shareholder of these companies, I'd love to
see them grow. And certainly retail access has long been --
I think, John, you can comment on this more, but the Holy
Grail of some of the private asset managers as they've grown
because they see this as a huge AUM opportunity to tap into.
And then thirdly, as an investor in the funds, you know, I
think my observation broadly is that many firms need to cap
their fund sizes in order to retain the level of returns
that they've achieved to date. So I don't think there's a
clean answer there but probably something worth delving
into.

MS. HATHI: Hi, everyone. Neesha Hathi. I am the
chief digital officer at Charles Schwab and Company. I have
been there actually it will be 16 years next month and have
had a lot of different roles. The chief digital officer
role is one that was created a couple years ago after I
spent a few years in retail and many years in our adviser
services business where we serve registered independent
advisers. And the role really is around managing all of our
client-facing technology, so all the technology that
supports our retail clients as well as our RIA clients. And
I also lead our robo adviser business which was talked a lot
about today.

First of all, it's really great to be here and
hear all the perspectives. We participate in so many
different, little parts of the industry, so it's great to
hear all that's going on that's, you know, different than
what we are thinking about.

A couple things that stood out to me, one is just
that the public/private market conversation. I was just
just talking to somebody about this. It was interesting that,
you know, there's a -- we also tend to worry a lot about the
retail investor and how we protect that retail investor.
And it was interesting to me that we didn't talk about are
there incentives that you can create to get more of these
companies to go public sooner. We talked more about how do
you get to the private market. And so just it would be
great to leverage the public market structure and get more
companies to actually go earlier, if there was an
opportunity to figure out how to create an incentive to do
that.

A second thing that stood out to me was just the
ESG conversation and theme that kind of went through a
number of topics today. And, you know, especially in our
Schwab Intelligent Portfolios, our robo advice business, we
have not pursued ESG at this point. And one of the reasons
for that is because of this definition problem that I think
we see. If I think of what it means to me versus what I
think it probably means to each person in this room, it
means something a little bit different. And so I think
figuring out how we define that or decide not to define it
and let folks customize it in a way that feels appropriate
in some sort of framework is something that I think would
not only help from a regulatory perspective and make sure
that we're, you know, not greenwashing -- I had never heard
that term -- but greenwashing, but also provide customized
solutions the way clients want them to be for themselves,
given the own values and beliefs that they have. So,
anyway, those are things that stood out.

MR. JIVRAJ: Thanks, Adeel Jivraj. I am an audit
partner with Ernst and Young, specializing in the audits of
mutual funds and private equity funds and hedge funds. I
also had the privilege and honor of serving on the Staff
many, many years ago as an assistant chief accountant within
the Division of Investment Management.

A lot of things stuck out. You know you had a
good day when you walk away learning something new with new
insights and new perspectives, and that certainly was -- was
today. Certainly the conversation of private and public
securities and how pension endowment funds have the ability
to invest in private securities where 401(k) plans are
limited in that and how that could be hurting the investor
and how it potentially could allow access with the right
protections around certain outcomes.

So I am certainly looking forward to serving with
all of you and honored to be on the committee.

MR. LUDT: Good afternoon. I'm Ryan Ludt. I have
spent the last 25 years of my career at Vanguard, the first
20 years or so of that in the portfolio management and
trading space on the equity side of things and then the last
handful of years running our ETF capital markets business.
Which means we work in the marketplace, looking after the
health of our ETFs, trading volumes, spreads, working with
regulators and the exchanges to help our ETFs and help
investors in the marketplace thinking about trading in
liquidity.

So again, echoing a lot of the previous comments,
certainly happy to be here and very happy to be part of this
and looking forward to future conversations and helping.

The two themes I think that stood out to me were
<table>
<thead>
<tr>
<th>Page 234</th>
<th>Page 236</th>
</tr>
</thead>
<tbody>
<tr>
<td>the use of technology and really where that leverage comes</td>
<td>Morningstar Research Services. Thank you very much for</td>
</tr>
<tr>
<td>from. And that to me seems like it's beneficial from the</td>
<td>letting me be a part of this committee. I look forward to</td>
</tr>
<tr>
<td>asset management side of things and from the client side of</td>
<td>what it's going to do.</td>
</tr>
<tr>
<td>things, as well. And, you know, I myself and our firm have</td>
<td>At Morningstar Research Services, essentially, I</td>
</tr>
<tr>
<td>been thinking about what does that look like and how can we</td>
<td>work with our analysts there, more than 120 globally.</td>
</tr>
<tr>
<td>continue to leverage technology to improve outcomes?</td>
<td>They're engaged in conducting qualitative research on</td>
</tr>
<tr>
<td>And I think that also probably feeds into the</td>
<td>managed investments, which typically take the form of mutual</td>
</tr>
<tr>
<td>second point and this is this idea of ESG and thinking about</td>
<td>funds, ETFs and their equivalents abroad, culminating in a</td>
</tr>
<tr>
<td>what does ESG look like, how do we think about definitions</td>
<td>rating that we assign that's known as the analyst's rating,</td>
</tr>
<tr>
<td>of that? But probably equally important there probably</td>
<td>and then also responsible for coordinating any thought</td>
</tr>
<tr>
<td>are no two definitions of ESG that are the same for anybody.</td>
<td>leadership, perspective setting, context setting research</td>
</tr>
<tr>
<td>And so as you think about some of the comments around mass</td>
<td>that our team streams out into the market to help investors</td>
</tr>
<tr>
<td>customization and the capabilities that would be needed to</td>
<td>to make more informed choices, we hope, as well as</td>
</tr>
<tr>
<td>really feel good about that, I think, you know, that's where</td>
<td>overseeing our other ratings methodologies, a few of which</td>
</tr>
<tr>
<td>those two topics of ESG and technology will pull together.</td>
<td>were referenced during the course of presentations today.</td>
</tr>
<tr>
<td>MS. McGEE: Hi, I'm Susan McGee. I'm an attorney</td>
<td>In terms of takeaways for me, thank you for a very</td>
</tr>
<tr>
<td>by profession and spent my career in an asset management</td>
<td>informative day. I really enjoyed each one of the</td>
</tr>
<tr>
<td>business at a small fund complex. Interfaced with Jane</td>
<td>presentations that was made. I think that probably one of</td>
</tr>
<tr>
<td>quite a bit. And in my new role, I'm on a few boards for</td>
<td>the things that was especially, I guess, resonant for me was</td>
</tr>
<tr>
<td>Goldman Sachs, so it's a very different world for me.</td>
<td>the changing nature of the relationship between asset</td>
</tr>
<tr>
<td>And what is interesting about the small funds is</td>
<td>manager and client. I think the way we would have defined</td>
</tr>
<tr>
<td>when new regulations, new requirements are imposed on small</td>
<td>that relationship, that we would have measured the efficacy</td>
</tr>
<tr>
<td>funds, small funds have to be creative. They don't have a</td>
<td>of that relationship, what success meant, is going to</td>
</tr>
<tr>
<td>lot of resources. And that's what I have noticed at</td>
<td>change, as we can tell, very meaningfully, if it hasn't</td>
</tr>
<tr>
<td>Goldman, something comes out and they have the money to go</td>
<td>already, over the course of the next five to 10 years. And</td>
</tr>
<tr>
<td>to buy, to hire. And so I do think it's important to listen</td>
<td>with that, there are attendant implications that I would</td>
</tr>
<tr>
<td>to small funds.</td>
<td>imagine we as a subcommittee and, of course, the Commission</td>
</tr>
<tr>
<td>What I guess the two things that stuck out to me</td>
<td>would have to consider. What does it mean to protect an</td>
</tr>
<tr>
<td>today was -- and I had not heard this before, was that the</td>
<td>investor? What does it mean to help to ensure that they're</td>
</tr>
<tr>
<td>trend -- and several presenters brought this up -- the trend</td>
<td>informed about how it is they're defining success in the</td>
</tr>
<tr>
<td>is going to be that investors are looking for outcomes. And</td>
<td>relationship that they've entered into with the asset</td>
</tr>
<tr>
<td>if you kind of think about that and take it to a logical</td>
<td>manager or wealth manager or other provider that's helping</td>
</tr>
<tr>
<td>conclusion, that's going to change -- that will be very</td>
<td>them to achieve their goals? And I think the way that they</td>
</tr>
<tr>
<td>disruptive to a lot of asset managers that are not full</td>
<td>would answer that question going forward will be a bit</td>
</tr>
<tr>
<td>service, to private banks, et cetera. It's like, is the</td>
<td>different than the way they might have answered it in the</td>
</tr>
<tr>
<td>world moving to a family office environment? So that's</td>
<td>past where, perhaps, there was a rating that would denote</td>
</tr>
<tr>
<td>something for me to think about.</td>
<td>their level of success, there would be excess return, alpha</td>
</tr>
<tr>
<td>But I think the one thing that is most important</td>
<td>and other financial measure. That might not work for them</td>
</tr>
<tr>
<td>was the globalization issue. And, you know, we're here</td>
<td>going forward. And so, obviously, we have to adapt.</td>
</tr>
<tr>
<td>talking about how can we make the U.S. environment better,</td>
<td>I would say the other quick takeaway for me, and I</td>
</tr>
<tr>
<td>so we have some -- you know, some control over that future.</td>
<td>won't belabor it because it's already been discussed, public</td>
</tr>
<tr>
<td>But with the globalization, we don't. And I'm just really</td>
<td>versus private. You know, and giving retail access to</td>
</tr>
<tr>
<td>curious -- I didn't get to speak with Raquel that much --</td>
<td>privates, I think it's a very, very interesting issue. But,</td>
</tr>
<tr>
<td>but how do you have -- how do you interact and how do you</td>
<td>you know, I happen to look at the success of things like</td>
</tr>
<tr>
<td>have any kind of influence, particularly on regulators that</td>
<td>target date funds and I guess I come away with a slightly</td>
</tr>
<tr>
<td>could care less about the U.S., you know, these days? So</td>
<td>different conclusion. I feel like those have been, by many</td>
</tr>
<tr>
<td>it's a tricky environment. So I think it's a very difficult</td>
<td>measures, a runaway success for investors. And I don't feel</td>
</tr>
<tr>
<td>environment, but I think it's critical. So that kind of</td>
<td>like they've been deprived by not having access to privates</td>
</tr>
<tr>
<td>piqued my interest today.</td>
<td>within those structures. And I do worry about some of the</td>
</tr>
<tr>
<td>MR. PTAK: Hi, I'm Jeffrey Ptak. I'm from</td>
<td>implications of them having access to illiquids within</td>
</tr>
</tbody>
</table>

60 (Pages 234 to 237)
there, given the fact that it is sort of a mass market investment option that's available to so many members of the investing public. But I also look forward to learning more and perhaps it will change my view.

**Mr. Sirri:** My name is Erik Sirri. I'm a college finance professor. I teach at Babson College. I'm also a trustee of some mutual funds -- and ETFs. And I did a couple stints here at the SEC.

I think that the things that struck me today, I guess I would say there were two. One was the emphasis on outcomes. I guess I was a little bit surprised to hear that. It seemed like it was more than marketing for some of them. It's hard for me to see how that gets generated absent some kind of a principal contract or a principal guarantee, whether an insurance company or otherwise. But nonetheless, I thought that was -- you know, a couple people mentioned that and that was interesting.

With regard to the public/private, I thought, you know, it's an important topic. It's comprehensively within the SEC's mandate. It triggers investor protection. But it also triggers capital formation. So you've got both sides of that mandate coming in there.

But it's, you know, such a complicated problem. I mean, we didn't even start to break down the pieces. It was an introduction. But set aside the format, do investors --

would investors reasonably guarantee, just from the economic exposure -- set aside how they get at the exposure -- if they had it in their portfolio. If it's an efficient asset, you know, an incremental amount should help them. And then even if it would help them, are the frictions that it would take to adequately getting it in the portfolio, do you eat up the incremental return? I don't know. You know, that's a tough thing.

You could see like the monitoring of that, maybe it doesn't even occur at the product level. Maybe it occurs at the level outside the product, like at the adviser level. Or maybe it takes a whole new product. Maybe it's not an open-end mutual fund. Maybe it's something else or something with a different set of exemptions around it. I don't know. But it seems to me that was a pretty important set of issues. So I am looking forward to seeing what we do with that.

**Mr. Subramaniam:** Hi. Rama Subramaniam, echoing everyone's comments. Thanks to the SEC and Ed for the organization. A lot of information. I definitely learned a lot.

I am from GTS Asset Management. GTS Asset Management is part of the wider GTS Group. We are probably better known as a participant in the very liquid markets as a market maker, primarily in U.S. equities, with a public face on the New York Stock Exchange, where we are the designated market maker for about 35 to 40 percent of the names on the New York Stock Exchange. And so we focus on the very liquid markets.

We've seen the evolution or revolution on that side of the market as more products become electronically traded with transparent price discovery. You know, equities for a long time, futures some of them, now nearly all of them. And, you know, we think that transparency and price discovery are kind of the keys to people making effective and accurate investment decisions.

So two things that -- one that came up and one that maybe didn't come up. The public/private thing was interesting for us, which might sound counterintuitive. But I think we believe that there is -- you've got to distinguish private from very early stage to -- particularly when you talk about companies -- to sort of the pre-IPO stage and when is it appropriate for retail investors to have access might be a question of life cycle and also incentives for that company to go private at some point in the near future. The reciprocity to that is perhaps having nonaccredited investors or lower level of investor having access to companies then.

So I think we've heard a lot about private/public, but I think it's trying to find some guardrails and limits around that beyond people getting some access through target date funds or mutual funds. So I think focusing on trying to narrow the scope of that, of finding something meaningful to do in that space, I would definitely love to be a part of.

The other thing we didn't talk about, we talked a lot about fees. We didn't talk about the cost of trading, impact on liquidity for, you know, a lot of the funds, right? There's been the growth of passive funds, there's been less trading, particularly for, again, U.S. equities.

You see a rush of trading at the end of the day. And, you know, I'm not sure it's a topic if you sort of focus on costs to the investor. On the one hand, we see a lot of liquidity when markets are fine. But that liquidity seems to disappear very quickly as soon as there's some turbulence. And so with more and more electronic trading and technology being thrown at trading and a lot of trading being automated, what is the impact for the Main Street investor is something that didn't come up. And I just wonder whether -- you know, we talk about fees, but we don't talk about the impact of electronic trading on investors' returns and investors' costs.

**Mr. Suydam:** Hi, John Suydam at Apollo Management. My background is on the legal side. I'm the chief legal officer at Apollo. So I work with the legal, compliance and
tax structuring teams at Apollo. I've been involved in the
private equity and private markets my whole career, 30, 32
years.
I thought today was extremely informative. There
were a lot of things that we covered, some of which are very
connected and, frankly, it just raised a lot of questions,
the things I heard of additional things I'd like to learn
more about. Even, you know, the talk about fees and the way
in which research costs are being paid for may be pulling
back the amount of research that's available, which I
believe indexation and other things that have been going on
within the public markets are already pulling back the
availability of research. And if we see a trend line of
8,000 public companies going down to 4,000 and you've got
small and middle market companies right now with no dollars
going to research them, is that a trend that's going to
continue? And, you know, the trend we're seeing will get
exacerbated which then impacts a lot of the other things we
were talking about between public markets, private markets.
So I think there was a lot to learn today and I
think it's far more interconnected than we even think
looking at it initially.
MR. TIBERGIEN: Yes, I'm Mark Tibergien, I run the
RIA custody business at BNY Mellon Pershing. I am also
senior leader in BNY Mellon, which has about 35 trillion of

assets under custody globally. And we are a systemically
important financial institution, which was referenced
earlier. So everything that was talked about will keep me
up tonight. So thank you for that.
So I -- yeah, I'm trying to keep it local and
manageable to the points that you're talking about that are
things that would be interesting to address. And if I
connect some of the dots, probably in addition to everything
else that was said, one thing that jumped out at me early
was the issue around age demographics. The question that
comes up is how, as a business, do we become relevant not
just to clients but also to talent? How do we become a
business that anybody even cares about? Because, obviously,
we have reputational damage and other issues that we have to
look at.
But I thought that one of the quirky things that
came out is that we seem to have difficulty defining who
that end person is. Are they an investor? Are they a
consumer? Are they a client? Are they a customer? And all
of this makes a difference in how we ultimately look at the
market. And so I think that this question of being relevant
to the next generation of end users or end customers really
becomes critical.
The second thing that jumped out at me is clearly
we are a business that has gone from being investment
forward to planning forward to experience forward today.
Yet we're still linked to the old model of pricing. This is
the only profession where the clients pay for the value they
bring rather than the value the provider brings. And it
would be like my doctor charging me by the pound; I would be
overpaying every time.
No comments. Nobody has to add to that.
(Laughter.)
MR. TIBERGIEN: So the issue is around cost and
pricing and profitability within this business. Because
clearly, there is an element of disfunction in the economics
of the enterprise. And I'm not sure that as a business,
we're transforming fast enough in a way that other
industries have been hit by disruption. And that's
something that I would take a look at.

MR. WERMERS: Russ Wermers. I am a professor of
finance at the University of Maryland. And, first of all, I
would like to commend Ed, you and Dalia and the remainder,
Christian and so on, for assembling such a great blue ribbon
panel of committee members. I am honored to be a part of
this.
So background on myself, I have been an academic
for 25 years now, focusing on research on public asset
managers, mutual funds, generally. More recently, I have
been doing some work and become more interested in private

-- private equity funds and have done some work on that
recently.

That said, I think I have a lot to learn from the
other committee members and I learned a lot today from the
speakers. The speakers were really great, too, in terms of
the things that I don't, you know, see in my ivory tower or
research. So I'm looking forward very much to continuing
learning from this and hopefully perhaps bringing some of my
own expertise into the committee.

Beyond that, I guess, so I've done -- I do some
consulting in the asset management industry. I think most
relevant to my outside academic experience is that I've been
a frequent expert witness for ERISA cases, lawsuits against
the defined contribution plans. So I am intimately familiar
with Gartenburg factors, with the litigation risk and the
economics of the defined contribution plans and why they are
being pushed toward a certain way of doing things.

That said, I think I am -- I was really, before
coming into this meeting, I was interested in private
investments by public funds. I think there are a lot of
barriers to this. And then I heard about private
investments in target date funds. So, Jeff, you articulated
some concerns. I think it's a great topic to think about
though. I'm not sure how I feel about this. But there is
some resonance of that with me.
And then I think, like Mark, I think it's great if we -- we talked a little bit about structure of fees. Not nearly enough, though. I think this is one thing that needs to be confronted by especially active managers, is how to risk share. In other words, incentive-based fees or at least partly incentive-based fees. Why isn't this evolving in the industry? Perhaps there are great reasons for this. But it seems like a natural way for active managers to, you know, win back their clients if they're worthy of such.

So I think most of everything else has already been discussed so I will stop there.

MR. SAVAGE: Thanks, Ed. I'm Joe Savage. I'm a vice president in the Office of Regulatory Analysis at FINRA. I'm a nonvoting member of the committee.

I just want to echo Russ, it's a real honor to be a part of this group, a lot of really smart folks from a lot of different backgrounds and I feel really lucky to be part of this group.

I really learned a lot today from the presentations. You know, at FINRA, we don't regulate investment advisers or investment companies. But we do sort of overlap with the asset management world in a number of ways. We are the entity that primarily looks at ads for mutual funds and variable insurance products. You know, we go into a lot of jurisdictional questions which I'm involved with about where does our jurisdiction end and where does the state or the SEC's jurisdiction over advisers begin.

You know, in terms of things I'm involved with, I'm working a lot on Reg BI these days and also I'm sort of the primary guy behind this rule set for capital acquisition brokers which are smaller sort of boutique investment banking firms that either are consultants to capital raising or they're finders or placement agents for institutional investors. So I'm interested a lot in the private placement side.

The other thing that really struck me was the first presentation from Mike and Ben about information and how much that's changing the industry and it really made me think about, you know, whether we're heading toward something where there's going to -- at least at the retail level, there's going to be algorithms that will determine our financial needs based on, you know, what stores we shop online and how many cat videos we watch and, you know, it's a little scary. I think Commissioner Peirce mentioned that as well. And so that's something that really struck me.

MR. GLASS: Alex Glass. I have been the Indiana Securities Commissioner since July 2015. Basically, the securities division, there's, at a high level, three main functions. There's investor education, registration of securities products and the individuals who sell those securities products, and then enforcement if people get in trouble. But really, as a state regulator, our key aspect of what we do is investor protection.

So based on a lot of the discussions today, my red flag of regulator -- my regulator red flag went up. You know, particularly when we're talking about access to private markets. That's obviously something, you know, when we're talking about protecting Hoosiers, that always makes me very uncomfortable. Another thing, something we see quite a bit, is just disclosure issues. So when Jason was talking about who's paying for the research, I in the future see an enforcement action where somebody is not properly disclosing to investors who is actually paying for the research.

So very, very interesting conversations today. As everybody said, I'm happy to be part of the group.

Another thing I recently took on this year is I am the chair of the IA section for NASA. So learned a lot of that, hearing a lot of other conversations that I think we'll be able to contribute and be a good part of this group.

MR. BERNARD: As I was very familiar with the material -- not all the material they were going to present, but certainly who the presenters were from the work we did preparing. I also had the good fortune to have a phone conversation with each of you, most of you back in October.

My observation would be simply that Dalia and her team did a superb job building a really remarkable committee that spans across the industry, universally, with experienced, senior folks. And I'm -- particularly as your chair, I'm greatly relieved to have this much intellectual capital surrounding us and look forward to working with all of you on -- so far, I haven't seen any topics on the list that aren't a little bit vexing. But we'll sort it out.

Is there anything you want to say in closing?

MS. BLASS: I just want to thank you all. Hearing you go around the table, a lot of the issues you raised I actually have asterisks, notes all over them. So a lot of this stuff is the same thing on my mind.

It's really, really good to hear both agreement on issues that we need to be taken up, but also different perspectives on the same issues. I really look forward to the work of this committee, your engagement, and hopefully the recommendations that you give us. So I am very, very grateful for your time.

I found the presentations fascinating. I will echo those of you who said that you learned something today.

I learned more than something; I learned quite a lot and I think my staff did, as well.
So I have a notepad that’s full, which says something, because I usually do not take notes because I can’t read my handwriting that well. So it was really, really very informative and I really look forward to working with the committee.

MR. BERNARD: I’m going to call that a win. So we’re done. Anyone who’s got to run, by all means do so.

The Staff have moved some -- all those treats that disappeared, that was to sort of encourage us to move along. No, they moved them back up to nine, where we had lunch. So anyone who would like to stay, hang out for a bit, please feel free to do so. But by no means feel obliged to. We know that you’ve had a full day. Most of you had to travel a long way. But if you’ve got time until your airplane, come on up and hang out with us for a little bit.

Thanks, all. And you’ll get an email from me tonight and then you’ll hear about next steps.
(Whereupon, at 4:31 p.m., the committee meeting was adjourned.)

*****

---

PROOFREADER’S CERTIFICATE

In the Matter of: SEC ASSET MANAGEMENT ADVISORY COMMITTEE MEETING

File Number: OS-0114

Date: Tuesday, January 14, 2020

Location: Washington, D.C.

This is to certify that I, Christine Boyce (the undersigned), do hereby certify that the foregoing transcript is a complete, true and accurate transcription of all matters contained on the recorded proceedings of the investigative testimony.

_________________________       _______________________
        Proofreader’s Name)           (Date)

---

REPORTER’S CERTIFICATE

I, Kevin Carr, reporter, hereby certify that the foregoing transcript is a complete, true and accurate transcript of the matter indicated, held on __1/14/2020__________, at Washington, D.C., in the matter of:
SEC ASSET MANAGEMENT ADVISORY COMMITTEE MEETING.

I further certify that this proceeding was recorded by me, and that the foregoing transcript has been prepared under my direction.

Date: 1/14/2020

Official Reporter: Kevin Carr

---
...
managers

managements

managers

managing

manages

manifested

mandate

managing

managers

manufacturers

manufacturing

March

Marchman

margin

margins

market

market's

market-based

market-level

market-neutral

marketing

marketplace

marketplaces

markets
millionaires 105:14
millions 9:5
mind 15:2 19:7
mine 103:23
mini 149:14
minimal 197:12
minimis 88:14
minimize 118:18
minimum 118:23
minority 10:25
minority-owned 227:21
minus 151:2,8
minute 28:12
minutes 24:20
model 57:21
models 85:16
money 9:6
moment 42:3
mortgage 96:6
motion 151:5,7
motivation 91:11
mount 17:11
move 30:4,5,19
movement 157:24
moving 76:7
much-needed 14:7
Mukerjee 16:15
multi-alternative 119:14
multi-asset 109:6
multi-employer 72:13
Multi-family 131:19
multi-firm 193:10
multifaceted 48:8
multiple 25:22
months 46:24
Morgan 94:2
morning 7:5,19
Mornstar 37:7
mortgage 16:5
mutual 19:11,13
mutually 19:11,13
natural 75:16
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
nature 62:19
narrow 219:3
narrowly 41:2,7
NASAA 248:19
natural 26:3
pursuing 13:15
pursuit 85:17
purview 173:15
push 163:2,5,10
175:25 208:3
pushed 245:17
pushing 73:23
put 22:3 38:17
39:10 46:11
50:8 55:19
57:15 71:2
84:6 90:25
93:10 111:9
130:3 137:10
137:17 145:24
159:11 168:19
168:25 173:17
187:21 200:8
215:10 221:19
223:23 229:9
230:5
putting 18:23
69:19 85:6
112:13 130:15
133:3 152:8
question 43:13
49:3 56:21
58:7,23 59:25
60:11 63:24
68:16 69:23
70:5 72:11
73:1,16 74:7
75:11 79:1
83:5 85:10
89:1,9,12,21
103:21 118:15
122:5 125:19
126:25 140:16
159:21 161:23
164:4 209:17
216:5 220:20
225:2 237:9
240:19 243:10
243:21
questions 13:10
28:10 29:16
62:7 74:3
78:23 114:4
121:4,7 125:12
125:17,21
126:17 171:8
202:24 203:16
207:14 219:22
242:6 246:25
quick 43:12
63:13 89:21
102:7 157:18
220:22 237:15
quicker 108:6
quickly 63:14
143:13 148:4
155:14 161:3
166:11 177:10
205:21 241:15
quis 144:17
quiet 212:24
quintile 39:9
Quirk 4:12
29:12
quirky 243:16
quite 23:22 24:5
31:25 67:5,6
88:11 89:7
94:12 95:9
105:16 120:3
122:24 131:9
131:21 132:5
143:14 160:1,2
160:21,25,25
163:1,13
168:16,22
170:24 181:4,9
209:11 228:17
234:19 248:11
249:24
quiz 113:10
quo 144:17
quorum 6:8
quote 112:5
175:3 177:1
190:16
quoted 54:23
60:25
r
R 6:1 147:5
rack 52:9,11
radar 202:18
208:18
raise 25:6 41:9
107:12 110:6
raised 7:16 41:1
74:4 88:1 98:7
146:12 242:6
249:13
raises 60:11
62:6,10 84:17
202:24
raising 202:22
247:7
Rama 2:23
239:18
ramped 175:19
ramping 105:22
ran 160:1
Randal 171:3
range 62:12
125:24 128:7
168:9
ranges 194:4
ranging 127:3
ranking 37:7
rapid 220:9
rapidly 8:18
Raquel 4:9
148:2,6,16
149:4 166:8
187:19 195:10
195:17 213:16
215:14,17
216:5 235:18
Raquel's 187:3
rate 7:16 33:7
33:11 34:19,21
52:9,11 72:18
84:25 97:12
157:1 160:20
162:15 229:9
rates 32:3 33:6,8
35:15 42:18
45:7 76:20
82:4 83:12,23
84:20,25 85:3
101:19 156:22
162:23
rating 236:9,9
237:11
ratings 40:7
236:14
ratio 100:7
134:7 144:9,10
221:11
ratios 39:23
42:9 100:2,4
100:10 221:10
221:16,17
raw 92:6
reach 154:12
185:18 216:19
221:4
reaching 88:15
react 80:8
reaction 220:18
reactions 220:22
reactively 59:7
read 156:20
221:23 250:3
ready 171:11
real 11:22 35:6
39:6 44:23
57:21 83:17
slide 30:13,13,17
31:3 42:4
43:13 44:1,13
47:12 48:12,16
49:19 50:17
51:14 52:14
53:21 54:12,22
55:10 56:15
57:4 58:25
59:19 60:24
68:2 94:15,19
101:10 102:14
102:25 134:7
143:2 166:13
slides 30:3,4,16
45:13,25 46:21
47:2 51:24
67:11 81:2
slightly 87:25
169:4 237:20
slip 91:24
slow 52:18 157:2
slowing 34:21
35:4 53:11
slowly 47:15
159:2,2
smack 144:11
small 8:8 23:10
88:3,7,13
98:12 107:16
138:9 163:21
193:25 195:6
200:11 201:3
203:19 206:9
206:17 223:6
224:14,16
227:14 229:24
234:18,21,22
234:23 235:2
242:15
small-cap 196:6
smaller 12:19
41:5 78:10
84:17,17
149:23 153:23
162:2,3 195:21
196:10 199:7
200:15 202:15
202:22 203:7
204:6 207:10
227:18 229:25
247:6
smaller- 202:17
smart 88:7
246:16
smooth 104:12
smoother 144:9
so-called 51:25
social 62:2 81:6
81:7
socially 70:3
society 81:13
Soo 2:21
soft 198:12
sold 15:15
soley 190:16
solid 45:19
solution 75:1
83:20 84:10,12
87:21 117:10
121:21 124:2
140:14 144:5
159:12 166:4
201:20
solutions 14:4
23:1,18 25:20
67:13 68:17
83:8,24 92:19
98:17 109:6
117:2 120:2,18
125:25 126:2
157:23 159:17
165:19 232:17
solve 80:9
206:11
solved 67:22
82:17
somebody 62:9
66:14 69:12
72:23 81:16
82:15 88:6
140:10 231:16
248:13
somewhat 48:5
73:5 80:13
83:2 138:23
157:3
soon 241:15
sooner 231:21
sophisticated 96:3 106:16
125:8
sorry 43:12
80:25 105:17
127:14 142:7
155:11 212:23
212:24
sort 14:4 15:21
17:20 38:3
69:18 83:14,22
91:18 111:10
121:3 128:13
128:14,23
133:7 134:1
136:18 138:9
139:20 145:13
146:2 150:11
151:25 154:10
172:22 204:22
205:5 207:4
211:22 212:15
218:23 220:17
222:11 225:25
232:13 238:1
240:17 241:12
246:21 247:4,7
249:10 250:9
sorts 43:5 49:23
67:14 195:19
sought 206:14
sound 11:4 17:9
182:1 240:14
sounds 96:8
145:20 181:19
source 37:16
97:25 100:2
101:22
sources 169:14
205:24
south 152:25
sovereign 52:24
95:25 157:5
sovereigns 70:11
SP 16:1
space 18:24 36:9
82:6,13 96:22
97:18 106:2
125:9 139:17
140:5,9 141:21
144:19 146:3
146:18 167:12
168:7 196:10
210:13 212:15
215:4,16
233:15 241:4
span 95:8
114:23
spans 249:5
speak 7:9 24:20
29:17 45:22
50:19 93:12,15
96:11 97:5
98:23 142:25
166:10 181:8
235:18
speakers 24:22
28:12 92:17
148:1 149:13
149:14 218:3
245:5,5
speaking 98:16
116:10 117:17
134:3
speaks 131:22
special 8:1
190:18,20
191:1
specializes 196:2
specializing 232:21
specific 25:7
48:17,19 49:15
95:18 121:25
135:10 149:15
166:1 199:23
200:2
specifically 8:14
64:5 96:12
113:22 114:1
208:5 226:1
specifications 50:7
spectrum 23:9
95:7 143:4
speed 64:6
spent 17:6 33:8
114:3 115:19
121:6 134:22
181:18 193:19
196:2 204:25
spending 33:8
33:11 47:6
204:24
spent 24:5 78:22
135:20 146:21
149:5 196:9
217:14 220:10
231:2 233:13
234:17
spin 230:4
spinning 230:1
spite 193:22
split 154:20,23
spoke 55:10
103:6
spoken 19:12
134:16
sponsored 31:18
sponsors 23:5
44:16 138:5,15
139:23
spot 69:3 74:24
spreading 22:19
spreads 233:18
stability 166:18
173:14,17
175:9
stabilized 109:13
stable 161:2
staff 6:17 9:17
11:13 12:7
63:15,17,19
85:6 126:22
167:8 170:6,8
191:4 215:17
215:17 228:10
228:12 232:23
249:25 250:8
Staff's 166:25
215:20
stage 116:5
<table>
<thead>
<tr>
<th>10-year</th>
<th>13,500</th>
<th>114:16</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>13,500</td>
<td>114:16</td>
</tr>
<tr>
<td>14</td>
<td>1:12:56:15</td>
<td>98:9,14 107:10</td>
</tr>
<tr>
<td>14</td>
<td>155:4 251:6</td>
<td></td>
</tr>
<tr>
<td>147:5:10</td>
<td>15</td>
<td>33:13:45:4</td>
</tr>
<tr>
<td>15</td>
<td>52:10 57:4:9</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>71:13 91:24</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>93:15:16:16</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>94:1,9:11</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>95:25 100:19</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>111:13:16:24</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>116:7 140:18</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>142:15 145:18</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>145:21 148:12</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>200:14 217:14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>217:16 227:14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>165:16</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>230:24</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>42:17 58:25</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>44:6:59:19</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>77:1 105:13</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>60:5:77:1</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1940:190:15</td>
<td></td>
</tr>
<tr>
<td>1996:122:16</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>52:22 73:12</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>182:14</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>29:17 33:4</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>39:23 54:23</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>60:24 72:21</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>77:5,9 83:21</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>93:15:16:16</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>105:12 126:17</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>142:22 148:12</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>149:5:11</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>153:23:23</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>172:24 193:20</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>194:18 200:22</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>233:14</td>
<td></td>
</tr>
<tr>
<td>20-year</td>
<td>32:24 33:2:97:8</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>227:16</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>31:12</td>
<td>32:17 36:24</td>
</tr>
<tr>
<td>38:13 42:13</td>
<td>77:3</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>150:4</td>
<td></td>
</tr>
<tr>
<td>2006:204:18</td>
<td>205:7</td>
<td></td>
</tr>
<tr>
<td>2017:44:5</td>
<td>110:20 197:20</td>
<td></td>
</tr>
<tr>
<td>2019:30:22</td>
<td>188:25 193:17</td>
<td></td>
</tr>
<tr>
<td>2021:50:11</td>
<td>2022:183:22</td>
<td></td>
</tr>
<tr>
<td>2080:208:3</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>27:24 111:8</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>154:21</td>
<td></td>
</tr>
<tr>
<td>217:5:12</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>112:3</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>2,000:114:15</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>54:4,4:99:15</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>15:11 29:13</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>29:17 30:3,7</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>45:10,13 93:25</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>142:15 145:18</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>196:22 200:10</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>233:13 244:23</td>
<td></td>
</tr>
<tr>
<td>25-plus 196:15</td>
<td>25-year-old</td>
<td></td>
</tr>
<tr>
<td>145:5</td>
<td>250:5:15 158:16</td>
<td></td>
</tr>
<tr>
<td>195:1 211:3</td>
<td>224:15</td>
<td></td>
</tr>
<tr>
<td>250,000:160:4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>102:11</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>5:6 176:6</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>32:17 52:3</td>
<td></td>
</tr>
<tr>
<td>106:22 114:19</td>
<td>3:15 217:13</td>
<td></td>
</tr>
<tr>
<td>3:27 216:4</td>
<td>3:30 217:13</td>
<td></td>
</tr>
<tr>
<td>3:40 217:15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>10:7 23:22</td>
<td></td>
</tr>
<tr>
<td>38:13 52:19</td>
<td>84:23 114:17</td>
<td></td>
</tr>
<tr>
<td>123:6 142:15</td>
<td>142:22 155:7</td>
<td></td>
</tr>
<tr>
<td>242:2</td>
<td>300:94:8 99:12</td>
<td></td>
</tr>
<tr>
<td>30s:142:17</td>
<td>32:200:5 242:2</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>42:4</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>29:4,24 59:5</td>
<td></td>
</tr>
<tr>
<td>87:17 90:9</td>
<td>155:7 240:2</td>
<td></td>
</tr>
<tr>
<td>242:25</td>
<td>36,000:122:19</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>44:14 45:13</td>
<td></td>
</tr>
<tr>
<td>154:25 195:7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>54:7 223:7</td>
<td></td>
</tr>
<tr>
<td>4,000:242:14</td>
<td>4,400:122:16</td>
<td></td>
</tr>
<tr>
<td>4:30 217:18</td>
<td>4:31 250:18</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>30:3 45:1</td>
<td></td>
</tr>
<tr>
<td>46:7 48:9</td>
<td>50:12 53:9</td>
<td></td>
</tr>
<tr>
<td>61:5 77:21</td>
<td>88:23 97:17</td>
<td></td>
</tr>
<tr>
<td>116:6 164:18</td>
<td>182:12 193:11</td>
<td></td>
</tr>
<tr>
<td>200:7:16 240:2</td>
<td>40,000:117:12</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>731:22 98:5</td>
<td>102:1,11 142:7</td>
<td></td>
</tr>
<tr>
<td>7,000 209:9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.8 114:18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 33:19 42:13</td>
<td>155:8 193:16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>194:18 200:7</td>
<td></td>
</tr>
<tr>
<td>700,000 119:23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70s 32:5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72 114:23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>742 110:20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75 29:6 33:19</td>
<td>76 101:1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>77 122:4 142:5</td>
<td></td>
</tr>
<tr>
<td>79 154:22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 8 |  
|---|---|
| 8 108:9 155:18 |  
| 8,000 122:16 | 242:14 |  
| 80 34:6 39:24 | 152:12 |  
|  | 80s 29:10 |  
| 82 42:14 |  
| 85 95:23 |  
| 86 155:4 |  

| 9 |  
|---|---|
| 9 32:18 53:24 | 154:24 |  
| 9:00 1:13 |  
| 90 81:1,21 | 102:21 |  
| 91 154:23 |  
| 93 5:8 |  
| 95 77:2 |  
| 98 128:10 |  
| 99 75:2 |  
