The Decade of Financial Regulatory Reform: 2009 to 2019

BlackRock.

Barbara Novick
Vice Chairman

Kate Fulton
Head of Public Policy, Americas

Martin Parkes
Global Public Policy Group

Rachel Barry
Global Public Policy Group

Joanna Cound
Head of Public Policy, EMEA

Stephen Fisher
Global Public Policy Group

Samantha DeZur
Global Public Policy Group

Anahide Pilibossian
Global Public Policy Group

Introduction

The ten years following the Global Financial Crisis of 2008 (GFC) can be characterized as the decade of financial regulatory reform. New rules touch virtually every financial firm, from banks to insurers to asset managers to mortgage lenders and more. Most importantly, these rules have re-shaped the regulatory environment governing a wide range of asset management products and activities, thereby creating a "safer neighborhood" and improving conditions to invest with increased confidence.

Specifically, the new regulatory framework has enhanced the capital requirements framework applicable to risk-taking entities such as banks, as well as introducing new rules governing liquidity, market structure, transparency, risk management, portfolio construction, investment activities, and corporate governance. The overall effect is broadly positive for strengthening financial systems around the world and reducing the potential for systemic risk events. The tenth anniversary of financial regulatory reform represents an important milestone and presents an opportunity to reflect on the sweeping reforms that have been enacted across the world and to assess what gaps remain. In this *ViewPoint*, we discuss financial regulatory reforms specific to the asset management sector. In addition, we look ahead and identify several areas that merit additional study from a systemic risk perspective. While the focus of this report is on the US and the EU, we note that a similar set of reforms have been implemented in other countries and regions throughout the world.

Following the GFC, regulators around the world created new rules and regulations across a broad range of areas touching asset management, including over-the-counter (OTC) derivatives rules, money market fund reforms, reporting and registration requirements for private and alternative funds, mutual fund reporting, investment adviser reporting, liquidity risk management programs for mutual funds, stress testing for mutual funds, and reforms to improve the resilience of the market ecosystem. Exhibit 1 illustrates some of the key regulatory reforms in the US and Europe. Many of these reforms included new reporting requirements to help regulators fill data gaps and address specific product issues (including consistent comprehensive rules for US ETFs). Exhibit 2 lists some of the key data reporting requirements in place both before and after the GFC.

International Standard Setting & Global Financial Regulation

The period prior to 2007 was characterized by increasing integration of financial markets around the world. The GFC revealed the urgent need to strengthen the financial services sector globally, with an initial focus on banks given their central role in risk transmission. This was soon followed by a focus on non-banking activities and entities. These efforts were undertaken to improve the resilience of financial markets, increase transparency, and restore the confidence of investors.

The opinions expressed are as of January 2020 and may change as subsequent conditions vary.

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Key observations and recommendations

1. Financial regulatory reforms implemented since the GFC have fundamentally strengthened financial systems around the world.
2. After an extensive review of asset management, the FSB and IOSCO concluded that financial stability risks in asset management need to be assessed and regulated industry-wide. Likewise, the FSOC concluded that a products- and activities- based approach applied across the industry is the only way to reduce systemic risk. Markets regulators have implemented new rules to address risks across a broad range of areas including OTC derivatives, money market funds, reporting for mutual funds and advisors, liquidity risk management for funds, stress testing for funds, the use of leverage and derivatives in funds, and more.
3. We recommend that regulators assess the full body of new rules and consider where existing regulations can be recalibrated or harmonized to more effectively address risks while facilitating economic growth.
4. Looking forward, there are several priority areas which require continued focus from policy makers. These include:
   a. The transition from LIBOR to alternative risk-free rates;
   b. Risk mitigation, disclosure, and governance practices of central clearing counterparties (CCPs);
   c. Investor confusion around classification of exchange-traded products (ETPs);
   d. Cybersecurity;
   e. Underfunded pensions;
   f. Bondholder rights;
   g. Reform of cash investment vehicles;
   h. Market fragmentation in Europe and elsewhere;
   i. Equity trading market resiliency; and
   j. The MiFID framework.

International forums have become the primary stage for the setting of rules and standards in the post-GFC financial services regulatory architecture. Much of the EU and US regulatory reform agenda has its origins in the international agreements signed at Pittsburgh by the Group of 20 (G20) and subsequently in the international standard setting bodies such as the Financial Stability Board (FSB), Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO). These global policy makers have set standards, which have helped shape regulatory frameworks around the world, and these bodies continue to monitor the implementation of the G20 regulatory reform commitments.

Exhibit 1: Key Post-GFC Financial Regulatory Reforms

US		EU	
Feb 2010	SEC Liquidity Reform of Money Market Funds (MMFs)	Jul 2011	Alternative Investment Fund Managers Directive (AIFMD)
Jul 2010	Dodd-Frank Act – created FSOC,* OTC derivatives reform, private fund reform, etc.	Jul 2011	UCITS IV requirements on governance and risk management, eligible assets, investor information
Oct 2011	SEC and CFTC Reporting Requirements for Private Funds	Nov 2012	Short Selling Regulation
Oct 2012	OCC Reforms for Short Term Investment Funds (STIFs)	Dec 2012	ESMA Guidelines on ETFs and other UCITS issues
Jul 2014	SEC Structural Reform of MMFs	Mar 2013	European Market Infrastructure Regulation (EMIR) central clearing requirements
Aug 2016	SEC Investment Adviser Data Enhancements	Aug 2014	UCITS V requirements for depositories and remuneration
Oct 2016	SEC Rule on Liquidity Risk Management Programs and Swing Pricing	Jul 2017	EU Money Market Fund Reform
Oct 2016	SEC Investment Company Reporting Modernization Rules	Jan 2018	MiFID II pre- and post-trade reporting and transparency requirements
Sep 2019	SEC Exchange-Traded Funds Rule	Jan 2019	Simple, Transparent, and Standardized (STS) securitization requirements
		Jul 2019	ESMA guidelines on liquidity stress testing for MMFs
		Sep 2019	ESMA guidelines on liquidity stress testing for AIFs and UCITS

For illustrative purposes only. Not intended to be all-inclusive.

Exhibit 2: Key Data Reporting Requirements

US	EU
Pre-GFC	
• Large trader reports for futures • Futures market trading data with participant identifiers • Form N-1A for RICs incl ETFs • Form N-SAR for RICs incl ETFs • Form ADV for advisers • TRACE • "Special calls" re: positions in Treasury holdings • National Bank call reports on bank collective fund holdings by asset class	• MiFID I transaction reporting (equity only) • National UCITS reporting (unharmonized)
Post-GFC	
• Form PQR for private funds • Form PR for commodity trading advisors • Swap Data Reporting / Establishment of SDRs • Form N-1A for RICs incl ETFs (revised) • Quarterly MMF reporting for federally chartered STIFs • Form N-MFP for 2a-7 MMFs • Form N-CR for 2a-7 MMFs • Form PF for private funds • Regulation SBSR for Swap Data Reporting / SDRs • Form ADV separate account info • Form N-CEN for RICs incl ETFs • Form N-PORT for RICs incl ETFs • Form N-LIQUID for RICs incl ETFs • TRACE extended to Treasuries	• European Short Selling Regulation reporting • European Market Infrastructure Regulation reporting • Eurozone UCITS reporting on asset inventory to ECB • Transparency Directive II threshold reporting • AIFMD Annex IV reporting on holdings, clients, counterparties • Market Abuse Directive and Regulation reporting • MiFID II post-trade transaction reporting (beyond equity) • Money Market Fund Regulation Reporting • Securities Financing Transaction Reporting • Capital Requirements Directive COREP reporting • Solvency II asset reporting • National liquidity and leverage reporting

For illustrative purposes only. Not intended to be all-inclusive.

Exhibit 3: Key Global Standards by International Bodies

International body	Publication	Year
Bank for International Settlements and IOSCO	Principles for Financial Market Infrastructures	2012
IOSCO	Policy Recommendations for Money Market Funds	2012
BCBS-IOSCO	Final Framework on Margin Requirements for Non-centrally Cleared Derivatives	2013
IOSCO	Principles for the Regulation of Exchange Traded Funds	2013
FSB	Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos	2013
IOSCO	Standards for the Custody of Collective Investment Schemes' Assets	2015
IOSCO	Liquidity Management Tools in Collective Investment Schemes: Results from an IOSCO Committee 5 survey to members	2015
FSB	Guidance on Central Counterparty Resolution and Resolution Planning	2017
FSB	Final Recommendations on Structural Vulnerabilities in the Asset Management Sector	2017
Bank for International Settlements and IOSCO	Further guidance on the Principles for Financial Market Infrastructures (PFMI) regarding financial risk management for CCPs	2017
IOSCO	Principles for Financial Benchmarks	2018
IOSCO	Final Recommendations for Liquidity Risk Management for Collective Investment Schemes	2018
IOSCO	Final Recommendations for a Framework Assessing Leverage in Investment Funds	2019

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Activities-Based Regulation in Asset Management

The GFC naturally led policy makers to undertake a complete review of financial markets and the participants in these markets. After an extensive review of asset management, the FSB and IOSCO concluded that financial stability risks in asset management need to be assessed and regulated industry-wide, rather than focusing on methodologies for identifying systemic risk at the entity level. This shift reflected an understanding that asset managers do not present systemic risk at the company level, and a products- and activities- based approach is the only effective means to address potential risks across the sector. In 2017, the FSB/IOSCO published their final recommendations on structural vulnerabilities in the asset management sector, which set out 14 recommendations regarding potential stability risks—all focused on activities and products, and 11 focused specifically on mutual funds. IOSCO has subsequently published final reports laying out standards for liquidity risk management for mutual funds[1] and for the use of leverage in mutual funds.[2]

The US implemented a products and activities-based approach to assessing financial stability risks in the recently approved guidance from the Financial Stability Oversight Council (FSOC). In the final guidance, FSOC acknowledges the expertise of US financial regulatory agencies and the existing, robust regulatory frameworks that US regulators have implemented.

Central Clearing

At the center of the post-GFC regulatory reforms was the push to move bilateral derivatives trading onto a centrally cleared framework. In September 2009, leaders of the G20 agreed that over-the-counter (OTC) derivatives contracts should be reported to trade repositories, cleared through central counterparties (CCPs), and traded on exchanges or electronic trading platforms, and non-centrally cleared contracts should be subject to higher capital requirements.[3] The FSB and IOSCO have issued several reports and recommendations, monitoring and helping facilitate the implementation of the G20 leaders' commitments.

With the move to central clearing, derivatives that were historically negotiated and settled bilaterally are in certain cases required to be cleared through CCPs and/or executed on public trading venues, which provides the market and regulators with improved transparency. Mandates to settle and clear derivatives at CCPs have been implemented across the globe. Additional requirements have been placed on bilateral trades, such as mandatory margin requirements and trade reporting. These changes have incentivized the market to shift more trades into the centralized infrastructure, reducing individual counterparty credit risk.

Uncleared Margin Requirements

To further reform the OTC derivatives markets, in 2011 the G20 called on BCBS and IOSCO to develop global standards for margin requirements on non-centrally cleared derivatives.[4] BCBS-IOSCO published their final framework on margin requirements in 2013, which established standards for margin requirements to be phased in over time. The final implementation phases for most of the global margin rules are upcoming in 2020 and 2021, at which point major jurisdictions are expected to have fully implemented most of the margin requirements.[5]

Financial Regulatory Reform in the United States

In response to the GFC, Congress passed the Wall Street Reform and Consumer Protection Act (Dodd-Frank Act or DFA). DFA expanded the US financial regulatory system. It established significant new financial stability protections, a clearing mandate for most OTC derivatives contracts, significant new reporting requirements and extensive regulatory mandates to improve investor protections. Beyond DFA, markets regulators – including the Securities and Exchange Commission (SEC), Commodity Futures Trading Commission (CFTC), and the Office of the Comptroller of the Currency (OCC) – undertook a comprehensive review of market structure, financial products, and financial markets activities.

The US has a comprehensive regulatory regime for the protection of investors and market oversight. The Investment Advisers Act of 1940 (Advisers Act) and the Investment Company Act of 1940 (1940 Act) are the two key pieces of legislation governing US investment advisers and US funds, respectively. Additionally, the Securities Act of 1933 was enacted to improve financial information disclosure, primarily through the registration of securities; the Securities Exchange Act of 1934 created the SEC and gave the agency broad authority over all aspects of the securities industry, including the Securities Act of 1933 registration requirements. The Commodity Exchange Act, originally passed in 1936, regulates commodities and futures trading and established the statutory framework under which the CFTC operates. The Office of the Comptroller of the Currency (OCC) is the primary regulator of banks chartered under the National Bank Act. Over the past decade, there have been considerable revisions to statutes impacting asset management.

In December 2014, Mary Jo White, then-Chair of the SEC, laid out an ambitious program for modernizing the regulation of US registered mutual funds and investment advisers.[6] She referenced a range of initiatives, including collecting additional data to enhance the SEC's existing surveillance capabilities, introducing liquidity risk management standards and stress testing for funds, and finalizing rules for the use of derivatives in mutual funds. Over the last five years, under former Chair White and current Chairman Jay Clayton, the SEC has finalized a broad range of new regulations applicable to mutual funds and fund managers, and there are currently several additional proposals pending. These rules address the modernization program laid out by Chair White and in some cases go beyond such as with the new ETF rule.

Below we outline some of the key US regulatory activities over the last ten years impacting the asset management industry, beginning with the immediate post-GFC regulations and then the SEC's modernization agenda.

Financial Stability Authorities

Dodd-Frank Act established new bodies to oversee financial markets and mitigate risks. It created FSOC to identify risks to the financial stability of the United States, promote market discipline and respond to emerging risks to the stability of the United States' financial system. FSOC has extensive authority to mitigate financial stability risks, including access to extensive data sets for monitoring risks, authority to recommend that financial regulators enhance their rules to address financial stability risks, as well as the authority to designate a nonbank financial firm for supervision by the Federal Reserve.

DFA created the Office of Financial Research (OFR), housed within Treasury to support FSOC. FSOC can provide direction to and request data and analyses from OFR to help with the identification of emerging risks to financial stability. OFR looks across the financial system to measure and analyze risks, perform research, and collect and standardize financial data.

OTC Derivatives Reforms

Building upon the existing regime for futures, the Dodd-Frank Act amended the Commodity Exchange Act (CEA) to require clearing of certain over the counter derivatives in the US. The CFTC issued final rules in 2012 to implement the clearing mandate, requiring various classes of credit-default swaps, interest rate swaps, and other derivatives to be cleared by derivatives clearing organizations (DCOs) registered with the CFTC.

US regulators have worked to implement margin and reporting requirements over the past decade. Consistent with BCBS/IOSCO's recommended implementation timeline, US prudential regulators, the SEC, and the CFTC began in 2015 finalizing regulations to implement margin requirements for uncleared swaps. The regulations implemented to date broadly mandate the exchange of margin for uncleared swaps, with some exceptions. The use of margin is intended to reduce counterparty risk and promote market stability.

Reforms to Cash Investment Vehicles (including MMFs and STIFs)

In February 2010, the SEC issued rules designed to reduce the interest rate, credit, and liquidity risks of registered MMFs. The OCC updated its rules for short-term investment funds (STIFs) offered by nationally chartered banks in 2012, including new portfolio composition constraints and regulatory reporting requirements. In July 2014, the SEC issued amendments finalizing structural reforms for MMFs. The structural reforms included a requirement for institutional prime and municipal MMFs to convert to a floating NAV, meaning they are no longer permitted to use amortized cost accounting to round the

Exhibit 4: Key SEC Rulemakings for US Mutual Funds 2014-2019

Rule Proposal	Status	Date Proposed	Date Finalized	# of Pages*
Form ADV and Investment Advisers Act Rules	FINAL	6/12/2015	8/25/2016	165
Investment Company Reporting Modernization	FINAL	6/12/2015	10/13/2016	597
Investment Company Liquidity Risk Management Programs	FINAL	10/15/2015	10/13/2016	459
Exchange-Traded Funds Rule	FINAL	Request for comment issued 6/12/2015; rule proposed 6/28/2018	9/25/2019	259
Use of Derivatives in Funds	PROPOSED / NOT FINAL	12/28/2015; re-proposed 11/25/2019	TBC	459
Fund of Funds Arrangements	PROPOSED / NOT FINAL	12/19/2018	TBC	197

* Page counts reflect SEC version of proposals, not Federal Register. Page count of most recent proposal included for rules that are not yet finalized. Not all-inclusive.

NAV to a stable $1.00 per share price. The reforms require Boards of MMFs of both retail and institutional prime MMFs to implement a liquidity fee or redemption gate during times of stress if in the best interest of the MMF. Government MMFs were less impacted by these reforms as they were able to retain a stable NAV and are not subjected liquidity fees and redemption gates unless their Board chooses to adopt these measures.

Private Fund Reporting

In 2011, the CFTC and SEC created new reporting requirements for certain advisers to hedge funds and other private funds. Under the SEC rule, private fund advisers must periodically file Form PF with the SEC. Under the CFTC rule, private fund advisers that are registered with the CFTC as commodity pool operators (CPOs) or commodity trading advisors (CTAs) must file private fund information on Form PF. In 2012, the CFTC created Form CPO-PQR to ensure that data is collected from CPOs and CTAs that are not required to file Form PF. The information reported on these forms is used by the SEC and CFTC in their oversight activities and is provided to FSOC and OFR for their use in monitoring risks to the US financial system.

Data Reporting for Investment Advisers

In August 2016, the SEC adopted amendments to rules issued under the Advisers Act and to Form ADV that enhance the quality of information provided by registered investment advisers (RIAs) to the SEC and to investors. Form ADV is an annual form completed by all RIAs, which includes information about the adviser, its business, its assets under management (AUM), and other information.

The Form ADV and Advisers Act rules increased the amount of data required on Form ADV, including data about retail and institutional separately managed accounts (SMAs), closing a gap on information on SMAs and how they are managed. These rules eliminate the gap by requiring the disclosure of information regarding regulatory assets under management of SMAs by asset category, the use of borrowing and derivatives by SMAs, and information about the custodians at which SMA AUM is custodied. Similar information was already available on Form ADV concerning funds managed by advisers.

Data Reporting for Mutual Funds

In October 2016, the SEC finalized Investment Company Reporting Modernization Rules (RIC Reporting Rules) to enhance data reporting for mutual funds, ETFs, and other registered investment companies. The SEC made additional updates to these rules in December 2017 and January 2019.

The RIC Reporting Rules created a new monthly reporting portfolio form, Form N-PORT, which replaced Form N-Q with a more robust range of reporting requirements on a more frequent basis. On Form N-PORT, funds must report portfolio-wide and position-level holdings to the SEC on a monthly basis, including: (i) data related to the pricing of portfolio securities, (ii) information on repurchase agreements, securities lending activities, and counterparty exposures, (iii) terms of derivatives contracts, and (iv) portfolio level and position level risk measures.

The RIC Reporting Rules created a new annual reporting form, Form N-CEN, which replaced Form N-SAR for funds to report census-type information. On Form N-CEN, funds are required to report information on securities lending transactions, ETFs and authorized participants (APs), unit investment trusts that are investment company separate accounts, closed-end funds and small business investment companies, lending and borrowing, swing pricing, and other information. Forms N-PORT and N-CEN are reported in a structured data format, which enables the SEC to aggregate and analyze information across funds. Some of this data is publicly available, and iShares was able to use the data on APs to illustrate how these entities work in the ETF ecosystem.[7]

In 2018, the SEC finalized Rule 30e-3, which allows certain registered investment companies the option to transmit shareholder reports electronically.[8] All regulatory filings continue to be produced and available in hardcopy for investors who prefer paper reports. Electronic delivery can reduce the cost of printing and mailing these documents, benefitting fund shareholders as well as providing significant benefits to the environment.

Liquidity Risk Management for Mutual Funds

In October 2016, the SEC issued a final rule on Investment Company Liquidity Risk Management Programs (Rule 22e-4), requiring all open-end funds to establish a written liquidity risk management program, which must be approved and reviewed by the fund's board. Open-end funds allow investors to redeem their shares daily, and this rule strengthens the liquidity risk management requirements for funds to ensure they can meet shareholder redemptions while minimizing the impact of redemptions on the fund's remaining shareholders.

The rule requires funds to assess, manage and periodically review their liquidity risk. Funds must classify the liquidity of each of the investments in its portfolio based on the number of days in which the fund reasonably expects the investment to be convertible into cash without significantly changing the market value of the investment. Funds are required to determine a minimum percentage of net assets that must be invested in highly liquid investments (i.e., cash or investments that are reasonably expected to be converted to cash within three business days), as well as procedures to respond to a shortfall in highly liquid assets.

In developing Rule 22e-4, the SEC explored the question of the inclusion of illiquid securities in funds with daily redemption provisions. These funds are subject to limitations on illiquid investments. The rule created a new reporting form, Form N-LIQUID, which requires funds to confidentially notify the SEC in the event that the fund's level of illiquid assets exceeds 15% of its net assets or if its highly liquid investments fall below the minimum for more than a brief period of time. In addition, funds are not permitted to purchase additional illiquid investments if more than 15% of its net assets are categorized as illiquid.

Business Continuity Management

There are a number of legislative and regulatory requirements in place that require asset managers to have comprehensive controls over the selection and ongoing monitoring of third parties providing critical or important operational functions to the asset manager.[9] In the US, regulators such as the SEC conduct regular reviews of the effectiveness of controls put in place by asset managers. In July 2016, the SEC issued a proposal for public comment on Adviser Business Continuity and Transition Plans that would require all investment advisers to have business continuity plans in place that address, among other things, the role of critical third party service providers in the adviser's operating model.

Equity Market Structure

US equity markets have long been regulated, and regulators have taken a number of actions to improve oversight and efficiency since the GFC. Following the May 2010 "flash crash" and the subsequent August 2015 "flash crash," the SEC implemented new rules to strengthen equity markets.

After the 2010 flash crash, clearly erroneous execution (CEE) rules were revised to create more objective standards and consistent numerical guidelines to reduce exchange discretion and provide more clarity regarding trade cancellation policies. Regulators also introduced mechanisms to manage extraordinary volatility via single stock circuit breakers which were superseded by the Limit Up/Limit Down (LULD) NMS Plan.

After the 2015 flash crash, the SEC approved further amendments to the LULD plan to implement liquidity-based reopening auctions and eliminate double wide price bands where they may cause unnecessary trading pauses. Recognizing the interconnected nature of modern markets, the SEC approved in 2015 Regulation Systems Compliance and Integrity (SCI) to strengthen the technology infrastructure underpinning securities markets and enhance SEC oversight and enforcement of systems which perform key market functions. The SEC approved in 2016 the implementation of a Consolidated Audit Trail to provide regulators with sufficient information on orders and market participants to effectively surveil the market. In 2017, the SEC adopted a T+2 settlement cycle for securities transactions, shortening the standard settlement cycle by one business day. The T+2 settlement cycle has been adopted globally, enhancing efficiency, reducing risk, and improving cross-border regulatory harmonization.

Exchange-Traded Funds

Exchange-traded products (ETPs) have grown rapidly over the past decade. In September 2019, the SEC adopted an Exchange-Traded Funds Rule (Rule 6c-11), which allows most 1940 Act ETFs to operate without needing to obtain individual exemptive relief from specific provisions of the 1940 Act in order to launch and operate as an ETF. As exemptive orders have evolved over time, the rule provides a consistent comprehensive framework, aiming to facilitate greater competition and innovation in the ETF marketplace and allow more choices for investors.

All ETFs in scope must disclose on their website full daily ETF portfolio holdings, as well as disclosures around bid-ask spreads and fund premiums and discounts. These disclosures are intended to inform investors about the costs of investing in ETFs and the efficiency of an ETF's arbitrage process. In-scope ETFs will be granted the ability to utilize custom baskets—key portfolio management tools, particularly for fixed income ETFs, which help promote efficiency in the ETF creation and redemption process.

The rule does not apply to inverse/leveraged ETPs, unit investment trusts (UITs), ETFs structured as a share class of a mutual fund, or non-transparent active ETFs; however, there is ongoing focus on more complex ETPs and the SEC's recently proposed funds' use of derivatives rule (discussed below) may bring inverse/leveraged ETPs into the scope of the ETF rule, with certain conditions.

The SEC adopted amendments to Form N-1A – the form ETFs structured as open-end funds must use to register under the 1940 Act and to offer their securities under the Securities Act Exchange Act of 1933. These amendments aim to provide more useful, ETF-specific information to investors who purchase ETF shares on an exchange.

Use of Derivatives in Funds

In November 2019, the SEC proposed a new funds' use of derivatives rule (Rule 18f-4) under the 1940 Act to enhance the regulation of the use of derivatives by registered investment companies, including mutual funds, ETFs, and closed-end funds, as well as business development companies. The proposal, if enacted as a final rule in its current form, would create significant new requirements around funds' use of leverage, including: (i) portfolio limits for leverage risk based on a fund's Value at Risk (VaR); (ii) a written derivatives risk management program designed to manage a fund's derivatives risk; (iii) alternative requirements for certain leveraged or inverse funds, including limits on investment results and new rules increasing the due diligence and approval requirements for broker-dealers and investment advisers before they can approve these vehicles for clients; and (iv) enhanced reporting requirements regarding a fund's derivatives exposure. The SEC expects to finalize this rule in 2020.

Fund of Funds

In December 2018, the SEC issued a proposed rule for Fund of Funds Arrangements, which aims to streamline and enhance the regulatory framework for funds that invest in shares of another fund. The proposed rule would create a new, comprehensive exemptive rule for fund of funds to operate and, at the same time, would rescind Rule 12d1-2 and most exemptive orders granting relief for fund of funds currently. In order to rely on the proposed rule, funds would need to comply with conditions regarding voting and control, redemption limits, fee layering, and overly complex structures. The SEC expects to finalize this rule in 2020.

Proxy Solicitation and Shareholder Proposal Rules

In an effort to increase transparency and accountability and improve investor information, in August 2019 the SEC released new guidance related to proxy advisor recommendations and investment managers' use of proxy advisor recommendations in their voting on shareholder proposals.

In addition, on November 5, 2019, the SEC issued two proposed rule changes relating to proxy advice and shareholder proposals. The proposal on proxy advice seeks to provide for disclosure of material conflicts of interest, provide clarity to market participants, and improve the information provided to investors. The proposal on shareholder proposal eligibility requirements would modify the criteria for submitting shareholder proposals. The SEC expects to finalize these rules in 2020.

Financial Regulatory Reform in the European Union

Prior to the GFC, the EU had put in place a comprehensive regulatory framework following the recommendations of its 1999 Financial Services Action Plan[10] to achieve three strategic objectives: (i) establishing a single market in wholesale financial services; (ii) making retail markets open and secure; and (iii) strengthening the rules on prudential supervision.

Asset management products and activities were governed by two important legislative texts:

- the 2001 update of the original 1985 Directive on Undertaking for Collective investment in Transferable Securities (UCITS). This covered the activities of cross-border investment funds and the connected activities of collective portfolio management by management companies; and
- the 2004 Markets in Financial Instruments Directive (MiFID) which encompasses the activities of trading on and off exchange, individual portfolio management, and investment advice.

Following the GFC and the ensuing European debt crisis four years later, European integration and globalization came to an abrupt halt as cross-border financial flows dropped severely. During this period, the European Commission approved EUR 4.5 trillion of state aid measures to help financial institutions.

Consequently, the EU undertook an unprecedented review and reform of its existing financial services legislation based on the international agenda set out by the G20 in response to the GFC, as well as own-initiative reforms to advance certain long-standing efforts such as the completion of the European Single Market. The European Commission has gone on to propose more than 50 legislative and non-legislative measures in financial services since the GFC. Both UCITS and MiFID have been extensively amended and updated to increase transparency and ecosystem resilience, building on the lessons learned from the GFC. In parallel, an entirely new harmonized regulatory and reporting framework for all non-UCITS funds managed or marketed into the EU in the Alternative Investment Funds Directive (AIFMD) took effect. There have also been a wide variety of legislative initiatives governing structure and operations of EU markets.

Elsewhere in the financial services sector, the most important proposals have come under EU flagship initiatives such as the Banking Union and the Capital

Markets Union. The post-GFC reforms have brought a certain degree of centralization in rule making and transfer of responsibility from national competent authorities to the EU level for various aspects of financial services regulation.[11] The role of the European supervisory authorities (such as ESMA, EIOPA, EBA) has been to lead the development of a Single Rulebook as well as drive convergence of supervisory practices. Increasingly, EU policies have affected legislation relating to market infrastructure through the use of Regulations which are directly applicable in all EU member states, thereby avoiding the risk of national interpretation and delays in national implementation inherent in the use of Directives.

In certain areas, supervision has been transferred to a central body, such as to the Single Supervisory Mechanism for the supervision of systemic banks and to ESMA for the supervision of credit rating agencies and certain benchmark providers. Elsewhere, supervision remains the competence of national regulators, reflecting the needs of domestic markets but with increasing enhanced cooperation between regulators aiming to reduce the potential for divergent implementation of the EU's Single Rulebook. In practice, the EU regulatory framework continues to sit alongside or in addition to domestic rules specific to EU Member States.

We outline below the post-GFC regulatory initiatives which have had the greatest direct impact on investors in European capital markets, recognizing that this is a subset of the new rules that have been promulgated.

AIFMD

The Alternative Investment Fund Managers Directive (AIFMD) is a wide-ranging piece of legislation covering all non-UCITS managed or marketed in the EU. It was agreed in 2011 and came into force in July 2013. Only non-EU Alternative Investment funds (AIFs) managed by non-EU managers not marketed in the EU are excluded from the AIFMD. The Directive covers a number of key areas including marketing, conduct requirements for alternative investment funds managers (AIFMs), depositary functions, reporting on leverage, liquidity and risk management, and capital requirements.

The AIFM conduct functions were modeled based on the pre-existing rules for UCITS management companies but go further in a number of areas, reflecting the wide variety of strategies and AIF structures. There is particular focus on the oversight and controls over the delegation of investment and risk management functions to third parties. In addition, the AIFMD introduced extensive reporting requirements (Annex IV reports). Remuneration provisions aim to align manager remuneration with long-term performance.

Depositary functions extend beyond the mere holding of assets and custodial services to include the wider fiduciary duty of safekeeping. Depositaries have extensive oversight functions and have strict liability for all assets held in custody, even when appointing a third-party sub-custodian – leading to restitution of assets that are lost or stolen. They have enhanced duties to oversee a fund's investment assets such as derivatives which are not held in custody. The AIFMD prohibits depositaries from performing portfolio or risk management functions.

The AIFMD's provisions on leverage aim to increase transparency and to allow supervisors to monitor leverage in the financial system. An AIFM must disclose to its investors the circumstances in which an AIF can use leverage, the types and sources of leverage, and the maximum level of leverage which the AIFM may employ on behalf of the AIF. An AIFM must set a maximum level of leverage for an AIF and demonstrate the reasonableness of the level to its regulator, who has the ability to reduce this level. Local regulators must make information available to other regulators. ESMA and the European Systemic Risk Board (ESRB) must facilitate EU-wide monitoring of the impact of leverage, and ESMA has started to report on the data it has received.[12]

Risk management must be functionally separate from portfolio management. However, the AIFMD recognizes that there may be circumstances in which it may not be necessary for AIFM to separate such functions provided there are safeguards against conflicts. With the exception of unleveraged closed-ended funds, all AIFMs must employ an appropriate liquidity management system and adopt procedures that enable liquidity risk monitoring of each AIF and ensure that the liquidity profile of the AIF's investments complies with its underlying obligations. AIFMs must conduct regular stress tests on their portfolios. These requirements have been recently updated as a result of ESMA Guidelines on Liquidity Stress Testing.[13]

Capital requirements depend on an AIFM's AUM. The minimum amount that managers must hold is €125,000 and AIFMs must hold an additional 0.02% of any AUM (including leveraged assets) in excess of €250,000 with a total cap of €10 million in line with UCITS. Internally managed AIFs such as UK investment trusts must retain assets of €300,000. Funds must hold appropriate insurance policies to meet negligence liability.

The AIFMD has facilitated development of product innovation with the launch of new sub-categories of fund such as the creation of the European Long Term Investment Fund (ELTIF), the European Venture Capital Fund (EUVECA), and the European Social Entrepreneurship (EUSEF).

UCITS

UCITS IV came into force in July 2011 with a number of aims, including standardizing the governance and oversight requirements of UCITS management companies with a focus on risk management. These requirements were modelled on pre-existing MIFID I conduct and oversight requirements. UCITS IV aimed to encourage the pooling of assets by providing an effective cross-border regime for merging UCITS, which had not always been available in the past. UCITS IV focused on investor disclosure with the creation of the key investor information (KIID), helping investors to understand the nature and the risks of a fund and to make more informed investment decisions.

The ESMA Guidelines on ETFs and other UCITS issues came into force in February 2013. The purpose of the Guidelines is to set out the information that management companies should communicate to index-Tracking UCITS and UCITS ETFs including specific naming conventions to distinguish UCITS ETFs from other Exchange Traded Products. The Guidelines include specific rules to be applied by UCITS when entering into over-the-counter financial derivative transactions and efficient portfolio management techniques including rules on collateral management. Finally, the Guidelines set out criteria to be followed by financial indices in which UCITS invest.

UCITS V came into force in March 2016. UCITS V complements the pre-existing UCITS legislation and aims to ensure that retail investment funds (UCITS) benefit from the same level of client asset protection as funds governed by AIFMD. This legislation aligns the remuneration requirements for UCITS managers with that under AIFMD to promote alignment of interests between investor and manager. UCITS management companies are required to disclose remuneration policies, and comply with certain remuneration principles, covering their key staff. The Directive sets out common standards for the application of sanctions in the case of breach of rules by UCITS funds, their manager or their depositary.

Depositary liability for the avoidable loss of a financial instrument held in custody even when appointing a third-party sub-custodian minimizes the effect of fraud on end investors. Depositaries have enhanced duties to oversee a fund's investment assets such as derivatives which are not held in custody. Authorized and supervised credit institutions, MiFID investment firms, and other investment firms subject to adequate prudential supervision can act as depositaries.

Depositaries need to ensure managers' triparty collateral agents (in respect to both securities lending and repo) are appointed by the depositary to ensure that no interruption to service arises. The legislation includes a set of common duties across Europe to keep the assets of the UCITS safe, monitor cash movements to and from the fund, and oversee the fund manager's performance of key functions.

Short-selling & Credit Default Swaps (SSR)

The EU Short Selling Regulation (SSR) sought to implement a harmonized regime to regulate the short selling of EU securities. This includes restrictions on uncovered short selling, and disclosure of short positions to the national competent authority (NCA) and the market (for short positions on shares), at initial and incremental thresholds depending on the size of the position. The legislation provides the NCAs with additional powers to intervene in the markets in times of stress, including requiring additional notifications and disclosure or imposing conditions on, or banning, short selling or similar transactions for a specific instrument or class of instruments.

Transparency of Securities Financing Transactions (SFTR)

As part of the policies identified by the Financial Stability Board (FSB) to increase transparency across Securities Financing Transactions (SFTs), the EU introduced the Securities Finance Transaction Regulation (SFTR), which started coming into effect in 2016. The regulation included several new rules for market participants, including a requirement to report all SFTs to a registered Trade Repository (TR) on a T+1 basis. The SFTs in scope include repos, margin lending transactions (including those under a Prime Brokerage agreement) stock loans, buy/sell backs, and commodity loans.

MiFID II and MiFIR

MiFID II and MiFIR took effect in January 2018, heralding wide-ranging changes to operations of EU market structure and markets participants. Focus points included improving pre-and post-trade transparency in all in-scope instruments and shifting the trading of those instruments onto regulated and transparent trading venues and changing payment methods for broker research away from the pre-existing commission-based model.

Overall, MiFID II has made steps towards improving transparency in EU markets, however more work is needed, particularly regarding the development of a consolidated tape.

Improved Investor information for Packaged Retail Investment and Insurance Products (PRIIPs)

The PRIIPs Regulation which took effect in January 2018 at the same time as MiFID 2 aims to provide retail investors with consistency in the way key information on investment products is communicated – improving products comparability and enabling end-investor well-informed decisions. A PRIIP is a financial product designed to provide investment or insurance opportunities to retail investors. The product's performance is subject to market fluctuations or dependent on the performance of assets which are not directly purchased by the investor. Products in scope include retail AIFs, life insurance products, structured deposits, structured and guaranteed funds and any special purpose vehicles sold to retail investors.

The UCITS Key Investor Information Document (KIID) has been taken as a template for the PRIIPs KIID, with adjustments to reflect specific features of non-UCITS PRIIPs. For example: it only has to be provided to retail investors, it must not exceed three sides of A4-sized paper (two sides in the KIID) and it must include a new "comprehension alert" applying to any product "whose underlying assets are not commonly invested in by retail investors".

The European Supervisory Authorities (ESAs) are currently consulting on a number of amendments to the PRIIPs KIID to improve the presentation of information to investors.

EMIR

The European Market Infrastructure Regulation (EMIR) is Europe's response to the G20 commitment to regulate over-the-counter (OTC) derivatives markets in the aftermath of the GFC. EMIR harmonizes the requirements relating to central clearing, bilateral margining and reporting in the EU.

EMIR aims to:

- reduce systemic risk and increase transparency in the OTC markets;
- mandate central clearing for standardized, sufficiently liquid OTC derivatives;
- require mandatory bilateral margining and risk mitigation for certain non-centrally cleared OTC derivatives;
- require trade reporting to Trade Repositories (TRs) of all derivative transactions;
- regulate CCPs and trade repositories (TRs); and
- allow interoperability among CCPs for equity and bond clearing

In June 2019, the EU brought into force amendments to EMIR (also known as EMIR REFIT) following the completion of the European Commission's review. It aims to improve the functioning of the derivatives market in the EU and provide simpler and more proportionate rules for OTC derivatives. In parallel, in December 2019, the EU also published the final text of EMIR 2.2, which amends EU law on how EU CCPs and third-country CCPs are supervised.

Prudential Rules for Investment Firms (IFR)

The Investment Firm Directive (IFD) and Regulation (IFR) were agreed in 2019 and come after nearly two years of detailed assessment and review of the current prudential regime for MiFID investment firms (a definition which includes forms which provide broker dealing, principal trading firms, asset managers providing discretionary investment management and financial advisors). Under these proposals, firms which engage in underwriting of securities and dealing on their own account, with a balance sheet in excess of €30 billion, will be treated as 'systemically relevant' Tier 1 firms, and subject to regulation as credit institution with oversight by the Single Supervisory Mechanism. Small firms with client assets under management (AUM) of less than €1.2 billion will be treated as Tier 3 firms and all other firms as Tier 2 firms. Large firms with AUM above a specified threshold will be subject to enhanced reporting requirements.

The legislation replaces the bank-based model of prudential regulation in the Capital Requirements Directive and provides a framework that corresponds to the risks inherent in the nature and range of activities undertaken by investment firms with a streamlined supervisory and reporting toolkit. The legislation recognizes that firms need to be able to set their own level of fixed and variable remuneration without a cap to be able to respond to volatility in revenue streams.

The new capital requirements are based on risks to clients, risk to the firm, and risk to markets – the so-called 'K-Factors.' For asset managers, the key risks relate to client AUM and order handling. This means capital requirements for asset managers continue to grow in line with the new business and the type of activities they engage in, while recognizing that clients assets are typically segregated with a third party custodian or depositary, and therefore fully protected in the case of default or insolvency of the manager.

Money Market Fund Reform

New EU rules for MMFs took effect for all EU-based MMFs in January 2019. The MMF Regulation (MMFR) was agreed at the end of 2016 after more than three years of debate at the legislative level. This rule aims to enhance the liquidity and stability of MMFs. As in the US, new rules over the permissibility of Constant Net Asset Value (CNAV) fund structures were at the center of structural reforms.

In addition to providing rules for Variable Net Asset Value (VNAV) MMFs, the MMFR creates two new types of MMF in Europe: Public Debt CNAV MMFs and Low Volatility Net Asset Value (LVNAV) MMFs. A Public Debt CNAV MMF must invest 99.5% of its assets in government securities and maintain a constant NAV, while LVNAV MMFs are more sensitive to market pricing at both the asset and fund level but can allow investors to subscribe and redeem to and from the fund at a constant share price of 1.00 in normal market circumstances.

Non-Financial Reporting Directive

The Non-Financial Reporting Directive (NFRD) of 2014 updated the Accounting Directive with the policy aim of enhancing the transparency of European companies. Under NFRD, large companies are required to include non-financial statements in their annual reports from 2018 onwards in relation to environmental protection, social responsibility and treatment of employees, respect for human rights, anti-corruption and bribery, and diversity on company boards (in terms of age, gender, educational and professional background).

Shareholder Rights Directive II

Just after the GFC, EU policymakers identified poor governance and lack of long-term shareholder engagement as other key aspects to address.[14] This was done through the revision of the Shareholder Rights Directive (SRD II) in 2017.

With SRD II, institutional investors (insurers and pension funds) and asset managers must disclose a shareholder engagement policy, on how they have engaged with investee companies and voted at general meetings. Institutional investors must now publish their equity investment strategy and demonstrate alignment with their long-term profile and liabilities.

The SRD II also introduced shareholders' "say on pay", and measures to align further executive pay with the business's long-term strategy and interests.

Looking Forward

Taken together, the new regulations across the globe have fundamentally changed the regulation of asset management, making the system safer and sounder for investors and providing regulators with greater transparency to enhance oversight.

Policy makers have recognized the importance of stepping back and addressing the effects of regulations, acknowledging the need to balance resilience with economic growth. The FSB's Proposed Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms highlights the importance of evaluating regulatory reforms to ensure they are achieving their intended outcomes and to identify any unintended consequences that need to be addressed.[15]

In response to its Call for Evidence on the EU Regulatory Framework for Financial Services,[16] the European Commission found that "developing and adjusting policies based on factual evidence, consideration of possible interactions with existing legislation and stakeholder involvement can create better and more effective regulation."[17]

In the US, the President directed the Department of the Treasury to work with FSOC member agencies to review existing laws and regulation to ensure they are in line with core principles for the financial system, including "making regulation efficient, effective, and appropriately tailored."[18]

These are just a few examples of statements from regulators in different parts of the world. Given the volume of regulation passed, it is important to step back and assess the full body of rules and how they interact and/or overlap. Some regulations may need to be recalibrated or rationalized. We recommend that regulators seek to harmonize data reporting across jurisdictions to allow policy makers to more effectively monitor products and activities across different countries. In addition to considering where the existing regulation can be right-sized, regulators should consider where there are outstanding gaps that warrant attention.

Importantly, there are a number of areas across the financial ecosystem that merit consideration by financial regulators as they look to further strengthen stability, including:

a. The transition from LIBOR to alternative risk-free rates;
b. Risk mitigation, disclosure, and governance practices of central clearing counterparties (CCPs);
c. Investor confusion around classification of exchange-traded products (ETPs);
d. Cybersecurity;
e. Underfunded pensions;
f. Bondholder rights;
g. Reform of cash investment vehicles;
h. Market fragmentation in Europe and elsewhere;
i. Equity trading market resiliency; and
j. The MiFID framework.

Transition from LIBOR

In July 2017, the UK Financial Conduct Authority (FCA), the regulator of the administrator of LIBOR, announced that it will no longer compel panel banks to submit to LIBOR after year-end 2021. LIBOR serves as an interest rate benchmark for hundreds of trillions of dollars of financial instruments.

In addition to its use in derivatives, LIBOR is the reference rate embedded in many types of floating rate instruments, including mortgages and loans. In USD LIBOR alone, the New York Federal Reserve Bank estimates that at least $36 trillion in outstanding notional will not mature prior to 2022.[19]

Regulators have focused on developing alternative reference rates, including the Secured Overnight Financing Rate (SOFR) in the US, which the New York Federal Reserve Bank began publishing in April 2018. At present, liquidity is developing in the alternative reference rates that have been identified for the various currencies, albeit at different paces. There remain a number of unanswered questions around fallbacks and there is a serious challenge regarding how to address legacy positions in cash instruments. We encourage global coordination amongst regulators and industry participants to develop defined fallbacks and ensure a smooth transition.

Strengthening CCPs

Central clearing has reduced bilateral counterparty credit risk, increased market transparency, and improved efficiency in trade execution. However, the shift to CCPs has not eliminated the risk in OTC products, but rather centralized it. This exposes the financial system to the potential failure of a CCP. The importance of CCP resilience was emphasized by the large mutualized loss experienced in the Nordic power markets in September 2018, with two-thirds of a CCP's default fund consumed by a single clearing member default. While the CCP proved resilient, the loss allocation defied expectations and provides an opportunity to learn and make adjustments.

In October 2019, a group of clearing members and asset managers, representing their clients who are the end-users of central clearing, jointly issued a white paper with recommendations to enhance CCP risk management to better protect stakeholders and ensure financial stability.[20] Specifically, the coalition of firms recommended:

- CCPs should have more capital at risk to better align incentives and provide a meaningful layer of loss absorption to support its markets.
- Disclosure standards for CCPs are not sufficient. CCPs should be subject to more comprehensive disclosure requirements that would ensure accuracy and consistency of information provided.
- Initial margin models need to be consistently calibrated to cover risk, regardless of where a contract is traded (OTC vs. exchange traded).
- Use of variation margin gains haircutting (VMGH) and/or partial tear-ups (PTUs) as recovery measures should be limited and overseen by regulatory authorities.

ETP Classification System

While we strongly support the SEC's final ETF rule, we believe further work can be done to enhance the ETF ecosystem. We recommend that policy makers globally consider establishing an exchange-traded product (ETP) classification scheme to distinguish among different types of products. We note that several recent reports on risks associated with ETFs conflate the risks of leveraged and unleveraged structures, in part because all of these products are labelled as 'ETFs.' We believe that clearer identification and categorization of ETPs will help ensure that investors and others understand that certain types of products have greater embedded risks and more complexity than others.

Cybersecurity in Market Plumbing

Cybersecurity is just one aspect of market plumbing, but we would prioritize this as one of the most important vulnerabilities that has yet to be fully studied and addressed. Whether the SWIFT network or the stock exchanges, technology is critical to the smooth functioning of our capital markets. Hardening the cybersecurity of global financial market infrastructure by regulators should be a high priority.

Pension Underfunding

Pension funds are one of the largest types of asset owner. Given this, the financial health of pension funds is critical to the overall health of the financial ecosystem. The low interest rate environment has created challenges for pension plans in meeting their liabilities, as they must choose between low yielding investments and riskier strategies. Many pension plans in the US are underfunded, including some multiemployer pension plans, state plans, and municipal plans.[21] There are similar trends in Europe. The total value of unfunded or underfunded government pension liabilities has been estimated at $78 trillion.[22]

Given the funding shortfall for many plans, pension funds bear significant counterparty risk, as they may not be able to pay the amount required to meet pension benefit obligations to retirees under the current framework. In the US, there is increasing pressure on the Pension Benefit Guaranty Corporation (PBGC), which insures the pension benefits of nearly 40 million American workers and faces its own financial deficits of nearly $80 billion.[23] Given the important role of pension plans in the financial ecosystem, we recommend that policy makers consider ways to address pension underfunding.

Bondholder Rights

In recent years, there have been a number of occurrences that have raised questions about bondholder rights in situations involving bankruptcy or the resolution of an insolvent entity. In some situations, the rights of bondholders have been subordinated unexpectedly relative to other claims. For example, in the events surrounding the restructuring of Banco Espirito Santo by the Bank of Portugal in December 2015, one group of equally ranking creditors was favored over another. General Motors' bankruptcy in 2009 and the plan to bail out the company cost individual bondholders the most. After Detroit filed for bankruptcy in 2013, bondholders received a fraction of their original investment.

Given the importance of reliable outcomes for financial stability, it is imperative that bond holders understand their rights and have confidence in the regulatory framework to uphold these rights. Many retail and institutional investors have direct or indirect exposure to bond holdings, including through holding shares in mutual funds that own bonds. Clarifying and protecting the rights of these bondholders is important to investor confidence, as it is to financial stability.

Completing Reforms for All Cash Investment Vehicles

We encourage regulators around the world to finalize MMF reforms where they have not already done so, and to consider where there are any gaps in the regulation of cash investment vehicles more broadly. In the US, the regulations governing STIFs are inconsistent and could create unintended consequences if not addressed. The SEC introduced new rules for money market funds in 2014 under Rule 2a-7, and the OCC updated its rules for STIFs offered by nationally chartered banks in 2012. However, cash reinvestment pools associated with state-chartered banks are not under the supervision of the OCC and therefore do not have the same rules as the STIFs of nationally-chartered banks. We encourage changes at the state level to ensure a consistent framework for cash vehicles. The Federal Reserve Board could use their supervision of bank holding companies with state bank subsidiaries or the Federal Deposit Insurance Corporation insurance oversight of state non-member banks to require changes that would address this gap.

Market Fragmentation & Brexit

Since the UK took the decision to the leave the EU in 2016, there has been much discussion regarding the potential impact of this decision on the provision of cross-border financial services between the EU and UK or "market fragmentation." One example of likely market fragmentation arising from Brexit relates to equity trading. Under MiFIR, an investment firm is required to trade shares on an EU trading venue, third-country trading venue deemed equivalent, or an EU domiciled systematic internalizer – the "share trading obligation" (STO). In the event of no equivalence arrangements being in place at the end of the transitional period (December 2020), the current approach to the STO proposed by ESMA (where it only would apply to EU international securities identification numbers (ISINs)) could de facto unintentionally restrict investment in EU companies, fragment liquidity, and ultimately increase costs for investors. The risk that the STO could be used to determine the location of trading of specific EU or UK shares causes further market fragmentation.

The market has sought and is still awaiting clarification from the FCA regarding the UK's proposed contingency measures in respect of the STO. Additionally, from a longer-term perspective, the FCA should clarify if it intends to apply a UK STO in the broader framework of trading venue equivalence with the EU.

Equity Trading Market Transparency and Resiliency

Equity markets have evolved dramatically in response to new regulations and advances in technology. The changes in market structure have primarily been beneficial for end-investors by improving market quality and lowering transaction costs. As such, markets are not in need of wholesale reform; however, new challenges accompany these developments and we believe that the additional recommendations outlined below would help to make equity markets fairer and more effective. We see the strengthening of transparency – in particular in Europe –as the foundation for driving further growth of electronic trading, increasing execution efficiencies, and extending these benefits to ETFs.

US recommendations:

- Expand National Market System Plan governance to broaden participation.
- Improve latency and data content of the consolidated tape to ensure equivalent access to market data.
- Refine existing market resiliency mechanisms to better align and harmonize their interaction.

EU recommendations:

- Deliver a pan-European consolidated tape for trades and quotes.
- Introduce an official European Best Bid and Offer (EBBO), equivalent to the US' National Best Bid and Offer (NBBO).
- Allow midpoint executions in any size and venue.
- Clarify the scope of the Share Trading Obligation and limit the scope to stocks with primary liquidity in the EEA.
- Adopt minimum standards for market resiliency mechanisms—controls should be automated and we recommend minimum standards around trade suspensions, cancellations, and auction processes.

MiFID II Enhancements

Further refinements to the MiFID framework are necessary for end-investors to fully realize the benefits from the significant implementation cost and ongoing reporting requirements. First among those priorities should be the delivery of the consolidated tape for equity, ETFs, and eventually fixed income. A consolidated tape of post-trade information discloses equity trade volumes and prices in a timely manner after trades have occurred. Real-time trade information strengthens price discovery, gives an accurate more accurate picture of liquidity across trading venues, and facilitates firms meeting best execution requirements, to the benefit of end-investors. Despite efforts under both MiFID I and II to bring about a private sector consolidated tape solution, Europe is still lacking in this area.

Regulators could also provide pre-trade transparency via a 'European Best Bid and Offer' (EBBO), equivalent to the US' National Best Bid and Offer (NBBO). This would improve transparency, deliver better public price information to investors, and solve some regulatory market structure concerns. Currently, some market participants and trading venues use a self-calculated EBBO to inform trade routing decisions. However, there is no consensus standard. The lack of a public EBBO disadvantages smaller market participants and investors, for whom connecting to these data sources would be highly costly. This hampers confidence in quoted equity prices, and in obtaining best execution for end-investors. Going forward, policy makers should further refine EU market structure by introducing an EBBO, taking care to manage any conflicts of interest between public consumers of data and its private providers.

These enhancements to the MiFID regime would complement the very complete disclosure regime in the EU which requires transparency of the cleared derivatives market, securities finance transactions such as repo and securities lending as well as short sales, which were all ushered in as a result of the GFC.

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- Comment Letter – Proposed Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms
- Comment Letter – Letter to FSB – Consultative Document on Proposed Policy Recommendations to Address Structural Vulnerabilities for Asset Management Activities

Endnotes

1. IOSCO's final recommendations for liquidity risk management for collective investment schemes builds on IOSCO's previous framework with additional recommendations, including the consideration of underlying liquidity throughout the entire life cycle of the fund; the alignment between asset portfolio and redemption terms; availability and effectiveness of liquidity risk management tools; fund level stress testing; detailed guidance on disclosure to investors; and additional recommendations on contingency planning.
2. IOSCO's final recommendations for a framework assessing leverage in investment funds establishes a two-step system for identifying and mitigating risks, offering a set of tools for each step that can be adjusted to the needs of a jurisdiction and the characteristics of funds.
3. G-20 Leaders' Statement: The Pittsburgh Summit, September 24-25, 2009: https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf
4. G-20 Cannes Summit Final Declaration, November 4, 2011: https://www.oecd.org/g20/summits/cannes/Cannes%20Declaration%204%20November%202011.pdf
5. BCBS and IOSCO recommended on July 23, 2019 that relevant regulators extend by one year the final implementation of margin requirements. BCBS and IOSCO recommended that the final implementation phase will take place on September 1, 2021, at which point covered entities with an aggregate average notional amount (AANA) of non-centrally cleared derivatives greater than 8 billion (in EUR or USD, as applicable) would become subject to the requirements. To facilitate this extension, the Basel Committee and IOSCO also recommended that the relevant regulators introduce an additional implementation phase whereby as of 1 September 2020 covered entities with an AANA of non-centrally cleared derivatives greater than 50 billion (in EUR or USD, as applicable) would become subject to the requirements. Regulators have proposed amendments to their rules to incorporate the recommended changes.
6. SEC Chair Mary Jo White, Speech, Enhancing Risk Monitoring and Regulatory Safeguards for the Asset Management Industry (Dec. 11, 2014), available at https://www.sec.gov/News/Speech/Detail/Speech/1370543677722.
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10. See Summary of EU Financial Services Action Plan 11 May 1999 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3AI24210. By 2004 the European Commission had noted that 39 of the 42 recommendations had been enacted.
11. https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-reforms-and-their-progress/regulatory-process-financial-services/regulatory-process-financial-services_en
12. ESMA Annual Statistical Report on EU Alternative Investment Funds 2019, available at https://www.esma.europa.eu/sites/default/files/library/esma50-165-748_aif_report_2019.pdf.
13. ESMA Guidelines on liquidity stress testing in UCITS and AIFs 2019, available at https://www.esma.europa.eu/sites/default/files/library/esma34-39-882_final_report_guidelines_on_lst_in_ucits_and_aifs.pdf.
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Glossary of Key Terms

1940 Act: Investment Company Act of 1940

Advisers Act: Investment Advisers Act of 1940

AIF: Alternative Investment Fund

AIFMD: Alternative Investment Fund Managers Directive

BCBS: Basel Committee on Banking Supervision

CCP: Central clearing counterparty

CEA: Commodity Exchange Act

CEE: Clearly Erroneous Execution

CPO: Commodity pool operators

CFTC: Commodity Futures Trading Commission

CTA: Commodity trading advisors

DCO: Derivatives clearing organization

Dodd-Frank Act or DFA: Wall Street Reform and Consumer Protection Act

EBBO: European Best Bid and Offer

ELTIF: European Long Term Investment Fund

ESMA: European Securities and Markets Authority

ESRB: European Systemic Risk Board

ETF: Exchange-traded fund

ETP: Exchange-traded product

EUSEF: European Social Entrepreneurship Fund

EUVECA: European Venture Capital Fund

FSB: Financial Stability Board

FSOC: Financial Stability Oversight Council

GFC: Global Financial Crisis

IOSCO: International Organization of Securities Commissions

KIID: Key Investor Information Document

LIBOR: London inter-bank offered rate

LULD: Limit Up Limit Down

MiFID: Markets in Financial Instruments Directive

MiFIR: Markets in Financial Instruments Regulation

MMF: Money market fund

NBBO: National Best Bid and Offer

OCC: Office of the Comptroller of the Currency

OFR: Office of Financial Research

OTC: Over-the-counter

PRIIPS: Packaged Retail Investment and Insurance-based Products

RIA: Registered investment adviser

RIC: Registered investment company

SEC: Securities and Exchange Commission

SFT: Securities financing transaction

SMA: separately managed accounts

SOFR: Secured Overnight Financing Rate

STIF: Short-term investment fund

STO: Share trading obligation

UCITS: Undertakings for the Collective Investment in Transferable Securities

UIT: Unit investment trust

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