FIA & SIFMA AMG
Asset Management Derivatives Forum Debrief

Perspectives & Key Themes from Market Participants

March 2023

The Futures Industry Association (FIA) and the SIFMA Asset Management Group (AMG) hosted their annual Asset Management Derivatives Forum on Feb. 8-10. The view of the industry is one of positive momentum for the business, but negative sentiment on the regulatory environment. This note recaps some of the main themes of the Forum, including:

- Cyber - A recent ransomware attack on an important technology provider reminded market participants of the very clear and present risk to the industry given the interconnectedness of market participants.
- Margin - The goldilocks problem continues to weigh on the industry – finding the balance of too little margin (could increase industry risks) vs. too much margin (increases costs, stops trades/hedges).
- Operations - Reassessing the entire workflow around the trading and clearing of derivatives, looking for ways to make the process more efficient, as well as achieve greater standardization across the industry.
- Regulations - Costs and complexities of compliance are major concerns for the industry: substantial increase in new SEC rulemakings; constraints on clearing created by bank capital requirements.
- New products and technologies - Blockchain technology and ESG investing have been top of mind over the past few years. Many are wondering what role they will play going forward given recent controversies.

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Executive Summary

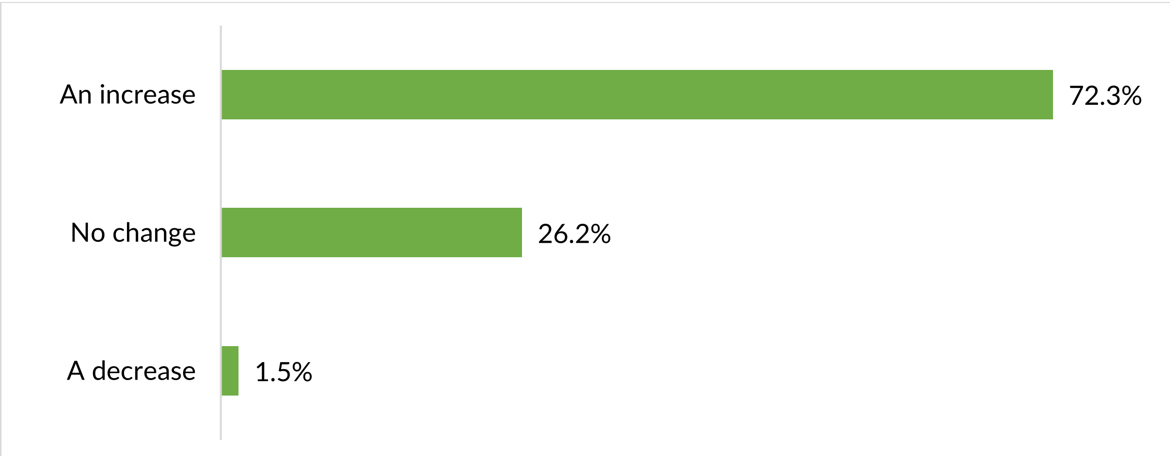
FIA CEO Walt Lukken and SIFMA AMG Head Lindsey Keljo kick off the conference.

To set the scene of the conference, FIA President CEO Walt Lukken and Head of SIFMA Asset Management Group (AMG) Lindsey Keljo discussed buyside and sellside views on liquidity, regulation, margin, and the outlook for derivatives markets. In general, the view of the industry is one of positive momentum for the business, but negative sentiment on the regulatory environment.

The Asset Management Derivatives Forum brings together market participants from all sides of a trade to examine the latest developments in derivatives trading, clearing, operations, and regulation. The Forum presents a unique opportunity for institutional investors – the buyside – to connect with their market counterparts – brokers, exchanges, and technology providers. The Forum also provides an opportunity for market participants to share their perspectives on current issues and discuss best practices.

Derivatives such as interest rate swaps, equity index futures, and foreign exchange forwards have long been used by both the buyside and the sellside to manage risk exposures and enhance investment returns. The last twelve months, however, has seen a noticeable increase in the use of derivatives, making this conference all the more relevant and valuable. According to an audience poll taken during the conference, almost three quarters of the participants indicated that their firm's use of derivatives has increased over the last year, and almost no one reported a decrease.

Q: How have market conditions since last year resulted in the use of derivatives for your institution?



Source: Audience polling

Along with the increased use came increased attention to some of the challenges facing the industry. Top of mind topics at this year's Forum included:

- **Cyber** – A recent ransomware attack on an important technology provider (please see the appendix for more details) reminded market participants of the very clear and present risk to the industry given the interconnectedness of market participants.

- **Margin** – The goldilocks problem continues to weigh on the industry. If you have too little margin and markets move too quickly, it can cause systemic issues. Too much margin could increase costs to a level where participants forgo trades or hedges. The search for the right balance continues.

- **Operations** – Market participants are reassessing the entire workflow around the trading and clearing of derivatives, looking for ways to make the process more efficient. From onboarding of new clients to end-of-day reconciliations, brokers and asset managers are stepping up efforts to achieve greater standardization across the industry.

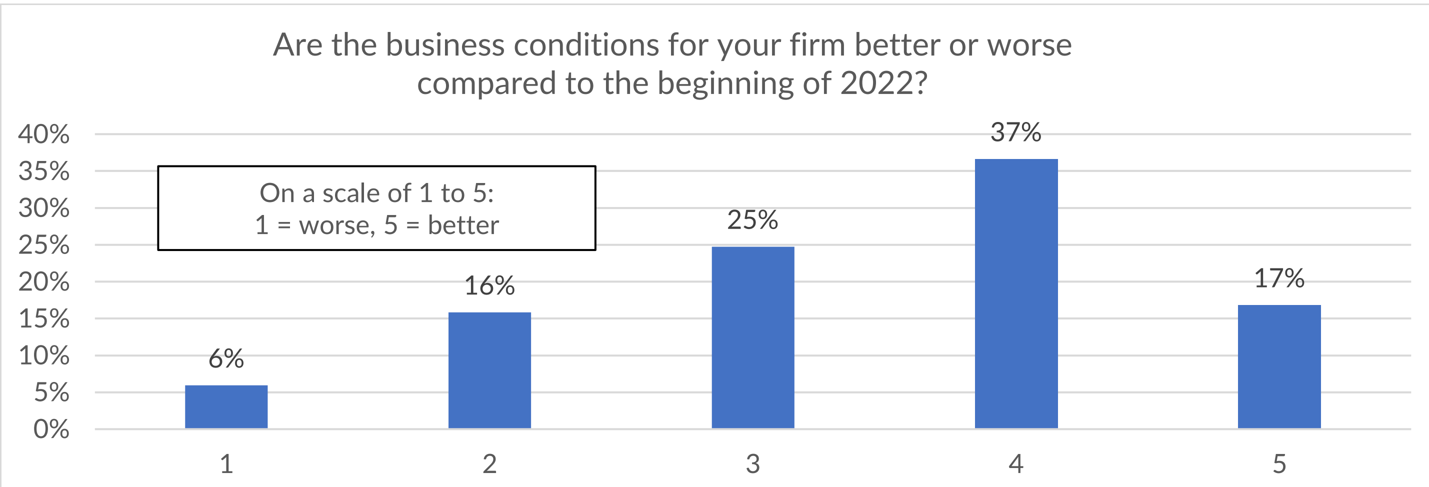
- **Regulations** – Derivatives markets are heavily regulated, and the costs and complexities of compliance are major concerns for all market participants. This year's discussions focused on the substantial increase in new rulemakings at the Securities and Exchange Commission (SEC) as well as constraints on clearing created by capital requirements on the banking industry.

- **New products and technologies** – This year's program featured expert speakers on two areas with both challenges and opportunities for the industry: blockchain technology and ESG investing. While these topics have been top of mind over the past few years, many are wondering what role they will play going forward given recent controversies in both areas.

Market Touchpoint: Industry Trends – Mostly Positive Business Outlook

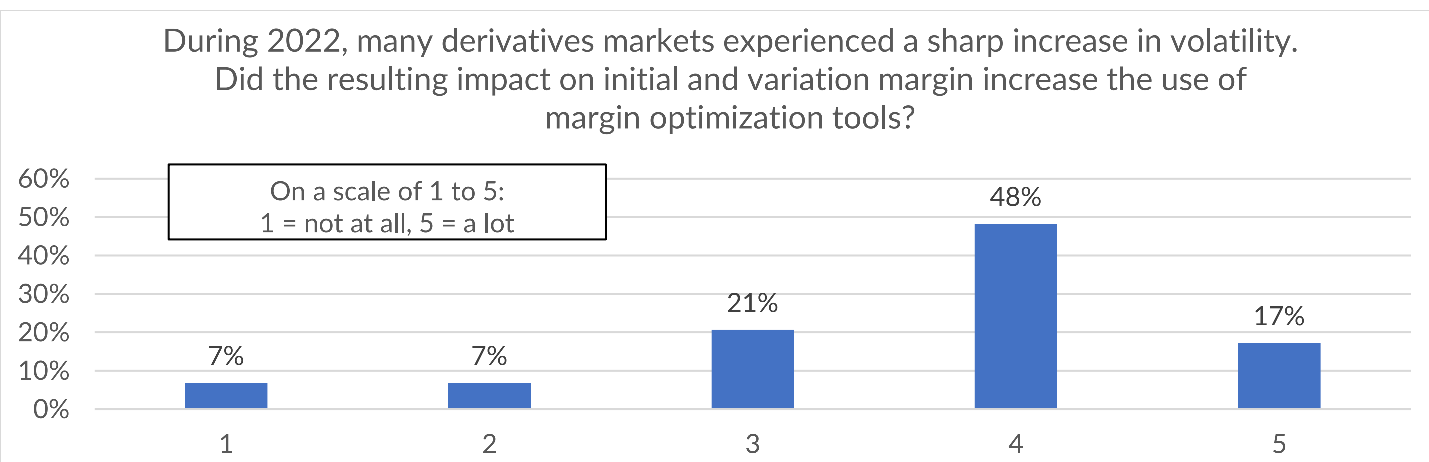
FIA and SIFMA AMG undertook a joint survey of attendees heading into the conference to measure sentiment on several key issues. The next few pages highlight some of the survey results. For a full report on the findings, download a copy from this link, *FIA-SIFMA AMG Flash Poll*.

Business Conditions: As compared to a year ago, 54% of respondents view current business conditions as either much better or somewhat better than last year.



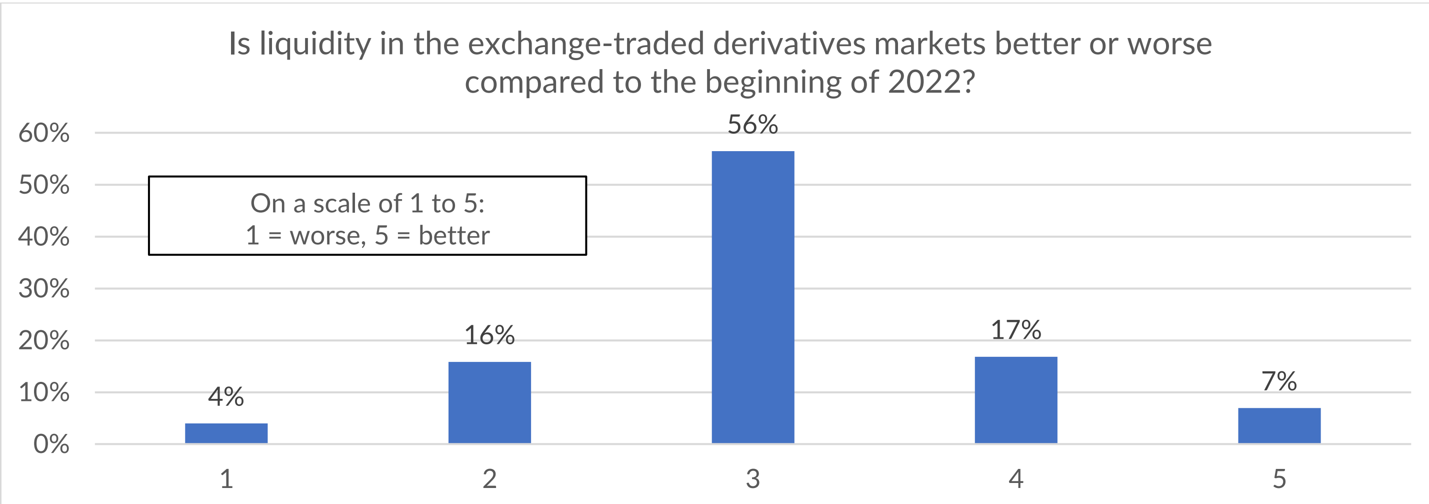
Source: FIA-SIFMA AMG Flash Poll

Impact of Volatility: Given the sharp increase in volatility in many derivatives markets last year, both initial and variation margin requirements increased. Survey respondents indicated that this trend led to greater use of margin optimization tools, with 65% choosing either 4 or 5.



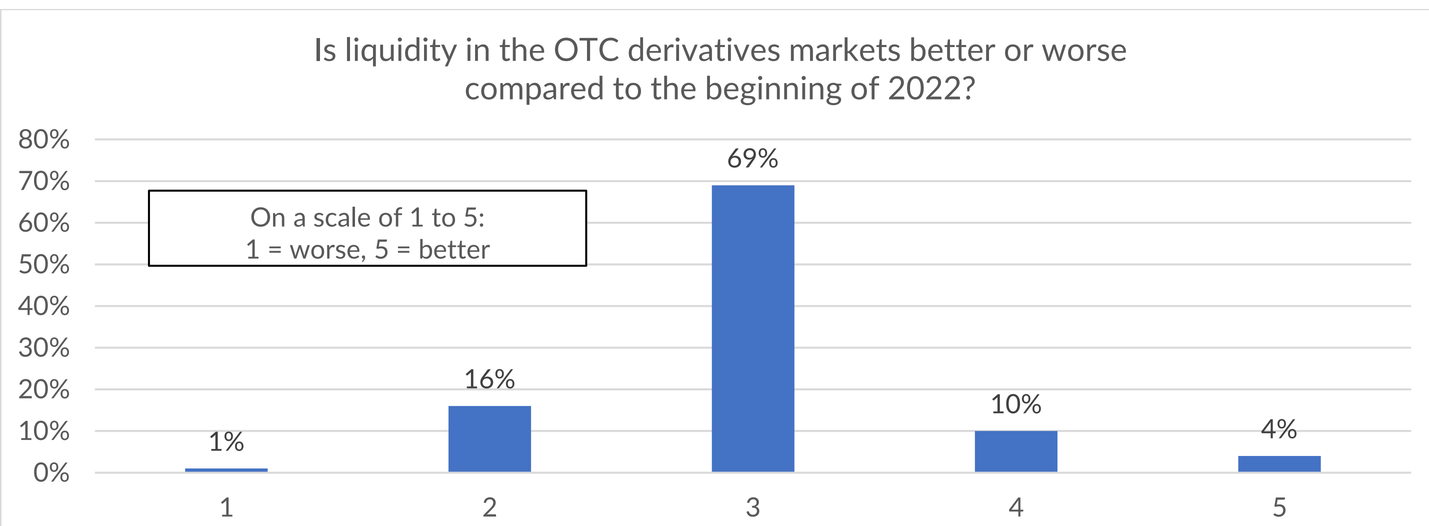
Source: FIA-SIFMA AMG Flash Poll

Exchange Traded Derivatives (ETD) Liquidity: As compared to a year ago, the majority of respondents to the pre-conference poll saw no change in ETD liquidity. Roughly one quarter saw some improvement, while roughly one fifth said conditions worsened.



Source: FIA-SIFMA AMG Flash Poll

Over the Counter (OTC) Liquidity: Respondents were slightly less positive about liquidity conditions in the OTC space versus ETDs. Only 14% saw improvement, and 17% said conditions worsened. On the other hand, a strong majority saw no change in liquidity.



Source: FIA-SIFMA AMG Flash Poll

Trends in Derivatives Clearing – Concerns about Capacity

One of the main lessons learned from the financial crisis of 2008, at least from a regulatory point of view, was that central clearing should be mandated for most types of standardized derivatives. Although it took years to fully implement that mandate, today the majority of interest rate swaps and credit default swaps are cleared by central counterparties, and most large asset managers are clearing at least some of their OTC derivatives.

The adoption of central clearing has created new issues, however. One of those issues is the interaction between the clearing mandate and the increase in capital requirements on the banking industry. Most asset managers depend on the client clearing teams at banks to clear their trades, and the banks must set aside capital to cover the risks of the positions they clear for their clients. The capital requirements make it more expensive for banks to provide this service, and the number of banks that provide this service has been gradually shrinking.

During the Forum, attendees expressed real concerns about the cost of clearing, which is widely seen as the single most important constraint on the capacity to clear more trades. And they warned that the cost pressures are getting worse.

In 2022, US banking regulators implemented a change to the methodology that banks are required to use to measure their derivatives exposures. This transition – from CEM to SA-CCR[1] – is having an "unintended consequence" on end-users, to use a phrase cited by one speaker at the conference. On the one hand, the SA-CCR methodology makes it more expensive to provide clearing services to clients such as pension funds and insurance companies that take large directional positions to hedge their market risks. Counterintuitively, the SA-CCR methodology makes it less expensive to provide clearing for clients with more speculative purposes, such as using derivatives in relative value strategies.

Attendees also expressed concern about an unrelated development in Europe. Although clearing was mandated for most market participants long ago, pension funds were exempted – until now. In September 2022, the European Commission announced that the exemption would not be extended and pension funds would have to begin clearing their trades from June 2023.

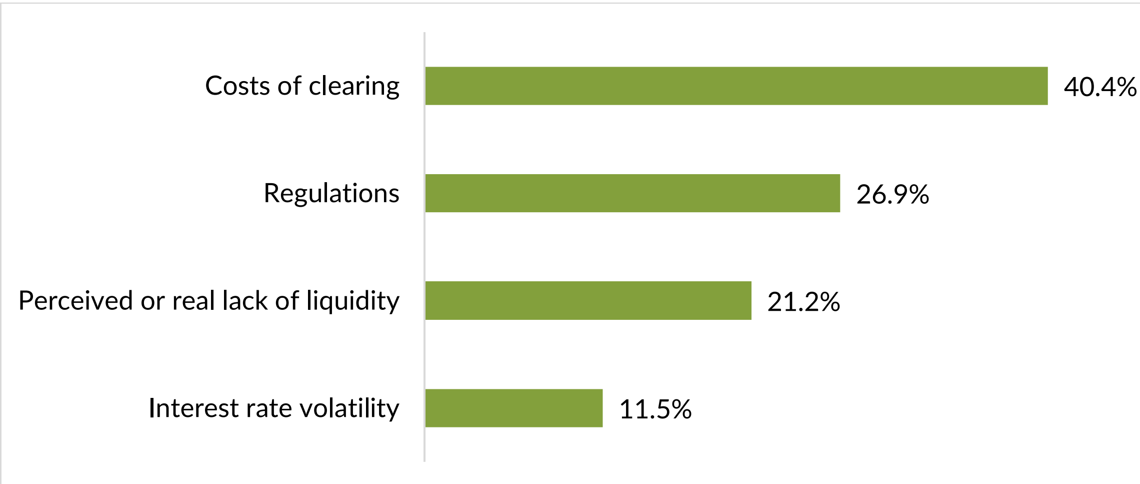
Several speakers raised concerns about the ability of clearing brokers to take on these pension funds as clients, especially the smaller funds. The speakers—including representatives from both the buyside and the sellside—urged banking regulators to "recalibrate" the capital requirements for client clearing to bring down the costs.

In addition, asset managers suggested other measures to ease the burden on the buyside, such as easing the uncleared margin requirements to provide more relief for smaller funds and separate accounts. They also called for expanding the range of collateral to include money market funds for initial margin and sovereign and corporate bonds for variation margin. Asset managers already hold these products in their inventory, making it more efficient to use these products as collateral rather than cash.

[1] Both are ways to manage counterparty risk, measuring risks around losing cash flows from derivatives portfolios due to counterparty default. CEM = current exposure method = uses a modified replacement cost calculation with a weighting mechanism that will depend on the type of derivative contract held. SA-CCR = standardized approach to counterparty credit risk = is a standardized model designed to be more risk sensitive than CEM, with exposure at default for a given counterparty as the core output, which includes replacement cost and potential future exposures. Since it impacts a dealers' SLR, it is expected to change dealer behavior by limiting their use of their balance sheets to provide liquidity to markets.

Market Touchpoint: Clearing Themes – Concerns about Cost

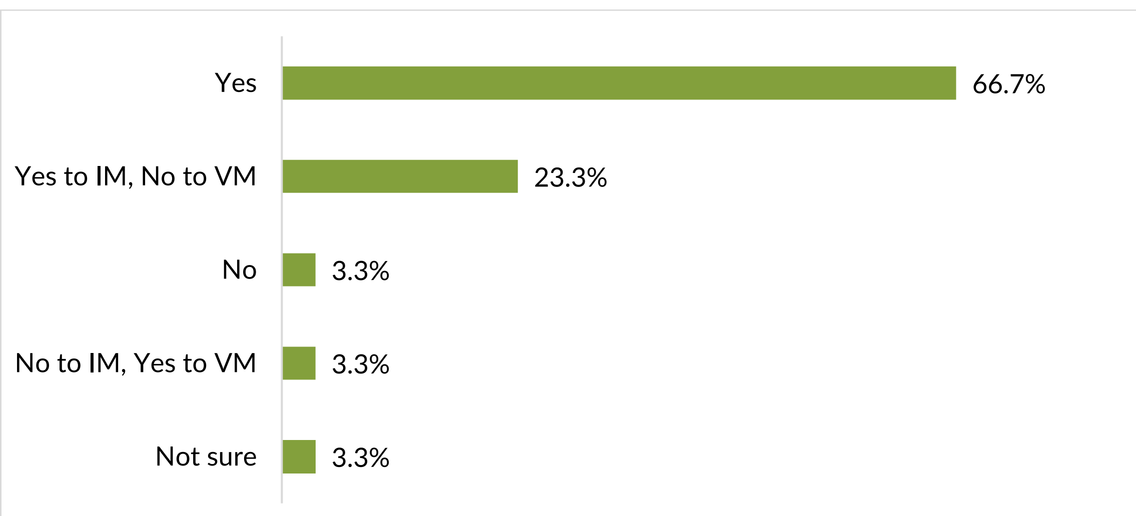
Q: What has put the most strain on the cleared derivatives markets over the last few years? As shown in the audience poll below, the cost of clearing was cited the most often as the factor causing the greatest strain.



Source: Audience polling

Q: Should the CFTC expand the types of eligible collateral to include money market funds for initial margin (IM) and Treasuries and corporate bonds for variation margin (VM)?

Majority Says: 66.7% of respondents believe collateral eligibility should be expanded for both IM and VM.



Source: Audience polling

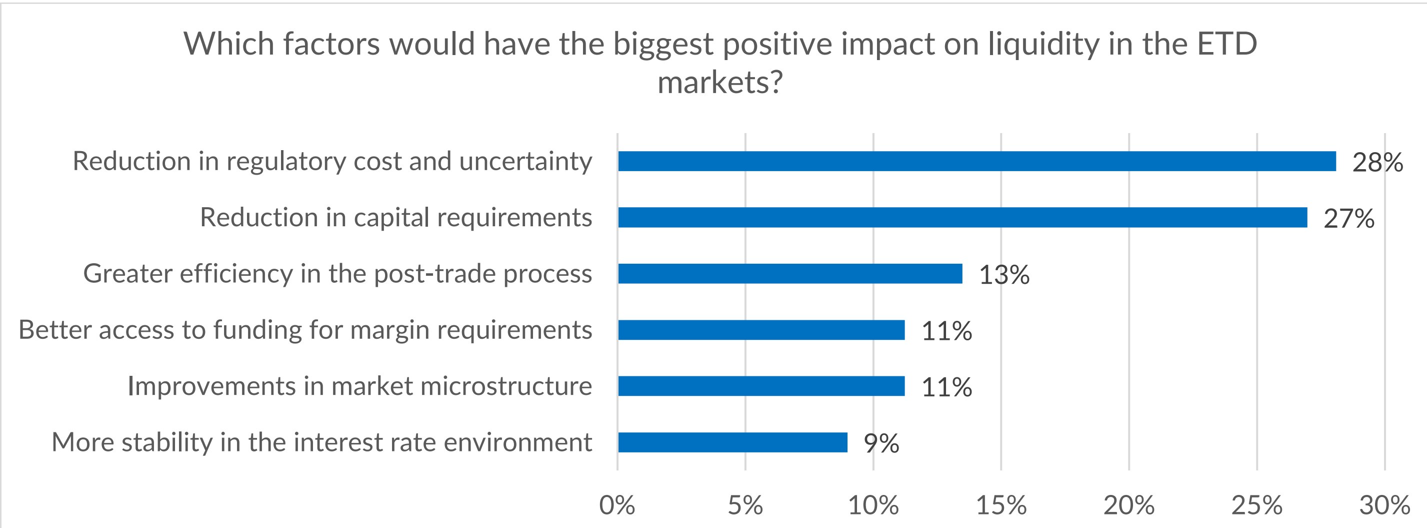
Regulatory Outlook

A panel of industry leaders and legal experts discuss recent regulatory developments in Europe and the U.S.

Regulatory Developments – Agendas Creating Additional Costs & Uncertainty

There is a high level of concern around the aggregate regulatory environment. There are new rules coming from the SEC, Commodity Futures Trading Commission (CFTC), Financial Industry Regulatory Authority (FINRA), banking regulators, European Market Infrastructure Regulation (EMIR) 3.0, etc. While not all rules are as urgent and burdensome as the SEC agenda, they are still important, and creating an operational burden as a whole. Both the scale and scope of proposed changes are overwhelming, creating additional costs and uncertainty for the industry.

What Would Improve Liquidity? When asked in the pre-conference flash poll how to improve liquidity conditions in the exchange-traded derivatives markets, there was nearly a tie for the top responses. 28% responded a reduction in regulatory costs and uncertainty, with another 27% replying a reduction in capital requirements.



Source: FIA-SIFMA AMG Flash Poll

Take the SEC's rulemaking activity for example. Since the current Chair was sworn in, the SEC has put out 43 rule proposals. The adjacent list includes many of these proposals (source: NERA).

A panelist estimated there are around 70 to 80 rules in the pipeline between the SEC and CFTC, and there is no data to assess potential impacts on markets. And they impact every aspect of markets – increasing risk, borrowing costs, and investing costs – as well as hindering liquidity.

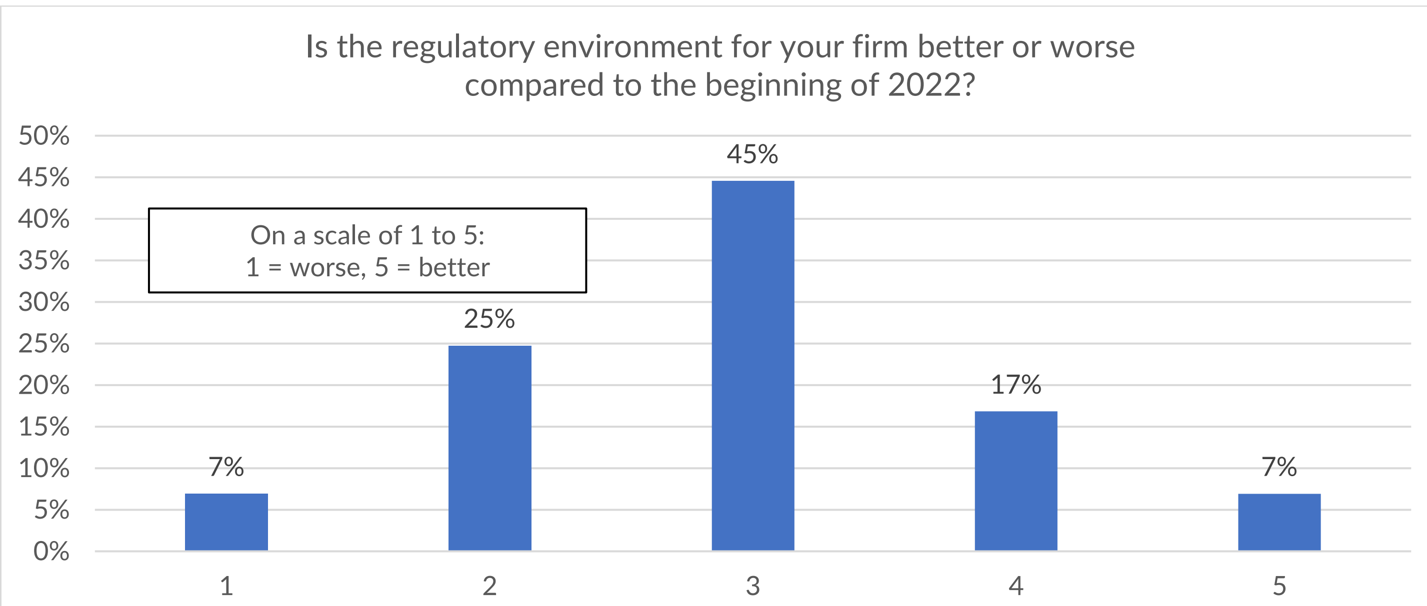
Additionally, putting all of the regulatory proposals together creates an operational nightmare. As such, responses from our pre-conference survey showed attendees view the regulatory environment as either worse or equally as bad as last year.

- Beneficial Ownership Reporting
- Definition of Dealer and Government Securities Dealer
- Climate-related Disclosures
- Cybersecurity Disclosures
- Cybersecurity Risk Management
- Definition of Exchange
- ESG Disclosures
- Insider Trading Plans
- Investment Company Names
- Money Market Fund Rules
- Private Debt Market Disclosures
- Private Fund Advisers Regulation
- Private Fund Advisers Reporting
- Securities Law Anti-Manipulation Rules
- Securities Lending Public Disclosure
- Security-Based Swap Anti-Fraud Rules
- Security-Based Swap Execution
- Security-Based Swap Large Position Public Disclosure
- Share Repurchase Disclosure
- Short Selling Reporting
- Special Purpose Acquisition Companies (SPACs)

This led panelists to ask why were the regulations put in place or proposed in the first place? What problems are regulators trying to solve? The concern is that the regulations will increase costs to trade and clear. Additionally, there is the risk that the regulations could fragment liquidity. When you fragment markets based on arbitrary rules, what does it do to markets?

Panelists support increasing transparency in markets. However, you must balance transparency with the potential impacts on liquidity. Some suggestions to achieve this balance include segmenting rules by trade size, i.e. carve out block trades, and utilize appropriate delays in public reporting so as to not negatively impact liquidity.

Regulatory Environment: Opinions are split on the regulatory environment, with 32% saying it is getting worse, 24% saying it is getting better, and 45% saying it is about the same as a year ago.



Source: FIA-SIFMA AMG Flash Poll

CFTC Update – Reforms Needed on Existing Regulations

On Feb. 3, just one week before the conference, the chairman of the CFTC announced that he wanted to issue "at least 30 to 35" proposed rules before the end of the year as well as a host of other rules and orders proposed in 2022. This ambitious agenda adds to the wave of rulemakings in the U.S. that the industry is grappling with and further adds to the regulatory uncertainty that many see as an obstacle to growth and innovation.

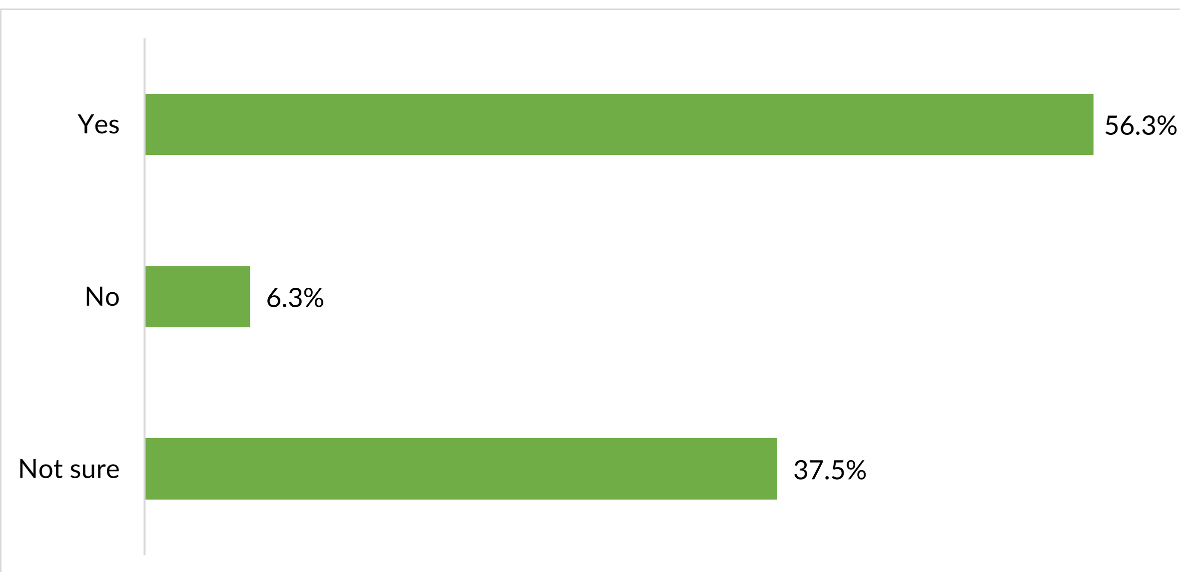
During the conference, several speakers discussed some of the rulemakings now pending at the CFTC as well as compliance issues arising from rules that have been finalized already, such as the uncleared margin requirements (UMR) that have been coming into effect in stages over the last several years. Relief from UMR is a top concern for asset management firms in the audience that trade OTC derivatives on a bilateral basis.

In addition, several speakers highlighted areas where existing rules should be revisited. One example is the "made available to trade" rule, also known as the MAT rule, which allows swap execution facilities to ask the CFTC to mandate that certain swaps must be traded on centralized trading venues. Several speakers said it would be better if the determination was made by the CFTC, rather than individual SEFs, in order to avoid imposing a trading mandate in a market without sufficient liquidity.

An audience poll showed strong support for this view, with more than half calling for reform and almost no one expressing satisfaction with the status quo.

Q: Do the MAT rules need to be reformed to ensure broad market liquidity in affected derivatives products before new clearing mandates are finalized?

Majority Says: Over half of respondents, 56.3%, believe the MAT rules need to be reformed before new mandates are implemented. Otherwise, liquidity will be affected.



Source: Audience polling

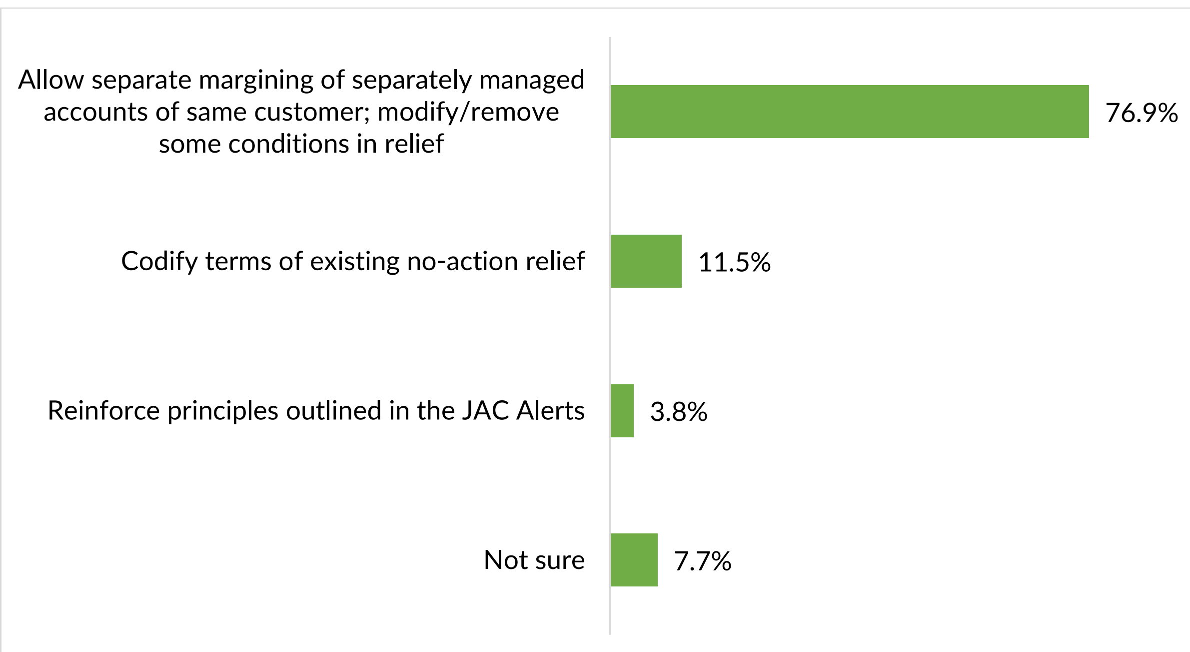
Another area of discussion was a technical issue that arises when asset owners use more than one investment manager. The Joint Audit Committee (JAC), a self-regulatory body for the U.S. futures industry, has warned clearing brokers that they cannot include limited recourse provisions in their clearing agreements with investment managers if that limits their ability to cover a shortfall in margin in separately managed accounts of the same beneficial owner.

The speakers emphasized that it is common industry practice for asset owners such as pension funds to use multiple investment managers. Given that these accounts are separately managed, they urged the CFTC to finalize rules that recognize this practice.

A strong majority of the attendees agreed. An audience poll showed that more than three quarters believe the regulators should allow separate margining of separately managed accounts.

Q: **What is the best path forward in order to settle the long and winding road of JAC Alerts 14-03 and 19-02?**

Majority Says: 76.69% of respondents believe the CFTC should allow for separate margining of separately managed accounts of the same customer, but certain conditions outlined in the original relief should be modified or removed.

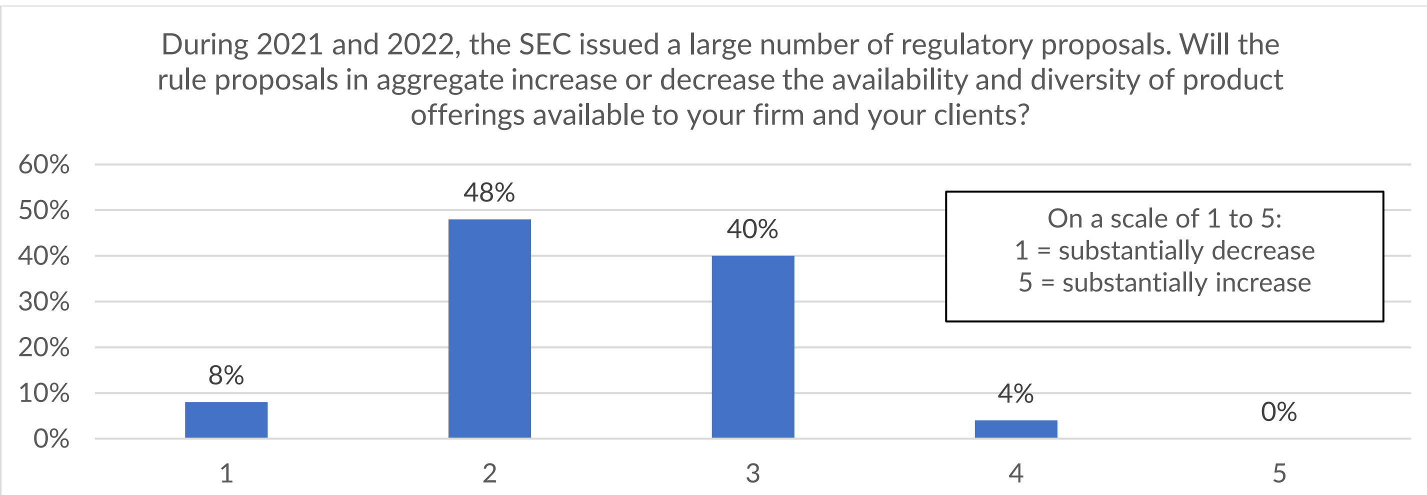


Source: Audience polling

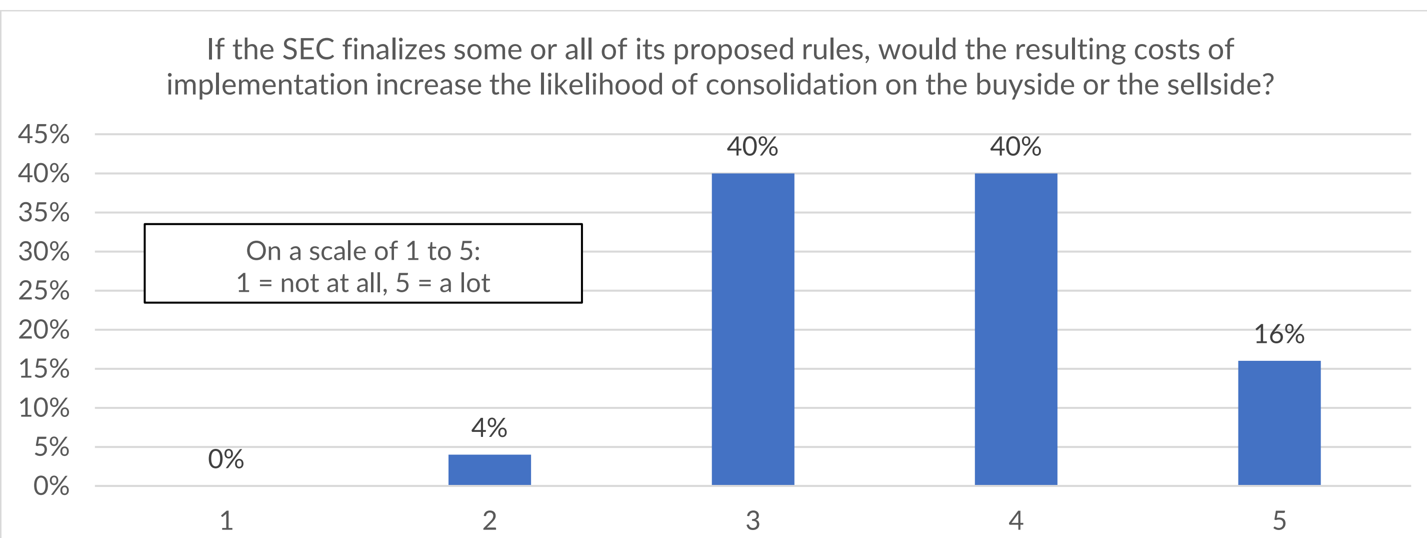
SEC Update – Too Many Proposals, Too Little Time to Analyze

As mentioned above, the SEC has put out 43 rule proposals since the current Chair was sworn in. As such, conference attendees expect these rule changes to have negative impacts on the industry, including decreasing product offerings and forcing consolidation of firms.

Impact of SEC Rulemakings: More than half of respondents expect a decrease in product offerings given the SEC agenda, with 56% responding a 1 or 2 out of 5. Another 40% were more moderate about the impact. And 56% of respondents expect the SEC agenda to lead to greater consolidation in the industry.



Source: FIA-SIFMA AMG Flash Poll



Source: FIA-SIFMA AMG Flash Poll

US Treasuries

Regulators have voiced concerns about the resiliency of the U.S. Treasury market, and greater use of central clearing has been proposed as a solution. During the Forum, several market participants indicated that the real issue is with liquidity, which could be rectified by cleaning up certain regulations, including some bank regulations such as the supplemental leverage ratio (SLR[2]).

In addition broker/dealer capital requirements contain constraints. Currently, Fixed Income Clearing Corporation (FICC), a subsidiary of The Depository Trust & Clearing Corporation (DTCC), does not have a requirement that clients post margin. It is a commercial arrangement between client and intermediary. When margin is posted, the rehypothecated margin is not recognized as a debit in the customer reserve formula. This in turn creates capital constraints for dealers.

Many feel that, while the idea of clearing is being thrown around as a simple, all comprehensive solution, the practice of clearing is more complicated. Market participants are concerned with unintended consequences on markets. More data is needed to scope out the impact on pricing and overall market impact.

Market participants are further concerned that current liquidity worries could get worse. This leads some market participants to ask if a mandate is the best way to achieve the policy objective of clearing, or could you get better results for markets through further market-driven incentives to clear?

Securities Lending

Proposed Rule 10c-1 would require lenders of securities to provide certain terms of their sec lending transactions to a registered national securities association (RNSA). Any person that loans a security on behalf of itself or another person would be a lender under the proposed rule, including banks, insurance companies, and pension plans.

The rule would require all sec lending transactions be recorded 15 minutes after occurring and that the information be made public as soon as possible. According to panelists, clients are “freaking out”, as the buyside is not set up to handle this type of reporting. Further, market participants are concerned that this type of reporting would create information leakage, allowing others to front run transactions and figure out competitors’ strategies. This could cause hedges to become more expensive and therefore less efficient. People are concerned that this could force participants to pull back on transacting, drying up liquidity.

Additionally, there are some inconsistencies in some of the proposed and existing rules. For example, the timeframe on sec lending reporting within 15 minutes and making the transactions public conflicts with the short interest rule of reporting within 14 days. The SEC acknowledged concerns of front running in setting the short interest rule, which is why they opted to use aggregate reporting levels. The new sec lending rule would force clients to disclose information they would not otherwise have to report.

Further, multiple reporting rules would come into effect at essentially the same time. The same operations teams would have to implement all of these significant changes at the same time. One panelist indicated this would create a “parade of horribles”. The new rules could add more costs and risks to the industry as a whole.

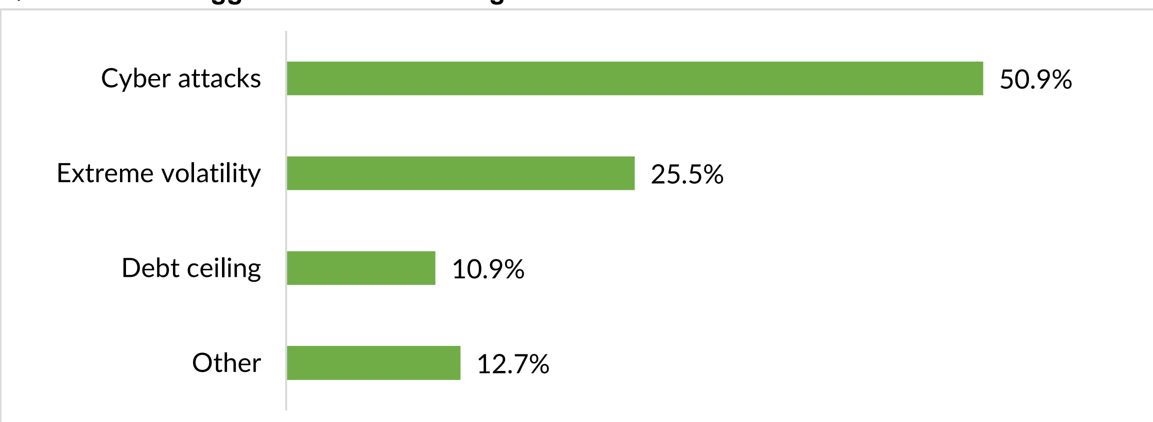
[2] US implementation of the Basel III Tier 1 leverage ratio, with which banks calculate the amount of common equity capital they must hold relative to their total leverage exposure. Large US banks must hold 3%. Top-tier bank holding companies must also hold an extra 2% buffer, for a total of 5%. As it does not distinguish between assets based on risk, it is conceived as a backstop to risk-weighted capital requirements. It is often viewed as the most – or at least one of the most – balance sheet constraining bank regulations.

Operations & Technology Perspective

The Forum has always featured in-depth discussions of key operational issues for firms active in the trading and clearing of derivatives. This year was no exception, with deep dives into important initiatives to reduce risk and increase operational efficiency. But this year these discussions were overshadowed by a ransomware attack on a critically important service provider in the futures industry (please see the appendix for more details).

That attack, which took place just one week before the Forum, highlighted the interdependent nature of the clearing function and the need for more protections against all forms of cyberattacks. This was shown in a poll of the audience at the Forum, where more than half of respondents indicated cyberattacks presented the biggest threat to clearing.

Q: What is the biggest threat to clearing in the near future?



Source: Audience polling

The attack caused serious disruptions in the processing of trades after execution. Many trades ended up being processed manually, resulting in significant clean-up and reconciliation after the fact. As such, position management became an issue, as well as keeping books and records up to date. It also highlighted that this is a risk common to all participants, bringing home to every market participant how interconnected the industry is. Even if a firm was not a member or user of the affected service provider, it may have been connected to others who did.

Although this event was isolated to a small number of firms and did not have a systemic impact on market stability, it highlighted how much the entire industry relies on third-party service providers. Moving forward, one of the key concerns voiced by Forum attendees is whether regulators will become more cautious about technological innovation and the potential for new forms of cyber risk.

One insight on this question came from Christine Goldsmith Romero, a former US Treasury official who has served as a CFTC Commissioner since March 2022. In a keynote address to the Forum, Goldsmith Romero noted that she has been tasked by the CFTC's chairman to lead an effort to "adapt and evolve" the agency’s cyber-resilience framework for market participants. Goldsmith Romero also sponsors the agency's Technology Advisory Committee, which includes experts from a wide range of market participants. She said she expects to use the advisory committee to gather more information on cybersecurity issues and promised that it will be a topic of discussion at an upcoming public meeting.

Pre-Trade Trends – Removing Pain Points

As a first step, a group of industry experts set out to define what pre trade actually means. As shown in the audience polling results below, the majority of respondents view pre trade as the steps necessary so that a client can begin to trade. In other words, it is everything that gets done prior to someone pushing the button on the trade. This can include everything from systems to legal negotiations and client onboarding.

With that definition in hand, the experts turned to a cost assessment. How can the industry move from seeing the pre-trade process as an impediment to seeing it as an opportunity to get business done more efficiently? In other words, what are the "pain points" and how can they be removed?

Pain points discussed included:

- **Legal** discussions and forms – Here, it was suggested that the legal pieces should be standardized in order to shorten the pre-trade timeline.

- **Data** considerations – This area involves not just how to get the data but also how to interpret the data. Credit support annexes (CSA) are complex – how do you turn these lists into data? How do you get data from legal agreements into the system? There are a number of technologies available, but they do not all work together.

- **Technology** constraints – There is a lot of setup and configuration in pre trade. Operations teams need to enable portfolio managers and traders to get in and trade as soon as possible. How can market participants move from one system to another – if you cannot move quickly, you do not get the benefits of the technologies.

Across each of these buckets, common themes of standardization and integration came up. The industry needs to define standards that would enable moving across technologies, i.e. integration of systems. For example, futures contracts are assigned different codes by different market participants – whereas equities have a set number of tickers – and this can become expensive as firms need to integrate them across all systems. And once those standards are defined, the industry must find a way to actually adopt the standards.

Continuing on with the data pain point, panelists said they could not overstate how much data is needed – collateral, security lending, clearing methodology, netting, etc. Getting all of the data in the system becomes cumbersome. Even then some calculations are not set in stone, changing because of regulations or rule changes at clearinghouses. Firms need software agility. Long-term technology solutions are needed to garner efficiencies. Again the question remains how the industry operationalizes the technology, which comes down to integration, system-to-system.

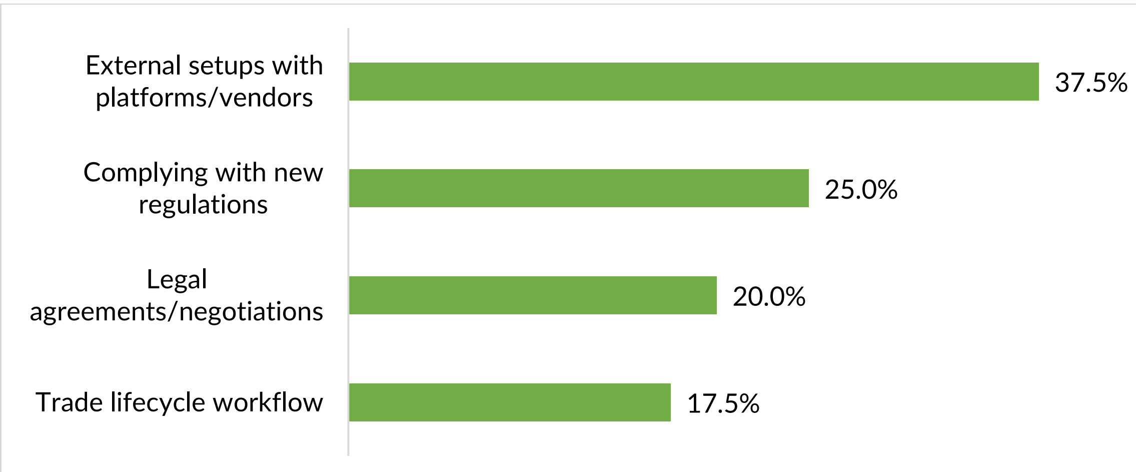
Finally, the conversation moved onto cloud hosting. Panelists indicated cloud hosting holds lots of opportunity, not just storage of data in the cloud but the full software-as-a-service model. IT departments are pro cloud hosting, as it can enable cost savings. And cloud enables firms to scale capital expenditures across projects.

However, cloud hosting does not come without problems. For example, firms can customize products too much. When they go to install an upgrade, it becomes complicated and even the original vendor may not be able to apply the upgrade. Also, if there is an issue with the cloud, vendors will get pinged from every single client they have at same time, meaning firms may experience long wait times for service.

What panelists concluded is that firms can outsource the work but not the responsibility. Even if a firm moves to the cloud, IT departments still need to continually assess and monitor systems and security. Firms cannot outsource everything – risk oversight remains crucial.

Q: What is your firm's biggest pain point?

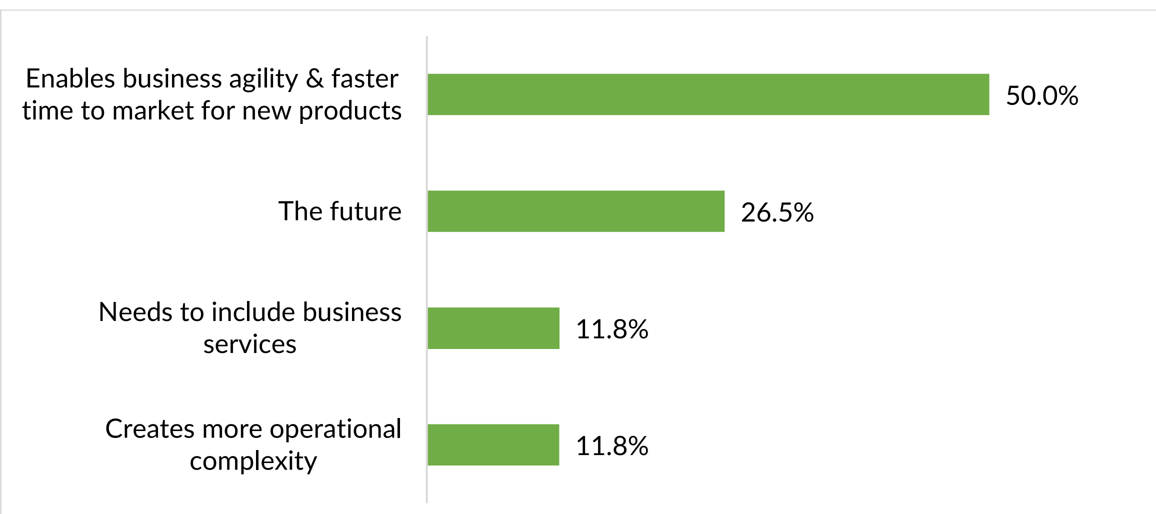
Majority Says? More than a third of the respondents identified the biggest pain point as external setups with platforms/vendors. This was followed by 25.0% responding complying with new regulations.



Source: Audience polling

Q: Cloud hosting – new reality or operational headache?

Majority Says? Half of the respondents view cloud hosting as enabling business agility and faster time to market for new products, i.e. a new reality. However, 26.5% view cloud hosting as a future event. Only 11.8% put it in the operational headache category, creating more operational complexity.



Source: Audience polling

Post-Trade Trends – The Search for Standardization

In the second part of the discussion on operational issues, a panel of industry experts, including representatives from both large asset managers and leading clearing brokers, talked about the urgent need to improve the way trades are handled after the point of execution. The discussion focused on listed derivatives, which are traded in such high volumes that even minor glitches in the workflow can cause bottlenecks.

One of the main goals, according to the panel, is to reduce the number of trade breaks, meaning situations where the details on the trade do not match. This issue is compounded by the widespread use of "give-ups," wherein one broker executes the trade and then "gives up" the position to another broker for clearing. Although this unbundling of execution and clearing has the benefit of giving clients more choices for how their trades are handled, it adds complexity to the post-trade process.

This issue was highlighted during the spring of 2020, when the COVID pandemic disrupted the global economy and financial markets experienced an extraordinary burst of volatility. The resulting high volume of trades overwhelmed back office teams across the industry, leading to significant delays in the processing of trades.

Since then several leading firms have committed to addressing this issue through an industry-wide initiative led by FIA. The firms involved in this initiative recognized that standardization would have a powerful impact on the problem by reducing the number of trade breaks. To that end, FIA formed an independent standard-setting body, the Derivatives Markets Institute for Standards (DMIST). Last fall DMIST issued its first proposed standard, which relates to how quickly certain steps in the post-trade process are completed.

During the discussion, Don Byron, the FIA official overseeing this project, announced that several more firms have joined DMIST, bringing the total to 28. He also described the proposed standard and explained that it is only the first step in what will be a comprehensive improvement in operational efficiency. Several members of the panel urged other firms in the audience to support the project, and they pointed to average pricing and data sharing as the next areas for discussion. Average pricing is important to asset managers that use many orders to fill large trades. But there are small but significant differences in how exchanges calculate average prices, making this an obvious target for standardization. Data sharing refers the information attached to a trade as it moves through the post-trade workflow. In many cases, multiple firms are involved in this workflow, which makes it essential to share that information quickly and accurately.

ESG Perspective

ESG as an Investment Theme – The E, The S, or The G? How about All Three

In recent years, ESG investing has been an important trend in the asset management world, with trillions of dollars allocated to various types of ESG funds and investment strategies. But the trend now faces significant resistance, with many skeptical about the approach and questioning its empirical basis.

For the derivatives industry, the ESG theme has prompted the introduction of a new generation of equity index futures that are based on ESG indices. These futures, like their conventional counterparts, provide asset managers with an efficient mechanism for investing cash balances and tracking investment performance. But in 2022, the growth in the trading volume in these contracts leveled off, and in some cases declined.

Top 10 ESG Futures by Value Traded in 2022

Rank	Exchange	Contract	Volume (USD Not. Equiv.)	Change (%)	Change (Rank)	Volume (Contracts)
1	Chicago Mercantile Exchange	E-mini S&P 500 ESG Index	$70,924,426,620	49.0%	→ 0	398,298
2	Eurex	Euro STOXX 600 ESG Index	$34,652,695,166	-15.8%	→ 0	2,029,792
3	OMX Nordic Exchange Stockholm	OMXS30 ESG Responsible Index	$29,558,305,293	-19.7%	→ 0	1,508,418
4	Eurex	MSCI USA ESG Screened USD NTR	$6,576,600,272	-8.6%	→ 0	169,676
5	Eurex	STOXX Europe ESG Leaders Select 30	$6,298,763,833	156.6%	↑ 4	478,346
6	ICE Futures US Indices	MSCI World ESG Leaders NTR Index	$3,722,369,160	7.0%	↑ 2	83,544
7	ICE Futures US Indices	MSCI EM ESG Leaders NTR Index	$3,382,240,002	-8.7%	→ 0	75,933
8	Eurex	MSCI EM ESG Screened USD NTR	$3,065,954,178	-45.5%	↓ -3	202,974
9	Eurex	EURO STOXX 50 ESG	$2,160,534,700	-57.1%	↓ -3	134,559
10	ICE Futures US Indices	MSCI USA ESG Leaders GTR Index	$574,291,940	33.5%	↑ 1	12,656

Source: FIA, Liquidnet, Bloomberg

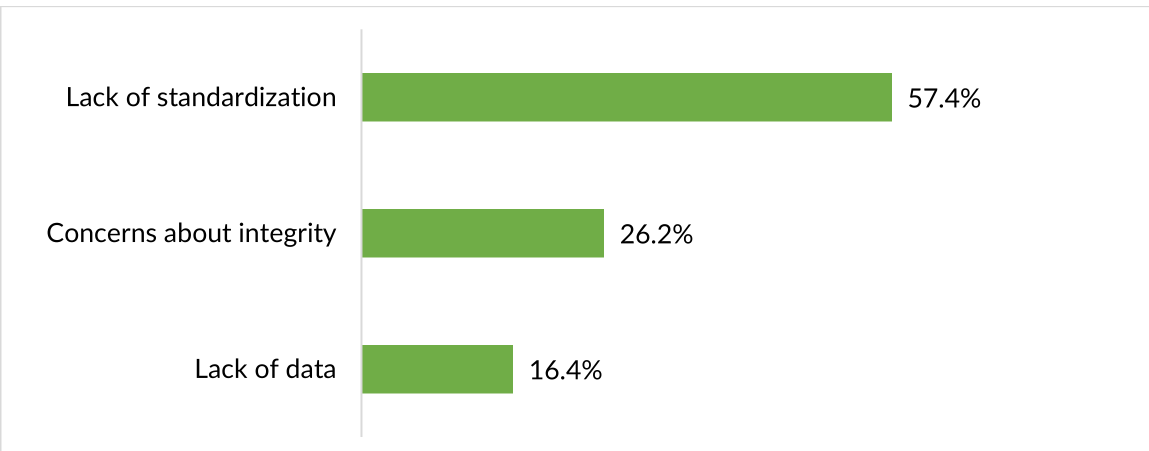
The conference provided a timely opportunity for the derivatives community – including ESG specialists from asset management firms and index providers – to take stock of the trend and explore where it might go next. One key question is definition – what does ESG actually mean? Technically, the term is defined as including environmental, social, and governance factors in the investment selection process. But how these factors are assessed, and the relative importance of each, is a matter of considerable discussion and debate.

Speakers indicated many market participants are taking a closer look at how they define ESG in their investment strategies. That includes asking for more data to verify whether companies meet the ESG standards. The speakers also said that some clients are asking for bespoke ESG indexes, with customization key to meet their specific objectives and preferences.

With all of the current and planned reporting being requested by clients and beneficiaries, the question becomes how confident can market participants be with this data and reporting? An audience poll showed that the biggest concern around ESG climate-related products is the lack of standardization in data and reporting. If you put all of the polling options together – lack of data, coupled with a lack of standardization for the existing data, and concerns around the integrity or accuracy of the data (is the project truly achieving carbon reduction?) – it limits transparency, and therefore price discovery, in the ESG climate-related product space.

Q: What is your biggest concern about ESG climate-related products?

Majority Says? As discussed above, lack of standardization remains top of mind in this space, with 57.4% of respondents selecting this as the biggest concern around ESG climate-related products.



Source: Audience polling

Another issue discussed was greenwashing. There have been enforcement actions in this area, mainly around the naming of funds. Panelists did not view this as rampant fraud, rather excessive exuberance on the marketing front. They explained that ESG evaluations come down to the research and due diligence, not the name. Companies report this detail in their management discussion and analysis section, which is not standardized. Analysts and investors must speak with management in order to truly understand firms' ESG goals and achievements. It was also recommended to get third-party audits. Index providers are regulated and therefore scrutinized around index construction and disclosure. Other investments may need a third-party verifier to identify if KPIs were met; if the green/blue bond objectives were satisfied; etc.

Moving forward, panelists affirmed that they believe ESG investing is here to stay. Companies are investing billions to go green, and the financial services industry continues to build new investment products around this theme. Panelists indicated that the industry is past the inflection point and this market will continue to grow. The panelists agreed, however, that the whole area needs clearer definitions, more standardization, and more verification to ensure integrity and avoid accusations of greenwashing. And there is a real threat that regulators will crack down on overly broad or unsubstantiated ESG claims by brokers and fund managers.

Carbon Markets – Surge of Interest in Offsets

A related trend is the growth of interest in carbon markets. These markets are designed to reduce emissions through economic incentives, rather than regulatory enforcement. The first wave began more than a decade ago with the development of "cap and trade" markets for government-issued allowances, also known as "compliance markets". Over the last three years, attention has turned to a different approach known as the "voluntary carbon markets". In these markets, companies that have found ways to reduce emissions, for example by planting trees, can sell the reduction to other companies that want to offset their emissions.

In both cases, the trading of futures plays a central role in price discovery and risk transfer. That makes these markets highly relevant to exchanges, brokers, and asset managers that participate in derivatives markets.

Voluntary carbon markets face major challenges, however, because the underlying offsets are not subject to regulation. Many instances of fraud have been reported, and there are questions about whether the projects generating these offsets are truly additional to existing business activities.

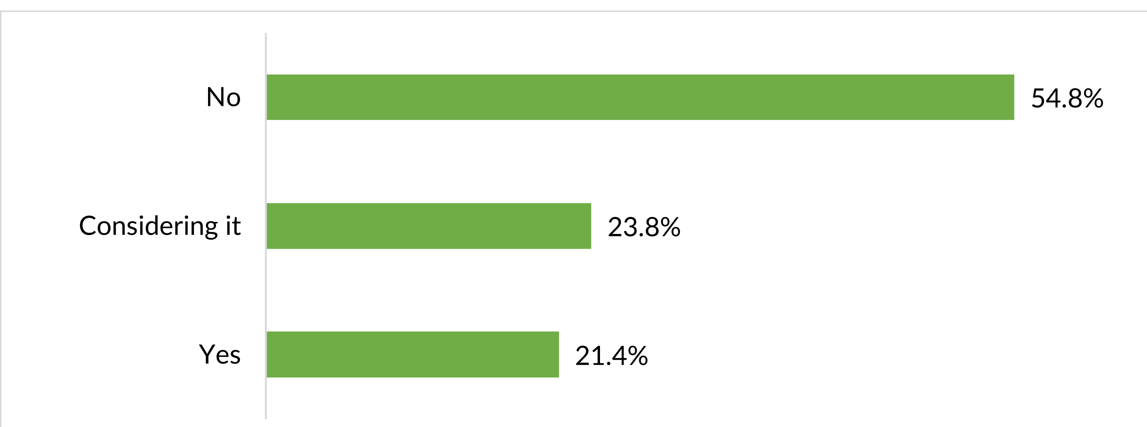
These issues are important concerns for asset managers and financial intermediaries that are considering whether they should participate. In fact, an audience poll during the conference showed that roughly half the attendees think the voluntary carbon markets are either too immature or too prone to greenwashing.

That said, one speaker pointed out that private equity firms are piling into this space, making investments in a wide range of companies that are building data services, ratings services and other infrastructures necessary for further development. And where private equity leads, other financial institutions soon follow.

Some market participants see potential in voluntary carbon credits as an opportunity to manage climate-related risk. However, as shown in the audience poll and discussed above, this area has much room for growth.

Q: Has your fund or business invested in voluntary carbon markets?

Majority Says? 54.8% of respondents have not currently invested in voluntary carbon markets, with only 23.8% more considering it.



Source: Audience polling

During her keynote speech, CFTC Commissioner Christy Goldsmith Romero fired a warning shot for participants in the voluntary carbon markets. She indicated that the CFTC is uniquely positioned to set standards in this area, as its mandate includes the authority to combat fraud and manipulation not only in futures markets but also in the underlying spot markets for commodities. She emphasized that she believes the CFTC's antifraud and anti-manipulation powers should be applied to carbon offsets in both futures and spot markets.

CFTC Commissioner Christy Goldsmith Romero discusses risks in carbon markets.

Goldsmith Romero said she would like to see the CFTC take action in this area in three ways:

1. Promote market integrity by increasing enforcement resources and expertise to combat greenwashing and other forms of fraud.

2. Promote market resilience to climate-related risk by monitoring climate-related financial risk to commodities and derivatives markets and working with exchanges, clearing houses, and market intermediaries to understand how they are managing climate risk.

3. Work with exchanges and market participants to ensure the integrity of derivatives markets and promote responsible innovation in climate/sustainability products.

Diversity, Equity & Inclusion (DE&I)

Recruiting, but also Retaining[3]

Conference attendees gathered to discuss the industry's progress in DE&I initiatives – where the industry is today, what do market participants need to do, and how can the industry move the needle further. The conversation started on a high note, as it appeared that most believe the industry has made progress, with almost half of respondents stating their firm has taken actions that demonstrate their commitment to this topic.

However, as the group began to dig deeper, it appears this success was not even across DE&I segments. Looking at the audience poll results on the following page, almost half of respondents indicated firms have made the most progress on improving gender metrics. It seems the industry has made progress on gender but has more work to do on race and other categories.

Additionally, there was a cautionary tale around gender. Firms may have made strides in hiring yet expressed concerns about retaining women. The takeaway was that firms need to remain diligent. It is not enough to focus just on hiring, but also on retaining, as shown in the second audience poll below.

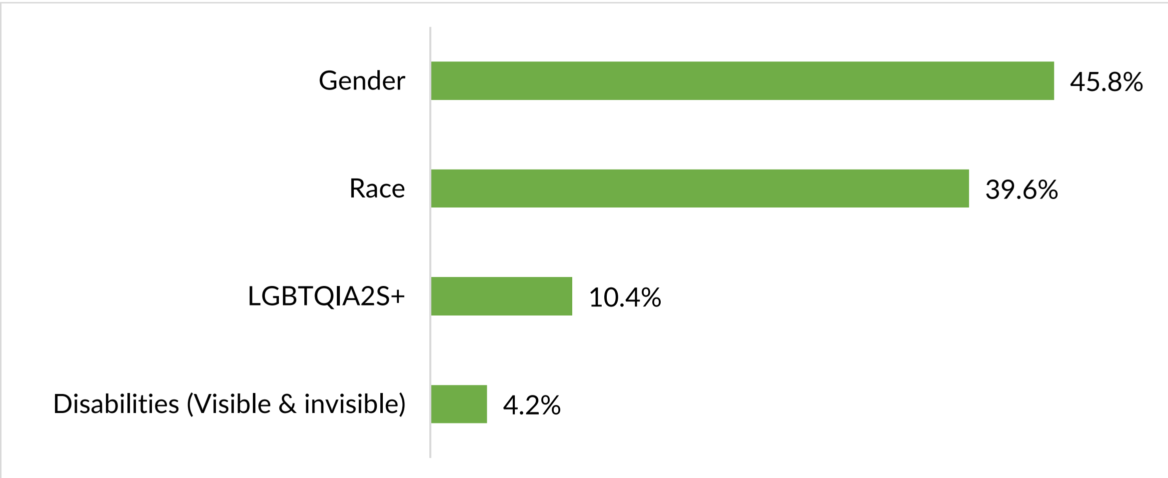
The group then turned to discussing tangible action points firms can use to move DE&I efforts forward for the whole industry. Recruiting is important, but a firm cannot hire a more diverse employee base if its recruiting pipeline is homogeneous. Employee networks were listed as useful tools. Presumably, someone in one of the DE&I categories will have friends and industry colleagues of similar characteristics. Partnering with colleges was also discussed in detail. Interestingly in this area, people went beyond the suggestion of partnering with historically black colleges and universities (HBCU). It was noted that firms could expand their focus recruiting lists to include more state schools – being larger institutions they should statistically offer a wider diversity pool.

Finally, attendees were reminded not to ignore corporate culture in DE&I efforts. Here, half of respondents noted they utilize employee affiliation clubs and activities to build DE&I into corporate culture. Given that management accountability came in second, the conversation concluded on this point. Much discussion was given to the fact that if management is not held accountable – for example in their performance reviews – then the industry will not be able to achieve its ambitious objectives in improving DE&I metrics.

[3] Disclaimer: Financial services firms vary by size, region, business model makeup, and other factors. As such the ideas discussed may not be applicable to all firms.

Q: What area of D&I focus is a top priority for your firm?

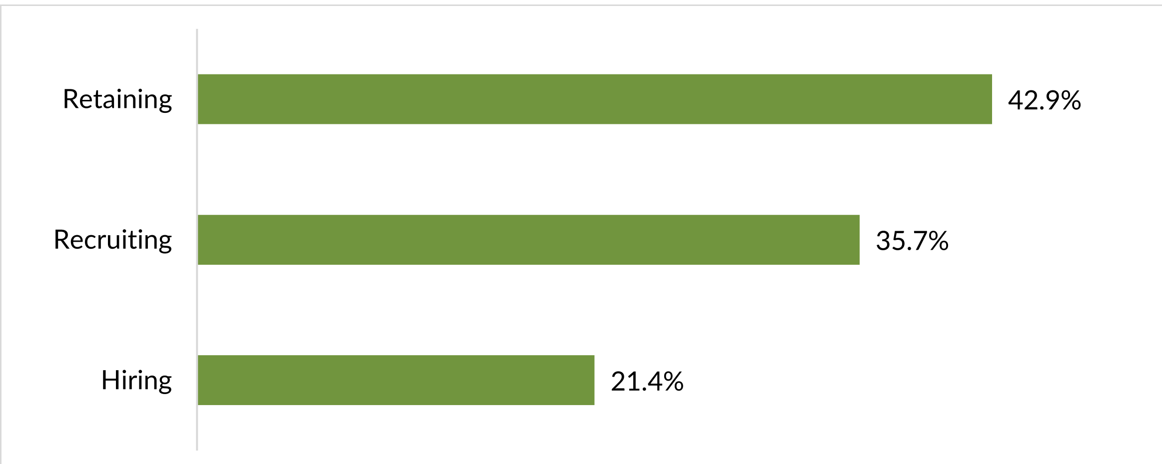
Majority Says? 45.8% responded gender as the area of top priority, followed by 39.6% race.



Source: Audience polling

Q: What does your firm find most challenging in its D&I efforts?

Majority Says? 42.9% responded retaining was the most challenging aspect of their DE&I efforts, followed by 35.7% responding recruiting.



Source: Audience polling

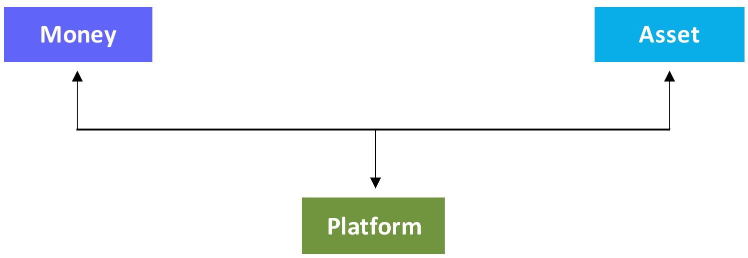
Digital Assets Perspective

DePaul University Professor Lamont Black discusses the potential for blockchain technology to serve as a platform for innovation in financial markets.

MAPping Cryptocurrency

It is already a digital asset world, as both ownership and trading of securities is digital. Many market participants are already believers in the underlying blockchain technology. Digital assets such as cryptocurrencies are digitally native, beginning and ending as data, all built on blockchain technology.

But do cryptocurrencies have value? Professor Lamont Black, Ph.D. of DePaul University gave a keynote speech at the Forum in which he "MAPped" the path to value for cryptocurrencies. He used this three-part framework to describe different aspects of the "cryptoverse" in money, assets and platforms.



Source: Professor Lamont Black, Ph.D. of DePaul University

- **M = money**: Using the blockchain as the ledger, money is the data. The blockchain technology can act as the payment rail, creating a faster and more efficient payment method than real time payments.
- **A = asset**: Crypto is something to own as an investment, an alternative asset. Institutional and retail investors analyze the opportunities and risks and make investment decisions. Last year showed some had the wrong investment thesis – crypto is not an inflation hedge. It is a technology investment – and as such highly correlated with the Nasdaq – and a risk asset.
- **P = platform**: iPhone is a platform, yet what makes it useful is the app store. For cryptocurrencies (crypto), blockchain is the decentralized platform. This can also be called Web3, essentially the next generation of the web's technical, legal, and payments infrastructure, including blockchain, smart contracts, and cryptocurrencies. Crypto is the application for blockchain technology.

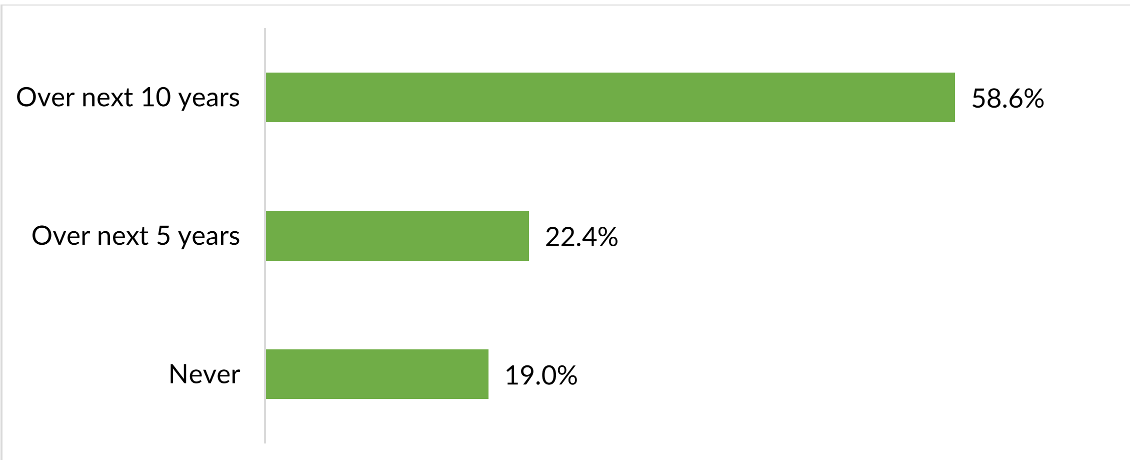
Although the public attention has focused on the meteoric rise and fall of cryptocurrencies, Black suggested that for financial markets, the underlying technology is just as important if not more, and he stressed the potential benefits of migrating to decentralized systems built on blockchain technologies.

His comments echoed recent trends in capital markets. Several large banks, asset managers and exchanges are exploring ways to use this technology to achieve more efficient use of capital and more efficient sharing of information in the post trade process. For example, tokenization could accelerate the mobilization of collateral.

But many people in the industry remain skeptical about the immediate impact. When asked about the time horizon for distributed ledger technologies such as blockchain being widely used at clearinghouses, most attendees at this year's Forum see this occurring over the next ten years.

Q: When will DLT/Blockchain technology become widely used at CCPs?

Majority Says? 58.6% responded over the next ten years, with 22.4% replying over the next five years and 19.0% responding never.



Source: Audience polling

As to the state of the cryptocurrency market in general, inflation has an impact on how clients allocate capital, and crypto proved to not be an inflation hedge. Add in the crypto winter and the erosion of confidence driven by the FTX scandal at the end of the year, 2022 was not a good year for this space (which could be said for other markets as well). That said, new products and systems need to be stressed in order to develop credibility for long-term sustainability.

Over the last four to five years, crypto went through its business development cycle. It grew as an alternative investment, which led to infrastructure buildout. However, any technology solution has vulnerabilities. This was seen in crypto, as the sector experienced bankruptcies and the FTX scandal.

Panelists also discussed non-fungible tokens (NFT). While a token itself is not a new asset, what is new is the ability to capitalize on the underlying asset. However, despite seeing some opportunities, these assets have also become villainized, with some making comparisons to the dotcom bubble. Though others point out that the original music streaming service Napster was villainized, yet now music and other content is regularly streamed. In other words, maybe time will tell what value NFTs provide.

Finally, panelists ended with a note on the regulatory environment for all digital assets. While market participants would like regulatory clarity, they do not want regulations to stifle innovation.

Appendix: Explaining the ION Attack

On January 30th, ION Markets, a Dublin-based third-party provider of middle and back-office processing for derivatives, fixed income, FX and equities, was hit with a ransomware attack called Lockbit typically associated with Russian state actors. This attack was a type of ransomware as a service (RaaS), a business model between ransomware operators and affiliates in which affiliates pay to launch ransomware attacks developed by operators, similar to the legitimate (read legal) business of software as a service (SaaS).

The cyberattack forced ION to take several of its systems offline, forcing several clients in the futures industry to process trades manually and causing widespread delays in confirming, allocating, and settling trades.

While the event itself did not pose a systemic risk to the financial system as a whole, it did remind market participants of how interconnected all players are. While a market participant may not have been a direct client of ION, it most likely had a counterparty who was. Additionally, while this event mainly impacted the cleared derivatives markets, ION also provides trading-related services to equity and bond markets. While cross-market contagion did not occur in this instance, it made firms more cautious about the interconnectedness of all markets and market participants.

Upon announcement of the attack, SIFMA and the FIA immediately began to communicate with their members and share information about the outages. The two associations also coordinated a series of joint calls, hosting over 15 calls over the past several weeks with close to 800 firms participating. SIFMA and FIA plan to share lessons learned.

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