Regulatory Recalibration & Industry Collaboration

Key Themes from the Asset Management Derivatives Forum

APRIL 2019

Key Takeaways

- Regulatory Recalibration, Changing the Story – Properly sizing the total market changes the conversation on sizing risk and then regulators can re-examine how regulatory thresholds are set.
- Cross-Border Harmonization, In and Out of the US – Without harmonization, markets can fragment, splitting liquidity pools and negatively impacting the efficiency of trading and clearing.
- Fintech, the Search for Solutions – The complexity of derivatives markets makes it more challenging to implement emerging technologies, but practical applications in operations & compliance are already underway.
- Operations, Creating Intelligent Workflows – Operational enhancements and industry collaboration to pave the way for a more intelligent workflow for derivatives trading.

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Executive Summary

Today's markets are still adapting to significant changes since the 2008 global financial crisis. In the aftermath of the crisis, regulators and legislators across the globe began developing new regulations and laws to improve the safety and soundness of the global financial system and protect their own nations' systems and economies.

We ended up with a two-track system: (1) high-level reforms issued by global standard setters to repair the global financial system and to maintain the global flow of capital; and (2) regional and national laws and regulations, some of which followed global recommendations while others added additional regulatory requirements. Markets ended up with a spider web of regulations across the globe, some of which are duplicative or even contradictory. What can market participants do to move forward?

This question and more were discussed at the FIA and SIFMA Asset Management Group's fifth annual Asset Management Derivatives Forum. More than 400 attendees from across the trade lifecycle – buy side, sell side, market infrastructures, and technology vendors – examined the latest developments in derivatives trading, clearing, operations and regulation. This report highlights the key conference takeaways:

A regulatory solution. While market participants are still digesting all of the post-crisis regulations, they are also looking for solutions to move forward and continue to serve their clients in the most efficient means possible. For this reason, market participants and some regulators are calling for recalibration and harmonization of regulations to ensure capital markets continue to run efficiently in any type of market environment.

A technology solution. Since the crisis, a host of fintech solutions have emerged to help market participants develop operational efficiencies or assist in regulatory compliance. During the first wave of new regulations, many firms simply added more staff to their compliance departments, but more recently there has been an increasing effort to invest in regtech, a subset of the fintech trend, to automate the compliance workflow. That not only reduces the cost of compliance, it also opens up opportunities to use information more effectively across the enterprise. Additionally, the ability to use data more effectively has become one of the biggest benefits of the fintech applications at financial institutions.

Intra-industry collaboration. Finally, market participants are coming together to discuss ideas and processes to overcome regulatory hurdles and increase operational efficiencies. Market participants across the trade lifecycle are increasingly open to intra-industry collaboration to further automate the workflows for trading and clearing.

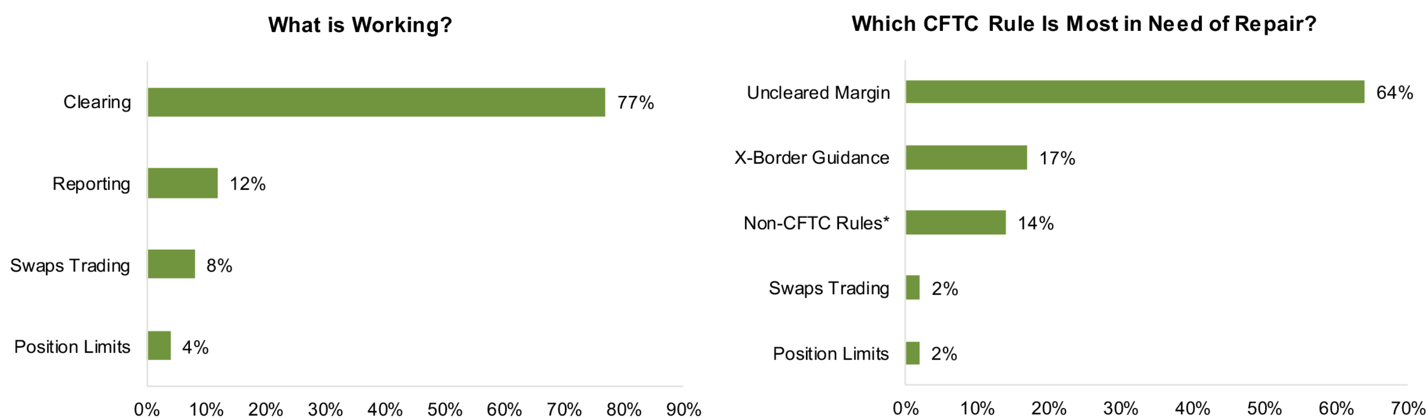
Regulatory Recalibration – Changing the Story

Prudential Regulations Impacting Markets

Market participants have discussed the need for regulatory recalibration for a few years now, with conversations ranging from tailoring of regulations by risk profile, eliminating ring fencing and gold plating, or preventing overlapping or contradictory rules, among others. Market participants have expressed concerns that prudential regulations – bank capital rules, supplemental leverage ratio (SLR), etc. – have forced peers to exit businesses or reduce their engagement.

While prudential regulations are implemented at the bank holding company level, these same banks run the largest broker-dealers and swap dealers, acting as market makers, intermediaries (clearing members) and trading counterparties. Prudential regulations meant to ensure the safety and soundness of financial institutions have, therefore, created challenges to the efficient running of markets. For example, market participants have expressed concerns over the availability of client clearing as banks reduce or even exit their clearing businesses.

Looking through just a markets lens, audience members at our Derivatives Forum were asked which rules were working best and which were most in need of repair, i.e. what needs recalibrated. Audience polling results showed over three quarters of respondents viewed the regulations around mandatory clearing as working, while almost two thirds pointed to the uncleared margin requirements as most in need of repair.



Source: Audience polling (x-border = cross border; *non-CFTC rules = prudential regulations (SLR, capital))

Whichever regulatory recalibration topic is discussed, the goal is always the same – ensure regulations are not blocking access to markets, impeding the flow of liquidity or otherwise impacting the efficient running of markets. This is not new news. Both our trade associations have written that the time is now (or potentially overdue) for regulators to: (1) analyze regulations and the impact on market efficiency, i.e. unintended consequences; (2) assess the current market environment versus where markets were when rules were written and implemented several years ago; (3) consider the everyday impact on markets and the economy, not just prepare for stress environments; and (4) propose changes to reverse the adverse effects of the original rules without releasing focus on ensuring financial stability.

...estimates the true size of the U.S. IRS market at $15T, not $225T

Changing the Conversation

But is it also time for market participants themselves to change the conversation? Analysts, whether at a regulator or a market participant, are always looking to size markets and firms. In fact, regulators predominantly implement regulations by size groupings (for example, G-SIB surcharges, the Fed's application of regulations by risk categories, etc.). Yet, sizing comes with its own problems – how do you determine who is big or small if you do not have an accurate measure of the total size of the pie?

During the conference, CFTC Chief Economist Bruce Tuckman gave a presentation providing a metric for measuring the (true) size of risk in swaps markets, or a method the agency developed to properly size the pie. Tuckman's premise – and market participants have always agreed – is that it is wrong to look at gross notionals across financial products, as this is not a good measure to capture the size of risk. Instead, Tuckman points to his concept called entity-netted notionals (ENN). He walked through an example in the interest rate swaps (IRS) market. As a significant volume of IRS swaps are short term, the notional amount exaggerates the extent of risk transfer in this market. [As an example, let's compare two fixed-floating LIBOR interest rate swaps with $10MM notional and 4% fixed rates. The only difference is term – one has a one-year term and the other is for 30 years. While the risk of the two is vastly different, i.e. the second swap has 29 years more risk exposure, they are treated the same under notional calculations, which are not risk-adjusted.] Further, since trading practices leave pairs of counterparties holding risk-offsetting long and short positions, the notional amount (which adds longs and shorts) significantly overstates risk transfer between such pairs.

Under the ENN method to risk benchmark the size of the IRS market across U.S. reporting entities, the CFTC computes the following: (a) convert the long and short notional amounts of each entity to 5-year risk equivalents; (b) net longs against shorts in a given currency within pairs of legal entities; and (c) sum the resulting net longs (or net shorts) across entities. On this basis, the CFTC estimates that the true size of the U.S. IRS market equals $15 trillion, not $225 trillion.

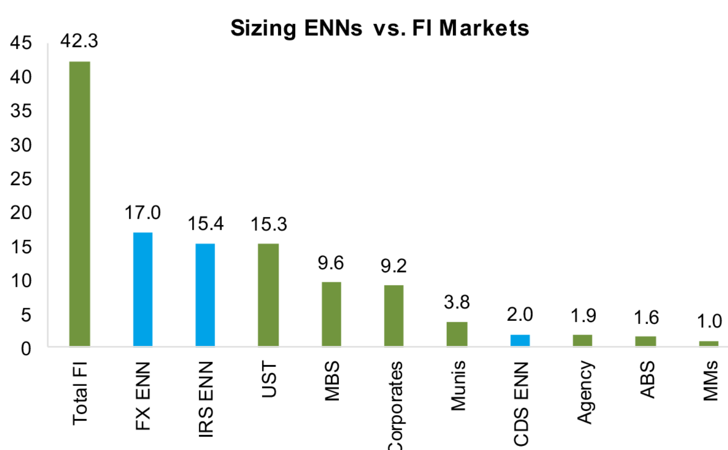
Tuckman also unveiled his ENN calculations for CDS and FX markets at our conference, building on his 2018 work on IRS (please see visual below).

	GROSS NOTIONAL Original L/S	GROSS NOTIONAL 5Y Equiv L/S	ENN 5Y Equiv L/S
IRS	224.9/224.9	122.5/122.5	15.4/15.4
CDS	5.5/5.5	3.5/3.5	2.0/2.0
FX	56.9/56.9	52.2/52.2	17.0/17.0

Source: CFTC (CDS, FX report; IRS report and introduction; please see Appendix for methodology)
Note: The CFTC calculates market ENNs using the detailed data it receives from Swap Data Repositories (SDR)

In other words, regulators should not be summing the two sides to judge the total size of the market, and instead look deeper into the data to determine the true magnitude of risk transfer. **By properly sizing the total market, the conversation changes around sizing risk and therefore regulators can re-examine how regulatory thresholds are set.**

Looking further, we see the IRS ENN is actually more in line with the size of the US Treasury (UST), mortgage-backed securities (MBS) and corporate bond markets. Further, Tuckman indicated 80% of IRS, 40% of CDS and <2% of FX – albeit there is significant bilateral compression in FX – are cleared, further reducing the size of the magnitude of risk in the markets.



Source: ENN data from the CFTC, FI market data from SIFMA (please see Appendix for acronyms)

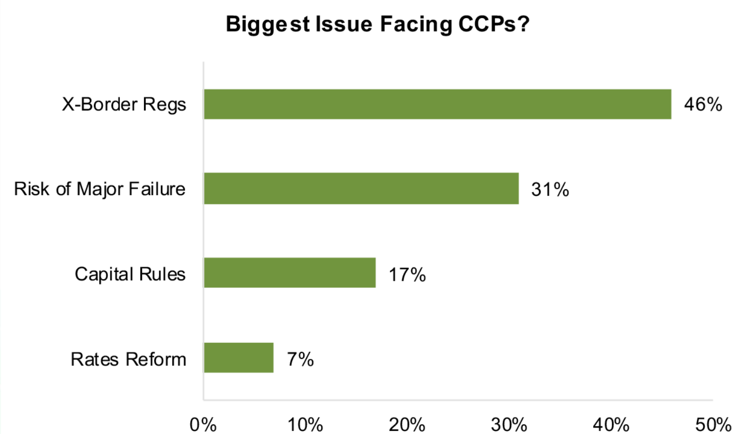
Cross-Border Harmonization – In and Out of the US

While regulatory recalibration is about the need for effective, right-sized regulations to ensure fair, open and transparent financial markets, these regulations need to be harmonized as well. Even though the post-crisis reforms started from the same set of high-level principles, implementation has diverged considerably across regulatory jurisdictions over the last 10 years, and today market participants operating in multiple jurisdictions face major challenges.

One example is in the area of central clearing. Mandatory clearing for standardized over-the-counter derivatives was one of the pillars of the G-20 reforms and considerable progress has been made in implementing this mandate in most of the major jurisdictions. While mandatory clearing is working for market participants, central counterparties (CCPs) operate in multiple jurisdictions, and each jurisdiction applies regulations that often overlap in confusing and even contradictory ways, creating a complicated patchwork of rules. This will be exacerbated by Brexit. Currently UK-based CCPs' rulebooks and operations are compliant under EU rules. Yet, on April 12 (unless a deal is reached) these same CCPs' practices will be called into question. The irony is UK CCP rules on April 12 will be the same as on April 11, when they were literally exactly the same as EU rules! (as noted by Member of European Parliament Kay Swinburne)

This is a major concern for attendees at this year's conference, as shown in their responses to a question about the biggest issue facing CCPs. Nearly half of the audience members at our conference felt cross-border regulations represent the biggest challenge to CCPs.

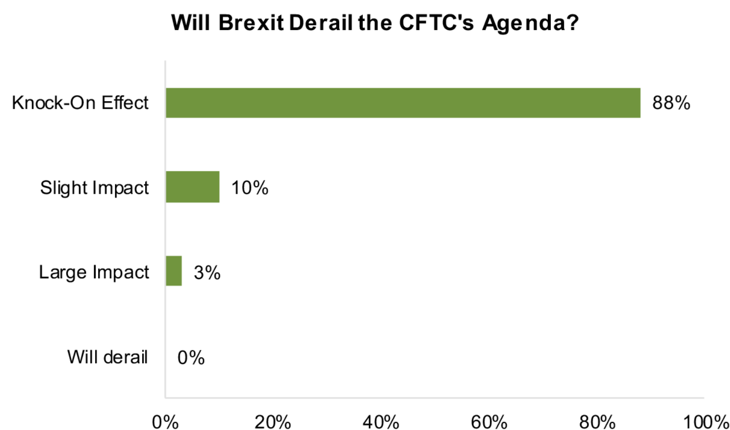
With a goal to enhance safety and soundness of markets, regulators have worked hard to ensure as many financial instruments as possible are cleared (of those that are possible to clear, which all products are not). While market participants – across the sell side, buy side and market infrastructure firms (exchanges, clearing houses) – work to achieve this goal, lack of global harmonization appears to be working against markets.



Source: Audience polling (x-border = cross border)

Why Does Cross-Border Harmonization Matter? When rules are not harmonized, markets can fragment, splitting liquidity pools and negatively impacting the efficiency of trading and clearing. Let's take the clearing of EUR-denominated derivatives as an example. Currently, LCH (a clearing arm of the London Stock Exchange) clears ~90% of this market. LCH clears multiple other currencies through London as well, such as USD and GBP, which enables liquidity to be pooled and clients to optimize margin posted by clients to the clearing house. Clearing houses pool products to gain operational and cost efficiencies for their clients (and they provide innovations to their clients to help them manage risk, i.e. capital optimization tools, also as a pooled concept). Pulling EUR-denominated products out of this global liquidity pool will fragment the EUR-denominated market. This will be harmful to market participants, the end users of cleared products, as it increases costs. Fragmenting liquidity pools could also destabilize markets during times of stress and make it more complex for regulators to monitor market risk on an ongoing basis.

Will Brexit Contribute to this Fragmentation? Brexit (particularly a hard Brexit) brings harmonization issues to the forefront, as firms will need to set up separate entities in the UK and on the Continent. Yet, clients trade and sell side firms operate globally today. With Brexit, market participants will need to run trading operations in two different regions. Firms will need to capitalize operations in multiple locations. Firms will need to build out trading infrastructure in two countries. Derivative contracts will need repapered to meet legal requirements in different regions. This all increases operational complexity and creates legal challenges. More importantly, this creates fragmentation, which could decrease liquidity and increase costs to clients. Market participants indicate regulations need to be almost exactly the same across jurisdictions, as even small differences can create fragmentation (netting, posting margin, operations). The good news is audience members at our Derivatives Forum believe Brexit will only have a knock-on effect on the CFTC moving forward with its own agenda (albeit, Brexit can still act as a distraction, potentially taking regulators' resources away from other issues).



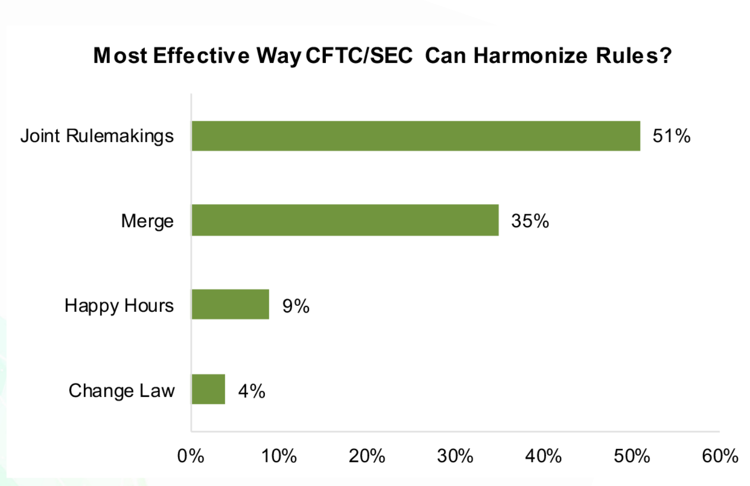
Source: Audience polling

What About Harmonization within the US?

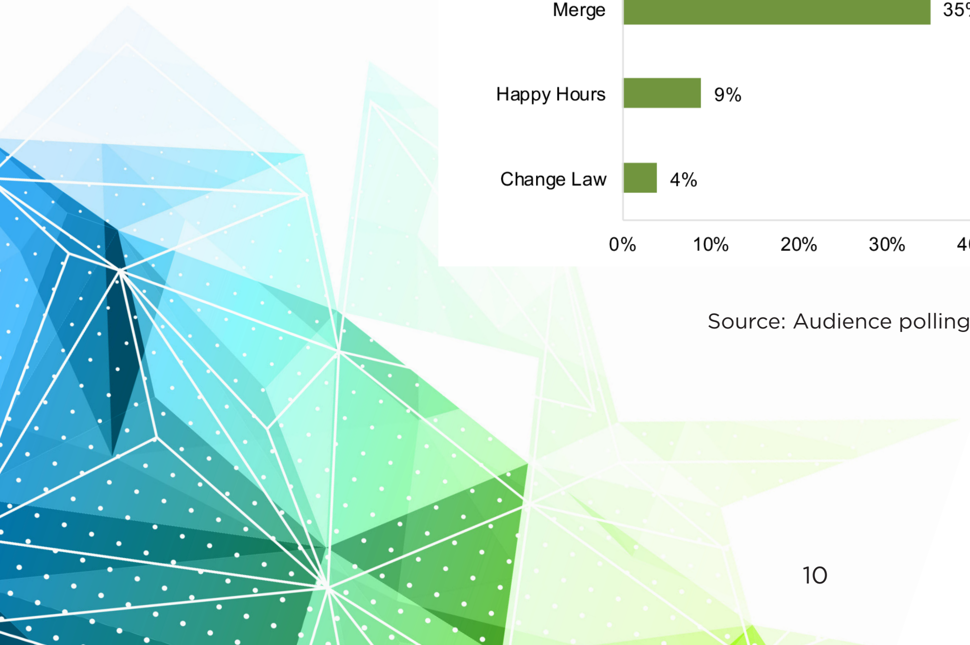
51% suggested joint rulemakings to achieve **CFTC/SEC harmonization**

Moving across the pond, the US needs to look within itself to harmonize across its own regulatory agencies. For example, index CDS and single name CDS were never viewed as separate asset classes by market participants – you trade both the index and the single names in the index, margining them on a portfolio basis – yet they are now regulated separately. Post-crisis regulations turned these products into two separate, distinct things. This increases operational complexity and costs. Market participants also note separating these products could have a more systemic consequence. Arbitraging between these products prevents the prices of each product from diverging too significantly, thereby preventing spikes in pricing. Without this arbitrage function, market participants could get discouraged from using CDS as a hedging tool. Further, market participants do not believe differences in regulation across the two product types is justified by a rational effort to mitigate risk. It is simply because there are different agencies tasked to regulate the two products.

But what can be done to achieve CFTC and SEC harmonization? Audience polling showed 51% of respondents thought the two agencies should do more joint rulemakings. While both agencies have been working closely to bring their rules into closer harmony – and they indicated at the conference that they are open to more joint rule makings – this process can increase the amount of time needed to finalize regulations. (Market participants believe the U.S. needs greater collaboration across market and prudential regulators as well.)



Source: Audience polling



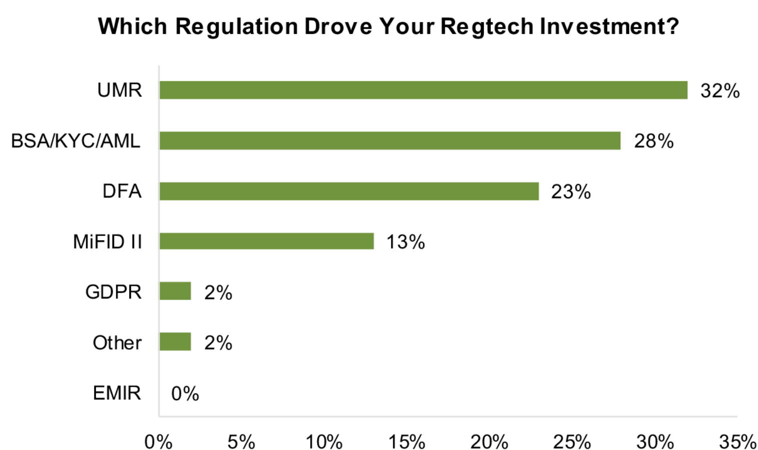
Fintech – The Search for Solutions

At the conference, a panel of industry experts discussed trends in the use of fintech in various parts of the trading lifecycle. The experts came from a cross-section of the industry: a hedge fund, a bank, a clearing house, a law firm and two technology vendors. The experts cautioned that many fintech solutions miss their mark because of the complexity of the derivatives industry and they emphasized their experience with solving real-world problems.

The discussion focused on examples of fintech applications in two main areas of activity: operations and compliance. For example, one panelist described the use of data from the front office, middle office and back office to optimize collateral management and predict margin calls for cleared derivatives. Another panelist described the use of technology to gather several types of data necessary to meet new reporting requirements mandated by Europe's MiFID II regulation. Several other examples were cited in the use of natural language processing (NLP), a branch of artificial intelligence (AI), to automate changes to legal documentation.

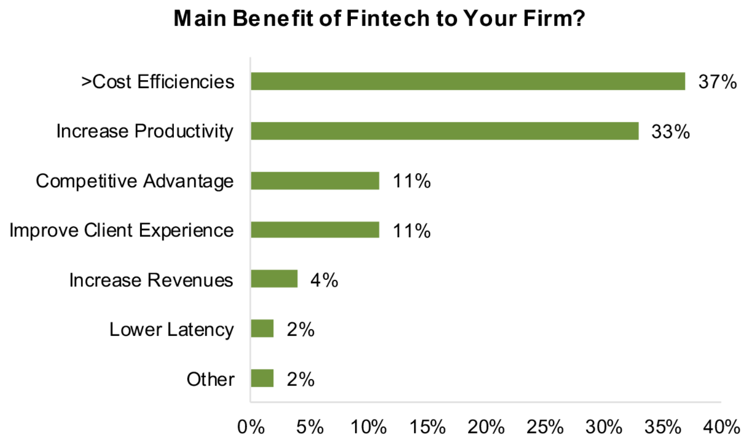
The discussion highlighted the tremendous amount of new rules and regulations that have impacted derivatives market participants since the financial crisis of 2008. During the first wave, many firms simply added more staff to their compliance departments, but more recently there has been an increasing effort to invest in regtech, a subset of the fintech trend, to automate the compliance workflow. That not only reduces the cost of compliance, it also opens up opportunities to use information more effectively across the enterprise.

Audience polling indicated that UMR – the margin requirements for uncleared derivatives – is the regulation that is currently driving the most investment in regtech (32%). The requirements began to take effect in 2016 and a large number of buy side firms are expected to become subject to these requirements over the next 18 months. Many buy side firms will need to negotiate or re-negotiate a large number of legal agreements with dealers and custodians, and several fintech vendors are offering technology solutions to automate certain aspects of this process.



Source: Audience polling (please see Appendix for acronyms)

Increasing regulation is not the only driver for fintech adoption, however. Audience polling showed that firms see cost efficiencies (37%) and higher productivity (33%) as the primary benefits of fintech. Interestingly, relatively few conference attendees thought that fintech would pave the way for higher revenues (4%).

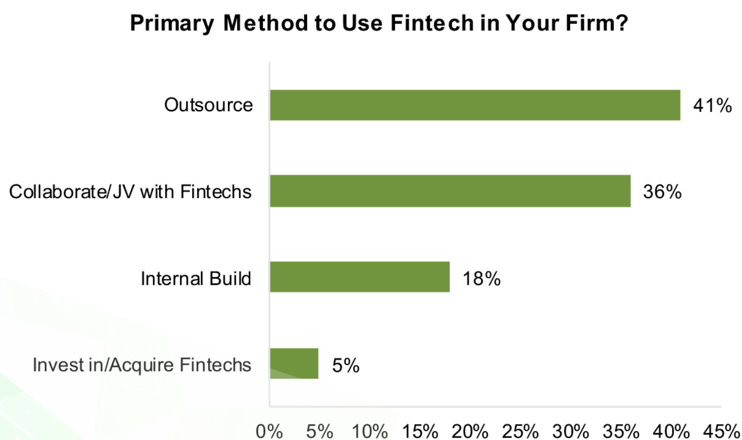


Source: Audience polling (> = greater/increase)

During the panel discussion on fintech, several panelists commented that the ability to use data more effectively was one of the biggest benefits of the fintech applications at their firms. They explained that their firms are using fintech solutions to extract data from many sources, including trading activity, legal agreements and risk management systems, and combining that data in new ways to yield better insights and smarter decisions. These solutions include not only advanced data analytics but also the digitization of documents and the storage of data in the cloud.

A third theme was the emphasis on strategic alliances, partnerships and collaboration. As one panelist commented, in the past many sell side firms invested in proprietary systems because they viewed technology as a way to bind clients to their firms. But now there is much greater willingness for market participants to work together and to partner with vendors on certain areas of technology that are viewed as too expensive to build internally.

That was echoed in the audience polling, which showed much greater support for outsourcing (41%) and collaborating (36%) than building new technology systems internally (18%).



Source: Audience polling (JV = joint venture)

Operations – Creating Intelligent Workflows

In addition to keynote speeches and panel discussions, the annual Asset Management Derivatives Forum holds roundtables to create a better platform for dialogue among all attendees. This year's conference included roundtable discussions on operations and risk management issues of interest to asset managers, clearing firms and vendors. Both roundtables highlighted the need for industry-wide collaboration to achieve greater operational efficiency and pinpointed several examples of success in this area.

...firms are now supporting increased commitment to standardization & collaboration

One example cited by several participants was the recent work to use a tag in order messages to identify how a trade was originated when it was sent by a broker to an exchange. The purpose of the tag is to indicate whether the trade was executed by voice or electronic means, and if electronic, through what type of system. The industry has worked with several exchanges and clearing houses to adopt a simplified tag schema, which will allow executing brokers and clearing firms to create greater efficiency in the post-trade process, especially where trades are given up from one broker to another after execution.

Similar to the fintech discussion, several participants emphasized the importance of collaboration. As one buy side executive said, the industry needs systems that are "interoperable", with common data formats and APIs, to allow information to move efficiently across systems both within individual firms and between multiple firms. An executive from a clearing firm echoed this theme, saying that his firm is making data available through secure APIs to technology vendors, including fintech firms, because the firm believes that this approach will lead to significant improvements in efficiency.

Historically there was a reluctance to collaborate on standards with competitors, but the mood has shifted in recent years and firms are now supporting increased technology standardization wherever possible, including common taxonomies and workflows to assist automation of tasks such as allocations and collateral movement between parties.

We expect to see more practical examples come to light, as firms across the entire trade lifecycle work together to increase operational efficiencies.

Appendix

Notes on ENN Methodology

Note: 5Y Equiv = 5-year equivalent maturity. IRS benchmark = swap positions of U.S. reporting entities; fixed-for-floating swaps, FRAs, OIS, swaptions. CDS benchmark = global index & single-name CDS, corporate & sovereign credits (mortgage excluded, <8% of total); 5-year CDS trading at 100 bps spread; long/short = sell/buy protection; CS01 adjustment = change in value of 100 notional amount CDS for 1 bps decline in CDS spread. FX benchmark = swap positions of U.S. reporting entities, includes U.S. subsidiaries of foreign entities but not purely foreign firms (not fully global); forward agreements, swaps, NDFs, cross-currency swaps & options; adjust notional amounts only for option deltas.

Terms to Know

CFTC	Commodities Futures Trading Commission
Fed	Federal Reserve System
SEC	Securities and Exchange Commission
AML	Anti-Money Laundering
BSA	Bank Secrecy Act
DFA	Dodd Frank Act
GDPR	General Data Protection Regulation
G-SIB	Global Systemically Important Bank
KYC	Know Your Customer
MiFID II	Markets in Financial Instruments Directive (revised)
SLR	Supplemental Leverage Ratio
UMR	Uncleared Margin Regulations

ENN	Entity-Netted Notional
CDS	Credit Default Swap
CS01	Credit Spread Dollar Value of 1 Basis Point
FRA	Forward Rate Agreement
IRS	Interest Rate Swap
NDF	Non-Deliverable Forward
OIS	Overnight Index Swap

FX	Foreign Exchange
EUR	Euro
GBP	British Pound
USD	US Dollar

Fintech	Financial Technology
Regtech	Regulatory Technology
AI	Artificial Intelligence
API	Application Programming Interface
NLP	Natural Language Processing

FI	Fixed Income
UST	U.S. Treasuries
MBS	Mortgage-Backed Security
Corporates	Corporate Bonds
Munis	Municipal Securities
Agency	Government Agency Debt
ABS	Asset-Backed Security
MM	Money Markets

bps	Basis Points
Brexit	British + Exit from the European Union
CCP	Central Counterparty
JV	Joint Venture
X-Border	Cross-Border

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