



TRANSCRIPT

Re: SIFMA Private Markets Valuation Roundtable

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<https://events.sifma.org/private-markets-valuation-roundtable>

- Good morning and welcome. I'm Ken Bentsen, president, CEO of SIFMA. I want to thank all of our panelists and speakers for participating today and thank everyone on our audience for tuning in. Today, we're convening to discuss an important, timely issue, the role of private markets in retirement savings, and relatedly, how to ensure that valuation practices are robust, transparent, and trusted. Helping Americans invest for retirement is a vital function of our capital markets. Since SIFMA strongly supports policies that strengthen retirement security for all. Defined-contribution plans like 401ks have historically invested in mutual funds, ETFs, and publicly traded securities. These investment vehicles remain the cornerstone of retirement portfolios, providing millions of workers with diversified, cost-effective and liquid access to the markets. At the same time, as more U.S. companies choose to stay private for longer, private markets have become an increasingly important engine of economic growth and innovation. But access to such markets has been limited to institutional investors, including defined-benefit plans, endowments, and high-net-worth investors. Importantly, policy makers are considering how retirement savers and defined-contribution accounts, as well as non-qualified retail investment accounts could benefit from access to these markets consistent with existing investor protections. The issue has raised several questions for considerations, one of which is valuation of private market assets. Unlike publicly listed or traded securities, private investments do not have daily market prices, which makes the valuation process more complex and underscores the need for clarity, consistency, and competence in existing market practices. It is precisely why we are here today to examine the frameworks and safeguards that can help ensure valuations are accurate, reliable, and aligned with fiduciary responsibilities to retirement savers and retail investors. Our goal is not to diminish the importance of the public market, but to explore how private market investments, when evaluated appropriately, could complement portfolios and potentially improve long-term outcomes for savers. I'd be remiss if I did not address the importance of the Department of Labor and Congress in helping to address planned sponsor litigation reform, which is an important related issue. We believe plan sponsors should have the opportunity to make available options that work for their employees without the fear of potentially costly litigation hanging over their heads. And we need a solution that works for the plan sponsor community. We have an outstanding program ahead,

and first it's my privilege to introduce SEC Commissioner Mark T. Uyeda. Following his remarks and a few questions, we'll turn to two panels: "Demystifying Private Markets' Valuation Practices" and "Valuation Practices for Private Market Investments "and Retirement Accounts." Mr. Uyeda was appointed to the Securities and Exchange Commission in 2022 after more than 15 years of distinguished service at the agency, he held senior leadership roles at both the Division of Investment Management and the Division of Corporate Finance, and also served as counsel on the U.S. Senate Banking Committee. He has deep experience across investment companies, capital markets, and regulatory policy, providing a unique perspective on the issues we are here to discuss today. And today, I should note, is just the beginning of this discussion. Stay tuned for details for future roundtables in this space, including our next one, which is tentatively planned for November 13th. So with that, I'll turn it over to Commissioner Uyeda for some remarks.

- Well, thank you so much for that introduction, Ken. Good morning, everyone, and thank you to SIFMA for convening this roundtable on private market valuation. My remarks today will reflect my views as an individual commissioner, not necessarily the views of the full commission and my fellow commissioners. The private markets provide critical sources of capital to businesses and help further job creation and innovation, whether in the form of equity or debt offerings, private markets have grown significantly over the past few decades. Indeed, there were nearly \$31 trillion managed by private funds alone in the fourth quarter of 2024. And that figure excludes direct investments in privately held companies. To those who argue that the growth of private markets have negatively impacted public markets. I know that economic growth and the capital markets is not a zero-sum game. Public markets benefit from vibrant private capital markets and vice versa. Private markets operate in an environment with more regulatory flexibility and freedom to contract, while public markets provide market participants with enhanced liquidity and access to retail capital that is unavailable elsewhere. From an issuer's perspective, capital is not fungible, insofar as each pool of capital comes with its own benefits and constraints. Promoting capital formation in both markets enhances the overall economic environment, particularly as public markets provide exit and liquidity opportunities for private companies. As the authors of one paper, which was presented at the commission's 2025 conference on financial market regulation noted, "Public markets also piggyback on private markets "in various ways. "For example, private markets incubate companies, "initially suited for public markets. "At a more mature stage, "such companies can be fed into public markets "ensuring these markets continuity and depth "by providing additional opportunities for diversification." Public markets also operate more efficiently in the shadow of private markets. A realistic threat of private equity acquisitions, for instance, the presence of highly capitalized buyout funds invigorates the market for corporate control and thus incentivizes corporate management to increase value. As such, it is a far more complex story than simply stating that there's too much private capital available and resulting in too few public

companies. Although the private markets may not be subject to the prescriptive measures applicable to public companies, they remain subject to a key provision of the federal securities laws, namely, the anti-fraud provisions, including the prohibition against making false and misleading statements. Importantly, materially accurate private market valuations and disclosures can result in lower costs of capital. This remains equally true whether the investment involves an operating company or a private fund. 2025, the SEC's Division of Examinations focused on the accuracy of calculations and allocations of private fund fees and expenses. The priorities included topics that may impact the accuracy of fee calculations such as the valuation of liquid assets and the adequacy of disclosures. Other issues also implicate the SEC's rulebook, closed-end funds, like all registered investment companies are required to strike a net asset value on a regular basis, even when their portfolios include hard-to-value or illiquid assets such as Level three securities. That valuation process is governed by Section 2a41 of the Investment Company Act and Rule 2a-5 there under, which is also known as our fair value rule. And that was adopted in 2020 under former chairman Jay Clayton. Pursuant to Section 2a41, the fund's board is responsible in good faith for determining the fair value of its security. While boards can determine fair value for themselves, well, 2a-5 also allows boards to appoint a valuation designee, often the investment advisor, to handle the day-to-day work. That designee may also use an independent valuation firm to help value Level three assets. These third-party valuations can be performed monthly, quarterly, or even annually depending on the asset type, cost, and materiality. Rule 2a-5 emphasizes the need for a strong risk-based process that includes oversight, testing, and documentation. In addition, because I don't want our accountants to feel left out, of course, ASC Topic 820 applies to such valuation, Now, for closed-end funds which don't face daily redemptions, there is more flexibility to invest in less liquid assets. However, such circumstances can mean that valuation practices need to be sufficiently transparent and defensible. Most closed-end funds calculate NAVs daily, though some do it weekly or less frequently. While their shares trade on exchanges, often at a premium or much more likely a discount to NAV. NAV remains a key reference point for investors, boards and regulators, especially with regard to activist investor pressure, or a potential liquidity event such as a tender offer or conversion. Valuation will also play an important role as regulators move forward to implement President Trump's executive order on alternative investments and 401k plans. The President's executive order is a forward-looking move and seeks to expand opportunities for hardworking Americans. The executive order encourages the SEC to work with the Department of Labor to revisit outdated restrictions which can open the door for 401k plans to include alternative assets, like venture capital, private credit, infrastructure, and digital assets that are available to institutional investors and pension plans. When managed responsibly, these investments can offer meaningful diversification and long-term growth potential. With proper guardrails, retail investors should have the opportunity to obtain higher risk-adjusted returns on investments and build more resilient retirement portfolios. While there may be disagreement over this specific amount of exposure to alternative investments, it is clear that retail investors should be permitted to have some level of appropriate exposure to such investments. The appropriate answer, which is the one that was set forth in the last, in the prior administration, was

that the appropriate answer was zero. I don't think that the data suggests that that amount of exposure is appropriate. Authors of another economic paper suggested, in preliminary findings, that the democratization of private equity access has not come at the cost of directing individual investors towards inferior investment opportunities. Evaluation of market data and engagement with fellow regulators may result in a more optimal array of choices for retail investors. So I look forward to considering proposals in this area, reviewing market data and hearing your thoughts and questions today. So thank you.

- Well, thank you, Commissioner, for spending some time with us. And I know we talked, we have a few minutes maybe for some questions. And first off, in my abbreviated introduction of your background, I didn't mention that, you know, in addition to your work at the commission, both as a commissioner and on the staff, but also at the Senate Banking Committee, you've also held senior policy positions at the Treasury Department and importantly at the Department of Labor. And obviously, and what we're discussing today involves both the commission and the Department of Labor in particular. And so I'd be interested in, you know, maybe your thoughts based on your experience of how you view the current coordination with DOL and the SEC, particularly on these issues and moving forward and where do you see opportunities for the two agencies to strengthen their collaboration?

- Yeah, I think we've got a good relationship and it's only going to get better. Back in 2020, I was detailed from the SEC to work for Secretary Scalia. He was only there for about a year, but retirement security was really one of the topics high on his agenda, of course, the DOL has a lot of other things outside of retirement security. One of the things that we were able to get out was a 2020 letter involving Partner and Pantheon, I might be getting the firms wrong, but it was submitted by a law firm to talk about, there's nothing inherent in ERISA that would prohibit alternative investments as part of a retirement option. And then subsequently, the Biden administration walked that letter back significantly, which said, well, true, we questioned whether or not any fiduciary generally has the ability to understand the fees, and disclosures, and strategies of these, and sort of was a very much buyer beware. Secretary Scalia and former SEC Chairman Jay Clayton had a very close relationship. That is something that, now that Chairman Atkins has arrived, he has made it a priority to discuss with Secretary Chavez-DeRemer. We are still waiting for folks to fully fill out with the DOL local appointees, including the head. I think Brad's old job, as the head of the Assistant Secretary of Employee Benefits, in charge of EBSA. Right now, we've got a great person in there, Janet Dhillon, formerly of the EEOC, but we're waiting for Daniel Aronowitz to come in. But one of the first things I did, I think it was in February when I was the acting chairman of the SEC was had a meeting with with Keith Sonderling, the Deputy Secretary of Labor. And we talked about how important it was in the retirement space as well as other areas where there's an overlap between SEC and DOL's

ERISA jurisdiction, to be working on things, such as these advisory firms, on these non-financial ESG factors in carrying out one's fiduciary duty and duty of prudence. Those all things need to move together because I see some asset managers here, surprise, surprise. It would be easier if you can fulfill both your SEC and your ERISA obligations with one set of compliance policies and procedures and not to have to have specific ones for each regime. And so that's something that, at least we're very cognizant of and so we look forward to working together with them and all of you, the market participants, and most importantly American workers and retirees

- That's great and we appreciate that coordination is terribly important because to your point, we do find sometimes where the agencies are not in the same place and it creates a lot of confusion across the marketplace. There's been some discussion around whether valuation practices in private markets should be standardized. How do you think about the diversity of approaches in valuation and do you believe flexibility is better than a one-size-fits-all approach?

- Yeah, well, I think the good things, and I subject to being corrected by our accountants in the room, is that a lot of the accounting involves judgements and their principles-based, they're not prescriptive. So it is already baked into the accounting, whether it's on the public company side or the private company side. But that being said, there are a lot of, you know, issues about how valuations get folded into retirement products. You know, I think one of the big successes of this century was the Pension Protection Act, where we moved workers into not being defaulted into a money market fund, but into what's called a qualified default investment alternative, which I think markets have, there are a couple choices you can have, but by far the choice has been target-date retirement funds, which tend to be fund of funds. So they'll have various funds to represent your exposure to public equities, treasuries, fixed income and so on. So how we incorporate now to date alternatives and really not been part of that equation. Now that they have, or at least we hope that they will be, the private sector will start incorporating them with encouragement from DOL and the SEC. So how do you, you know, have those valuations come in when you strike your daily NAV, and those, I should add, are targeted funds, you know, open-end investment companies not closed-end, so it is important to get that NAV right.

- So you touched on this in your remarks, and you'd said, "We're not talking about a zero-sum game "between public and private companies, "and we certainly have seen the growth," we've always had private companies in the U.S. and we certainly seen the growth of it, which I think is a positive thing, not a negative thing. We'd love to see increased growth in public companies and IPOs as well. But what do you

see as the greatest benefit and the greatest risk of allowing more retail investors in, you know, sharing or taking advantage of the growth of this market?

- Yeah, so the way I've looked at it, you know, we hear terms batted around like democratization or private markets. I view it more of exposure private markets because a lot of these are going to be intermediate in one form or the other. Sometimes it might be through a product like a mutual fund or an ETF. In other cases it will be through financial intermediaries like a broker-dealer, an investment advisor. Both of 'em are subject to fiduciary duties including fiduciary duty if you're an investment advisor, best interest, if it's a recommendation from a broker-dealer, and both of those things are very high standards that they have to be satisfied. So, you know, going back to, you know, what I said, it's hard to make the case that the exact amount that they ought to be holding is zero. I do understand, you know, we hear some of those who are in opposition to expanding access to private markets, they would say, "Well, this allows an 85-year-old "to be pitched with a bunch "of fourth-tier investment opportunities "that everybody else has passed on "and put 100% of the retirement savings into that." No, we're not talking about that because we have regulations already set up to deal with that.

- And maybe lastly on that, 'cause I know we're almost out of time how, I mean, how do you see this evolving from the commission's perspective or your perspective on the commission, I should say, in terms of, you know, balancing, and I think that's what you're getting at, balancing that with transparency, governance and most importantly, you know, investor protection.

- Yeah. What I like to see is if you take a look at many of the large state and local pension plans and you look at their portfolio and they have allocations to these other asset classes and you wonder, "Well, why can't somebody "who doesn't have the benefit "of a traditional defined-benefit pension plan, "have access to invest in a similar basket of assets "and achieve that diversification." So, you know, I think there ought to be competition between, you can do it through funds, but broker-dealers are also involved because for a very cost-effect manner, you can small baskets of ETFs to, in essence, accomplish the same exposures. Or you can certainly think about the financial advisor as portfolio manager, which are some models, to use that approach to fill those asset classes using exposure to specific symbols and tickers. So to be able to have that and to give, again, investors a diversified portfolio, one that, to date, is largely only if you happen to be a state, or wealthy government employee, or perhaps one of the union pension plans where you get that diversification.

- All right. Great. Well, Commissioner Uyeda, thank you so much for being here and kicking off this roundtable and you know, we really appreciate your insights on this and look forward to hearing more from you on this. And with that, I'm going to turn it over to the moderator of our next panel, Pete Driscoll, who's a partner of PwC, among other things, former Division Director of Examination. So with that, Pete, I'll turn it over to you. And again, thank you, Commissioner, for being here. Thank you, Ken. And thank you to SIFMA for putting on this incredibly important event today. I know a lot of planning went into it and you know, we're very excited to discuss these issues. Valuation is incredibly vital to the investing public and to the industry. It impacts performance returns, it impacts redemptions and subscriptions, it impacts fees and expenses, it impacts marketing and ultimately, it impacts the savings to investors. And so I think today, this panel will be very timely just giving, you know, what we've just heard as well as a lot of things coming out of the president's office as well as regulators such as the SEC. We've also seen a lot of development and progression in terms of how valuation is done over the past several years, including growth and technology, tools that are used, you know, the proliferation of the amount of data and inputs that goes into the process. So I think overall, we'll hear a lot about that today, but, you know, I did want to welcome the esteemed panel here. I think as they introduce themselves, you'll understand why they're at the table and I think you'll get a very robust and well-thought-out and rounded discussion. So let's jump into it. I guess we're going to start at a high level. So recognizing there are several distinct asset classes that fall under the umbrella of private markets. There's private credit, private equity, there's real estate. What are some of the common key principles of valuation that apply across the board? And so, Brian, I'm going to start with you, if that's okay? And if you could introduce yourself as you speak, just in the interest of time.

- Will do. Thank you, Peter and thank you to SIFMA for have having us. This is a really timely and important topic. Just before I start, so I'm Brian Garfield, I head up our U.S. portfolio valuation practice at Lincoln International, which is a global investment banking advisory firm. So, Peter, you asked a great question and it's a good way to start things off and Commissioner Uyeda also commented on it briefly, but there is a common definition of fair value for financial reporting purposes that we adhere to when we're performing valuations for alternative assets. And that common standard sits under the Accounting Standard Codification Topic 820, which states that the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants is a representation of what fair value is. And notably within that definition, the center around the outcome is about the exit price, so not the acquisition price, but really what you're exiting at. And so as we talk through the methodologies which are going to be uniform really in construct for a private equity position, there'll be different judgments that may be put into place, as we'll talk about. But that there is a common principle that we're

thinking through and addressing in the context of those subjective and objective inputs that we're assessing.

- [Peter] Great. Dr. Ma, would you like to weigh in?

- Sure. I'm Cindy Ma, global head of portfolio valuation, at Houlihan Lokey, is also a global investment bank and I echo everything that Brian has said. And I mean the other points I actually, like, want to kind of, like, point out is, I mean, it's the price, but I mean, the way I actually look at private market, putting back into the accounting codification, right? I think about, like, the liquid asset, Level one investment is marking to market and then you have, like, the Level two investment, when I teach the class, I would say it's like a marking to matrix and then when you have Level three investment, I mean, we call it, like, marking to models or marking to a black box sometimes, but I don't want to say that. So when it is, like, me marking to models, right? So as Brian has mentioned that there are common valuation approaches that we use, for example, this kind of cashflow approach and I mean, the comparable market approach, ERISA-transactional approach and even like cost could be considered as a fair value depending on the circumstances. So those are the methodology that we actually apply to, actually, across asset classes. And certain methodology tend to be more applicable, I mean, to certain investments. But what we actually, like, try to think of is like, because it's private market and we don't really observe the transaction price, so when we actually, like, building different models, we actually try to, like, I mean, what is the input? So we want to make sure that we maximize the observable market input. That is what is a key. And I think in the last 10 years what we have seen is with the transaction in the secondary market and more transaction, we are seeing more transaction data being available, I mean, to market participants. I recall maybe, like, when I started valuation, I could just put a footnote to say, "Based on my observation and experience, "I think discount rate is 15%," and auditors will be okay with that. In this stage, no, absolutely no. And they actually like grill you and say, "Tell me how you get to that 15%." This is how the market has, like, and transformed. And the other concept that's very, very important, I mean, is the idea about calibration. And I mean, in the last 10 years we also have seen that, like, the industry have evolved in the way that the valuation approach have been actually standardized. Want to give credit to the AICPA, I mean, they come out with a practice guide which are actually make it, like, must-read study, I mean, for valuation. They lay out very good valuation framework as how you deal with the, how you, like, select models, how you support the input assumptions. I mean, so I actually kind of, like, think that, I mean, despite the fact that we have, like, different asset classes, the fundamental approach, the way we select input assumptions is really the same. And most really important really is, like, the documentation and I mean, the governance of the valuation process. And I think we already, like, moving towards the way of

transparency. I actually want to give a lot of credit to the SEC as well, despite a number of, like, rulemaking advisory paper didn't really get through and got vacated by the Fifth Circuit, but the industry had to embrace most of the principles over there in terms of moving to transparency.

- [Peter] Great. Anyone else want to weigh in on this topic? Dr. Lewis?

- Yeah, so I think, some corners have said private valuations are done by throwing darts at a dart board. And that I don't think could be further from the truth, right? I think the same principles that one would use to value a private investment are the same that you would use to use a publicly traded company. There's no difference in the techniques whether using a DCF model or using multiples to value the company. It's pretty much all the same when you're valuing a firm, the key idea is to understand the business model and try to understand what you can infer from the business model and you're going to use the information that's available to you. One of the things that differentiates private from a public investment is that there's less information available and when there's less information for an investor to use to come up with a valuation, by definition, the valuations are going to be less precise, right? As you learn more information about an investment opportunity, you can increase the precision of your assessment, but at the same time, those changes in the information set can lead to dramatic changes in prices because it dramatically, changes how investors view that. I think that one of... I'm just going to go maybe through a couple examples here. If you think about valuations, you know, valuations for illiquid assets can be challenging. Take the example of a fixed-income mutual fund, right? If you were to be using various pricing feeds, you're going to see that the feeds themselves come up with different valuations for the exact same bond. And then if you were to look into the actual transaction prices using something like TRACE, you would find that sometimes both those feeds missed the mark by sometimes a significant amount, especially, if there's been a recent event that causes a company's credit profiles to change. So different valuations for securities that in some sense are publicly available for investors to buy and sell. Another example, I think, is look at IPO pricing. When a company initially files its registration, it lists a range of prices that it thinks the IPO will actually be valued at. Half the time, the actual IPO price is outside of the initial range that the investment bank sets. About 25% of the time, it's below, about 25% of the time, it's above. It just goes to show that when you take a private investment and you put it in front of public investors, there can be significant differences in how they assess that valuation, and you come up with that. I'll give you an example of something, when you look at multiples, if you try to use comparable analysis and you select a set of multiples, the multiples that you pick will affect the valuation that you come up with. An experiment that I would do with my students. I teach, I'm Craig Lewis, by the way.

- And I'm the Madison S. Wigginton Professor of Finance Emeritus at Vanderbilt University and I was the former chief economist at the SEC and the director of the Division of Economic and Risk Analysis. Well, I teach a valuation course, or I used to teach a valuation course at Vanderbilt. And one of the experiments I would have my students do is I'd had them break into groups. I'd said, "All right, we're going to look at Cracker Barrel," a company who's been in the news recently with some interesting problems they've created for themselves, but I would say, "Here's a list." I would give a list of all publicly traded restaurant companies, I've put that in front of them and I'd say, "Find the four best comparables "for Cracker Barrel." And then I would have them go off for about 10 minutes and they would pick 'em and they'd come back and the list that I would come up with is not consistent, right? So everybody would come up with a couple that were kind of key contenders and I would rank them, right? And I'd show who the winners were and then I'd say, "Here are the top four comparables" and typically, most of the groups get one of them, maybe two. Then I would feed it to ChatGPT in class and I would ask ChatGPT, "What do you think the four best comparables?" And I've done this multiple times and every time I've done this, the top four comparables that my student picks are the exact four comparables that ChatGPT would come up with. So individually, you come up with some different views, but I think in a consensus-forming way, when you pool information, you tend to get to comparable, similar results.

- We have some shops at the table. And so, Justin, I'm going to come to you. How do you look at it from a private equity perspective?

- Yeah, I think the biggest difference you'll see, and by the way, Justin Park, I work on our private equity evergreen strategies. Okay, the biggest difference you'll see is that there is no readily available market price when it comes to the private equity portfolio companies. Again, that's the major difference within public and private markets. That means that for us, a lot of the asset managers in the room will have a lot of ways to then value a company. Bottom line, at a high level, many firms will use a combination of technologies to really give a fair value of the companies. And again, Dr. Ma already talked about this a little bit, where the income approach, this kind of cash flow, will be one way, the second way will be the market approach or comps, as well as precedent, you know, transactions. And really the point there is to really provide a reflection of the market into the price as well by using comps as well as a DCF. So again, the high level for a lot of us, are doing in the space, will be using the combination of the methodologies to give you a fair price. But that's really only the starting point. On top of that, you would have a oversight by valuation committees internally, as well as a consultation by third party. And that piece is really, really important, right? Third-party meaning the valuation companies that will give you the input to the models for DCF as well as really providing an ongoing review, whether it's a positive assurance on a quarterly

basis, and then really getting the audited on a regular basis. All those things that are on top of a regular way, you know, valuing companies, really to me is an important part of how to give you a much more transparent and objective price when it comes portfolio companies. Again, there is no readily available price for private companies, but that's as good as it gets in the industry that uses all those different pieces together, holistically, on the continuous basis.

- Great.

- May I say something. Please, yeah.

- Hi, I'm Burcu Esmer. I'm a finance faculty at the Wharton School. I teach private equity relation as well. I'm the academic co-director of Harris Family Alternative Investment Program. And actually yesterday in my class, I was going over valuation methods and I start with, "No matter what you do, "you will be wrong. "Just accept that you'll be wrong "because whether you use DCF or multiples," which I can talk hours about the the fit of multiples in valuation, there are lot of proxies, there are lots of biases. But normally, when we talk about valuation, it is intrinsic value of a company. It doesn't matter whether George is valuing a company or Brian is valuing a company, it should be the same, right? It should be pretty objective. It is the expected cash flow, discounted at the opportunity cost of capital. So it should be the same. But everybody is working with different proxies, different expectations, different biases. And sometimes they want to show the value some way, not the other way. So it also impacts everything that goes into the valuation models. So in public market, as Dr. Lewis pointed out, we have more information. So if we think that price is a proxy of value and in well-functioning markets, it is, but sometimes it's not, at least in real time, you have an idea about what all the market participants think about the value of a company. When we talk about private markets, as you also pointed out, we don't have enough information. The information at so-called private equity portfolio companies, these are privately held companies, we don't have a lot of information and we can go into whether DCF is even appropriate for valuing a leveraged buyout, which is not, but it comes with lot of issues. It comes with a lot of opaqueness, which makes it even harder. Yes, the methodologies could be the same, but with limited information, it is getting hard. And you talk about the governance mechanism, which could be challenged, like, every item you mentioned could be challenged very easily, obviously. But the good thing with all these conversations, I think we're going to get a better point with transparency and more information and valuing private assets.

- So that's a perfect lead-in to the next question in terms of, and this was something, when I was at the SEC in the exam program, we were focused on, but with private assets and difficult-to-value securities, and we've heard this morning so far, all the different methodologies that could be used, the different data points that may vary among firms, is it reasonable for an asset valuation to defer among different firms? And I'll open that up to the table itself. Please, Dr. Ma.

- Okay. Yeah, I think this is a very interesting question. I think most people know that and I mean, Houlihan Lokey is one of the leading valuation firm for asset managers. So we actually, in a lot of occasions, we may be valuing the same investments for different managers. So we always get asked the same question: "Do you give the same mark to all your clients?" And the answer is, like, "No, it really depends." And because like, according to, like, I mean, the we do valuation, right? It's like, we are supposed to use, like, all the publicly available information as of the valuation date plus any information that is available, knowable and available to the asset manager as of the valuation date. So the first part is clear, there's no ambiguity, right? It is the second part, really is the key, the information available to asset managers. And I mean, I think, unfortunately, information right is not equal among market participants. So at one extreme, we have asset managers that basically is a majority holder of the private company, sitting on the board, okay? Have regular conversation with the management, know exactly about, like, the plan, when they even want to, like, maybe going strategic exit. Then on the other hand, the other extreme, we have, like, asset manager, that so happened, got into the investment in the secondary market. So the ownership is transferred to him, but information right is not transferred to him. So he actually has no information, right? So you are dealing with, like, is two extreme, we have that all the time. And now, then, the next question to me is always, "Oh, you have all that information, "can you use that to, like, value for all your clients?" But again, I mean, the client confidentiality, information from asset manager A could not be used for, like, an evaluation for asset manager Z, okay? The other problem also is, we talk about there is an external oversight, the auditors, right? So I mean, we have to produce valuation report. So the auditors actually need to be able to follow your analysis. How do you get from, like, the information to the conclusion and your asset manager Z that have no information, then they're going to question, "Where you get that information," right? We cannot do that. So it's like information become, like, really, the key is why there could be, like, differences in the valuation. And the more information you have, you'll be able to do, like, a better, I mean you'll be able to, like, thinking what Justin talked about, you can actually like, do all three, four different valuation approaches and then triangulate the value to give you the comfort to get to like what Dr. Esmer said, that could be still wrong, but at least you're supportable. And then versus, like, the other extreme is, like, auditors will question asset manager Z, you still need to come up with a value. So that is not become a valuation, that becomes, can we come up with reasonable economic approach to kind of, like, get you to close to where we believe and we could stand up against the auditor

to explain to them how do we get that point, that become a proxy. The other part that actually may cause differences in the valuation is already covered by other people here, really, it's an exit valuation. So we actually have to try to understand from the manager, what is your exit strategy, when you're going to exit. And so that will affect, like, how do you select, like, the terminal multiple and all, like, the major input factors. And the third part really is, I mean, a risk tolerance. Certain manager tend to be more optimistic, certain manager tend to be more pessimistic, right? So that will affect, like for example, the discount rate, the more optimistic manager will try to support a lower discount rate because it get a higher value, okay? And then, I mean, the more pessimistic manager and they try to take a lower market multiple, right? That get to a lower valuation. So you also have to, like, deal with that as well. And because we also have to put ourself as we were the asset managers, right? In terms of, like, thinking about those input assumptions. That's like, a long story short is, yes, we may be valuing the same investment for like 10 different clients. We may be actually providing 10 different valuation numbers, but we do have an internal committee to make sure that they are within reasonable band. We can't have like, I mean, one manager telling you it worth 100, the other one it worth zero, right? That, absolutely cannot happen.

- And maybe...

- Oh, go ahead.

- I was going to say maybe I'll jump in-

- Curt.

- I'm Curt Ruoff, I'm global head of valuation of BlackRock. I point to the public markets too because if you look at public stocks, they have stock analysts at different banks judging a price target. And even with the same set of robust information, they're all coming up with different prices and I think, you know, it's pretty reasonable that we in our seats would come up with different valuations as well for the same investment.

- And I think if you go back to just this concept of calibration, you know, which for everyone's benefit, that essentially means is when a deal closes and there's a market participant, willing buyer, willing seller

transaction, and let's just say that that transaction's enterprise value is 200 million. Everyone is going to start their valuation analysis at 200 million. There's going to be very little disagreement on that. It's an known quantum. And so the key to create harmonization of asset valuations on the go forward really dives into the analysis that you're doing with the approaches that Dr. Lewis went through and the underlying data that you're using and the industry and sector expertise you have in performing that analysis. So I'll give you just an example. If you're valuing a software business, one of the common benchmarking tools you might use is to look at the Rule of 40. If you are in the software space, you're aware of that metric, you're looking at that metric. If you're not in that space, that metric may be less familiar to you. And so you start to have that divergence in value start to create itself. Again, what you want to do is think about what's the exit market going to look like, what's the exit strategy going to be and who are the market participants involved in that transaction? But the basis of where you start I think is really key. And we don't really, you know, at Lincoln when we're performing all the valuations that we do, Cindy referred to it, it's that term calibration, and I'll use another term, we really don't want to have a day-one gain or loss at time zero. We want to have that harmonization at the \$200 million enterprise value example I gave.

- Dr. Lewis.

- At the end of the day, valuation is more art than science and there's going to be differences of opinions. Like, if you just think about the example I gave about student selecting comparables, they would all come up with different valuations even though they looked at exactly the same information set and what informed that was their own views and how they accumulated or processed additional information about their understanding of the restaurant business, right? Everybody understands the restaurant business, but yet, how well they understand the different business models is something they have to process internally. So I think when you're doing valuations, it's ridiculous to expect people to come up with the same price. And I think it's also equally silly to expect a one-size-fit-all model to work in this context.

- I would just... Hi, it's Rory Callagy with Moody's, I lead our funds and asset management rating team. And just to add onto that conversation, I think, you know, we look at a lot of asset managers, a lot of funds, so we look at, you know, valuation policies and you know, really comes down to the robustness of the policy and Justin and talked about the different layers that they use to value assets. And one of the things that we see in terms of differences across the industry is the use of independent valuation agents. You know, some funds, you know, use independent valuations to value every asset in their portfolio every

quarter. Some use a sampling technique, some, you know, rarely use independent valuation. So I think there, you know, over time, I would expect there might be some more standardization within the industry. You know, they might come to different results, but I think, you know, for us it's more about, you know, what is the process and you know, how robust is it and what's the governance that, you know, will create more consistency over time.

- It's a great lead-in. So Rob, I'm going to come to you. So can you talk about, like, the role of independence in the governance process, and oversight, when it comes to the valuation, I guess, process within a firm? You know, Commissioner Uyeda talked a lot about governance and how the rules are set up with board supervision, delegation to the advisor as well as the use of service providers to provide different information that will help give an independent barometer in terms of where an advisor should make the money. Can you talk a little bit about just the practical aspects of it?

- Yeah, absolutely. And thanks for having us. I'm Rob Rosen, I'm the CFO of the America's private equity business at Carlyle. Valuations in private markets are fundamental to the trust and confidence that we build with our investors. So it's crucial for everybody. Independent oversight, really, whether it's through the finance teams, valuation committees or external reviews, serve as a counterbalance to make sure that our valuations really reflect economic reality. At Carlyle, we have a very robust process. Our valuation process begins with our investment teams that are preparing and providing the initial review of those valuations. The valuations then get turned over to our CFO functions that do a really thorough review of every single input within those valuations. And for private assets, we're using a three-prong model that, you know, Justin alluded to earlier, a DCF, public comps and any precedent transactions and we're triangulating into a value amongst those three inputs. From there we have an independent internal valuation group that then reviews every single valuation. We then use a third-party valuation firm, whether it's Houlihan or Lincoln or Kroll or whoever it is to review our valuations on a quarterly basis. And about 80% of the fair market value of our assets are tested on a rolling 12-month basis by an independent third-party firm. From there we have additional committees, we have a valuation subcommittee that would review every valuation. We have a global valuation committee that then reviews every valuation and we have sign off from all of the segment heads within the business to certify the valuations. So for us, checks and balances are not just about the process, they're about protecting the confidence that our investors have within our valuations.

- So that sounds incredibly robust. And not to put others, money managers on the spot in here, but maybe you guys could chat about.

- I think BlackRock's answer would be extremely similar, which I think is the point, right? These are practices that have been developed over decades in both public and private funds and that independence is crucial and expected by investors. So, you know, I think the only other thing I might add is that auditors are employed in the process as well, right? And most of the net asset value of a fund is the value of the assets in the fund. So they have specialist valuation teams that come in and test our process, test our providers' processes and essentially give that extra layer of assurance as well.

- And again, for private equity, specifically for us, very similar process, but the use of third party, by the way, is a very critical part of this whole process. We've done it from now more than a decade in involving third party. And again, that really is a key point on how we think about our price to be more objective than just doing our own work. Again, can't speak for everyone else in the room, but again, a lot of us will share the same sentiment, that rigorous process internally, separate independent valuation committee as well as third-party involvement and auditing is really the way you think about that as a robust process, you know, in private equity. And Mr. Chairman, coming to you, a lot of discussion of auditors, both as a third-party look from an assurance perspective, but then also, just in terms of, they see that as a layer of control and governance. So we'd love to hear your thoughts on valuation. And thank you for being here.

- Thank you very much, Peter. It's a pleasure to be here for the invitation. I'll say acting chair, I'll put the word, just to be clear, but it's an honor to be here. And before I begin, just to give my quick disclaimer, if you'll bear with me, the views I express are my own in my individual capacity as a board member and do not necessarily reflect the views of the full PCAOB board, individual board members or the staff. And I will say, just before I get a little deeper into it, Each time the word auditor comes up, in your comments, Dr. Ma, in terms of the challenges and the questions, it kind of warms my heart to hear that.

- 'Cause I think when you think about the auditor, and I'll speak broad and I'll come to the PCAOB in a second, but as a former financial statement auditor where I started a lifetime ago, quite literally. And the thinking more broadly about that, I'll call it the capital markets more fulsome, the role the auditor plays is so central to not just valuation issues we're talking about here, but more broadly, trust in the system and whether it's from retirement accounts, whether it's from just retail investors or institutional investors, the

role of the auditor and the trust that he or she provides day in and day out cannot be overstated, at least in my humble opinion. As a former auditor and thinking about the value to the markets 'cause the auditor wasn't doing or isn't doing his or her job, I'm not sure the market's work, truth be told, because the questions that will arise. With that though, coming maybe more directly to the question, the PCAOB is probably everyone's, I'm aware, specifically overseas by statute, the auditors of public companies, issuers we would call them, as well as broker-dealers. The auditors are broker-dealers that are registered with the SEC. So that's kind of our focal point and two of our key functional areas, one is inspections, but also standard setting. So you kind of get into both those areas, valuation comes up almost on a daily basis to varying degrees 'cause it's an area of high judgment for the auditors, typically, they may employ directly, indirectly, use of specialists, third parties we've discussed, that also adds some complexities and just the high level of judgment as we've been talking just about the nature of this. So it is something that our inspectors think a lot about as well as our standard setters. And maybe just a couple points, and I'll pause, I don't want to go in too long, but when you think about the audit and the role of the audit, coming back to that, in the broader guardrails around it, it really starts with the risk assessment and how they think about the business. Do they understand the business? Where are the risk areas and areas of the potential for material misstatement, particularly, in areas of financial interestments, as well as other investments. And from that assessment then they'll determine the nature of the procedures to address those specific risks. And that may involve, you know, understanding the terms of the instruments, what are the conditions or what are the covenants around that. And certainly, as it's come up to high level, you have a Level one, Level two, Level three securities. And I think when you get into Level one, and maybe what I'll call the easier-to-value Level twos, pricing services come into play where auditors will be relying on the pricing services and I think broad statement, where there's observable, common, similar investments, probably much lower risk, where there's not the observable or a comparable investment from an audit perspective. You know, the PCAOB standards in this space focus on probably two broad areas. One is auditing of estimates, including fair value of instruments, as well as the use of specialists. And specialists, I'll just say a few more words on specialist. That is an area where we focus on, and certainly the auditors are very attuned to in using a specialist. And we have guidance on our website. So if you're interested, so we encourage you to look there on the staff level of our standards and some of our best practices, good practices. But with specialists, there can be three different categories. The company could have a specialist, the auditor could have in-house as most of the larger firms have in-house, full-time specialists, or the auditor could go out and engage a specialist. But broadly stated, I'll say, just to kind of wrap these a bit together 'cause there are some nuances, but the auditor would need to understand particularly the scope of the specialist work, what processes he or she may have used. Sources of data will come into play in terms of understanding the drill, will want to drill into the ultimate valuation, controls, processes around the specialist work is kind of one bucket. I would say another bucket is just the skillsets of the specialist, their knowledge, their skills, their abilities, their background, their credentials, their reputation possibly. And we just kind of touched on some of that aspect of it. And

then ultimately, kind of drilling into it, I'll say, in understanding the underlying work, the data, the assumptions were used, the assumptions make sense at a broad level. The auditor's not the specialist, to be clear, but they need to understand the processes that go around that. And depending on the nature of the special, it was a company specialist, what is their objectivity, what were the controls around their ability to have a more of an independent perspective, even though they're within the company, would be areas where the auditor will be focused on. So I'll pause there, but I think fundamentally, the auditor's role in the capital markets and understanding valuations is a key aspect when you look at a lot of the audit work, whether it's transaction-based because there was an acquisition or a spinoff, or just valuation of various investment portfolios, whether it's private equity, whether it's real estate, et cetera. There'll be a significant part of the audit focused on, or at least there should be, I would say, focused on the valuation of those instruments and those assets.

- And ultimately, that goes to protecting investors.

- Absolutely.

- And the reliance on the integrity of the markets. Yeah.

- That's right.

- No, that's very helpful.

- Yeah, Peter, it might be helpful, 'cause there's so many controls, I mean, from the third-party valuations perspective, we're also taking a very independent review and approach. So there's this layer that's happening at the manager level that Rob went through, and then there's this layer that George went through that's happening with the auditor. But what is the third-party valuation agent, someone at Lincoln, doing? First we have an independent model, so we're in a completely different environment than where underlying mark is being determined at the manager level. So we might have an income approach and a market approach and we might weigh them a certain way and that weight, those judgements may not necessarily align perfectly with the underlying manager. And I think that's important because it's just

demonstrating the difference in views that could present themselves. The other thing that's going to happen is we're going to receive the information from the client and we're going to discuss that information internally first, determine questions that we might have for the asset manager about that information and our interpretation of that information, which we can then use in the analysis independently. So there's this independent model, there's an independent assessment of the information, and then ultimately, independent inputs. And so, when going through the vast conversation we're having on the subject, there's so many different layers that are being put in place to harmonize a valuation conclusion to ensure that it's reasonable. Dr. Esmer said that there may not be a perfect answer, but there are reasonable answers and market participants are kind of living in that world of what is reasonable. And that's really how we're thinking about the controls on our end.

- You know, one other layer that I'm going to add, just based on my prior experience before PwC, at the SEC where I was for 20 years, is the Division of Exam and the SEC's role. So, you know, the Division of Examinations, they do exams, mutual funds, the investment companies, investment advisors, broker-dealers, TAs and others. And in that role, valuation is a critical part to what examiners at the SEC focus on because it impacts a number of things. It impacts performance, it impacts fees and expenses, it impacts custody rule, it triggers a number of things that, you know, impact ultimately, the investors they're designed to protect. And when you think about their role, they go out and do 3,000 exams a year, of which 2,200 of 'em are of investment advisors. Another 150 approximately are of the mutual funds. And then the broker-dealer world, between them and FINRA, they cover about 45, 50% of the market. And when we talk about private assets, you know, the Custody Rule 2064-2, it has some requirements in it that firms that have custody, which most private funds do, you know, so the private credit, the hedge, the private equity, and they have requirements to satisfy the custody rule, most of which the private funds, I think the SEC's come out with some metrics that approximately 90% satisfy that rule through an audit of the fund. And that's, you know, an SEC-level audit from an independence perspective. And those are very robust, same standards that the chairman has spoken about. So I think that that's an important overlay as well as the examiners digging in and looking at various areas when it comes to valuation. The SEC went out about 10 years ago and hired some valuation experts that have remained there. They came from industry, they're very good at what they do in terms of having familiarity with all the different methodologies. And they get into a lot of discussions with firms about marks that they've made. They may look at other firms with a similar holding or an, you know, exact holding to see how that firm is valuating to compare. So I thought our discussion earlier was very important, and sometimes they come to the auditor to discuss with the auditor on how they satisfied their obligations from a valuation perspective. So that's one more layer I think that's important to talk about. It was also mentioned earlier that I think is important with FINRA, you know, as we think about private assets going into a retail space, you know, FINRA's

going to have a role because a lot of the risks are going to be through distribution and through sales practice. If you read the fund docs, the risks in the fund docs are all written very well, very good attorneys that draft those. And they cover a lot of the risks. I think the real issue, and Dr. Esmer had mentioned it, and I think Mark touched on it too, is when these get sold to someone that doesn't have the time horizon of a long-term private investment. And so I think that that's something that Reg BI and suitability will come in on the distribution in the broker-dealer world. And I know FINRA has put out, and it's on their radar, particularly like with interval funds, which have limited redemption ability, the three to 5% on a quarterly basis. And so that's another guardrail that I think is out there besides the internal, the service providers, the auditors as well as you have a regulator, several regulators there as well. Sure, Dr. Ma.

- Yeah, Peter, I think one more thing is what we have observed is investor actually become more active or more diligent in terms of like, I mean, asking questions about the valuation. And I mean, we have seen like, ILPA and LPAC, I mean, they are actually kind of push for transparency. They actually, like, look into conflict management and they actually really try to, like, exerting pressure because they're the one providing the capital to the asset managers, right? So I think we kind of happy to see them raise, actually, like kind of stepping up and that, especially, with the, actually, institutional investors. And we are actually also seeing the sovereign wealth funds, particularly from the Middle East and they are actually, like, taking a very active role and showing, like, the valuation hygiene as well.

- Yeah, their teams are very strong and obviously, you know, they have their own duty to meet for purposes of investing their client's money. But yeah, you're absolutely right. That's one more layer in the ecosystem. You know, Rory, I'm going to come to you just given your role at Moody's, are there any other factors such as market-based incentives that would encourage asset managers to value assets as close to fair value as possible?

- Yeah, I mean I think, ultimately, you know, the growth of the private markets is dependent on, you know, investors having trust and confidence in the returns that the asset managers are providing, that ultimately, are based on the valuations of assets. You know, and it's a very competitive, you know, market. So investors that are investing in private equity funds are looking at where asset managers are selling assets relative to their last mark. So are they selling at close to their last mark, below. So, you know, as more transparency and you know, as investors become more sophisticated, they can compare that. So I think it's key for asset managers to be very steadfast in how they're valuing assets. And I think the other two areas, you know, would be, you know, a lot of funds are using financings now, whether, you know, NAV

loans for private equity funds or leverage facilities for credit funds. So those providers of credit typically have the ability to challenge valuations. So I think, you know, it's key for the asset managers to be very robust in their valuations because that could impact their ability to borrow if, you know, the lender's saying, you know, "We don't agree with your price, "we're lowering it," and therefore, you don't have as much access to the facility as you thought. But I think, you know, a third in terms of, you know, wanting to move private markets into, you know, mutual fund wrappers that offer, you know, more frequent liquidity, I think it's just going to put a bigger spotlight on valuation because investors want to have confidence that, you know, when they're redeeming a NAV, that's the real NAV. So I think, you know, it's going to put more emphasis on making sure that asset managers are very confident in the value that they're ascribing to the assets.

- It's an interesting point because, you know, on the flip side, the SEC focuses on firms that overstate value and potentially inappropriately because they're getting higher fees, they're getting higher performance to be able to pull in more money. And so I think that it's an interesting balance, but you're absolutely right 'cause if I'm an investor redeeming out, I want to redeem out at a fair price in that, you know, a true price at that time as opposed to an understated price. 'Cause I would be harmed that way as an investor. So it's an important balance that I think that firms have to get.

- Actually, conceptually, I actually believe that asset managers actually do want to, like, give an accurate valuation. Because I mean, if not, you don't do that, if you provide inaccurate value to your investors, right? And you're actually going to have, like, a reputation damage to yourself in the long term, and to the regulators, and also that will to what is going to cause a major problem is, they will have a problem with fundraising, right? So for me, I actually believe that like, interest is aligned, they really want to like provide accurate valuation. But interestingly, like, I mean in the private equity world, if I, like, go down the memory lane in the old days, I mean, always hear that like PE funds actually try to like carry the investment at cost, right? Because it's, like, since that management fee is based on committed capital and the incentive fee is based on realization and really two points that matter, when I enter, when I exit, everything else is kind of, like, noise, from that perspective. So they don't really pay too much attention to valuation, but the world has changed. I mean, with, like, 2007, 2008 with the fair value accounting imposed on them, people started to embrace it. But I think it's a market forces that actually make them do it as well. I think number one is like, again, in the old days LPs tend to be very loyal. They get in, they wait until the fund account finish, right? They don't do anything else. But I mean, since the global credit crisis, we actually have seen the secondary market activities is actually, like, picking up, there is a number of LPs actually want to exit. So when the LP want to exit, two things happen, when the LP exit, like, now you get the transaction data

of the NAV, and people are going to look at, "Oh, this is a NAV got "versus a NAV my manager reporting to me." And I mean, yes, they also understand that I'm selling an illiquid asset, I should be paying a discount, right? A liquidity discount. But there is a reasonable bond about that discount, it could be less than 10%. They may be okay with it, but if that discount become like 40% or 50% of the NAV, now they're questioning about, like, the manager and do you think they want to put, like, another capital to that manager? So that's also like the reason why people is, like, I mean, why asset managers right now is actually also embracing fair value because if they actually adopt fair value and even if that because of market forces, supply, demand at the time that LP exit, they realize the discount, but at least they can be able to defend that mark, right? That's one thing. And second part is like, actually what Rory mentioned is really the NAV lending. I mean with the difficulty in the capital market. So asset managers have been trying to find ways to create liquidity. So then they actually putting the investment as collateral to raise funding for various purposes. So again, it's like, I mean, you really don't want that, like, you put up a portfolio of investment to get funding and then people come back and tell you that, "Hey, I think the value is only half what you reported." And so I believe the market forces actually also making asset managers adopting fair value and try to, like, present the value as close as what they believe is right, even though there's no right value, according to Dr. Esmer.

- Esmer.

- There must be. But just to add to it. And it also comes with questions for you, both Dr. Ma and Rory points out really important things like NAV used to be a placeholder, it didn't matter in old days 'cause it was all about exit value, right? So now a lot of things, subscription lines, semi-liquid funds, the valuation is linked to NAV, and some of them are traded in the secondary market. So people observe whether the manager hits or missed the valuation based on this. And if there's a lot of mismatch, of course, it would create mistrust, which is not good 'cause you don't want to work with those managers anymore, which I understand. And as far as I know, not all NAVs are audited, they're not required to, it looks like. But I have questions and it goes back to what you said earlier, which is very important, information access for investors because some investors get more information, some get less information. I'm really curious to hear from you what is done in practice. Do you share some kind of a calibration memo, like how we update the valuation of our portfolio companies and these are what changed? What kind of market comps we chose? So that's one, lot of information about your calibration. The other one is sensitivity tables. If we change our assumption just a little bit, what happens to the NAV value? The other one is back testing. So you can say, "Hey, in our last 10 exits "our valuation were between plus 10%, minus 10% "of our exit value, at least in 75% of cases." And how much transparency you have in governance, who really values

the assets? Who does the review, which auditors you choose? Do you rotate your auditors? So I know it's a lot of information and private market funds, they don't like sharing a lot of information with outsiders, which is strength of their investment philosophy, let's say. But all these would improve credibility, it would improve their models and it would also help with fiduciary oversight. So I'm really curious about-

- And the only caveat I had is all within the bounds that you wouldn't disclose material non-public information 'cause you all have policies on that, that you may get non-public information that you can't disclose legally. So that would be the only thing I'd add.

- Yeah, maybe I'll start because you know, I think it goes back to a lot of the concepts we talked about earlier. So Brian and Cindy's firms, we leverage them pretty heavily and they do a lot of the documentation around, you know, the methodology, and the inputs, and the comps and you know, they substantiate their work very well. We layer onto that with our independent valuation team and process things like back testing across our products and you know, how things move over time and looking at large changes, and stale prices, and things like that. And then, you know, from there, you know, we talked about a lot of the third parties who come in like auditors who look at things. We employ multiple auditors but we don't necessarily rotate them, it's just, we just have a lot of funds. But the investment will often, in that case, be looked at by multiple auditors in different funds and we get a chance to kind of get some stress testing that way as well.

- And you bring up a good point, investor oversight is obviously crucial and we spoke about it, Dr. Ma spoke about investor oversight. We try to be as transparent as we can, subject to the bounds of confidentiality and the like. Our LPACs provide a crucial role in the information and the review of the information, whether it's sharing what are the most comparable companies for a given portfolio company we have, to what are our exit plans? What is the projected target for the fund at different points in the fund? Obviously, not just what's in a PPM, but as we're fully invested, where do we see the fund shaking out? So just trust is crucial and you know, we want to make sure we're building as much as we can through the transparency we're able to provide.

- Okay, we've hinted at it, but Curt, I'm going to come to you in terms of firms that currently offer exposure, or funds that offer exposure to private investment and marking on a daily basis.

- [Curt] Yeah. I know that Dr. Lewis and Dr. Ma both mentioned it, but can you touch base on that and kind of help us, you know, it's certainly an incentive, and Rory mentioned it too, is an incentive to keep, you know, marks current.

- Yeah.

- So talk to us about that.

- I think there's a couple things and I think one is that the fund structure really helps take pressure off the valuation process when you talk about moving clients' money at those marks. So a lot of times a private markets' fund will be paired with a liquidity sleeve to help put subscriptions to work about waiting for the next investment to come along. And probably more importantly put redemptions or be able to meet redemptions on a timely basis. The actual valuation process is grounded in the fundamental analysis that is done quarterly or often monthly, in daily-NAV type of funds. And then what we do from there is layer on market movements and beta to help move with the market as needed and also operational processes to make sure that we're getting portfolio company information on a timely basis in between those fundamental analysis to make sure the daily NAV is accurate.

- And I might jump in here, Sara Shean from PGIM, we are the global asset management arm of Prudential and I'm responsible for the defined-contribution practice. We've been managing daily valued private real estate strategies in the DC landscape for almost 20 years. So just to tack on to some of Curt's comments, when we think about valuation and we start to get into the 401k market, there are actually two levels of valuation to consider. The first is the underlying private assets, which we've been focused on, and the second is the daily value that actually gets converted so that we can wrap these into target-date funds and daily structures where the participants can move in and out on a daily basis. So I think it's a very important distinction. We employ both valuation specialists at the asset level and then a separate independent daily valuation team on top of that. And in terms of some of the previous around transparency and how do we measure the effectiveness of that? You know, we've been doing this with an external third party on the daily valuation side for over 10 years. And when we look at how the daily values stack up to the end of the period, whether that's monthly or quarterly, we are within one basis point, right? The market demands that type of consistency and precision so that we build that trust for that daily trading to be happening. And in terms of what we share with our investors, when we get to the end

of the period, our third-party daily valuation manager discloses how the daily values changed during the period and they make that available to our investors, which is another important component of building .

- Just also to comment on this topic a little bit too, just two points. I think the first thing is, and is what we've seen at Lincoln is a huge increase in requests of asset managers for incremental valuations as they've gone into more evergreen products. So we saw a wave of movement to monthly valuation needs and Lincoln and other third-party valuation firms being asked to come in and help with that program and that process. So as the asset valuation production to the external investors starts to accelerate, so does the use of third party and there's evidence of that pretty clearly. The second thing is Lincoln puts together a private market index, which measures changes in enterprise value. And going over to Curt's point, as we look back at that index, which we've had in for over a, which we have data for well over a decade, you see that private equity assets and their enterprise values are really driven off of fundamentals. So when you're doing daily valuations, the actual methodologies that we were referring to earlier are actually all the same. The velocity of how quickly you have to bring that information into the valuation is what we're forced to think through and ensure that it's accurately reflected. So it's really about, really, revving the engine, just moving everything faster so that you can get into the NAV and into the underlying valuation. It's not about changing the method, changing the principle value, changing the approach, it's all process orientation rather than methodology of valuation inputs.

- That's very helpful. Right. Okay. So I'm going to come back to you, Sara. You know, there's some common misconceptions about valuation, particularly, private assets and private equity. Can you talk about what better information on valuation results and processes address these misconceptions?

- Sure. You know, I think we've talked a lot about this today. I'd say first we educate investors that, you know, this is not a black box without well-defined processes and procedures and different ways of triangulating around values. But I would say, even further, it's also not a check-the-box. So we've talked about the different layers of governance that are in place and I think as we think about bringing these types of investments to retail investors, to 401k participants, you know, we as an industry have a big job to do in terms of education. We all know these things are happening, we're doing them every day, but the broader market needs to be educated on some of these misconceptions, on all of the things that are in place to build that trust in the marketplace

- In terms of the future, so we've seen a lot of change, and we've talked about it today, over the last decade, in the future, where do you see valuation go, particularly as we move a lot more into the alt space, into the retail space?

- You know, I think Brian made some great points around, you know, speeding up the frequency in which we apply these processes. So we have a roadmap. We've been doing this for a long time in the DC space, on the real estate side of the business. And many of these principles, while every asset class has its own nuances and differences, you know, we can leverage a lot of these practices and we're not starting from ground zero here. There's a lot of track record established around daily valuation and getting to that point and how you do that most efficiently with the right partners. So I do think the evolution here is multiple asset classes moving to more frequent valuations and more transparency around how that's happening.

- If you look under ASC 820 Level one, Level two, Level three, Level two, we get opinions that look like data, Level three, we get opinions that look like memos. I think the level three part, especially as we move to daily products, will look more and more like data, like we get in Level two space.

- Anyone else on the future?

- Yeah, actually adding to what Sara said is, I mean, we're actually doing daily calculation of NAV for quite a large number of asset managers. And I think it's, like, Sara give you heads up, I mean, no, give you the compliment that you're doing that for 20 years and I actually believe that, like, if we were 20 years ago, I think doing daily calculation of NAV is almost impossible, but now with technology and it's just possible and also it's, like, for some asset managers, I mean, we are actually like, recalculating that portfolio of private credit over, like, 400 of them on a daily basis. So we are running 400 DCF every day and that's just for one client, right? And without technology, we'll not be able to do that. Again, like, I mean, I also believe Dr. Esmer is correct, private market right now, the challenge is information, data is still opaque and not transparent. So I actually do believe that, like, the market is going to, like, move more towards, like, letting the data be more available, I mean, to the market participants because that is the only way that you can gain the public trust, right? If it's like always, if the valuations, like, kind of belong to a black box only, like a handful of people have the data, I don't think that you'll be able, like, to get the public trust in that market. But again, with technology, it is really happening. I mean, I'm telling you right now is , I

mean we actually do, like three, four or 5,000 valuation on a quarterly basis. And in the old days, they most probably go into filing cabinet. And now it's like all those, like, unstructured data has become structured data and I mean, every piece of information coming to us is actually be a structure and then, I mean, whatever information we need to extract, we could extract it and put it into a technology platform. Every input assumption is actually also get captured. Output data is captured. In the old days, they're actually sending a PDF report to clients. I'm not naming a client, but I received a call from them five years ago, is, "We could not read 3,000 PDF report. "You need to find a way to get the data to us "in a way that can fit directly "into, like, our risk management system, "our investor reporting system." And we have been doing that now and I mean, we are actually, like, giving structured data back to the client, that is how the market's going to go. And I believe the auditors actually is kind of, like, reviewing, I mean, actually when they do that audit review, they directly go into the data and the PDF report has become, like, still go to filing cabinet because one day, new colleagues, right, they come in and need to look at that report. So the PDF report still have this, like, importance, but the market is really going to that direction and daily calculation is actually inevitable. And-

- And firms build in the controls and the processes, particularly with technology and they have the controls around it. And the more you rinse and repeat, the better you get at it, the more you refine it. And so, you know, from a transformation perspective, that makes a lot of sense.

- Please, Doctor.

- Can I ask... I just wanted to ask a general question and that is, I'm curious what has been the impact of generative AI tools? Are you incorporating them into your valuation? Is the PCAOB incorporating generative AI into the way it conducts inspections? This is a big technological innovation, we've sort of been talking as though we're still operating a world where those tools don't exist to us. But I would assume that whether you're allowing your analyst to do it or not, they're probably using that.

- Shockingly, we got through almost an hour without saying AI. So thank you for raising it.

- I think honestly at this stage it's more helping to automate a lot of the administrative things like writing all those memos I was talking about and helping to sort through data to let my professionals focus more on

the actual valuation and the judgment we all talked about. But especially, as the tools get better about preventing hallucinations and types of things that can really be bugged using this space. I think you would see more and more adoption.

- I think it's being adopted, I mean, by advisory firm because with the amount of, like, volume and then the data, I mean, you have to, like, embrace technology that's actually no other way to do it. And I mean, as we mentioned before, the old days is like information come in in all shape or form, right? In Word, in Excel, email and I mean basically you manually had to go through it, extract the information, and that is actually kind of, like, not the ideal way and I mean technology allow us to actually, like, I mean, scan OCR and take all those unstructured data and turn it back into structured data. And I mean that is actually very important, I mean, for our clients as well. And I mean, as I said, it's like, I mean, similar to Brian's firm, we actually accumulate so much data and we are actually try to, like, right now give it back to our client in the sense as you can do a lot of analysis, you can draw implications, right? And then like, I mean, going back to client confidentiality, we cannot share individual clients' information, but you could, like, aggregate the information and draw, like, some implications then you share back with the clients. So answer your question, Dr. Lewis, is this is absolutely happening. We are using AI to help us to the extent that it does not compromise client confidentiality.

- Yeah, and I think we're basically just in the early innings of its use, really just similar to how just everyone is in the early innings of its use and we're trying to figure out how to optimize it and still get to, I guess, an incorrect answer, according to Dr. Esmer, or as close to correct as we can.

- [Cindy] Dr. Esmer, I think you need to get quoted for that.

- So we're just trying to get as close as we can to the right answer. So we're leveraging the tools as much as we can. We've invested millions of dollars in technology to accelerate our ability to report to our clients, similar to what Cindy was saying, taking on unstructured content to make it structured. And there's a lot of different ways that you can leverage it. It doesn't necessarily to be the calculator, it can be a tool to get you into the calculator that you have that judgment, which we think is really important in the context of the conversation we had today.

- Yeah, I would just note, a great question, I appreciate you raising, Dr. Lewis, from an inspection perspective and PCAOB perspective. We're keenly focused on AI, ChatGPT, and I like your first inning or early innings comment 'cause I think that is true. We're we're focusing on what the firms are doing, the firms are investing hundreds of millions of dollars, and been tracking that for quite some time in turn to see what does the future of the audit look like, truth be told. You read a lot of articles about ChatGPT, AI, about the skill sets needed, impacts the education system possibly in terms of the raw materials coming out, our college and universities into the profession. The other thing I would say that we're very interested in is what the preparers are doing and how it's impacting the financial reporting process more whole. Not just a valuation, but just that process. And I will say, so I talked to, and I have been talking to a number of preparers, kind of the FPI, the comptroller offices, et cetera, so the major companies. And it seems like over the last probably several months or maybe quarter, things have been picking up there quite a bit. So we're very interested, 'cause that's probably where the companies are going is also going to drive, push, potentially to your point, will push the marketplace for the audit in directions as well. So it's something we're keenly focused in as well as to your last point, what we can use internally, how it could impact and being leveraged in our inspection process, our other activities. And then, maybe the last point, maybe the most important point is standard setting. And one of the things that I've been very focused on and I know many of us in the PCAOB, is making sure that to the extent we can, that if there is a gate or barrier to using technology, it's not thereby by accident that there's something we've thought about there. Maybe there should be a gate, maybe there shouldn't be, but it's not something that's a barrier that just is there, no one's thought about it. Because maybe that should be thought and maybe it should be removed possibly or reconsidered, that will allow technology to improve audit quality overall. So it's a key focus, so thank you for asking.

- Yeah, I'm seeing a lot of use cases in the back office space for asset wealth managers, in compliance, I'm seeing some use cases there as well. So, you know, you're seeing it, from an accounting perspective, a reporting perspective, you're also seeing in a valuation, you're also seeing it in operational areas. I think we've seen, you know, some successes there, particularly, at the large asset managers, and . Thanks.

- I just said, you know, one point, you know, not about AI but about, you know, the future and you know, one of the things that we're looking at is, you know, as private credit goes into evergreen funds, you know, asset managers are going to need access to supply because they need to get that money invested right away. So how is the secondary market, you know, going to develop and which would be another data point for valuation. I think some firms seem to be embracing more trading, others, you know, I think

are a little hesitant to it, maybe because you know, it's going to provide more transparency around valuations. But I think that that's going to be interesting area to watch.

- A great point. Well, good. Well, we made it throughout this session without mentioning the word liquidity once and I was tracking it and I think it's great, SIFMA is planning on addressing liquidity at a separate roundtable, which I think, you know, in many ways relates to the valuation process and is going to be critical as we educate. I will thank the panelists today. I think you did demystify the valuation practices in the private markets. Thank you for joining us today and we're going to take a quick break and we're going to come back and we're going to have the second panelists.

- All right, welcome back, everybody. We are now going to head into our second session and I have the pleasure introducing our moderator for that section. Brad Campbell, who is the former EBSA assistant secretary, he has been working in the space a very long time, ERISA expert, was there when the, well, for the QDIA regulations, which we actually referenced earlier today, Pension Protection Act, has been very big for many years on this. So thank you, Brad, so much for joining us. And with that I'm going to turn it over to Brad.

- All right, and most importantly, thanks to everyone for coming back because a normal rational human response to ERISA being implicated in anything is to run for the exit, it's something we're used to. I'm used to as an ERISA lawyer, no one wants to hear me talk at a cocktail party. But we are here to discuss some of the particular aspects that private market issues raise in the context of retirement accounts. And that's what we're going to touch on in this session or evaluating this session is some of the issues related to valuation. We probably will, Pete, bring up the dreaded L word of liquidity and address some of that as well. But I think it's important to start out and just kind of lay the foundation for this session to talk about what I think is some misconceptions or are some misconceptions that are out there about the role of private markets in retirement plans. I think if you follow some of the headlines that have come out recently, especially, since the president's executive order on alternative assets, that you might draw the conclusion from the headlines that this is something new that's not been done before. That's uncommon and unusual in retirement plans. And I think as we discussed that today, and as we heard in the first session, that's actually not the case, that there has been a long history of allocations in, particularly, traditional pension plans, but not exclusively there, in other spaces, to private investments of various sorts. And I think it's important to understand, well, how did that work? What are the issues that were presented and how were those addressed? So that we can inform some of the changes that will be

coming as the application to some additional areas take place. And so in the retirement space, I think it's worth noting that one of the challenges here is, we save retirement accounts, in the name of the session, but that actually encompasses a wide array of different types of investments with different regulatory regimes. You know, we heard the commissioner speak about the coordination between the Labor Department and the SEC, and that's very important for the ERISA-covered entities. So the private sector retirement plans that are governed by ERISA, in addition to all of the other areas. But we also have a long history of investment in public plans, government pension plans, and government retirement plans in the private market space. So what are some of the differences and lessons that we can learn there as we evaluate some of the new issues that are presented by the executive order, particularly in the context of defined-contribution plans, where, again, we'll bring up the liquidity and the valuation words there. So I think one thing to point out is, this isn't a new question, but it is a question of how do we fine tune some of these issues for applications that are now expanding potentially, in light of the executive order, into other areas. I think another, again, reading the headlines, you might get the impression that things have already materially changed that, you know, I've seen headlines like "The Floodgates are Opened on X," describing whatever the article is addressing. I think it's also important to note that as we're discussing here, we're at the beginning of a new review process taking place in the administration and that at this point they're provided a direction in the executive order, for example, and issues they need to evaluate and consider, but the executive order hasn't dictated the outcome of those investigations and evaluations. It's told the Labor Department and the SEC what to look at, but it hasn't told them what to conclude and it hasn't told them what action to take. And I think it's important to remember that as we have this discussion. And the last thing, and I think the first panel did a very good job of covering this, is that this is not taking place in a vacuum of regulation that doesn't exist. There's an extensive degree of regulation of all of these different kinds of circumstances through the SEC, through FINRA, through the Office of the Comptroller of the Currency, through the Labor Department, through state insurance commissioners. There are a variety of different regulators at play here. And so, you know, the phrase Wild West, which always annoys me when I hear it applied to ERISA because if there's an area that's less of a Wild West than ERISA, I'm not sure what it is. But that's a phrase you might see bandied about in some of these press articles as well. And I think it's important to remember that is not the case. There are extensive regulations of all the different aspects of these questions, and part of what I think the administration's looking at is how do we apply some of the existing regulation, how do we look at modifying how they interact with one another as we consider private markets expanding in retirement plans. So with that, I'll get off my soapbox and, you know, turn some of these questions over to the actual experts who are here today to help us do that. And I thought I might just start out actually, going to you, Dr. Esmerda, to give us your perspective as an academic who's been studying some of these specific issues in a number of papers recently to kind of give us an overview of some of the issues you're running into as we look particularly, at the defined-contribution plan aspect.

- [Burcu] So you want to start with issues or benefits?

- Why don't you start how you think it would be most beneficial to sort of lay the foundation for what you're working.

- Okay, perfect. Let's start on a good note, right? So your opening speech was excellent. So it's not new, everybody thinks this is a new thing? It's not. Whether it's 2020 Department of Labor's information letter. Basically, it said fiduciaries may include private equity within professionally managed diversified options like TDFs or collective investment trust, and what have you. Then there was a orange light in 2021 update, but with President Trump's executive order, now people are talking more about this and especially what the fiduciary is what should the regulations be. This is becoming a very important point for many parties. So this is not surprising actually, as we discussed in the first session, we have a lot of growth and value creation happening in private markets with private companies. And from the investors' perspective, they don't want to miss out what is happening in private markets, right? We have a lots of unicorns, more than 1,000 unicorns in the world. We have those giant, highly valued private companies, the savers, they want to have a piece of it. And this is also related to, obviously, the access to opportunities as discussed, it's not just unicorns, it's not just the growth. We have fewer public companies right now in U.S., which is not necessarily a bad thing 'cause we still have private markets growing, which is great. Companies are going to public market later in life. So if as an investor, if you only focus on public market, it's not really a fully diversified set of options. So it's older companies in certain industries, this is what is dominated in the public market. So from the portfolio perspective as academics in the intro to finance courses, based on highly regarded, highly valued papers, we basically say diversification is important. So if you want to diversify, it's natural to be able to add some of the private market instruments in your portfolio as well. Because we know that private equity or private debt doesn't move just like how public markets move. At least, even if it does move, we don't observe it right away. So there's some diversification benefit. The other part is the return potential. So when we look at studies, it shows, and depending on which time period you're looking at, it depends on the benchmark you're using, but there is one to 2% excess return if you put your money in private equity funds, let's say, although returns have softened in the last couple of years, there is an expectation of higher return by including private assets in the portfolios. That's also great. One aspect of this return potential is illiquidity premium, right? So retirement savers, they are great candidates to invest in private markets because private markets like relying on long-term capital and long-term investments, and retirement savers, they are, by definition, long-term investors, of course, I'm not talking about someone who's 80 or 85 years old, but especially,

early in your career you have a long horizon to invest, so you can enjoy the illiquidity premium, which is the additional reward one might expect to get for committing the capital or a longer period of time. So these are all great things and as commissioner Uyeda also mentioned in the morning, he used the word exposure not democratization, which is great. 'Cause investors are becoming more and more sophisticated, they hear about private market investments, they hear that pension funds are already investing in private markets at really high allocation levels as well. It depends on which institution investor you're looking at, it would be 5 to sometimes 40%. So they don't want to miss out. They also want access to these as a privileged investment opportunities. So these are all positives about what investors are expecting. From the fund manager's perspective, it's also great because there's additional money, there's \$13 trillion, more than \$12 trillion in retirement accounts. So they want a piece of it. So that's additional fund opportunities for them. It could also be great for businesses because there will be more funding coming into those businesses as well. So at the end of the day, we could have better capital formation and more GDP growth, more income in the retirement. So these are all benefits. But I can stop here and we can talk about, like, how they're actually incorporated and not talk about issues. But it's up to you.

- [Brad] Why don't we table that for a moment.

- Okay.

- 'Cause we'll be getting into a number of these questions as we go along.

- Okay.

- So that was kind of an academic overview of some of the rationale for why retirement plans, not just retirement plans, but retirement accounts, might want to be evaluating the efficacy of private markets or already making investments in it. But I wanted to emphasize, as I said at the beginning, that we have a number of different types of retirement investors, and Dan, I wanted to turn to you next and if you could introduce yourself, more from sort of the public plan, the government plan perspective, which has historically been one of the groups doing a lot of investment in this space.

- Right, so my name is Dan Doonan, I'm the executive director of the National Institute on Retirement Security. And we did some research recently looking at the evolution of public plan investing, particularly since 2001. So you go back to 2001, public plans were about 90% stocks and bonds, public investments. And today that's shifted to about 70%. So this isn't that they moved away from one or abandoned any sorts of investments, but there was a shift. And I think when you look at why that was, you know, fixed income was always a pretty core tool for pension fund investing. We had the Great Recession, we had a lot of efforts to push down borrowing costs, interest rates, and suddenly, especially new money into fixed income, wasn't going to do what it had done previously. So you saw plans, and this is typically our larger plans that have significant investment staff and they tend to be buy-and-hold investors on the private side, but really looked for more tools to sort of bounce back from the Great Recession. You know, all investors were hurt then. You know, I think in our research what we found is this shift has been positive in terms of returns and reduced volatility, especially, since 2012, rolling returns in public pension funds have exceeded 60-40 and 70-30, sort of vanilla portfolios. So I do want to be clear this is really looking at one point in time and NIRS is not saying, going forward these trends will continue or anything like that. We're not really even weighing in on private investments in DC plans. I think the one thing I feel confident saying, I think looking in the future, retirement systems are going to continue to have staff that look at these questions, the markets, study them and sort of reevaluate as conditions change, you know, fixed income yields pop up again, maybe there's reversal in terms of less money in that pot, but I do think when we look back, the larger toolbox has been fruitful for public plans.

- Okay. Well, and again to kind of continue our overview of some of the different perspectives here, Michael, I thought I might turn to you next, like me, you're an ERISA lawyer.

- [Michael] Yeah.

- So be gentle on the crowd here but you know, one of the things that you all do, as do many of us, is advise ERISA plans and other large private-sector employers in their investments, their fiduciary duties. In doing so, what are some of the trends you're seeing among ERISA plan clients in private market investments or not?

- Okay, thank you. And just a brief introduction, Michael Richman. I am a partner in the Employee Benefits group at the law firm of Morgan Lewis. And as Brad indicated, I work in the ERISA area and as

Brad was describing earlier, you know, ERISA plans have been investing in private equity and alternative investments for decades. This has been common in defined-benefit plans. So nothing really new there. But the new area is getting into defined-contribution plans, packaging alternative investments in ways that make them accessible to 401k plans and the like, to participant-directed investing. And the case for that is what Dr. Esmer described, you know, seeing the investment returns defined-benefit plans have been able to get and the opportunities for additional diversification opportunities. But just to continue on the ERISA theme in the background here, we do have litigation risks. So in firms and individuals who manage and administer ERISA plans are fiduciaries under ERISA, subject to a series of fiduciary-responsibility rules, as Brad was indicating, it's not really the Wild West when you have that overlay. And there has been a significant history of litigation in the 401k plan area over the past two decades. So that's in the background here, although it works both ways. So there have been a number of lawsuits against planned fiduciaries for taking on too much risk or paying fees that are too high, which are potential issues that have been raised with private investments, but there also have been some suits for not taking enough risk or focusing only on the lowest available fees when performance should also be a consideration. And so how do you balance those considerations? And the fiduciaries we work with are interested in doing what is best for the plan. What are the best opportunities? How do we provide an effective retirement vehicle? And with the trend in favor of looking more at the opportunities with private investments, diversification opportunities, the opportunity for return potential, isn't that a reason to look more closely at the opportunities here and how to fit them into 401k plans. There's generally a reluctance in the ERISA area because of the litigation risk and the fiduciary obligations to be the first to adopt certain practices. But fiduciaries would also be evaluated on what other plans are doing. And as we're saying, and I think it's no longer a first-mover issue because we're seeing a number of products come to market and a number of plans look at ways to, or sometimes facilitating the creation of their own products, an in-plan product. And there are some examples we have of large plans that have in-house staffs that already work on private investments for their defined-benefit plans and they're looking at bringing that expertise over and bringing private investments into the defined-contribution 401k area as well. So we're seeing that as a trend. And this is not even necessarily new in the 401k area because in the types of products we're talking about that Dr. Esmer mentioned, asset-allocation products, target-date funds, balanced funds, we've seen efforts to bring real estate and maybe some other alternatives and usually a fairly low percentage. But we've seen that done and then seeking to bring over some of the concepts applied there, some of the learning from there over to products like private equity and the daily valuation issue and, well, okay, I'll mention the word liquidity issues that-

- We'd get into that.

- Right. That came up on the prior panel. And we'll get, I think, more later into some of the fiduciary issues and process issues. But basically, I'm sure people have heard that prudence under ERISA is a process and we've talked a lot about process, so that fits together quite well and may require different and additional expertise. But prudence also is a matter of finding the right expertise, finding the right advisors for the particular situation, the particular product. And just to briefly mention, one of the other issues that comes up here is what vehicle to use to bring private investments into an ERISA fund. There's a lot of comfort around collective investment funds or collective investment trusts. Those are vehicles that are regulated by ERISA in addition to banking law. So there's a lot of comfort with those vehicles and those are common in addition to mutual funds as investments for 401k plans. But because those are subject to ERISA, there's also more flexibility with other vehicles such as limited partnerships where there are ways to structure them not to be directly subject to ERISA. So those are other, that a lot of the products I think we've seen to date fit into collective investment trusts for those reasons. I think, the greater comfort level and ability to fit together with ERISA regulation.

- Well, so we heard Commissioner Uyeda talk about the importance of the Pension Protection Act and the QDIA regulation, which is resulting in large flows of retirement assets into target-date funds and similar types of products that match the QDIA space. And I think one of the questions that, for example, the executive order was seeking to address is, are those products which are predominantly benefiting individual participants in those participant accounts, are they having access to the same kinds of investment strategies that a professional pension manager for a defined-benefit plan would have? And should there be parity between those? And if so, what are some of the guardrails that you'd need to put into place? And Brendan, I thought I might turn over to you from kind of the investment manager perspective, which is, you know, you've been serving other marketplaces for some time, as we've discussed. What are some of the challenges that sort of the investment management side is looking at, whether it's vehicles, as Michael alluded to, different vehicles, but what are some of the challenges the investment management side is looking at in trying to adequately serve those defined-contribution marketplaces?

- Yeah, sure. Thanks, Brad. And so, by way of background, my name is Brendan Curran. I lead the U.S. retirement business for State Street Investment Management. So we're the fourth largest money manager for U.S. defined-contribution plans where we're proud to support over 20 million working Americans pursuing retirement competence, retirement security. We're the second largest U.S. defined-benefit manager. And sort of with that dual hat on, I think the dichotomy in terms of private markets exposure between these two channels is stark. The average U.S. defined-benefit plan allocates about 25% to

private market or alternative assets. In the U.S. defined-contribution market, it's almost really a rounding error. Specifically if you look at that \$12 trillion market, about \$5 trillion now resides within that QDIA, target-date fund space. But when we've crunched the numbers and looked within that target-date arena, how many target date funds, what's the size of target-date funds allocated to private markets? It's only about \$115 billion is what we're seeing invested in target-date funds that provide exposure to private markets. So there's this stark dichotomy in terms of individual retirement savers' access to private markets and the potential diversification benefits. Now, to cut ourselves a break, if we think about when target-date funds first started and we started managing target-date funds in 1995, we would argue it wasn't unreasonable to build with only public markets exposures, the scale, the breadth of private markets, whether it was private equity, private credit, talking one, two, 3% of the investment opportunities that resided in private markets. And so public markets only was a reasonable place to start 20 or 30 years ago today. You fast forward to this point in time, 2025, the scale, the growth in private equity, 3, 4x where we were 40 years, 20 to 30 years ago, similar growth trajectory in the private credit space. And so we look at it from the lens, as an asset manager, of really this sort of idea of diversification imperative. As we manage and build target-date funds, the core objective is to provide investors a simple, well-diversified solution that can help them save for retirement. And that question of diversification when you're only building it off public markets, is becoming more and more challenging to sort of square with the changes in capital markets. Earlier this year, we looked to address that challenge with the launch of a new target-retirement solution that blends public markets exposure, implemented exclusively through passive management with a diversified approach to private markets exposure because we believed it was critical to provide individual retirement savers that access to that the private market pools that we spend all day talking about. Brad, to your question, when we think about some of the challenges and some of the issues, and I'm sure we'll get into this in more detail, but we come back to the role of the QDIA, the role of a target-date fund portfolio as a really important chassis to solve for this, through a few different dimensions. One, through the fiduciary dimension, when you think about the layers of fiduciary protection and the fiduciary oversight that exists, not only do you have the plan sponsor deeming whether or not an investment option is suitable for the retirement plan, but in a target-date fund setting, you have an additional fiduciary overseeing the selection, the sizing, liquidity, the valuation practices as it relates to that private markets portfolio. And then taking that a step further, as Michael mentioned, you have a CIT, a collective investment trust, that's typically the chassis in which that private markets exposures itself held. So you have multiple layers of different fiduciaries overseeing that allocation within a target-date fund, which we think addresses some of the issues. I think the other important aspect of target-date funds, and it relates to the word that I'm not certain we're supposed to talk about or not, but liquidity, which is you think about, again, the idea of retirement savings, they're a long-term buy-and-hold, but we know 401k plans, there is a segment of the market that is prone to trading this portfolio more often than you would expect for someone saving over 30 or 40 years. The benefit of target-date funds and the fact that we've been managing for over 30 years is that we have strong evidence and there's academic

research to support this, that individuals in target-date funds are much more likely to be buy-and-hold investors than even that average 401k investor. So we think some of the issues are addressed through that target-date fund construct. But I come back to the overarching point that for us, this ambition, this journey that we're on is around sort of this imperative around building a well-diversified portfolio and addressing just the evolution of capital markets.

- Well, Sara, you had made a point in the previous session about the different levels of valuation that are occurring, sort of at the fund level versus the account level. Those aren't the words you used, but that's kind of how I'm thinking of it in the context of defined-contribution plans. Could you talk a little bit about, not reiterating the same point, but looking a little bit at how those are different and also how liquidity can factor into this question, both the valuation, in a way it almost seems like liquidity and valuation are kind of two sides of the same coin, in the context of a defined-contribution plan where you're going to have a plan-level decision to offer a product of some sort that has an allocation potentially to private markets versus the fact that people are jumping in and out of that, and so the actual daily-value issues, the daily-liquidity issues are relevant to the ability of individual participants to enter and leave that particular investment.

- That's right. You know, we talked about earlier two levels of valuation, at the asset level and then at the daily level when we're talking about DC plans and target-date fund vehicles, really there's two levels of liquidity as well. So there is the liquidity that is needed at the participant level so that they can move in and out of options every single day. And then there's liquidity at the multi-asset fund or the target-date fund level where rebalancing occurs over time, on a larger scale. With participants moving in and out of professionally managed target-date funds every day, those cash flows do not move the needle. If you think about a target-date fund, even being 90% public, 10% private in its assets, the rest of that glide-path in its whole can suffice to provide liquidity on a daily basis to track participant movement. Where we think about liquidity moving in chunks and where we have to be mindful of that is what is the frequency of the target-date fund or the multi-asset fund in its rebalancing. Do they do that systematically once a month, once a quarter, once a year, or as we find with many of our clients, do they want the ability to show up and to rebalance on any day of the quarter where they're outside of their guidelines and their allocation. So there's a multi-layered level of thinking, but when we think about participants using these vehicles, they are typically long-term investors and their day-to-day cash flows typically aren't moving the needle.

- Okay. Well, and James, if I could ask you a similar question in terms of some of the intervals that we're looking at for valuations on these. Yeah, how well are you looking at trying to match some of these, what some would call a mismatch of interest between the individual participant and the plan level, but I think as you pointed out, Sara, are actually complimentary to one another and in the aggregate are those working out together and as you all address that?

- Sure. Hello, everybody, James Hannigan. I lead product structuring for Apollo, and I think what is happening in the retirement space is echoing some of the same interest and development in the wealth channel, where individual investors had demand to have access, as we've all been talking, to a broader range of solutions. And so what we embarked on along with a lot of our peers several years ago was the development of semi-liquid funds. And those semi-liquid funds are just more natural for an individual investor who may not necessarily want to deal with the complexity of capital calls or may have life events that require periodic liquidity. So I think as, you know, Brendan is describing, you know, a multi-asset solution that is allocating a desired X percent to private assets. The fact that that can be implemented through an investment in an underlying fund that is evergreen with a monthly subscription, that has, if you get overweight, you just maybe have to wait till the next quarter-end to be able to submit a corrective redemption. I think that makes the process of incorporating private assets a lot easier. You know, to your question about the difference in valuation frequency, that can vary depending on the product. If it is a interval fund, you know, they may already be striking a daily NAV and so there may not be, you know, that much of a difference between the frequency of marks on the public component versus the private. As you go from interval funds to, you know, monthly priced REITs or private funds depending on the mechanism, you know, those will have less frequent marks potentially. But I think that's where, as we've all been talking about, you know, you have a lot of gatekeepers, a lot of eyes on the process to make sure that all of the available information is being factored into the top-level math. And so, you know, whether that is side letters to promise that if there's material events that the underlying private market manager will notify the top tier, or other mechanisms. I think there is a lot of comfort that people can have that when they buy and sell in and out of their target-date fund, they're getting a price that represents fair value. And I think the last thing to just kind of comment on is, you know, I think it's been throughout, but whether it's, you know, 2% or other levels, is that worth it? Is the complexity of all of this actually going to move the needle? And the modeling that that we've seen is a resounding yes. You know, even with something like a 10% allocation that would be consistent with the SEC rules, that can lead to 15, 20% higher balances at retirement. And that just translates to, you know, depending on your spending habits, potentially 10 years of an incremental retirement income. So this is all very timely. It's all kind of incremental to the trends that people have been having and it absolutely, we believe, can lead to much better outcomes.

- Well, let me throw this one out to the table as a whole. So I've stopped picking on people and let you all kind of get into a little bit of a scuffle was always good. So one of the issues that seems to come up a lot in this debate is, well, let's say I'm a fiduciary at a plan. I'm selecting investments that will be available to my participants. What are some of the key things that I need to understand? Like, I don't want to go as far as call 'em fiduciary best practices, 'cause I don't think we're at a stage where we want to use that kind of language, especially, for one thing, I hate the word best in ERISA, it implies there's only one answer and there is not one answer. There's a process, as Michael pointed out, that a process by which we make decisions, which is prudent in and of itself. But to that end, what are some of the key considerations that I would need to take into account as a fiduciary in considering whether my plan should have access to these, which types of the products I might use to do that? What are some of those key considerations? And like I said, whoever wants to jump in on that first, why don't we have a bit of a free-for-all on that.

- Maybe I'll-

- come on, that was jump in on that.

- So I think first of all, there's a recognition that based on the private asset class that you're looking at, they're contributing different things to these portfolios, right? So when some hear we're going to use private assets, they might be thinking, "Oh, "this is all about, you know, excess return," when there are other private asset classes that may be about income or volatility smoothing. So there are multiple roles to be played and I think there have been multiple industry studies that show it is good to add any one of these to a fully public allocation to diversify the portfolio. And a number of these studies also show it's even better if you add them in concert with one another just as DB plans have been doing for many, many decades. The key here now in DC plans is this level of professional management in a multi-asset solution, as Brendan's talking about, in this target-date fund context, this is the protection for participants, that we're not asking them to do it on their own, we're embedding this in a professionally managed solution for them. So, you know, maybe I'll just kick it off with the overarching comment and I'm sure others want to jump in on the other considerations.

- Yeah, maybe I would just add too that, I think, as we're talking to large employers about solutions like these, frankly again, it's in the context of a target-date fund and there's a well-treaded path there where the starting point is what is the fit of that target-date fund. Before you sort of double-click into, then, some

of the questions on the private market allocation, you have to start with the fact that a lot of the products that we're talking about today, we're talking, in today's discussion, about something that is 5, 10, 15% of that total portfolio. You have to start by looking at the forest, and is the forest the suitable option for you, before you start double-clicking into questions around the trees, if you will, as it relates to private markets. Now as we go through that conversation and you start at the 10,000-foot level, the plan sponsor says, "This target-date fund "at that 10,000-foot level does feel suitable for my plan." Questions that we get around private markets are questions that we've talked ad nauseum about today. It's the liquidity, it's the valuation, it's the fees. And I think the point that I would underscore again, coming back to the role of the target-date fund, is: What's the fiduciary role? What responsibilities is that target-date manager fulfilling? How did they go about selecting the manager that they're employing with in private markets? How did they size that allocation, as Sara mentioned, how are they envisioning managing liquidity? What additional processes do they have on top, from a valuation perspective, that go above and beyond what the private market manager themselves is doing? And so I think it's very much a multi-step process, but the starting point I think is looking at it: that total-portfolio approach. Is this the right target-date fund for me from a glide-path and asset-allocation perspective or for double-clicking into the nuances where I think there's a lot of understanding and familiarity, and certainly, reasonable questions to be asked of that target-date fund fiduciary.

- That's a great point. So when we talk about private market investments, we establish it's difficult to understand the value of it. Of course, ordinary savers don't have the expertise to assess which funds are good to invest or even what private equity really means, let's say, or private market investment really means, not that they can actually invest in a fund from retirement accounts at this point, but I think even the plan sponsors, they lack expertise to assess the fund managers. And we also know there's a significant dispersion between the fund managers. So of course, you want to go with the best ones, if possible, but are you going to have that excess? You mentioned fees, that's also right. So when plan sponsors are choosing or the asset managers are choosing, the fund managers, they need to pay more attention to the fees because it's one thing to put not a great investment in the choices of investments, but it's another thing when it comes with high fees and potential conflicts of interest as well. So they need to pay attention to the opaqueness in the valuations and maybe there's mismatching liquidity, as Sara said, it's not an issue, but as one or more people choose to invest in private markets vehicles, we might also see these funds trying to pay attention to liquidity needs. And in that case, it would erode the returns in the funds as well. So it's almost like a chess play and there's one direct impact, first-order impact and then what is going to happen next. It can be challenging and problematic.

- Well, and one thing I think we ought to tease out here, 'cause we've alluded to it several times, but I think it's important to make it express, there has always been a tension in the defined-contribution world between individual participants' ability to make their own investment decisions and their educational background in being qualified to do so. For example, I've learned I'm not the guy to pick individual stocks. I learned that the hard way many years ago when it was a cheap lesson and I'm grateful I learned it. And so as a result I've gone with professional managers in my retirement accounts, which has served me well. But the reality is that that option has been there. And I think one of the concerns we heard Commissioner Uyeda reference it indirectly, which was, well what about somebody promoting inappropriate products and allowing the retirement plan to be an investment vehicle for an individual to do something that's not in their best interest? And I do think we ought to tease that out a little because as I read the executive order, for example, it was fairly carefully couched in terms of, should we be looking at access to private markets in the context of investment funds, not in the context of letting me as an individual put all of my money in a specific private market investment, but rather me having access to a professionally managed fund that would have some allocation made by a professional manager to that. And I think that's probably an issue we ought to tease out here, to what extent you all are seeing any of the sort of direct investment in individual products by individuals versus exposure to these class of investments as part of an overall professionally managed fund.

- From from the Apollo perspective, as we have conversations with allocators, every single one of them is through a professionally managed solution that maintains daily liquidity. And the overall objective is to sort of, you know, add private markets as a component in a broader balanced solution. And I think that the reality of the DC ecosystem being daily dealt is sort of a governor, other limitations, you know, sometimes these private market funds will have suitability restrictions and who actually can invest, which would then prevent those from being, you know, oftentimes put directly on the menu. So whether it's, you know, any of those reasons or just the market comfort, everything has been indirect through multi-asset solutions.

- Yeah.

- And actually, Michael, I was going to ask you to explain that because I think we ought to understand that there is a distinction between, for example, accredited investor rules that would be applicable and how that fits with retirement plans,

- Right. Yeah. And first I should note that there are situations where there are direct investments through directed brokerage windows, which is really separate from what we're talking about because those are basically brokerage accounts within a plan where individual participants have a broader array of investments available to them. They're frequently limited to mutual funds and ETFs, but they may also include broader options, particularly, I think the examples that are usually given are plans for doctors and lawyers because they know how to invest better than anybody else.

- [Brad] Sarcasm .

- That's what people say. Anyway, but yes, that would be a significant impediment in making private investments direct investment options within a plan, or the term used, designated investment alternative, DIA. Because there are, as you're pointing out securities law restrictions where generally a private investment is only available to investors who meet certain thresholds. Accredited investor is one of 'em, others just aren't available to individuals and qualified institutional buyers, they have to be institutions. So putting those on the menu and then making a distinction between which participants can invest in which options would raise a number of issues, both under ERISA and under Internal Revenue Code rules on, well, they're referred to as non-discrimination rules, making distinctions between what benefits, rights and features under the plan are available to participants. I don't think there's any definitive guidance on that, but these are the types of issues that have come up. So in my experience, what I'm seeing is consistent with what you're seeing, which is packaging these in products that are professionally managed, usually by someone who is an ERISA fiduciary, who can then either decide on private funds, or fund of funds, or decide on the vehicles that way, and then this investment option within the plan, whether it's a target-date fund itself or a fund that serves as a sleeve within the target-date fund or asset-allocation fund that can qualify as an accredited investor, a qualified purchaser, a qualified institutional buyer, and make these investments on behalf of the participants as a whole.

- So to sort of put it another way and I'm going to mangle the securities law here, but essentially when a plan is making an investment in sort of a fund which has an allocation to private markets, that decision to select that fund and the degree of allocation is being made by the plan fiduciaries at the plan level, and it's not an individual decision by that participant, therefore, it's not an accredited-investor situation, it's an institutional-investor situation. So I guess my question, just to find a point on it, is, of all of you looking at these issues, are you actually seeing any real drive towards making me able to go ahead and put 100%

of my account in a particular thing? Or is this really more about providing some access to private markets in the context of other funds?

- I mean, it's very strongly the latter. And I think what we've talked about here, there is, like, some of this with the accredited, that's a very nuanced argument, I think for employers, the starting point, we've had decades where we've learned through behavioral economics that choice proliferation, too many options in a DC plan actually reduces participation rates. Individuals naively diversify. If you have a menu that's overweight equities, individuals will on average be overweight equities. And so I think the decades of behavioral economics has informed that a simpler DC plan menu is a better construct for DC plan participants. And that's the starting point for why you find these solutions in professionally managed accounts. I think then you get into the nuances around liquidity challenges, accredited investor, but I think the starting point is behavioral economics has taught us that a simple DC plan, generally, is the more appropriate construct for DC investors.

- Yeah. Well, and let me also just note that while the U.S. may have one of the biggest retirement marketplaces in the world, with the trillions that we have invested through public, and private, and ERISA, and non-ERISA, and all that, we're, by no means, the only jurisdictions that have had to look at these questions. And Curt, maybe if I could just turn to you a little bit, are there some lessons we can learn from experiments other countries and other jurisdictions have done here that might inform where they've wrestled with similar questions?

- And I think we'll find similar answers. I think a product we've been dealing with lately at BlackRock comes from Europe and in the UK they're called long-term alternative funds, in the rest of the EU or in the EU, they're called European long-term investment funds and they're built for DC plans in those jurisdictions. And a lot of the same themes apply, right? You know, they're not 100% allocated to a private-credit investment. They're meant to be paired with more liquid alternatives. The valuation pressure, again, there aren't daily transactions in these funds. They might be monthly or they might provide an indicative value on a daily basis, but the participants come in monthly or quarterly. And it seems to be the same template or the same model we're following here in the States as well.

- Okay.

- I might add to that, that, you know, for me the biggest lessons learned are the high-level lessons learned outside the U.S. So, if we think about pension plans, certainly, we've already established that here in the U.S. and around the world, they utilize more private assets than DC. But even in the DC space, if we look at Australia, if we look at the UK, if we look at other markets, they are using, on average, you know, much higher allocations to private assets than we see in the defined-contribution world here in the U.S. And when you go outside of the U.S. and you talk to these investors, they don't think about private equity and public equity. They think about equity and one component is public and one is private, and they think about real estate, and one component is public, and one component is private. So I think, you know, to the extent we are evolving and learning lessons from these other DC markets around the world, we're going to see more of that here.

- [Brad] Dr. Esmer, has any of your research looked into some of these questions as well?

- No, not directly, I mean, Brendan, you already mentioned some of the papers or academic evidence we have, but as I said, as many of us said, it's, it is just natural to have some of the private market investments in a professional managed account. So there's still the parental role of plan sponsors. So retirement savings don't go with very high-risk investments. So that makes sense. But I actually have a question maybe for Michael or maybe for you. So if more than 25% of total assets of a private equity fund is invested in retirement accounts, through those institution investors, let's say, the asset managers, would they be under the ERISA rules as well?

- Oh, yeah. And it depends on the specific vehicle, but yes, there's a 25% plan asset test where if a fund... Yeah, so this commonly comes up with, for example, hedge funds. If more than 25% of the assets in any particular class of equity interests is from retirement plans that are subject to ERISA or the IRA rules, then that vehicle is subject to ERISA. But there are some broader exceptions. There's an exception called a venture capital operating company, which private equity funds usually rely on. So they can go over the 25% threshold but still not be subject to ERISA. So you commonly see private equity funds structuring themselves to meet the venture capital operating company rules.

- So over the medium or long run, it wouldn't be an issue for private equity companies to have more and more money coming from the retirement accounts, directly or indirectly.

- It shouldn't. And another exemption that's available is for '40 Act-registered funds. So, you know, depending on the, you know, choice of vehicle, you know, everybody will have to think about what their ability or their the need to manage that as a plan-asset vehicle. But it is a technical area where, you know, vehicle by vehicle the answer may change.

- [Attendee 1] real estate operating companies, for example, there's...

- Right, yeah.

- [Attendee 1] I'm sorry, I didn't mean to cut you off.

- [Attendee 2] Oh, sorry. I was just going to say again, it backs to the whole point about the structuring become that much more important the context of ERISA, again, we've talk a lot about the semi-liquid space, spend a lot of time on thinking about that, which obviously is a different animal, but here, similar idea where the structuring becomes that much more important is really the key takeaway from our asset manager standpoint.

- [Attendee 3] And I think another aspect that's really key that we haven't talked about is, you know, think investor education, you know, on behalf of the asset managers, on behalf of, you know, the plan administrators, you know, to, you know, put out more information so that the ultimate, you know, person that's selecting that target-date fund, you know, has the ability to evaluate. I think it's very easy to evaluate a equity fund or you know, a fixed-income fund. There are a lot of tools out there, but you know, that's not the case, at least, you know, now for private funds,

- But hopefully improving. I know there's been different groups that have started to cover equity analyst coverage of things like, you know, non-traded REITs and BDCs and you know, as the market becomes bigger and bigger and there's more and more choice, I think, is a natural opportunity, hopefully, for people to fill the void. And certainly as a sponsor we feel pressure to publish research and make sure everybody understands the role that these solutions can play in client portfolios.

- Well, and the discussion we just had went down a little ERISA rabbit hole, that, you know, is where I make my living. So it's great. But this question of the plan-asset vehicle and what types of investments really highlights, again, what we were saying at the beginning, which I think is part of the reason why the executive order and asking the Labor Department to look at this and to come up with some evaluations of particular types of alternative assets and particular ways that either guidance or regulation might address that, it goes to that reality, which is, again, we say retirement as if it's a monolithic thing, but you have, for example, public plans which are going to be subject not only to all the normal investment regulations applicable to, you know, investment advisors and broker-dealers and others, but also to state laws that govern the investments of particular state pension funds, with the ERISA overlay on top of that, you have this question of what does ERISA apply to and what does it not? And so investment vehicle A may have the same strategy as investment vehicle B, but one of them is subject to ERISA and one of them isn't. There's a lot of complexity that is really unrelated to the question of what makes sense from an investment standpoint, but it's related to the fact that ultimately, our retirement system just kind of grew. And so you had different channels that were regulated in different ways for different purposes. And I view the executive order as one of the ways in which the administration is saying, "Hey, we need some comprehensive views here "to soften maybe some of these rough edges "where there are issues where the SEC "and DOL need to collaborate." So as Commissioner Uyeda said that you have some commonality in what the duty of care or the standard of conduct might be for an investment advisor regarding a private market investment, to an ERISA plan versus a public plan, versus another entity. So I think this illustrates the fact that we have a lot of specific issues that the Labor Department I think is going to have to address in the context of this executive order, especially, given that it does contain several different types of alternative assets which have some very different characteristics themselves. But, you know, let me go back to Dr. Esmer. I think we cut you off at the very beginning. You had some other thoughts that I think... Oh, I put you on the spot, I apologize.

- [Burcu] Okay, no, no, it's okay.

- Because you talked about the advantages and you were going to drill down a little bit deeper and I wasn't sure if maybe one of your concerns was how we were addressing some of the potential disincentives, what are some of the disincentives to private markets relevant to the retirement field that we're going to have to address in the context of that?

- Yes, so some of the dissent disincentives were mentioned by several panelists. So we know that there's still regulatory uncertainty. So there's no safe harbor for fiduciaries to include private markets and private market instruments in the portfolios of retirement accounts and not get sued because that's important, right? And the other important aspect, we talk about fees, I will not mention again, the transparency gap is something we talk about in the first session. Again, just to go back to what I said earlier, when I say the valuations will be wrong, let me go back to what I said again 'cause I was quoted several times. I say, I told you there's a good quote, bad quote. It was too blunt of a comment, but what I mean is valuations are not certainties and this goes with the rules as well, as ASC 820 says, best estimate. So this is not going to be a certain, so I think it's important for savers or asset managers also be clear about NAV is not the certain true value of the investments, it's just the best estimate, assuming that you will exit the investment at that point. So I think, we need to be bit mindful about the transparency gaps and address some of the opaqueness, but going forward, I think it'll change the face of private equity investments as well because PE, in general, needs more patients long-term capital. They don't like sharing lot of information with outsiders and they don't want to deal with regulations that much. So one thing we always say that when you're a public market, you have to obey a lot of regulations. There's lots of eyes watching you all the time, which could give you some short-termism. But in the private market setting, it's actually good. These are long-term investments. You have 5, 6, 7, 10 years to exit the investment. So with all these discussions the word I should've used: liquidity issues, and transparency issues, and regulations. I think that the face of private funds will also change, or the process, or the structure will also change.

- Well, an argument we had, or an issue that came up earlier that I found interesting was the notion that as the growth in secondary markets expands, that that could actually address some of the valuation concerns. And by providing more information about what, I guess in the context of retirement plans, how do you see that playing out? Because they're probably, maybe this is a wrong assumption, they're probably not going to be immediate players in that secondary market, but it probably could be very instructive as retirement-plan fiduciaries and others look at how to evaluate and deal with potential investments. I'm just curious what your thoughts are on that.

- I think the development of a secondary market is only a positive and the growth of that, just as we talked about the importance of additional information, you know, that has value to the process. The other aspect is the incremental liquidity then just makes that exercise of ensuring that you have intended levels of risk that much easier. If you have a investment-grade private-credit fund that offers liquidity instead of quarterly but monthly and instead of subject to a, you know, 5% limit, up to a 25% limit or some other level, you know, that allows you to be able to, as an allocator, invest with that much greater confidence

and potentially private markets can have a bigger portion of the overall portfolio. So I think it is definitely part of the evolving nature of how private markets fit or don't fit. But it's an exciting one, along with technology, that hopefully, will just continue to make things easier.

- Well, and one of the thing that struck me as we were having this conversation, somebody had mentioned that there are studies that have suggested, I think you had mentioned that private sector, or in the public sector, your studies had shown that particularly, as a replacement for some fixed-income returns, that there were advantages to access to private market investments. Is there a flip side to that? Is there a corollary that's saying, lack of access in DC plans has a measurable negative effect?

- Yeah, I think when you look at the public sector plans that have moved this way, we have large funds that have resources to do research, you know, competent, professional investment staff, they're buy-and-hold investors and they know their cash flow, they know what benefits are coming out of the plan. So those are all pretty ideal conditions. And you know, I might be missing your question a little bit, but I do want to sort of pile on, you know, asking individuals to know how much real estate they should have at different ages. I think if we go down that road, that's a problem. So I do think we got to the point where we're comfortable packaging equities and saying, "Here's a mutual fund" and then eventually we saw people making decisions that maybe weren't ideal. We packaged different investment types into target-date funds. I think those were all really positive developments. You know, we saw in the Great Recession and the pandemic, people selling off equities, buying back after they were comfortable. So I don't want my parents calling me asking about private credit. I think professionals know how to invest money. I think we should trust them to sort of... You know, there's artwork where you paint with dots, let's not give people dots, let's give people the picture. I think that's a good principle for defined-contribution .

- Well, then maybe one last closing question. Of course, anyone wants to pop in with a new thought, feel free. But I guess my last closing question 'cause we're running out of time here would be, you know, one of the arguments that I've heard against access to private markets in defined-contribution plans is that they are different. They're not necessarily the buy-and-hold investors that a traditional pension plan might be, where the pension plan is trying to ensure there's an adequate sum of money to pay a stream of income in the future, which isn't necessarily the same incentive as individual participants who are trying to accumulate assets to provide a retirement. Do you think that's true, or in the aggregate, are actually the behaviors of investment funds for DC plans actually quite similar. Are they really solving to the same thing

or are they functionally operating differently such that that's a valid concern that needs to be specifically addressed? Maybe that was a poor question.

- Yeah, I'm misunderstanding your question, but I guess for us, like I go back to, we do a study every year, a Global Retirement Reality Report of individual DC investors across the globe. Regardless of the market you talk to, when you ask them their investment priorities, the by and far largest, greatest priority is maximizing investment returns. And from our point of view to do that in a target-date fund setting, it requires ample diversification and access to private market opportunities. Because we would underscore the point that James made that when we run the modeling and we look at the impact, there's a meaningful impact improvement in potential outcomes, 15% higher savings at age 65 through including private markets in a professionally managed solution. And so we do think from an objectives perspective, there is alignment with the potential benefits that this asset class offers if allocated prudently within a professionally managed option.

- I might also add that, you know, the reality is that, yes, we have U.S. workers changing jobs more frequently than in decades past. They might not stay at an employer for 20 years. That, you know, is pretty difficult to model whether someone's going to stay in their seat for 2 years or 20 years. But as you think about, you know, designing a long-term multi-asset solution for A, those that stay in the seat, or B those that might leave the seat, but their assets stay in the plan where they were, that is something that you can model around and think about and we still see demonstration of long-term investment, you know, horizons when we think of it in that context.

- All right, well, I'm sure we can keep going for hours, but we're running out of time, so let me just thank you all and thank SIFMA for the opportunity for us to all get here and kick some of these ideas around because obviously, there's a public policy process moving that's going to presumably result in some changes. And I think the kind of questions we're having here today are the ones regulators are going to have to wrestle with over the next, what is it, five and a half months is approximately what's left of the timeframe for DOL in particular to evaluate that. So thank you all very much for taking the time to join us for this panel.

- Well, thank you, Brad.

- Yeah, if we could just echo: thank you all for coming today, as Ken started at the top of the event, we are hoping that this will be a series of conversations about all of the issues that folks have to grapple with in this space. So we look forward to seeing some of you back at the next one. And thank you to everybody who tuned in online for this. Thank you all.

- Thank you.