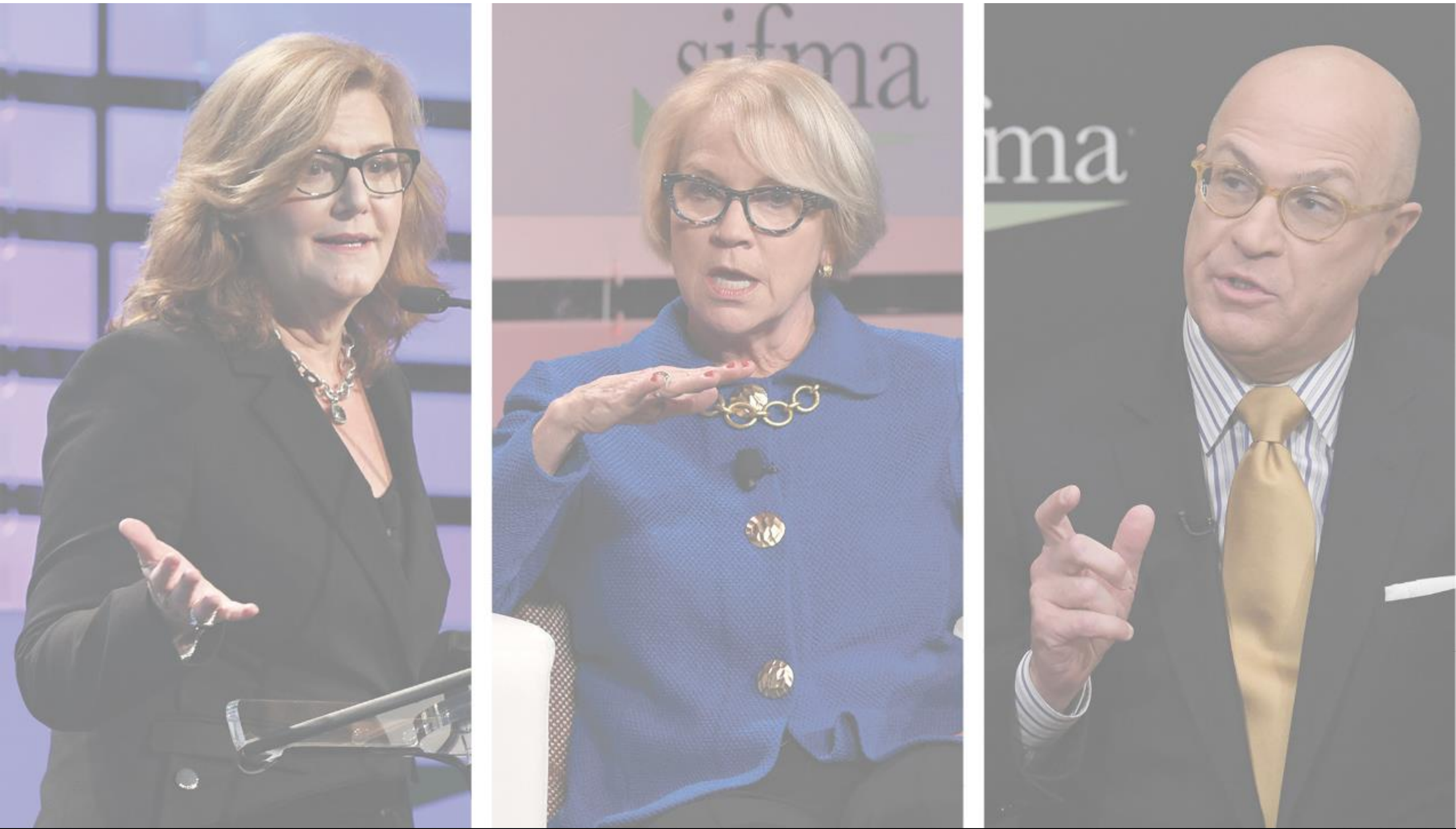


SIFMA Insights:

Annual Meeting Debrief

October 2018

Contents

SIFMA Insights can be found at: https://www.sifma.org/insights

SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry's nearly 1 million employees, we advocate on legislation, regulation and business policy, affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit http://www.sifma.org.

Executive Summary

Recently, SIFMA hosted its 2018 Annual Meeting, The Capital Markets Conference. With a day and a half of presentations and events, we gained insights into top-of-mind topics for market participants. Inside this note, we recap just some of what was seen and heard, including:

- **The transition away from LIBOR** – It is estimated $200 trillion of financial contracts and securities ($190 trillion in derivatives; $10 trillion in corporate bonds, mortgages, securitized products, credit card receivables, etc.) are tied to LIBOR and that matters to everyone – small businesses, corporations, banks, broker dealers, consumers and investors.

- **TMPG, creating best practices for market participants** – The Treasury Market Practices Group (TMPG) is a group of market professionals committed to promoting sound market practices to support the integrity and efficiency of the Treasury, agency debt and agency mortgage-backed securities markets, including establishing best practices for market participants.

- **(Still) seeking global harmonization** –The global financial system adopted an unprecedented volume of new regulations since the financial crisis, affecting everything from market structure to capital standards. Various policymakers acknowledge some changes may have gone too far, adversely impacting market efficiency and liquidity at the expense of economic growth potential. At our conference, U.S. Commodity Futures Trading Commission (CFTC) Chairman Christopher Giancarlo spoke about his recent white paper which paper assesses the CFTC’s current regulatory cross-border framework.

- **Should we be bracing for a hard Brexit?** – With less than 180 days until the U.K. leaves the EU (March 29, 2019) and just two years until the transition period ends in 2020 (if a deal is reached), the realities of Brexit are in focus. Market participants are wondering if a deal can be reached in time or will it be a hard Brexit? Our conference panelists walked through different scenarios for structures of a Brexit deal, as well as what happens if no deal is reached. We also include a Brexit timeline.

- **Analyzing – and deploying – fintech opportunities** – Technology has forced firms to constantly strive to improve the customer experience (the Amazon effect), and many financial services firms continually review fintech opportunities to enhance product and services offerings for customers. Technology is not the destination; the destination is the client, with technology as a way to serve them better. At our conference, operational and technology leaders discussed the focus of fintech innovation, the ABCDs of fintech.

The Transition Away from LIBOR

It is estimated $200 trillion of financial contracts and securities ($190 trillion in derivatives; $10 trillion in corporate bonds, mortgages, securitized products, credit card receivables, etc.) are tied to LIBOR and that matters to everyone – small businesses, corporations, banks, broker dealers, consumers and investors.

The London Interbank Offered Rate (LIBOR or ICE LIBOR) is administered by the ICE Benchmark Administration and is on five currencies (USD, GBP, EUR, JPY, CHF) serving seven maturities (overnight, one week, and 1, 2, 3, 4 and 12 months). An indication of the average rates at which the panel banks can obtain wholesale, unsecured funding, LIBOR is a widely used benchmark for short-term interest rates, often referenced globally in derivative, bond and loan documentation, as well as consumer lending instruments (mortgages, student loans). However, LIBOR is based on thinner markets and is not fully transaction based – the most active tenor (three months) posts less than $1 billion transactions per day – and submitted rates typically include often included expert judgement from market participants when determining the rate.

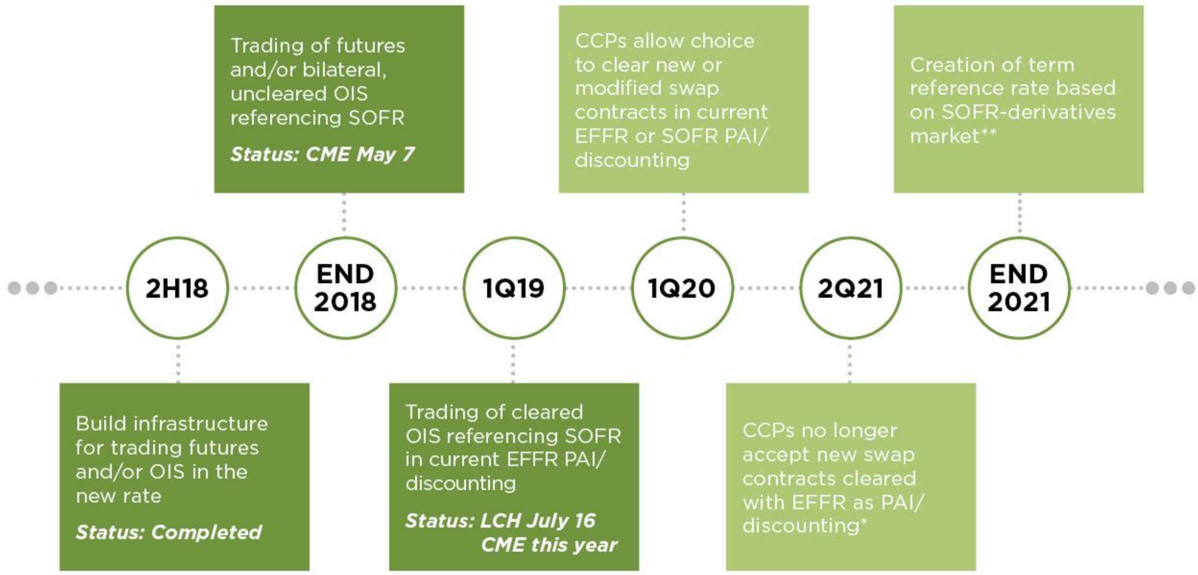
In response to concerns regarding the reliability and robustness of LIBOR and other reference rates across the globe, the Financial Stability Board and Financial Stability Oversight Council called for the development of alternative risk-free benchmark interest rates supported by liquid, observable markets. Importantly, the regulator of LIBOR, the Financial Conduct Authority in the UK, has stated it has reached a voluntary agreement with LIBOR panel banks to continue submitting rates through 2021 but will not compel banks to continue to submit beyond that time. Thus, LIBOR's future is uncertain, and the market needs to prepare for the scenario where it ceases production.

In the U.S. in 2014, the Fed and the New York Fed established the Alternative Reference Rates Committee (ARRC) to lead the transition away from LIBOR. The ARRC is a public/private partnership, with representatives from investment banks, exchanges, trade associations, mortgage experts, asset managers, corporate treasurers and regulatory agencies.

Its objectives include identifying best practices for alternative reference rates and contract robustness, addressing risks in contract language since most contracts do not include language suitable for a permanent LIBOR succession. The ARRC is also responsible for making recommendations for developing an implementation plan for orderly transitions away from LIBOR on a voluntary basis to a more robust alternative reference rate for new financial contracts.

This rate, the Secured Overnight Financing Rate (SOFR), was selected by the ARRC as its recommended alternative reference rate for the U.S. SOFR, which is based on the overnight repo markets with over $700 billion of transactions per day, is fully transaction based and therefore regarded as more robust than LIBOR. To ensure a smooth transition to SOFR, the ARRC is also working with market participants to encourage the development of sufficient liquidity in futures and swaps markets[1] referencing the new rate, with the goal of enabling trading in these markets to eventually replace a significant portion of current trading in interest rate derivatives referencing LIBOR.

ARRC's Paced Transition Plan for Developing SOFR Markets – Ahead of Schedule



Source: ARRC website
Note: OIS = overnight indexed swap. EFFR = effective Fed Funds rate. PAI = price alignment interest. *Except to close out or reduce outstanding risk in legacy contracts. Existing contracts using EFFR as PAI and the discount rate continue to exist in the same pool but would roll off over time as they mature or are closed out. **Dependent upon sufficient liquidity in the SOFR derivatives market, in order to determine a robust rate.

[1] CME Group began trading SOFR futures in May 2018 and provides clearing for OTC SOFR-based swaps. After starting at 3,257 contracts ADV and 2,033 contracts open interest as of May 7, SOFR futures contracts ADV is now over 100,000 with over 20,000 contracts in open interest. Five major market participants have cleared $200 million in notional OTC SOFR swaps since the service was launched at the beginning of October.

TMPG, Creating Best Practices for Market Participants

Now over ten years old, the Treasury Market Practices Group (TMPG) is a group of market professionals committed to promote sound market practices to support the integrity and efficiency of the Treasury, agency debt and agency mortgage-backed securities (MBS) markets. The TMPG, sponsored by the New York Fed, is composed of senior business managers and legal and compliance professionals from a variety of institutions, including: securities dealers, banks, buy-side firms, market utilities, etc. The TMPG has undertaken many initiatives, including development of fails[2] charges to address chronic settlement fails to mapping the operational/settlement environment for clearing and settlement in TMPG covered products.

As our panelists noted at our conference, a main "mission" of the TMPG is to create best practices for market participants trading Treasury, agency debt and agency MBS. TMPG members recognize the importance of maintaining the efficiency of these important markets. Benefits of adherence to TMPG recommendations flow to all market participants. TMPG guidelines are recommendations and are not enforced by regulators. (Panelists did note primary dealers[3] are required to adopt these practices.) One panelist noted, the guidelines establish "yellow flags for behaviors that may be on the right side of regulation but the wrong side of what's right."

TMPG Best Practices

1. **Promoting liquidity and transparency**: Communicate in a clear and truthful manner; behave in a manner that supports market liquidity; quote prices responsibly and promote price transparency across trading platforms; etc.

2. **Promoting appropriate use and handling of confidential information**: Not share or use confidential information with the intent of adversely affecting the interests of other market participants or the integrity of the market; limit sharing and use of confidential information, internally and externally; be aware of counterparties' practices for handling confidential information and make your firm's practices for handling confidential information available to counterparties; etc.

3. **Maintaining a robust control environment**: Maintain a strong internal control environment sufficient to ensure each business area acts in accordance with applicable laws, regulations, self-regulatory organization rules and market best practices; establish internal controls designed to ensure confidential information is

[2] When a trade is performed, both parties in the transaction are contractually obligated to transfer either cash or assets before the settlement date. If a seller does not deliver securities or a buyer does not pay owed funds by the settlement date, then the transaction fails.
[3] Primary dealers are trading counterparties of the New York Fed in its implementation of monetary policy. They are also expected to make markets for the New York Fed on behalf of its official accountholders as needed, and to bid on a pro-rata basis in all Treasury auctions at reasonably competitive prices.

handled in a manner that complies with established policies; etc. This section also notes trading venues should develop processes and procedures to adhere to best practices, including market infrastructure in the best practices procedures to which trading participants are agreeing.

4. **Managing large positions with care**: Manage large positions with the mindset of supporting market liquidity and avoiding market disruptions; avoid any strategies that create or exacerbate settlement fails; take care that sudden changes in trading strategies do not adversely affect the liquidity or settlement of securities in the marketplace; etc.

5. **Promoting efficient market clearing**: Ensure trades are entered into trading systems promptly in order to promote efficient settlement and not impede the normal clearing and settlement process; relevant transaction information should be provided to counterparties well in advance of applicable cutoff times, enabling counterparties to make timely delivery of securities; trade cancellations and corrections should be rare and occur only as a result of operational errors or other mistakes made in good faith; etc. This section included specific recommendations to promote the efficiency of tri-party repo settlement, noting market participants should support timely trade confirmation in this market.

(Still) Seeking Global Harmonization

The global financial system adopted an unprecedented volume of new regulations since the financial crisis, affecting everything from market structure to capital standards. Various policymakers acknowledge some changes may have gone too far, adversely impacting market efficiency and liquidity at the expense of economic growth potential. Further, multiple regulators implementing regulations at different intervals since the financial crisis and adopting the same rule with different interpretations of how to implement it (for example, the gold-plating of international standards) has undercut the process of global harmonization. As such, many regulators across the globe are assessing the current regulatory framework and potential recalibration of regulations to ensure capital markets run efficiently.

Once the financial crisis hit, regulators and legislators across the globe began developing new regulations and laws to improve the safety and soundness of the global financial system and internally protect their own nations' systems and economies. On one track, there were global agreements and commitments to reforms. The G20, a forum of the world's major economies seeking to address the world's financial challenges, agreed to adopt a set of policies, regulations and reforms to repair the global financial system and to maintain the global flow of capital. Financial standard setters began making recommendations to establish a framework for identifying systemic risk and promote global financial stability, as well as encouraging coherent implementation of these policies across sectors and jurisdictions to create a level playing field across countries and regions.

On the other track, countries, or regions in the case of the EU, began turning the global recommendations into their own laws and regulations to protect their own markets. Some countries followed the recommended global standards, while others added their own layers of regulatory requirements on top of the minimums. Countries developed and implemented their new regulations at varying paces. In the U.S., both market and prudential regulators were tasked to implement the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA), America's new financial reform legislation. Other countries moved along implementing their regulations as well. What the world ended up with is an inconsistent regulatory framework across the globe, and market participants need harmonization since financial markets are globally interconnected.

Now market participants hope it is time for recalibration and harmonization, necessary to ensure the efficient functioning of capital markets and economies, with a call to: (a) undergo an analysis of regulations and the impact on market efficiency, i.e. unintended consequences; (b) assess the current market environment versus where markets were when rules were written and implemented several years ago; (c) consider the everyday impact on markets, not just prepare for stress environments; and (d) potentially propose changes to reverse the adverse effects of the original rules without releasing focus on ensuring financial stability.

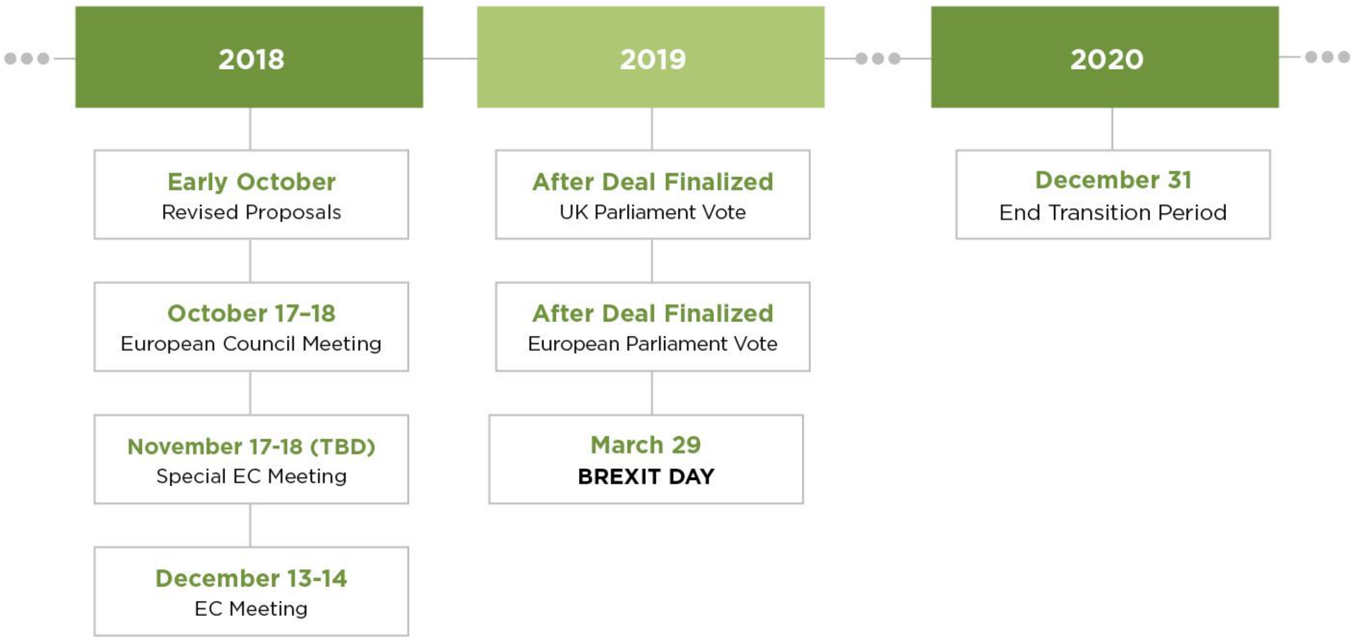
At our conference, U.S. Commodity Futures Trading Commission (CFTC) Chairman Christopher Giancarlo spoke about his recent white paper, *Cross-Border Swaps Regulation Version 2.0: A Risk-Based Approach with Deference to Comparable Non-U.S. Regulation*. At the time the CFTC implemented rules as tasked under DFA Title VII, most of the other main global financial centers did not have finalized and implemented rules. The CFTC was a first mover in implementing derivatives reforms. Therefore, the CFTC felt it necessary to assert its jurisdiction to other regions, which was not well received by other countries. Years later, other countries and regions are much further along in implementing derivatives reforms.

The Chairman's white paper assesses the CFTC's current regulatory cross-border framework – including the 2013 Cross Border Guidance, 2016 Cross Border Margin Rules and the 2016 Proposed Cross Border Rules – and identifies a number of adverse consequences. At our conference, the Chairman noted this was a "flawed" approach which "has fragmented what were once global markets into a series of separate liquidity pools." Fragmented markets are less resilient under times of stress and can potentially increase systemic risk, rather than reduce it as was a goal of the G20 reforms. As his white paper notes, fragmentation is "not justified as an unavoidable by-product of global reform implementation." A restoration and maintenance of global liquidity is needed to ensure markets run as efficiently as possible and keep global economies functioning.

In addition to continuing to strive for global harmonization, the U.S. is also working on internal harmonization among prudential (Fed, FDIC, etc.) and markets (CFTC, SEC) regulators. The CFTC Chairman indicated internal U.S. harmonization is in process. The CFTC is working closely with the SEC and prudential regulators to review various regulations, with a goal to eliminate duplication and inconsistencies. We view this commentary as a positive sign, a real example of regulators showing a willingness to review and potentially recalibrate regulations across the system globally.

Should We Be Bracing for a Hard Brexit?

With less than 180 days until the U.K. leaves the EU (March 29, 2019) and just two years until the transition period ends in 2020 (if a deal is reached), the realities of Brexit are in focus. Market participants are wondering if a deal can be reached in time or will it be a hard Brexit?



Hard Brexit is defined as the U.K. leaving the EU's single market for goods and services to gain full control over its own law making, budget and immigration policies, with no established preferential access to EU markets. Under a hard Brexit, the U.K. will need to establish a new trade pact or individual industry deals with the EU. Else, it will be subject to standard World Trade Association rules inclusive of tariffs on goods. The U.K proposed a deal for free trade with a common rule book and no customs checks on goods. The U.K. and EU would then maintain autonomy over their own rules for services, trying to keep common ground. Our panel indicated the single market for financial services is not possible, as it comes with free movement of people which is a "nonstarter" (immigration was one of the perceived drivers of the Brexit vote). U.K. representatives feel it is not in their best interest to be a rule taker from the EU on how to run its financial markets. This implies mutual recognition[4] does not appear to be a solution, with the U.K. hoping instead for a bilateral treaty building on existing regulatory equivalence regimes (like the EU/Japan trade agreement).

[4] With mutual recognition, an independent arbitrator decides whether national authorities have the same outcomes, i.e. roughly equal partners. Equivalence starts with each national authority maintaining autonomy of decision making and building from there, with a national authority determining another region's regulations as equivalent to their own rules.

With a hard Brexit, however, the U.K. will lose passporting rights, or the right for any firm registered in the European Economic Area to do business in any other EAA state without requiring additional authorization by another country. Many European firms will experience diminished market access to the U.K. (in absence of temporary regulatory relief to stave off disruption), and the U.K. loses preferential access to the EU instantly. As a result, our panelists expect financial market activity will drop down a certain level and then pick up. The question remains, how deep will the "V" be? All market participants need access to liquid, deep markets and, therefore, want to avoid a significant drop or worse yet a cliff edge (the cliff would be no Brexit deal and therefore no transition period, viewed as even more disruptive for markets than loss of the single market).

Financial services firms will then need operations in other financial centers around Europe – Dublin, Amsterdam, Luxembourg, Frankfurt or Paris – meaning they must obtain the appropriate regulatory approval and licenses to operate in these countries, based on their firms' business model and needs. The focus for financial services firms is on client continuity, ensuring trades and other activities continue as is, regardless of the Brexit deal structure. While some business may shift to the Continent, our panelists do not foresee a single financial services center in Europe becoming as dominant as London. They instead expect to see net losers across Europe, as clients move business to New York or other financial centers, with New York gaining in dominance.

With business moving out of London, clearing is one area of concern for market participants. EU authorities are looking to move Euro-denominated clearing from London to the EU, claiming it is a matter of financial stability. If this is a sticking point in deal negotiations, our panelists expect the EU will allow an official breakdown of negotiations. Panelists suspect EU authorities do not view the loss of access to London as a big deal. They do acknowledge fragmentation of liquidity pools caused by this move should drive up costs of capital, as liquidity moves from a single, deep pool in London to three to four less liquid pools in the EU. However, our panel noted they do not believe this is enough to push EU authorities to do a deal, feeling they can last longer than the U.K. can without market access. Many market participants disagree. The sheer scale of clearing business performed in London does not currently exist in Europe, neither does the experience of regulating clearing houses on this level. Some believe it could take five to ten years to replicate London clearing house capacity and expertise on the Continent.

This is not lost on EU authorities, but nor is it a top 1-3 item on the priority list. A panelist noted senior administrators from a large EU country told him the one-million-dollar problem is the U.K.'s: business moves to Europe on a manageable scale. The one-billion-dollar problem is Europe's: the EU faces increasing costs of capital for EU financial firms and corporate end users. The gazillion dollar problem to EU authorities – the main area of concern – is if the single market and the Euro begin to crumble, creating a "huge" problem.

What Does Brexit Mean for U.S./U.K. Equivalency?

A final note, CFTC Chairman Giancarlo was asked what Brexit means for U.S./U.K. equivalency. He compared Brexit to a bitter divorce, with the U.S. representing the children who are struggling to get their parents' attention. That said, he noted the CFTC has a Brexit taskforce, which is preparing for the worst, a hard Brexit. He noted U.S. markets are robust and strong but there is "no question" it won't have an impact and to prepare for a "rocky time" in March. The CFTC is routinely speaking with LCH (one of the largest clearing houses in the world, based in London), the Financial Conduct Authority, the Bank of England and the British Treasury, as well as ESMA and national regulators in the EU to prepare for Brexit and maintain continuity in markets.

Analyzing – and Deploying – Fintech Opportunities

Firms constantly strive to improve the customer experience (the Amazon effect), and many financial services firms continually review fintech opportunities to enhance product and services offerings for customers. Technology is not the destination; the destination is the client, with technology as a way to serve them better. While much of a firm's technology spend is on ways to increase operational efficiencies – which could decrease costs to not just the firms but also their customers – many firms also sponsor investments for fintech innovations or look to acquire fintech firms themselves. At our conference, operational and technology leaders discussed the focus of fintech innovation, the ABCDs of fintech.

AI

Artificial Intelligence can be used to increase efficiencies & lower costs in what would normally be human tasks (examples include: market surveillance, AML, KYC). AI is not new to financial services, with firms using it for data analytics for years. Now they are moving into areas such as using AI to pick investment portfolios. Panelists also noted AI is a subset of human intelligence, not greater than or replacing.

Blockchain

Blockchain is a type of distributed ledger technology (DLT) and "holds a lot of promise." But is it a solution looking for a problem? Firms need to design systems on how processes work (messaging, reconciliation) and then integrate DLT, i.e. integrate existing systems with new technology. Scale is also not quite there, with many uses cases being the electronification of paper rather than transactional based.*

Cloud

Cloud computing involves moving from high cost, on site IT systems to software residing on a separate data center. Financial firms remain conservative on usage of public clouds, since they move money and need to protect clients' data. Some firms are "inching" into public clouds.

Data

Data is the new oil, with firms using data to improve customer experiences (and regulatory compliance, etc.). The digitization of data means easy storage, transmission, search, analysis and processing of information. However, the gathering and use of data brings great responsibility. Financial services firms spend a significant amount of time and resources protecting clients' data, and this remains a top priority.

*There are transactional use cases in repo, syndicated loans, custody and settlement, etc.

While fintech innovations are interesting and hold lots of opportunity, firms must decide whether to build the technology themselves (if they possess the resources internally) or partner with or buy fintech firms. Part of this decision is about costs, but it is also a balance of integrating the entrepreneurial spirit into a financial services firm. Bank of America Chief Operations & Technology Officer Catherine Bessant noted, “We used to say we desire to be a fintech company. However, a financial institution is very different from a fintech as: (1) it has strict regulations to adhere to and a great responsibility to protect the movement of money and sensitive customer data; and (2) shareholders are not patient, they do not have the fail fast and fail often mentality of a private, entrepreneurial firm.”

The financial services industry continues to innovate. At the same time financial institutions are testing fintech options, regulators are trying to understand innovation themselves. Regulators must work with the industry to understand new technologies. Sandboxes have become an international trend to do just this, and the U.S. is currently exploring opportunities to utilize them. Previously, regulators waited for the industry to develop new products and then told firms yes or no. In a sandbox environment, all parties can learn together and assess potential opportunities and risks as technologies are being developed and tested. A sandbox provides a favorable regulatory environment for small scale experimentation and is a way for market participants to move from breakthrough (an idea/concept) to action (actual business use cases). In order to be successful, sandboxes need to include more than one regulator. A regulator at our conference indicated it is their job to remove barriers if they are preventing innovation. This is how the industry will move forward to convert innovations into next generation processes.

Cyber Remains Top of Mind

“Cyber is absolutely job one for (regulatory) agencies and all market participants.”
--Christopher Giancarlo, Chairman CFTC

“Cyber is a top industry priority, a C-suite priority.”
--Lisa Kidd Hunt, Executive Vice President, Business Initiatives Charles Schwab & Co., Inc.

As stated by multiple panelists and keynote speakers, cybersecurity remains a top priority for the financial services industry. Cyber defense is about establishing resiliency for systems and preparing a game plan for recovery should there be an attack. Financial services is a global industry, and all market participants are interconnected as part of the same ecosystem. Firms must work together to prepare and protect the system. The mindset is not if there will be an attack, but rather when there is an attack firms must be ready. SIFMA's CEO & President Kenneth E. Bentsen, Jr. stated, “Cyber defense is not just about defense; it’s about resiliency and recovery. We’re constantly training for that.” Individual financial institutions and the industry frequently perform penetration tests on their systems and execute cybersecurity training exercises, such as SIFMA’s biennial Quantum Dawn. The last exercise in November 2017 brought together over 50 financial and public sector organizations and 1,000 industry experts. Through exercises such as these, the industry develops recommendations to strengthen and defend financial services infrastructure from cyber attacks across a wide range of scenarios.

In addition to building up resiliency to attacks that could shut down systems, market participants (financial institutions as well as regulatory agencies) spend a significant amount of time and resources protecting data they collect from clients. It is an ongoing battle to continually build up system defenses, one that takes up a significant amount of resources. Bank of America’s Bessant noted cybersecurity remains a top priority for her firm, & her team remains focused on ensuring resources, dollars and talent, are continually dedicated to building and maintaining systems resiliency.

Appendix: Terms to Know

International	
BCBS	Basel Committee on Banking Supervision (International)
BIS	Bank for International Settlements
FSB	Financial Stability Board
GHOS	Group of Central Bank Governors and Heads of Supervision
IOSCO	International Organization of Securities Commissions

United States	
CFPB	Consumer Financial Protection Bureau
CFTC	Commodity Futures Trading Commission
FDIC	Federal Deposit Insurance Corporation
Fed	Federal Reserve System
FINRA	Financial Industry Regulatory Authority
OCC	Office of the Comptroller of the Currency
SEC	Securities and Exchange Commission

European Union	
EBA	European Banking Authority
ECB	European Central Bank
ECB	European Council
EP	European Parliament
ESMA	European Securities and Markets Authority

United Kingdom	
BoE	Bank of England
FCA	Financial Conduct Authority
PRA	Prudential Regulation Authority

AsiaPac	
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investments Commission
RBA	Reserve Bank of Australia
CBRC	China Banking Regulatory Commission
CIRC	China Insurance Regulatory Commission
CSRC	China Securities Regulatory Commission
PBC	People's Bank of China
HKMA	Hong Kong Monetary Authority
SFC	Securities and Futures Commission (Hong Kong)
RBI	Reserve Bank of India
SEBI	Securities and Exchange Board of India
BoJ	Bank of Japan
FSA	Financial Services Agency (Japan)
MAS	Monetary Authority of Singapore (Singapore)

Brexit	British + Exit from the European Union
LCH	London Clearing House
ICE	Intercontinental Exchange
LIBOR	London Interbank Offered Rate
ARRC	Alternative Reference Rates Committee
SOFR	Secured Overnight Financing Rate
USD	US Dollar
GBP	Great British Pound
EUR	Euro
JPY	Japanese Yen
CHF	Swiss Franc
AML	Anti Money Laundering
KYC	Know Your Client
OTC	Over-the-Counter
G20	Argentina, Australia, Brazil, Canada, China, EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, U.K. & U.S.

AI	Artificial Intelligence
AR	Augmented Reality
Bot	Computer programs that speak like humans
Chatbot	Software engaging in natural language dialogues with users
Cloud	Internet-based computing (servers, storage, applications, etc.)
DLT	Distributed Ledger Technology*
Fintech	Financial Technology
IT	Information Technology
ICO	Initial Coin Offering
IoT	Internet of Things
Machine Learning	Computer algorithms learn from data without being programmed
NLG	Natural Language Generation
NLP	Natural Language Processing
OCR	Optical Character Recognition
PII	Personally Identifiable Information
RPA	Robotic Process Automation
Robotics	Use of robots to substitute for humans or replicate human actions
VR	Virtual Reality

*Blockchain is one type of DLT

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