Retail Market Conduct Task Force

Consultation Report

The Board
OF THE
INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS

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Foreword

The Board of the International Organization of Securities Commissions (IOSCO) has published this Consultation Report to gather views and feedback from stakeholders, including investors, regulators, market participants, regulated entities, financial consumers, academics and other international bodies on issues relevant to the development of a regulatory toolkit for jurisdictions to consider as they continue evaluating and addressing emerging retail market conduct issues.

How to Submit Comments

Comments may be submitted by one of the three following methods **on or before 23 May 2022**. To help us process and review your comments more efficiently, please use only one method.

Important: All comments will be made available publicly, unless anonymity is specifically requested. Comments will be converted to PDF format and posted on the IOSCO website. Personal identifying information will not be edited from submissions.

1. Email

- Send comments to consultation-03-2022@iosco.org
- The subject line of your message must indicate '*IOSCO Retail Market Conduct Task Force Report*'
- If you attach a document, indicate the software used (e.g., WordPerfect, Microsoft WORD, ASCII text, etc.) to create the attachment.
- Do not submit attachments as HTML, PDF, GIFG, TIFF, PIF, ZIP or EXE files.

2. Facsimile Transmission

Send by facsimile transmission using the following fax number: + 34 (91) 555 93 68.

3. Paper

Send 3 copies of your paper comment letter to:

Alp Eroglu
International Organization of Securities Commissions (IOSCO)
Calle Oquendo 12
28006 Madrid
Spain

Your comment letter should indicate prominently that it is a '*Public Comment on IOSCO Retail Market Conduct Task Force Report*'.

RETAIL MARKET CONDUCT TASK FORCE
CONSULTATION REPORT

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Executive Summary

IOSCO's Retail Market Conduct Task Force (the RMCTF) delivered its short-term report in December 2020 with a specific focus on the retail conduct implications of COVID-19.[1] Subsequently, the RMCTF turned its focus to analyzing retail market conduct issues from a broader perspective, including various recent popular trends, such as the impact of social media on retail trading decisions, activist retail activity, and gamification, amongst others. The Task Force is now seeking public comment on the concerns and issues identified and possible regulatory responses.

The RMCTF survey responses highlight some recent shifts in observed misconduct, fraud, and scam behavior, some of it cross-border in nature. These appear to have occurred in the context of the COVID-19 pandemic responses and in an environment of rapid technological developments. The retail trading landscape is complex and changing, and different jurisdictions may experience trends to various degrees. One striking finding from this work is the notable recent change in retail behavior and increase in trading volumes. The report analyzes the potential reasons for this change and its implications in light of some of the recent trends, such as self-directed trading and increasing digitalization of financial activities.

The most important recent trends and developments include:

- Retail trading volumes have increased likely due to a combination of different factors – including recent technological developments, market conditions, the COVID-19 pandemic, and demographic factors such as the increasing participation of younger investors.
- Fraudulent online activity, sometimes on a cross-border basis, has escalated over the past eighteen months, which coincides with the pandemic. In response, IOSCO members increased their efforts to prevent retail investor harm.
- Social media or online platforms are increasingly used to promote scams. To address this growing problem, a range of counter measures is being employed by IOSCO members.
- Retail investors are increasingly pushed towards "digitalization", possibly due to the COVID-19 pandemic measures, such as lockdowns, amongst other factors.
- Various apps and online trading platforms are using "gamification" techniques to attract retail investors and influence their trading behavior and decisions.
- IOSCO members are concerned about the suitability for retail investors of crypto-assets and platforms, and possible related fraudulent platforms and scams.
- As an evolving trend, the rise of digital trading platforms and social media influence brings along high-risk and gambling-type investment opportunities, which is a global concern.

The report also considers some authorities' strategies in detail, including approaches to disclosure and investor education. In particular, based on the survey responses:

- On disclosure, most IOSCO members rely on traditional disclosure approaches and require regulated entities to adjust their Point of Sale (PoS) disclosure when

[1] FR13/2020 Initial Findings and Observations About the Impact of COVID-19 on Retail Market Conduct (iosco.org).

circumstances change during the product life-cycle. As a novel approach to disclosure, few authorities require “tailored disclosure”.

- Most members have and have used product design (ex-ante) and product intervention (ex-post) powers in situations of potential retail investor risk/harm due to risky product offerings.
- Investor education and being pro-active in retail investor protection continues to be key in preventing retail investor harm. IOSCO members are employing various novel methods to this purpose.

The findings of this report are largely based on a comprehensive survey exercise IOSCO carried out in Q3 2021 and public information issued by IOSCO members. IOSCO received forty-five responses to its survey from a wide range of membership, with a good balance of emerging markets-developing economies, as well as a good representation of different types of membership, including some affiliate IOSCO members with self-regulatory organization (SRO) powers. It should be noted that the survey responses may in certain cases present a point-in-time feedback and retail investor trends are evolving rapidly. That being said, the survey responses provide a picture of the changing retail landscape and trends on a global scale.

This consultation report provides an opportunity for public consultation on the retail market conduct related concerns and issues that are highlighted based on the IOSCO membership feedback. In addition to the input on some of the important retail investor trends, the consultation report presents various tools IOSCO members are using in response to the challenges brought by the rapidly changing retail landscape.

IOSCO is interested in gathering views and feedback from a broad range of stakeholders, including investors, regulators, market participants, regulated entities, financial consumers, academics and other international bodies on issues relevant to the development of a regulatory toolkit for jurisdictions to consider as they continue evaluating and addressing emerging retail market conduct issues. To this purpose, IOSCO has asked **fourteen consultation questions**.

The purpose of the regulatory toolkit would be to place in front of regulators key issues that they may consider as part of their regulatory strategies. In this case, the regulatory toolkit could be designed for regulators to consider as they continue to evaluate and address the risks arising from the changing retail investor behavior and trends outlined in this report.

1 CHAPTER 1 – INTRODUCTION

1.1 The Retail Market Conduct Task Force

IOSCO has undertaken this work to gain a better understanding of the evolving retail trading landscape and to develop a suggested toolkit to address retail market conduct risks and emerging trends. The RMCTF is a Board-level group co-chaired by the Australian Securities and Investments Commission (ASIC) and the Central Bank of Ireland (CBoI).[2]

1.2 Prior IOSCO work

The RMCTF delivered a short-term report in December 2020 with a specific focus on the retail conduct implications of COVID-19.[3] That report set out some initial observations focusing on market environment, key drivers of firm and investor behavior in periods of stress that provide increased opportunities for retail misconduct, and regulatory measures and tools used to address retail losses and/or mitigate misconduct risks.

Subsequently, the RMCTF turned its focus to analyzing some of the broader implications of recent retail market trends and the related regulatory implications, as well as regulatory responses. It analyzed retail market conduct issues from a broader perspective, including various recent popular trends, such as the impact of social media on retail trading decisions, activist retail activity, gamification, amongst others. The feedback provided in the December 2020 report largely supports the findings of this work and has been a useful and complementary source.

IOSCO has carried out various relevant work in the past, which may be considered in conjunction with this Consultation Report. (See Annex 1 for the list of IOSCO reports that are closely related to retail trading and investor protection).

1.3 The consultation report considers the rapidly evolving retail trading landscape

This consultation report provides an overview of the rapidly evolving retail trading landscape based on survey responses and other information from IOSCO members. Building on this, it considers potential "magnifiers" of retail investor harm – including increasing retail trading and changing retail behavior; the evolving frauds and scams landscape and key conduct issues; and the impact of technological elements on retail trading, such as social media and digitalization.

While the focus of this report is not on the impact of COVID-19 on retail investor trends and behavior, retail consumer behavior may have been influenced by responses to the COVID-19 pandemic, such as government lockdowns, business closures, and economic support measures. Much of the information drawn in this consultation report is from the IOSCO survey responses, and as such, the responses to some extent referred to the impact of the pandemic on retail trading patterns. This is in line with the findings and observations of the December 2020 report and reflects broader trends, such as an increase in fraudulent activity since the onset of the COVID-19 pandemic.

2 Membership of the RMCTF also includes Belgium FSMA, Brazil CVM, China SRC, Germany BAFIN, Hong Kong SFC, India SEBI, Italy CONSOB, Japan FSA, Malaysia SC, Mexico CNBV, Netherlands AFM, Quebec AMF, Singapore MAS, Spain CNMV, Switzerland FINMA, Turkey CMB, UK FCA, U.S. CFTC, and U.S. SEC.

3 https://www.iosco.org/library/pubdocs/pdf/IOSCOPD669.pdf

The retail trading landscape continues to rapidly evolve, and going forward, there are a range of retail trends and sources of potential retail investor harm, which are analyzed in detail in the upcoming Chapters.

1.4 Misconduct continues to be a core global regulatory concern

Fraud, and particularly the threat of fraudulent behavior affecting retail investors, continues to be a persistent problem. Fraudsters use a range of effective and sophisticated tactics to build trust and exploit vulnerabilities to cause significant investor losses. The pressures of the current pandemic on investors, as well as economic and market volatility have increased the vulnerability of retail investors and has created opportunities for fraudsters.

1.5 Future directions

While the survey responses point to a range of potential trends and regulatory observations, IOSCO notes that there are data gaps on exactly why the observed changes may be occurring. To supplement the analysis in this paper, IOSCO plans to conduct further direct engagement with consumer groups and bodies via a financial consumer focused roundtable in Q1 2022. Ultimately, the RMCTF aims to produce a suggested toolkit for IOSCO members to consider in addressing retail market conduct risks and emerging trends.

2 CHAPTER 2 – THE EVOLVING RETAIL TRADING LANDSCAPE

Background

This Chapter of the report sets out the current and evolving retail trading landscape, which is complex and changing and different jurisdictions may experience the trends analyzed in this Chapter to various degrees. That being said, key trends IOSCO has observed based on the feedback from its members are the following:

- Retail investor participation in capital markets is growing, as are the volumes of retail trading. A range of factors have been identified (in research and by survey results) as the causes of this growing participation. Multiple factors might be at play in explaining the growth in retail trading (**Sections 2.1 and 2.2**).
- Technological developments are changing the way in which retail consumers interact with financial services and products in a number of ways. There is an increasing use of online trading platforms and mobile apps, and of social media as a means to promote the offerings of securities (**Section 2.3**).
- There are shifting trends regarding the popularity of different asset classes among retail investors, and a general trend towards retail investors investing in riskier products, including retail OTC leveraged products and crypto-assets **(Section 2.4).**
- Certain retail trading patterns may result in or magnify retail risks and losses. Market volatility, including periods of high volatility recently experienced (which may occur again in the future), may influence retail investor behavior as retail investors chase higher returns in a low interest rate environment **(Section 2.5 and 2.6).**
- Increasing use of leverage by retail market investors is another magnifier of risk. IOSCO members are taking measures to curb excessive leverage **(Section 2.7).**
- Retail investors are increasingly engaged in self-directed trading and the technological developments (set out in section 2.3) may support the increasing "gamification" of retail investing (**Section 2.8**).

These key trends are set out below.

2.1 Retail investor participation is growing

Greater retail investor participation in wealth creation through capital markets is a positive development for the overall economic progress.[4] Protecting retail consumers from misconduct and scams and fraud is a pre-requisite to maintain trust and confidence in markets. While risk and potential investment losses are an intrinsic part of investing in markets, creating the right environment for financial consumers to invest is a core objective for IOSCO members.

The RMCTF's short-term report had noted the recent increase in retail trading, including during the COVID-19 pandemic. The RMCTF survey sought to follow up on this initial finding by seeking information on approximate percentage and volume of equity trading by retail investors

[4] A recent UK FCA study found that "Many consumers who might gain from investing currently hold their savings in cash. There are 15.6 million UK adults with investible assets of £10,000 or more. Of these, 37% hold their assets entirely in cash, and a further 18% hold more than 75% in cash (Financial Lives Survey - FLS). Over time, these consumers are at risk of having the purchasing power of their money eroded by inflation"

as a proportion of overall equity trading. The majority of survey respondents observed an increase in retail trading activity (with some very sharp increases, particularly in equity trading in 2020), with data suggesting a surge in account openings and number of new retail traders beyond historic norms in certain jurisdictions. A few survey respondents noted relatively stable participation percentages or a reversal and a return back to normal levels following the 2020 COVID-19 volatility episode discussed below in Section 2.6.1.

While there are jurisdictional differences in retail trends, including its quantum and share in the overall trading volume, certain IOSCO members with major capital markets have in general observed an increase in volume and new account openings. In certain cases this increase was very significant.[5] For example, some academic commenters have observed that following the onset of the COVID-19 pandemic, there has been a substantial increase in retail investor participation in the U.S. markets. Retail trading historically comprised, on average, roughly 10% of all U.S. equities trading volume (prior to the COVID-19 pandemic).[6] That figure reportedly doubled to roughly 20% in 2020, and reached as high as 26% during the January 2021 market events.[7] Some other reports also indicate that the increase in retail trading has coincided with a corresponding increase in trading volumes in U.S. equities and options markets,[8] with a substantial proportion of that activity coming from retail investor orders.[9] Further, some reports note that retail investors have increasingly looked to participate in securities markets through retail broker-dealers that offer commission-free trading on mobile apps, with app downloads increasing by millions each month at the beginning of 2021.[10]

5 Some jurisdictions have observed a correction of these volumes in 2021.

See also, *e.g.*, Larry Tabb and Jackson Gutenplan, "Retail Traders Alter Market Dynamics," Bloomberg Intelligence (July 13, 2021); Bloomberg Intelligence, Market Structure Dashboard Equity Volume Segmentation Estimates (accessed Sept. 24, 2021). This research attributed the increase primarily to commission-free trading.

6 *See, e.g.,* Brad M. Barber et al., Attention-Induced Trading and Returns: Evidence from Robinhood Users (Working Paper, Feb. 2, 2021), Ivo Welch, The Wisdom of the Robinhood Crowd, Journal of Finance (Forthcoming, last revised Aug. 23, 2021).

7 *See* Caitlin McCabe, It Isn't Just AMC. Retail Traders Increase Pull on the Stock Market, The Wall Street Journal (June 18, 2021).

8 According to Cboe Global markets, in U.S. equities markets, daily share volume averaged 7.3 billion shares during 2018 and 7.0 billion shares in 2019. These figures expanded substantially with the beginning of the COVID-19 pandemic, as daily share volume reached 9.3 billion shares in February 2020, and 15.6 billion in March 2020, with an average daily share volume of 10.9 billion for all of 2020. Through June 30, daily share volume in U.S. equities has averaged 12.6 billion during 2021. *See, e.g.,* U.S. Equities Market Volume Summary, Cboe Global Markets, (last visited June 30, 2021). In the U.S. equity options markets an average of 20.1 billion contracts were traded per day in 2018, and 19.1 billion per day in 2019, and 29.0 billion per day in 2020. *See, e.g.,* U.S. Options Market Volume Summary, Cboe Global Markets, (last visited June 30, 2021).

9 In a study based on transaction data from the first half year 2020, BaFin found that retail investors changed their investment behaviour in times of crisis and their approach is different than institutional investors. Retail investors were increasingly drawn to the stock market, undeterred by the high volatility, where they turned to well-established blue chips.

10 In February, news reports mentioned a notable increase in broker-dealer app downloads, including Robinhood (more than 3 million) and Webull (more than 800,000). *See, e.g.,* Maggie Fitzgerald, Robinhood Appears to be Benefiting from the Trading Controversy, Seeing Record App Downloads.

2.2. Factors Affecting Retail Investor Participation

The factors that may influence retail investor participation may also influence the nature and type of that behavior. The cause of increasing retail investor participation is likely multi-factorial and complex, some of which are explored further below.

(a) COVID-19 pandemic responses – context and government measures

One important factor could be the government responses to the COVID-19 pandemic, which included lockdowns and business closures across the world, as well as various economic support measures. These might have played a role in influencing retail consumer behavior. Decreased spending during lockdowns or possibly stimulus measures providing financial relief might have brought more investors to capital markets. As highlighted by various IOSCO members, increased screen exposure (or even "boredom" as highlighted by one member) and spare time, together with the appeal of speculative (or gambling-like) activity among certain group of investors might be other contributing factors.[11] Furthermore, it could also be that the periods of lockdown during the pandemic allowed retail investors to take their time to study the market and find the right moment to invest during high market volatility. This might imply the trend is short term and suggest that observed trading patterns could return relatively quickly to previous levels.

(b) Current market conditions

Macro-economic conditions may influence retail trading volumes. The general macro environment encourages retail investors to seek for higher returns from the capital market,

[11] The Japan Securities Dealers Association research also revealed that approximately 60% of investors started/expanded/continued investing during the spread of COVID-19. This increasing trend was particularly noted among younger age groups.

whereby low interest rates drive retail investors to search for higher yield by investing in assets with higher returns. This might be a consequence of central bank policy rates falling to the lowest levels in certain jurisdictions. The current market conditions may also facilitate opportunistic and predatory retail market behavior, as further explored in Chapter 4.

(c) Technological transformations - New tech-based business models and increased competition and reduction of transaction costs

New platforms and products may have contributed to increased retail trading activity. Among all the factors, IOSCO members have highlighted technological developments as critical and a "game-changer".

Firstly, technological advancements may enhance retail access to financial products and services and act as catalyst in bringing in more retail investors to capital markets.

Specifically:

- Technological advancements may alter how retail investors interact with financial firms. The emergence of smartphone-only trading platforms, mobile and online trading apps made trading and stock markets more and easily accessible to retail investors.;
- Retail investors are increasingly engaged in self-directed trading and the technological developments (set out in section 2.3) may support the increasing "gamification" of retail investing
- Enhanced access to the market with minimal physical touch points and easy access to inexpensive brokerage platforms that are user-friendly;
- Effective use of digital technology in simplified online account openings and the simplification of online Know Your Customer (KYC) registration process over the years; and
- Ease of availability of information on digital modes.

Secondly, new business models have accompanied this transformation, including the emergence and targeted marketing of new "commission free" trading platforms based on mobile applications and lower or no-cost broker advertising services making trading more accessible to retail investors. These might have contributed to the increase in retail trading activity.[12] (Discussed further in Section 2.8. under trends in self-directed trading).

Thirdly, the technological transformation has also changed how retail investors communicate and exchange information. Some IOSCO members highlighted the increasing influence of social media on retail investor decisions.

Finally, technological developments have influenced the evolution of financial products themselves, as certain new products based on technological innovation increased in popularity, as experienced with the publicity and hype around crypto-assets, which have been directly marketed to customers. This issue is analyzed in detail in Section 3.1.

Accompanied with these technological developments, most of the growth in retail participation came from newer, commission-free trading platforms based on mobile phone applications. Competition among internet-based securities brokers has also led to significant reduction in fee/commission and the emergence of online discount brokers (also known as Order Execution Only dealers or self-directed investing) might have also contributed. Availability of fractional

[12] For example, recent research in the US attributed the increase primarily to commission-free trading *See*, *e.g.*, Tabb and Gutenplan, "Retail Traders Alter Market Dynamics." See citation in Footnote 5.

share trading was also highlighted by some members as a potential factor in the increase of retail trading.

(d) Demographic trends and social and psychological factors

Increased retail investor participation may be driven by certain demographic trends, [13] potentially accelerated by or in conjunction with current market conditions and the government responses to the COVID-19 pandemic.

In particular, the IOSCO survey suggests younger investors made significant shifts in their investment strategies during the COVID-19 pandemic. Various IOSCO members reported that the average age of purchasing retail investors has been declining gradually every year. Some members have presented striking increased percentages in equity trading, primarily by young investors. The UK FCA's research findings indicate that there is a new, emerging, distinct and more diverse audience getting involved in self-directed investing.

Regarding gender, members reported varying trends in distribution of trading between the genders. Interestingly, one member noted the sharp rise in the proportion of new female investors over the last year.[14]

In terms of income, it is difficult to extract a general observation. Certain IOSCO members reported that new investors had lower incomes (were also younger), and smaller account balances than their more experienced counterparts. Linked to this rejuvenation factor, the triggers for those in their 20's and 30's in developing interest in investing was the "availability to start investing with small amounts of money".

Demographic factors, primarily age and/or generation, may impact not just the retail investor participation, but also the retail investor behavior including:

- Younger investors may tend to invest less into "classic" securities such as shares and bonds but instead invest more into ETFs, leveraged certificates and CFDs. They may be more likely to invest in overseas companies (either directly or via ETFs). Some members observed increased retail interest in the commodities/commodity derivatives sector as commodity prices have risen.
- Younger investors usually have a high digital profile, but perhaps with an inclination towards riskier instruments. All age groups were particularly active in buy-now-pay-later, leveraged ETFs, airline and tech companies over the past year, though younger

[13] For example, a survey sponsored by the FINRA Foundation indicates that the group of investors opening accounts in 2020 was more racially and ethnically diverse than more experienced investors or existing account holders. Younger and newer investors had smaller balances compared with older and more experienced investors. See FINRA, Investor Education Foundation and NORC at the University of Chicago, Investing 2020: New Accounts and the People Who Opened Them (Feb. 2021)

In another context, Robinhood, a broker, provided Congressional Testimony in which it stated that across its 13 million accounts, its average user is 31 years old, has a median account balance of $240 and an average account size of $5,000, and about half self-identify as first-time investors. Robinhood further indicated in its S-1 filing from July 1, 2021 that among its customers, equities are the most popular holding (approximately $65 billion assets under custody as of March 31, 2021), followed by cryptocurrencies (approximately $11.5 billion) and options (approximately $2 billion).

[14] ASIC highlighted that female investors tend to hold fewer assets and to be less diversified, more risk-averse and aware of fewer investment options. Female investors are also more inclined to set a strategy and hold to it, reviewing their portfolios less often and making fewer changes in response to market movements, including the COVID-19 pandemic.

investors were more active in these compared to older investors who more favor well-known blue-chip stocks, which could be an indication of a more risk-averse approach.

Q1: In their risk analysis, should regulators specifically consider/target specific demographic profiles/groups for additional or enhanced investor protection measures? If so, should greater attention be focused on younger age groups or older age groups? Is there a tipping point in behaviours beyond which regulators should become concerned?

2.3. Technological changes

The technological changes occurring in retail markets relate not only the way in which retail investors participate in markets (discussed below) but are fundamentally changing retail market structure and related conduct issues. As a global observation, retail investors are increasingly taking up digital trading platforms at high rates. [15]

The advent of digitalization and online services brings various benefits, most importantly, making access to financial products easier, reducing transaction costs, and potentially improving investor convenience and speed of access. However, digitalization and online services also expose investors to new risks. Specifically, disclosure of product and investment risks might often be over-relied upon by firms and regulators, which might not always be adequate in the digital and cross-border environment. A few of the survey responses indicated that disclosure may not be adequate, or the cross-border nature of offerings may mean that services are not adequately regulated or supervised in some jurisdictions.

The governmental responses to the COVID-19 pandemic, which may have driven increased retail investor participation, may also have resulted in retail investors increasingly forced/pushed towards "digitalization". Many of these investors may not have been familiar with the volatility of share trading or understood the different product features. New investors may trade without adequate advice, or seek advice from social media, which may be conflicted, less informed, and/or provided by unlicensed persons/firms.

The increasing influence of social media on retail trading behavior and decisions media was ranked by IOSCO members in survey responses as one of the most important trends affecting retail trading behavior. Social media not only encourages retail market investor participation, but its impact on how consumers communicate information may impact what type of financial products investors invest in (e.g., higher risk) and how they invest (e.g., via digital platforms). Furthermore, social media may reduce the asymmetry of information and make - albeit sometimes problematic - information available to consumers with ease.

Despite its benefits, social media may allow access to information relating to a variety of products and services, sometimes on a cross-border basis without necessarily being subject to adequate supervision. It may also help spread misleading information through internet advertising, influencers, and may result in harmful behavior and fraud, such as identity thefts. For detailed analysis on the impact of social media, see Section 3.3.

In summary, no single factor appears to dictate the current retail landscape. The cause of the growth in retail trading volumes appears to be an interaction/combination of various factors. Furthermore, the upward trend in global stock market indices, fueled by economic stimulus

[15] For instance, JFSA reported that the number of online trading securities accounts increased from 30 million in March 2020 to 33 million in March 2021. In another example, 82% of investors have switched to digital trading platforms in HK.

measures might have created an eco-system that triggers opportunistic retail behavior. Therefore, some of the IOSCO findings may merit further consideration.

2.4. Retail investor trends in terms of asset classes

Survey responses highlight various trends regarding the popularity of different asset classes. These trends may be broadly similar across jurisdictions:

Exchange-Traded Funds (ETFs)	ETFs have been rising in popularity globally, as ETFs allow investors with flexibility and simplicity and to start with small investments.[16] In certain jurisdictions, the retail interest for ETFs was on the rise, and in other jurisdictions significantly high.
UCITS/mutual funds	Similar to ETFs, UCITS/mutual funds have increased participation by retail investors.
Crypto-assets	The number of retail investors holding crypto-assets is growing rapidly. As crypto-asset market participants may be operating outside of, or in non-compliance with, regulatory regimes in most jurisdictions. Data on crypto-asset trading is incomplete and patchy.[17]
Equity	As one of the most popular asset classes, many members have observed an increase in equity trading of retail investors. That said, some have reported retail participation percentages remaining relatively stable or a general correction in 2021, in comparison to 2020. The share of retail investors in equity trading remains higher in emerging markets in comparison to developed markets.
Retail OTC Leveraged Products	Retail participation is very dominant in leveraged products such as CFDs, which gained further popularity in 2020 because of the lockdowns and COVID-induced volatility, which allowed more investors to benefit from short-term trading while investing less capital.
Fixed-Income	Certain segments such as corporate bonds are predominantly institutional, with little retail participation. However, certain fixed-income products, such as government bonds remain popular among retail investors.
Other asset classes:	One member responded that retail investors are investing in asset classes less familiar to retail investors, such as oil ETFs (e.g., WTI) and they incurred losses when oil prices went negative during March 2020. There was a significant increase in futures trading, particularly in the US during the March-April 2020 COVID-19 volatility period.

Overall, it is challenging to extract comparable results from survey responses in relation to the share of retail trading in different asset classes. This is mainly because of data gaps, varying data collection efforts, data sources and fields. The statistics that members have submitted are not homogenous. One important data gap that might be further explored is the proportion and origin

16 For example, in the case of US-listed ETFs, despite the COVID-19 pandemic, the ETF industry broke a record as annual inflows were 55% higher in 2020 than in 2019.

17 Bitcoin, as the crypto-asset with the biggest market share, has experienced a steady rise in popularity across the world. As one member noted, the digital currency industry benefits from the advantages of cross-border trading, as regulators and governments discuss how best to regulate this segment of industry.

of retail investor money (e.g. a workplace pension scheme, a diversified retirement portfolio or simply the money that is allocated to "gambling" or "fun") that is invested in riskier products.

Survey responses give a clear picture, however, of trends in retail investments across different asset classes, which highlight an increasing share in overall trading volumes, and to some extent, a greater risk appetite in unfamiliar asset classes that are riskier to retail investors.

2.4.1. Increase in Retail Risk Appetite

Some IOSCO members have observed that retail investors are increasingly attracted to high-risk investment opportunities.[18] This includes the rise in popularity of 'riskier' investments including crypto-assets, FX, CFDs, leverage certificates and small cap securities. Some IOSCO members reported the increased use of crypto-assets in retail markets in particular, while most members responding to the survey observed an increase in riskier investments more broadly.

Similar factors to that driving increased retail investor participation may draw investors towards riskier products – such as an environment where consumers are seeking higher returns due to low interest rates. In the search for yield investors may move to higher risk products (across a range of financial products, e.g., direct investment, managed investment schemes, and superannuation). This, in turn, may expose retail investors to conduct risks such as poor design and sale of poor value products, and an over-reliance on disclosure to address these risks.

2.5. Main Activities and Retail Trading Patterns That May Result In or Magnify Risks

Of the variously reported risks to retail investors, IOSCO members have classified the following as the most important retail risks:

1- Frauds & Scams;
2- Mis-selling;
3- Volatility; and
4- Increasing misuse of social media.

The risks to retail investors that emerge from the IOSCO findings seem to be interconnected. Not surprisingly, crosscutting these risks, greater digitalization and online access emerged as a theme, which we have already analyzed in Section 2.3. Regarding the retail trading patterns that may result in or magnify retail harm and risks, IOSCO members highlighted the following: [19]

1- Margin trading or high risk or leveraged products;
2- Momentum investing;[20]
3- Investing in bubbles;

[18] For instance, according to FCA research Consumer Investments: Strategy and Feedback Statement, 70% of consumers in the UK believe they can make investment decisions themselves, and only 8% have received financial advice.

[19] Additionally, one respondent noted a new form of retail trading pattern as "social-herding investing" that entails the transmission to the customers (via e-mail, text messages and social media) of "trading signals" (non-personalised) offered by third parties about their transactions allowing other traders to copy them on their own trading accounts. Another member noted that there was a higher proportion of customers day trading with trading app firms compared to established platforms, and more of these are loss-making. Another member noted an increase in retail market participation through the opening of discount brokerage accounts.

[20] It was noted that this occurs particularly in crypto-asset trading and stock trading, whereby, stocks, irrespective of their fundamentals, may have provided significant price returns. This may have sparked off a momentum investing approach amongst retail investors. It was noted that investing in assets not suitable for the investment objective and trading due to market noise often results in retail losses.

And, to a lesser extent,

4- Social media influence on investment decisions;
5- Noise trading;
6- Herd behavior; and
7- Short-selling.

2.6. Market Volatility and Retail Investor Behavior

2.6.1. Recent volatility events

Volatile market conditions might be attractive to some retail investors because of the possibility to make short term gains, as opposed to investing for longer term. One of the issues the pandemic brought to the fore was increased and unpredictable market volatility in some markets. IOSCO members highlighted increasing market volatility as an important potential magnifier of retail investor risk, with the risk of a "market correction" exposing retail investors to severe losses if they have overinvested, followed a short-term trend into a market, or used leverage.

The recent specific episodes of market volatility highlighted by members include:

- **COVID-19 outbreak** (Q1-H1 2020, particularly Feb-March 2020 episode)
- **"Gamestop" and "Meme Stock" market volatility** (Q1 2021, particularly late January-early February)[21]
- **Vaccine news** (A short period of market volatility in November 2020)
- **Commodity derivatives market volatility** (January 2021)[22]

The U.S. markets have witnessed recent episodes of market volatility, like that observed in January 2021 in GameStop Corp. (GME) and other so-called "meme stocks". In October 2021, the US SEC staff published a staff report focusing on the January 2021 trading activity of GME and other stocks, when they experienced a dramatic increase in their share price as the bullish sentiments of individual investors filled social media. As the companies' share prices skyrocketed, increased attention followed, and their shares became known as "meme stocks." As the end of January approached, several retail broker-dealers temporarily prohibited certain activity in some of these stocks and options. GME experienced a confluence of all of the factors that impacted the meme stocks: (1) large price moves, (2) large volume changes, (3) large short interest, (4) frequent Reddit mentions, and (5) significant coverage in the mainstream media. Because the meme stock episode raised several questions about market structure, the staff report also provides an overview of the equity and options market structure for individual investors. The report concludes with the staff identifying areas of market structure and the regulatory framework for potential study and additional consideration. These include: (1) forces that may cause a brokerage to restrict trading; (2) digital engagement practices or DEPs and payment for

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21 "Gamestop" and "Meme" stock market volatility was observed in certain jurisdictions, primarily in U.S. equities and driven by Reddit's Wallstreet bets and social media activity. Other jurisdictions such as Ireland, UK, Quebec, Ontario also observed similar meme stock volatility and trends during Q1 2021.

22 NFA has observed that silver futures traded on COMEX hit the highest prices in eight years and had the largest one-day increase in over 10 years. News sources attributed this to speculative trading driven by social-media platforms, including Reddit's WallStreetBets. The CFTC also observed a growing trend of precious metals promoters and dealers encouraging investors to use the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) distribution rules, (which provided for special distribution options and rollover rules for retirement plans and IRAs and expanded permissible loans from certain retirement plans) to convert their retirement savings into investments of gold or silver coins, self-directed gold individual retirement accounts, or make leveraged purchases of physical metals.

order flow; (3) trading in dark pools and wholesalers; and (4) the market dynamics of short selling.

The RMCTF posed a specific question in its survey on whether IOSCO members had observed retail investors behaving collectively to impact market pricing, and in certain cases, to manipulate the market. The response to this question indicated that the large majority of jurisdictions have not observed any such collective behavior.

According to the survey responses, a great majority of IOSCO members did not observe any clear evidence or correlation between the increased/decreased volume of retail trading and market volatility, with the exception of a few markets. While various members have reported market volatility remaining at elevated levels since the outbreak of the COVID-19 pandemic, they do not think retail trading distorts the market. Rather, survey responses reported that market volatility is affected by other external factors, such as the macroeconomic environment, market performance, investor sentiment, fund flows, overseas monetary policies, imposition of VAT, oil/commodity prices, as well as overall liquidity conditions, among other factors. Retail investors are opportunistic and come to market to benefit when prices dip.[23]

IOSCO members have put in place various measures to address volatility, such as circuit breakers, ceiling and floor prices, short selling measures, higher margin requirements, to mitigate the impact of extremely volatility on stock markets.[24]

2.7. Increasing Use of Leverage by Retail Investors

Leverage increases the sensitivity of an investor's margin to price movements in the underlying and increases the risk of sudden losses, which in turn would mean that traditional trading controls such as stop-losses might be less effective. A related risk of leverage is that it places clients at risk of losing more money than they have invested, whereby the use of leverage may increase the probability of a larger loss to a greater extent than the probability of a larger gain. This is a key risk that retail clients may not fully understand despite disclosures or written warnings.[25] Therefore, leverage is considered as an important amplifier of retail losses, and thus, retail risks.

IOSCO members' feedback reveals inconsistent trends across IOSCO member jurisdictions on the use of leverage by retail investors, with not all IOSCO members having the relevant data to be able to report clear trends. That said, there has been an increase reported in the following as indications of increased leverage:

- CFD trading by retail investors;
- Increase in geared products such as leveraged and inverse ETPs and leveraged ETFs trading;

23 In an interesting research study, FINRA found widespread awareness of stock market volatility during the first half of 2020 among retail investors (and non-investors), but respondents made few transactions in response. Trades were not prevalent, and most households did not report strong negative emotions or high levels of pessimism about the market's ability to return to pre-pandemic levels. Respondents reported low levels of confidence in the fairness of financial markets to the average investor. See FINRA, Investor Education Foundation and NORC at the University of Chicago, The Impact of Pandemic-Related Volatility on Stock Market Expectations and Participation (Oct. 2020)

24 For example, in April 2021, CONSOB issued the Statement on "Cases of exceptional volatility in the trading of stocks and the use of social forums and web trading platforms", drawing the attention of the market, investors and regulators on the potential cross-border implications and specific novelties arising from volatility episodes.

25 Extracted in part from ESMA Decision 2018/796 of 22 May 2018 to temporarily restrict CFDs in the EU.

- The amount of investors who were borrowing to invest, margin trading, and margin loans advanced by brokers;[26]
- Retail short positions;
- Use of options;
- Use of forwards; and
- Leveraged certificates.

Various measures have been introduced in different jurisdictions reporting a trend in the increase in use of leverage by retail investors. These measures predominantly placed limits on what leverage can be made available and are reported to have been effective.[27]

Relatedly, it is also important to consider the tools and marketing practices used by firms. The UK FCA reported that firms are accepting credit cards as a payment method for investing in CFDs. Some of the newer investment apps have as much as 10% of their total payments coming from credit cards and some even encourage this by highlighting the ability to pay by credit card in their adverts.[28]

Q2: Does the consultation report capture accurately the important retail trends and the reasons for increased retail trading? Are there any missing concerns or issues and other potential risk magnifiers? What may be the current and potential long-term implications of increased retail participation in markets in your view?

2.8. The Rise of Self-Directed Trading and Gamification

The wider acceptance of e-commerce and advances in online payment technology (e.g., real time money transfer) has enabled easier access to online trading platforms, including those offered via smartphones, and an increase in self-directed trades.[29] The following are the core reasons reported to IOSCO for the increase in self-directed trading among retail investors:

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26 The FINRA Foundation recently reported that many retail investors did not know if their investment account allowed them to make purchases on margin, and only a small fraction reported actually using margin to purchase investments. *See* FINRA, Investor Education Foundation and NORC at the University of Chicago, Investing 2020: New Accounts and the People Who Opened Them (Feb. 2021).

27 For example, in 2016, the FSMA Belgium decided to prohibit the distribution to retail investors of derivatives instruments traded via an electronic trading system, that are binary options, have a duration of less than one hour or that directly or indirectly involve leverage (this regulation does not apply to derivative instruments admitted to trading on a regulated market or on a multilateral trading facility operated by a market operator.

In 2019, ESMA adopted measures with a view to curtailing the increasingly aggressive marketing of CFDs and binary option products to the retail investor base. Following the lapse of these measures, individual member states adopted similar measures. Prior to the ESMA measures, European regulators had identified "outrageous" margins being provided, in some cases 1:400, or 1:500 and up to as much as 1:1,000. European jurisdictions described the common measures adopted in 2019 as having been effective. Retail investor losses reduced, and the number of profitable accounts increased.

ASIC also introduced measures similar to the E.U. leverage limits. In the UK, the FCA imposed a complete ban on the sale of binary options and introduced various restrictions on the sale of CFDs to retail consumers. Various other members such as Japan, Singapore and some emerging markets have in place/have introduced minimum margin to limit retail investors' use of leverage.

28 UK FCA's Research Note: Cryptoasset consumer research 2021 reveals that 14% of those who purchased crypto-assets used some form of borrowing. The OSC reported similar trends.

29 For example, the UK FCA noted increased interest in trading shares and other regulated financial instruments, as well as unregulated products. They noted advancements in technology have increased the accessibility of retail investments.

- Short-holdings to benefit from intraday volatility;
- Quick/near instant account openings;
- Discounts in trading fees, zero commissions;
- Availability and increasing use of mobile apps, user friendly interfaces;
- Availability of analytical and execution tools;
- Influence of social media; and
- Emergence of neo-brokers[30] in certain jurisdictions.

These trends may have resulted in inexperienced investors trading more and taking on risk outside their tolerance and beyond their financial capacity.[31] The main regulatory concern is that lowering of access thresholds for retail investors to invest in securities and effects of gamification may not be accompanied by a proportional increase in financial consumer education. While the effects of gamification and its possible implications are currently the subject of discussion, investor awareness of potential risks is critical to avoid retail harm. Furthermore, there is a risk that compliance with "best execution" rules might not be respected by firms.

Importantly, advertising and marketing strategies, particularly by online platforms, may breach requirements of securities regulations and raise investor protection concerns. These advertising or marketing strategies may include contests, promotions, bonuses and time-limits to pressure investors to make a decision, that may result in excessive or improvident trading by retail investors. IOSCO members are closely watching gamification trends, advertising and marketing strategies, particularly by platforms that trade crypto-assets.

2.8.1. Gamification and other changes to customer experience

Firms have started to employ a variety of digital engagement practices when interacting with retail investors through digital platforms. These practices include behavioral prompts, differential marketing, game-like features and other design elements or features. Some of these gamify the trading experience to increase usage and influence trading behavior.[32] While it is difficult to quantify how popular apps that use gamification are, and the level of trading carried out by retail investors engaging with apps that use gamification, in 2020, various IOSCO members observed a significant increase in the number of young people involved in the stock market, often via use of trading apps.

In the U.S., for example, the SEC recently issued a request for information and public comment on matters related to, among other things, broker-dealer and investment adviser use of "digital engagement practices". This initiative aims, in part, to develop a better understanding of market practices associated with the use of digital engagement practices by firms, and to facilitate

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30 Neo-brokers have recently emerged, and they are mainly supplement the services offered by undertakings already established. They advertise very low costs and fees. The services they offer are often limited compared to those offered by established online brokers. They focus on securities trading via a browser-based web trader and, in most cases, also a smartphone trading app. Compared to established online brokers, they offer only a few trading venues for executing orders. Some even offer only one. See BaFIN "The promises neo-brokers make – and the ones they keep".

31 For example, see the US SEC staff's Joint Public Statement Regarding Complex Financial Products and Retail Investors, October, 2020.

32 CFDs are a good example of gamification. A common feature of the CFD industry has been to offer trading benefits (monetary and non-monetary), such as bonuses to attract retail clients, including the offer of gifts, tutorials or reduced costs.

assessment of existing regulations and consideration of whether regulatory action may be needed. [33]

Additionally, a call for evidence on certain aspects relating to retail investor protection was issued by ESMA on October 1, 2021. In its call for evidence, ESMA asked for contribution related to the appropriateness of the current regulatory framework with regards to digital tools and channels and welcomed input on the impact of information shared on social media on retail investors' behavior. ESMA stated that, while the use of gamification techniques can help to convey complex information in a simple and rewarding way, the wrong use of these techniques can push investors to take actions based on emotions rather than through rational decisions.[34]

2.8.2. Self-directed trading

Many IOSCO members have also observed increasing levels and volumes of self-directed trading. Members generally note a move *away* from financial intermediaries to self-directed investing, particularly among younger investors trading through mobile apps and online platforms. Forex and crypto were highlighted as the most popular two asset classes, where SDT is becoming popular via online platforms.

In the U.S., the SEC staff is reviewing the effectiveness of the existing regulatory requirements in protecting investors, particularly those with self-directed accounts, who invest in complex securities products.[35] Following this review, the Staff will make those recommendations to the Commission deemed appropriate as to potential new rulemakings, guidance, or other policy actions.

Despite its cost reduction benefits for retail investors, some IOSCO members noted that lack of specific regulation on self-directed trading may restrain the regulator's hands from an investor protection perspective. As a way of circumventing regulatory rules, firms are using the existing regulatory structures or exemptions to offer products in ways, or to an extent, that may not have been envisaged. The examples of this include:

- Low-cost brokers who use omnibus HIN (Holder Identification Number) structures (or pooling arrangements) to lower costs;
- Fractional share trading (initially US stocks but there are examples of providers offering these in other markets);
- Marketing of zero-commission trading in US securities (the payment for order flow received by the US broker-dealer may subsidize this for some broker-dealers);
- Zero brokerage ETF trading - this is for buying only as brokerage is charged when the securities are sold; and
- Copy trading, whereby a number of providers seek to promote their service as a way for inexperienced investors to copy an experienced trader to invest in products or markets the investor may not understand. This is supported by significant advertising of these products on a range of forums.

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33 *See* the U.S. SEC's Request for Information.

34 On February 17, 2021 ESMA also issued a Statement urging retail investors to be careful when taking investment decisions based exclusively on information from social media and other unregulated online platforms, if they cannot verify the reliability and quality of that information.

35 *See* Public Statement https://www.sec.gov/news/public-statement/gensler-statement-complex-exchange-traded-products-100421.

Q3: What may be the potential implications of self-directed trading and gamification from a retail risk and conduct perspective? Should high risk aspects of these activities be regulated or prohibited, for example, certain risky gamification techniques?

3. CHAPTER 3 - DIGITALISATION, SOCIAL MEDIA AND RETAIL TRADING

Background

In an environment where a vast amount of information comes from social media and investors are in search of yield, retail investors may increasingly turn to higher risk products, sometimes with high degrees of leverage and without financial advice. Firms can manipulate these retail patterns through systematic targeting and certain techniques such as gamification of the trading environment, to the disadvantage of uninformed and inexperienced retail investors. These risks not only serve to increase the risk of mis-selling of products, but also exacerbate "herd behavior" promoted by way of social media. Lack of financial education and lack of regulatory oversight in certain spot markets, such as crypto-assets, may further exacerbate the potential risks. Taken all together, these risks may create an environment where retail investors can incur losses.

Notably, social media influence on retail investors emerged as a common theme in the responses to IOSCO's survey of members. While social media may offer certain advantages for investors, such as improved access to and dissemination of information, including financial literacy, it also poses potential risks related to market manipulation and unsuitable investments. The vast majority of IOSCO members responding to the survey have observed the use of social media or online platforms in promoting scams. Fraudsters are finding increasingly sophisticated ways to target retail consumers. [36] Unauthorized firms frequently target the most vulnerable members of society, as technology can make it easier for unauthorized firms to reach a wide population and disappear to avoid detection. Some IOSCO members have also highlighted various retail risks in investing in crypto-assets, including through self-directed trading.

Social media-based trends may have various supervisory implications and increased vulnerabilities against fraud risk. Chapter 3 analyses risks from a technology perspective in general, and particularly social media, and how it is being used to promote scams.

3.1. Crypto-Asset Trends and Associated Risks

As a global phenomenon, crypto-assets are becoming increasingly popular among retail investors.[37] The main reasons for the exponential increase in retail interest in crypto-assets are highlighted as the following:

- Ease of accessibility to crypto-asset trading (small investment permissible);
- 24-hours online trading; and
- Low returns from traditional asset classes.

Some members have noted that, despite global demand, popular crypto-assets do not have intrinsic value and their prices are based on expectations and the trust that other parties are ready to accept them as a medium of exchange or as money equivalent or that these crypto assets are tradeable as investment instruments. Crypto-assets with high volatility might be unsuitable for most retail consumers, including those with a short-term investment horizon, and especially

[36] For example, the HK SFC has observed that an increasing number of retail investors have fallen victim to ramp and dump scams conducted through popular social media platforms. These scams account for about 20% of the market manipulation cases currently under investigation by the SFC.

The number of consumers calling UK FCA Consumer Helpline about scams perpetuated through social media have more than doubled in 2020. Consumer desire for high returns and a lack of financial knowledge can contribute to consumers falling victim to scams, with 57% of adults indicating low financial capability (FLS).

[37] For example, the UK FCA reported an increasing number of crypto-asset scams. See UK FCA's Consumer Investments: Strategy and Feedback Statement.

those pursuing long-term goals like savings for retirement. There is also opacity in price discovery of crypto-assets and financial instruments based on crypto-assets.

IOSCO members have highlighted the following retail risks in crypto-assets, among others:

- Unsuitability for retail investors due to lack of underlying value and high price volatility;[38]
- Security breaches; and
- Fraudulent platforms and scams related to crypto-assets.

As highlighted by one member, as currently operating, the crypto-assets market lacks important investor and market protections, including material disclosure to investors purchasing these assets (regardless of the label applied to the offering and/or the product, e.g., ICO, IEO, IDO, NFT, etc.). Additionally, trading on crypto-asset trading platforms often occurs unaccompanied by investor and market protections against fraud, manipulation, insider trading and front-running, among other things. It also lacks trading transparency, application of consistent trading rules or standards, and regulated intermediary involvement.[39] Some members drew attention to the fact that despite the increasing retail interest in crypto-assets, there may be a lack of adequate regulation, or a non-compliance with existing regulation, in this emerging area. Fraudulent firms are making use of this environment as some regulators continue to discuss how to approach crypto-asset regulation.

In the context of Europe, European Authorities prepared the [Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets](), which will address various aspects of the aforementioned issues, including licensing requirements, supervision of crypto assets service providers (such as trading platforms), disclosure requirements for all crypto asset issuers and investor protections requirements for issuances of the so-called "stablecoins", amongst others.

As a trend which may result in potential retail harm, one member drew attention to crypto-asset platforms offering crypto-asset "lending programs". This authority observed that a number of crypto-asset trading platforms and other DeFi services permit customers to "lend" their crypto-assets to a platform in exchange for a promise of returns. Many of these platforms and programs appear to be operating not in compliance with, and/or in violation of, the national securities laws. Investors lack important disclosures around these programs. They also could be exposed to such risks as fraud, credit and counter-party risks, among others.

Q4: How should regulators consider whether to monitor crypto-asset trading by retail investors? Are there ways that the apparent data gaps with regard to retail investor crypto-

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38 CBoI published a Consumer Warning on Virtual Currencies in April 2021, warning consumers about the risks of buying or investing in crypto-assets, including virtual currencies, virtual assets and cryptocurrencies, referencing extreme volatility and the absence of traditional protections.

Similarly, In January 2021, BaFin renewed its warning notice on its website, cautioning consumers once again about the risks involved investing in crypto assets either direct or through financial CFDs and/or certificates that track the price of cryptocurrencies.

39 For example, the U.S. SEC staff highlighted in its survey response offers, sales and resales of crypto-assets occurring in unregulated markets and/or in non-compliance with U.S. federal securities laws. Most of the crypto-asset issuers and crypto-asset trading platforms currently operating in the U.S. are either not in compliance with, and/or potentially in violation of, the U.S. federal securities laws. Consequently, U.S. persons using these platforms to engage in crypto-asset trading activities likely have few of the protections otherwise afforded investors who trade through registered securities intermediaries.

asset trading could be filled or other protections for retail investors or ways in which regulators could begin to monitor crypto-asset trading? Are different approaches likely to be more or less effective in jurisdictions with different regulatory, statistical and other governmental and private sector approaches to data gathering?

3.2. Other Technology Related Risks Including Emergence and Growth of DeFi

Beyond crypto-assets themselves, there is a broad range of technology-related retail risks highlighted by members. One emerging area as a technology related source of risk was the emergence and growth of decentralized finance ("DeFi").

The "traditional" risks that arise in securities markets such as counterparty risk, settlement risk, liquidity risk, and risk of fraud and loss of investor funds may be implicated in the DeFi market as well. To the extent that DeFi markets and DeFi market participants, such as intermediaries, fail to comply with applicable laws[40], investors and other market participants may generally lack investor protection and other types of protections (such as against cyber risk), and would be subject to greater risk of fraud and have limited ability for redress, either through private means or government enforcement.

Public reports also indicate that DeFi also has technology risks, including risks of malicious technology activity, such as hacks, as well as coding errors within the smart contracts or underlying protocols. Due to the structure of some DeFi products and services, there is also additional potential for investor harm due to operational risks.[41]

3.3. Impact of Social Media on Retail Trading Behavior and Decisions

3.3.1. Social media influence and risks

Over the last decade, social media has become increasingly integrated into the retail investing landscape. Various IOSCO members' feedback shows that retail investors, in particular younger investors, are closely and increasingly monitoring social media activity and sharing investment tips and seeking information from a wide variety of sources including social media. Their investment decisions are more easily influenced by social media and what their friends and family invest in, rather than traditional knowledge and expertise of the markets.

In tandem with greater retail participation, members have observed an increase in popularity of blogs, social media platforms and messaging applications that retail investors use as a means to exchange investment tips and trading strategies. Social media's influence on the decision-making process of retail investors is broad and varied.[42] For example, registered broker-dealers and investment advisers now regularly utilize social channels such as Instagram and Twitter to market their products and services; and retail investors use the platforms and others (including Facebook and TikTok) to learn of and research what they view as investment opportunities.

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40 It should be noted that many DeFi participants are not bound to jurisdictional borders. Therefore, it may not always be clear which national law is applicable.

41 To analyse and address potential risks, the U.S. SEC Staff looks to how DeFi products, services and activities may involve or relate to securities investors and markets. For example, the SEC Staff has observed that, akin to other financial services that rely on third party information providers or validators, DeFi's reliance on oracles and other outside data sources could potentially increase risks if the oracles utilized by a smart contract produce faulty information-either because they are inaccurate or they have been manipulated.

42 For example, Quebec AMF reported on the results of a recent survey on FOMO and showing young people consider social media a good source of investment information.

IOSCO members noted that social media may impact retail investor behavior and decisions in a range of ways. Some general observations in this regard are:

- Social media is increasingly used as a source of information by retail segment;[43]
- Social media may be linked to increased trading behavior in general (and particularly amongst particular groups). That is, social media may impact retail investor behavior by supporting the rise in self-directed trading and/or increased market participation;
- Social media can be used to spread false information or 'rumors', noting social media can also perpetrate 'herd behavior'. Thus, retail investors may be vulnerable to fake news on social media;
- Specific individuals – social media influencers or celebrities – may use social media to influence retail investor behavior and decisions;
- Advice given on social media is often unlicensed and/or exposed retail investors to risks; and
- Beyond unlicensed conduct, social media can also be used deliberately to promote frauds and scams, whereby scammers often use social networks to spread fraudulent investment offers.

3.3.2. Increasing influence of finfluencers and celebrities on social media

Various IOSCO members noted the increasing influence of "celebrities", "influencers" and "finfluencers" on retail offerings via social media: Among others these included:

- A huge rise in the number of financial and investment influencers;
- The role of celebrity endorsements in influencing retail decision making, and the potential for unlicensed financial advisors to give aggressive investment advice on social media;
- Investors following social media 'influencers' as a source of information to make investment decisions, including unlicensed offshore ones; and
- Locally famous individuals (athletes, entrepreneurs) talking about 'successful' investments in 'disguised ads' aimed to persuade investors.

The use of social media can also facilitate the unauthorized or otherwise non-compliant offering of financial products or fundraising by companies or that may otherwise fail to comply with jurisdictions' applicable laws. While healthy and robust discussions among investors can potentially boost market vibrancy, retail investors should be mindful of self-proclaimed investment gurus who give questionable investment advice, as well as unscrupulous individuals who may take advantage of the anonymity in social media channels to disseminate false or misleading information.

3.3.3. Marketing practices on social media

Advertising on social media is reported to be sometimes aggressive and often provides false or misleading information. In situations involving advertising by unregulated persons or firms

[43] For example, the HK SFC noted that according to a 2021 survey, 49% of stock investors obtained information on stock investments from social media. FINRA noted that while using social networks wasn't a new trend, a recent FINRA survey indicates that 14% of new retail investors use social media as an information source when making investment decisions. See FINRA, Investor Education Foundation and NORC at the University of Chicago, Investing 2020: New Accounts and the People Who Opened Them (Feb. 2021).

using social media, communication is not generally supervised by financial regulators. Since the onset of the pandemic, this trend has continued if not accelerated. Broker-dealers, investment advisers - and fraudsters - increasingly used social media to solicit investors, maintaining robust presences on Facebook, Twitter, and Instagram.

In line with earlier IOSCO findings,[44] various IOSCO members responded that they observed aggressive marketing practices via social media and sales techniques that are not in clients' best interest, as well as misleading marketing such as the use of sponsorship arrangements or affiliations with major sports teams, which may give the misleading impression that complex and speculative products such as CFDs are suitable for the retail mass market by promoting general brand name awareness.[45]

3.3.4. Social media being used to promote scams

Various IOSCO members noted that social media may promote excessive speculation, which is not based on fundamentals. Investment recommendations and offers through social media and websites by unsupervised entities could lead to scams, Ponzi schemes or investment in complex financial products with little or no understanding of them (such as forex or CFD). Search engines and social media platforms play an increasingly significant role in disseminating promotions of financial products and services. This includes adverts which expose consumers to significant risk of harm.

The following are some of the most observed fraudulent patterns via social media:

- Fraudsters use social media platforms like Instagram and Facebook advertisements/pages as well as Google advertisements to entice consumers. They use promotions for high-risk investments which are unsuitable for most investors, adverts which make false or misleading claims and scams which may or may not fall within the jurisdiction of the local regulator;
- Some bad actors may use social media as an instrument for manipulation and fraud as they publish misleading information about their opinion and recommendations on certain stocks and trade against these recommendations to gain illegal profits;
- Some unsupervised companies or digital platforms that may otherwise fail to comply with jurisdictions' applicable laws promote investment schemes or schemes to raise money from the public through social media. These not only expose retail investors to risky products without complying with regulatory information requirements, but also to possible Ponzi schemes or informal activities that are, or can lead to, frauds or scams;
- International Romance Scams: Fraudsters use SNSs/matching apps to approach victims. After a number of exchanges of messages, the perpetrator recommends specific overseas OTC derivatives service providers, which is in fact a scam, to the victim who believes that the scammer is his/her friend or lover. Initially, the trading appears to go well and victims are invited to invest further. However, withdrawals are not accepted and the service shuts down suddenly. This pattern has been observed very prevalent recently in certain jurisdictions.[46]

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[44] See Report on Retail OTC Leveraged Products and Report on Cross-Border Distribution and Digitalisation.

[45] A Central Bank of Ireland (CBoI) review in 2015 found that marketing material was not always constructed and presented in a sufficiently balanced way to outline both the risks and benefits of CFDs.

[46] See http://www.kokusen.go.jp/e-hello/news/data/n-20200213_2.html

3.3.5. Overall impact of social media on retail investors

Overall, the impact of social media on retail investor behaviour and decision-making was perceived negatively by IOSCO members with a range of concerns noted. IOSCO may consider further exploring the regulatory implications of increasing use of social media in retail investment decisions and the ways in which social media may impact retail investor behaviour and decisions. In Chapter 7 IOSCO further considers, in the context of the potential development of a 'regulatory toolkit', what regulatory tools some regulators may adopt in considering frauds and misconduct related to social media and other emerging risks.

Q5: How should regulators approach these trends (e.g., both trading for crypto-assets or brokerages using hidden revenue raising mechanisms) and when should they seek to intervene?

Q6: Should regulators proactively monitor social media and online statements for retail investor protection and if so, when and how? Should social media be subject to additional regulatory obligations regarding securities trading and/or crypto-asset trading? How could such monitoring be implemented, and obligations enforced proportionate to the harm/potential harm? Are there any legal (e.g., data protection) or technical obstacles? What sort of risk assessment should regulators do to determine where to allocate their resources?

4. CHAPTER 4 - EVOLVING FRAUDS & SCAMS LANDSCAPE, KEY CONDUCT ISSUES

Background

This Chapter builds on the description of the recent retail trends set out in Chapter 2. It considers the evolving frauds and scams landscape and emerging conduct issues. Based on membership feedback, it presents some of the innovative fraudulent patterns and how fraudulent actors are using novel techniques and technologies to this purpose.

The current market environment might have created a fertile ground for fraudulent and scam activity by fraudulent firms or firms that may otherwise fail to comply with jurisdictions' applicable laws, for all the reasons highlighted in Chapter 2. This situation is evidenced by the significant increase in scams and retail investor losses reported, especially during the last eighteen months. This coincides with the COVID-19 pandemic. Interacting factors, such as recent volatility episodes, increased use of synthetic leverage by retail investors, and the impact of COVID-19, accompanied with technological developments might have been in play simultaneously in explaining the increased levels of fraud. Particularly, some of the technological developments analyzed in Chapter 2 seem to have enabled the emergence of new fraud and scam techniques.

4.1. Most Commonly Observed Frauds and Scams

Fraud, and particularly the threat of fraudulent behavior from external actors outside national borders, continues to be a persistent problem. All securities trading has risks and can result in losses, however, retail investor decision making should not be affected by abusive practices.[47] The pressures of the current pandemic on investors, as well as individual economic hardships and broader market volatility, might have increased the vulnerability of investors and created opportunities for fraud to occur. Increasing digitalization of financial services and the familiarity of investors with online distribution methods provide fraudsters with easier and cheaper ways of spreading false communications to a wider target audience, where they use a range of effective and sophisticated tactics to build trust and exploit vulnerabilities.[48]

This section presents the most commonly observed fraud types and patterns, which are the following:

1- Crypto-asset scams,
2- Boiler room scams,
3- Clone investment firms, and
4- Misleading promotional material and information.

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[47] For example, the UK FCA has noted an increase in scams relating to unregulated activities/products. See UK FCA Report on Consumer Investments: Strategy and Feedback Statement.

[48] IOSCO Retail Market Conduct Task Force Report - Initial Findings and Observations About the Impact of COVID-19 on Retail Market Conduct (December 2020). See footnote 1.

In terms of the quantum of retail losses, the FCA published that, in the UK, 23,378 consumers reported losses of an estimated £569m to investment fraud from April 2020 to March 2021 - an almost threefold increase since 2018. See UK FCA Report on Consumer Investments: Strategy and Feedback Statement.

4.1.1. Crypto-asset scams

Crypto-asset trading platforms may be acting outside of, or in non-compliance with, regulatory regimes. Additionally, crypto-assets and related products are highly speculative. This gives rise to various retail investor protection issues, which are analysed further under Section 3.1.

4.1.2. Boiler room scams

This type of scam involves investment firms who employ or hire so-called "boiler rooms" or separate companies for reaching new clients. A "boiler room" is a place or operation, typically a call center, where salespeople call lists of potential investors to sell them speculative, sometimes fraudulent, securities. Firm tactics usually involve either a direct scam or, alternatively, trying to redirect the customer to another entity that is legally located outside the investor's home jurisdiction. Firms may offer clients investment opportunities without authorization/registration and by unauthorized persons with questionable knowledge of financial markets and instruments. Fraudsters will often cold-call investors, or otherwise contact them through on-line chats, email, or social media, offering them worthless, overpriced or even non-existent shares or bonds.

4.1.3. Clone investment firms

As a common fraud pattern, this type of scam refers to firms purporting to operate as legitimate investment/credit/lending firms, although in reality they have no appropriate authorization. While identity theft in financial sector is not a new phenomenon, it has become much more sophisticated and widespread. Fraudsters are increasingly using legitimate firms' details in an effort to add legitimacy to their fraud. The fraudulent firm usually uses the name of a well-known licensed firm and clones its website in order to give an impression of reliability and soundness.[49] The website of the fraudulent firm usually contains a link to fake trading platforms and oftentimes clones and quotes the details of legitimate firms (name, logo, address, authorization numbers/company registration numbers and e-mail), citing their association with these firms in fine print through their e-mail correspondence with customers.[50]

4.1.4. Misleading information/promotional material

This issue continues to be a persistent problem in many jurisdictions, as also highlighted in the short-term report.[51] Information-based manipulation cases (dissemination of false or misleading

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[49] As noted in its publications, FINRA also is increasingly seeing clone brokers or advisers posing as current registered investment professionals. Several firms have informed FINRA that malicious actors are using registered representatives' names and other information to establish imposter websites that appear to be the representatives' personal sites and may be using these sites to collect personal information from the potential customers with the likely end goal of committing financial fraud. See, FINRA Regulatory Notice 20-30, Fraudsters Using Registered Representatives Names to Establish Imposter Websites (August 20, 2020); https://www.finra.org/rules-guidance/notices/20-30; See also, FINRA Investor Insights, Beware of Broker Imposter Scams (July 27, 2021) https://www.finra.org/investors/insights/broker-imposter-scams.

[50] The websites would often state there are no hidden fees or upfront payments to appear more legitimate. However, scams normally involve an "advance fee fraud" later on (i.e., pay a fee upfront prior to receiving a loan).

[51] In the EU, for example, one of the most common type of fraud involves offerings of stocks through phone sales with violation of prospectus requirements. The offerors are often located in non-EU countries, and therefore, the issue has a strong cross-border angle. Investors are often told that the shares are pre-market papers, but the IPO is imminent. The companies whose shares are offered are either bogus companies or companies that are unaware of the offer, which are mostly well-known groups that do not offer any securities in reality. The offeror does not own the shares and only uses the name of the well-known firm to lure investors.

information that is relevant to the value of the respective financial instrument) and pump and dump schemes are the most commonly observed problems. In a typical pump and dump scheme, promoters first try to boost the price of a stock with false or misleading statements about the company. After the stock price has been pumped up, fraudsters move on to the second part, where they seek to profit by selling their own holdings of the stock, dumping shares into the market.

Other commonly observed fraud and scam types are the following (also related to unauthorized activity):

- Trading platforms that embezzle the funds entrusted to them;
- Unauthorized/fraudulent online platforms offering CFDs and digital assets;
- Unauthorized online portfolio management activities;
- Fake schemes designed to tempt consumers to transfer/pay/invest money;[52]
- Fake/imitation trading platforms;[53]
- Forex scams;[54]
- The so-called digital tokens issued under ICO operations; and
- Ponzi/pyramid fraudulent schemes.

According to survey responses, most of the time, these fraudulent activities are accompanied by cold calling, advertising campaigns, fake ads on social media and fake endorsements, and the promise of converting retail investors into professional investors,[55] in certain cases, targeting more vulnerable senior investors or a particular affinity group. The diversity of the fraud cases demonstrate how bad actors or fraudulent/unauthorized firms may exploit retail investor weakness/vulnerability via the use of creative or misleading offering techniques.

Q7: Are the main fraud types covered correctly (e.g., crypto-asset scams, boiler room scams, clone investment firms, and misleading information and promotional material)? What are the fraud patterns that cause/have potential to cause most retail investor harm? Are there other types of frauds or scams that regulators should consider?

52 In the case of "remote desktops", clients are encouraged to install a program that supports transactions. In fact, this activity is used to extort funds from clients' personal accounts.

53 As highlighted in the Retail OTC Leveraged Products Report, there is an increase in the number of unauthorised investment firms providing investors with access to imitation 'trading platforms' which are essentially 'live demos' deployed by the fraudsters to simulate stocks showing profitability. The firm provides 'portfolio management' services on behalf of the investors. The investors invest money into the account, initially appear to make profits, but ultimately lose money. In most cases, the temporary platforms or websites will appear in private forums and disappear after a certain period of time, leaving no trace.

54 Unregulated/Unauthorized intermediaries mostly located overseas are targeting foreign consumers, offering them the chance to trade complex financial instruments, such as forex derivatives. Their luring techniques consist of promising very high and quick returns and guaranteed profits. In reality, they encourage people to invest more and more money up to a shifting point where the account is suspended, and all communications are shut down.

55 These services offer a possibility of accessing securities to carry out various operations (e.g. stock exchanges, CFDs, forex, crypto-assets) where the user would not risk his own capital, the return apparently being to obtain a percentage of the profits obtained. There is also an increase in fraud known as "financed trading account linked to training courses".

4.2. Impact of COVID-19 on Retail Conduct and Frauds and Scams

As a COVID-19 related impact, the unpredictability combined with market volatility, might have steered investors to approach investment in a different manner, a more emotional and biased way, where herd behavior and excess confidence might have been determinant. Some IOSCO members have carried out research to understand the implications of COVID-19 pandemic on retail investors. [56]

4.2.1. Increased investor complaints and incidents of frauds and scams

IOSCO members have highlighted that they observed an increase in consumers' inquiries and complaints regarding online trading in certain products or with individual providers, as well as financial fraud and scams, and carried out investigations. As reported by various IOSCO members, due to the lockdown, consumers were more exposed to the recruitment of fraudsters, whether through e-mails, cold calls or posting/advertising on social media and internet. The increased online consumer presence also made it easier for fraudsters to spread fake offers more widely, such as offers on cryptocurrencies, fake credits, worthless alternative investments, etc. Moreover, some consumers were experiencing financial difficulties due to being temporarily inactive or unemployed. This made it easier for fraudsters to convince them of a great investment offer.

In response to increased fraudulent activity during COVID-19, various IOSCO members adopted strategies to raise awareness amongst consumers and to engage with firms during the pandemic. Exchanges also have taken measures to ensure the integrity of trading. Regulatory initiatives included warnings to retail investors that:

- Viral outbreaks can give scammers a suitable opportunity for spreading false or misleading information with the purpose of making unfair profit and abuse the pandemic environment;
- Investing during periods of market volatility can mean increased risks and can lead to loss of their money;
- Investors should not rely to anonymous or unlicensed sources for investment advice and decisions; and
- Investors should not invest based on information spread falsely by firms asserting they found cure for the virus.

Various IOSCO members increased their focus on COVID-19 implications through strategic planning. They issued guidelines on regulatory expectations from supervised entities, due to COVID-19 and wrote letters to firms. In general, there was an increased effort for enhanced communication with the industry and investors. Anti-fraud and anti-scam awareness campaigns were launched to raise awareness on unlicensed investment firms and fraudulent trading platforms. As an interesting best practice, one member launched a COVID-19 Hub.[57] Some

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[56] The FCA carried out research as part of its Financial Lives Survey 2020, looking specifically at the impact of coronavirus on retail consumers. JSDA also analysed the complaints that came to ADR, called the Financial Instruments Mediation Assistance Center (FINMAC). The analysis showed that retail investors had anxiety about the unpredictable market situations. JSDA published a notice about the findings from the analysis to their member firms.

[57] In the wake of COVID-19, the CBoI launched a dedicated COVID-19 hub for consumers, with the intention of bringing together relevant and timely information, guidance and policy decisions for consumers, businesses

IOSCO members have increased their social media presence and increased the volume of cybersecurity awareness materials.

For example, in relation to operational resilience and business continuity during COVID-19, the U.S. SEC Staff has actively engaged in ongoing dialogue and outreach efforts with many registrants to assess the impacts of the pandemic on their businesses, employees, and customers. Staff has gathered information about, among other things, challenges with operational resiliency and the implementation and effectiveness of registrants' business continuity plans. Staff undertook these efforts in the interests of protecting investors and the integrity of the markets, which helped inform observations in a published risk alert relating to Select COVID-19 Compliance Risks and Considerations for Broker-Dealers and Investment Advisers

Q8: How has COVID-19 impacted retail conduct and frauds? How should regulators best respond to fraud and misconduct in the current environment, also in consideration of the impact of COVID-19 on retail market conduct?

4.3. Cross-Border Fraud - Issues and Challenges

4.3.1. Unauthorized foreign firms

The presence of unauthorized foreign investment firms behind fraudulent online trading platforms continues to be a regulatory issue on a global scale. IOSCO has analyzed various implications of this issue in its Retail OTC Leveraged Products Report and continues to analyze this in its Consultation Report on Retail Distribution and Digitalization. Many regulators have published and continue to publish alerts about individuals or entities that are conducting or promoting scams on a cross-border basis. Regulatory data shows that these alerts have escalated dramatically over the past 18 months and through the pandemic.[58]

Difficulties resulting from the legal issues presented by cross-border activity and the lack of data available from online cross-border transactions complicates regulatory action. There are persistent challenges regarding supervision and enforcement of cross border cases. Therefore, more co-operation between jurisdictions is required.

As a common example of problematic cross border activity, unregistered/scam OTC derivatives firms' activity is cited as one of the most pressing retail investor issue where various methods to lure victims are being used. Some EU members also drew attention to subsidiaries of intra-EU investment firms offering products and investment services to clients located in the EU, whereby it become difficult for the retail client to identify the legal entity which ultimately offers and provides the products or investment services via the digital platform. Off-shore entities marketing retail brokerages present a challenge for effective supervision and enforcement. Regulators experience practical (supervisory) and legal (enforcement) difficulties where entities

and regulated firms, both from the CBoI and other European authorities. As another example, the US SEC also launched a HUB with COVID-19 related information. See https://www.sec.gov/Coronavirus.

58 For example, in 2020 alone, the CBoI issued 24 warning notices in relation to unauthorised firms that had been offering financial services to consumers in Ireland and/or were cloning details of authorised entities in Ireland.

structure themselves in a manner that scatters mutually dependent operations across jurisdictions.[59]

ESMA noticed in 2018 that third-country intra-group firms used online marketing platforms that target potential retail clients located in the E.U. based on the clients' IP address to advertise the availability to trade CFDs with higher leverage than the limits imposed by the European product intervention measures.

Cross border offerings also continue to be an issue, particularly in the context of self-directed trading and gamification. Some members also highlighted the relevance of increasing retail interest in gambling type products and behavior. This creates a regulatory hook problem when such products are offered on a cross-border basis by firms that are located in other countries. The regulator of the jurisdiction where products are offered is not always the competent authority and the lack of regulatory reach to firms which offer trading apps, continues to be an issue in various jurisdictions. For example, in the case of Europe, neo brokers, operating on a freedom of service (or reverse solicitation basis) from other jurisdictions, provide services to retail investors and they employ gamification techniques. The cross-border nature of the offerings require a coordinated regulatory response.

4.3.2. Firm tactics, activities and channels used for cross-border fraud

The majority of unauthorized investment service providers often use attractive lures, such as lower or no fees for retail investors, complementary use of social media and trading signals, to convince target investors to engage with the firm via foreign online trading platforms. The most commonly offered products are crypto currencies, forex-derivatives, CFD's, and alternative investment products.

Direct targeting via social media (i.e., Instagram, Facebook, dating apps, etc.) is very common. As referenced in Section 4.1.2., fraudulent firms also use "boiler rooms." In some instances, firms purport to be authorized (using fake references on their websites and correspondence) and claim to be based in the investors' "home" jurisdiction. In particular, unauthorized retail credit firms and moneylenders use cold calling via VOIP to spoof legitimate providers numbers. [60]

As referred under Section 4.1.3., fraudulent operators also may use IOSCO members' logo or impersonate licensees to lend legitimacy to their operations. All this leads retail investors to think they are dealing with a well-regulated financial services firm or licensee and provides false reassurance for retail investors in other jurisdictions.

4.3.3. Hybrid fraud

Some frauds that were reported blend more traditional human fraud with online fraud that also includes a cross border element. One example provided explains how a fraudster will try to lure the target emotionally, by becoming a friend or romantically involved, establishing trust and

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[59] For example, the U.S. SEC staff noted in its survey response a challenge in enforcement matters as locating proceeds of fraud outside the US. The SEC staff responded that it successfully addresses this challenge with requests for assistance to the relevant foreign authority under information sharing arrangements, such as the IOSCO MMOU and EMMOU, to obtain records that would identify the recipients of the proceeds and trace the location of the proceeds. *See* https://www.sec.gov/about/offices/oia/oia_crossborder.shtml#secintlcases.

[60] The method involves claiming to be calling from a legitimate local firm or claiming to have an affiliation with legitimate firms. The spoofed number is very hard to track. Fraudsters also use 'Lycamobile' mobile phone numbers to communicate with potential consumers. 'Lycamobile' operate by selling sim cards only, and are never registered to an individual.

then later recommending, as an example, an overseas OTC derivatives service provider, which is in reality a scam. A number of cases were observed where the victims were recommended scam services at online seminars. In some universities, students were approached in person and encouraged to buy a USB memory stick, which they were told contains special trading technique and/or programs that could be used with specific foreign OTC derivatives firms, yet it is in fact a malware.

4.3.4. Retail investor complaints related to cross-border offerings

In terms of the overview of complaints received during the course of 2019-2020 by local retail investors against foreign based entities providing investment services in the home jurisdictions, the following are the main categories of retail complaints:

- Aggressive commercial practices and marketing of risky products by foreign trading platforms;[61]
- Difficulty/impossibility in closing accounts;
- Order execution issues;[62]
- Redirecting of clients to institutions located outside the jurisdiction;[63]
- Illegal provision of investment advice;
- Difficulties with withdrawing money invested with online foreign trading platforms; and
- Fund raising in one or more jurisdictions for investment in a third jurisdiction.64

Going forward, the issue of jurisdictional reach would require enhanced cooperation among the IOSCO membership and ensuring the cooperation infrastructure (including the IOSCO MMOU and the E-MMOUs) remain fit for purpose.

Q9: Does the Consultation Report capture well the existing cross-border challenges? Are there any missing concerns or issues that are not highlighted? Are there any other novel ways of addressing cross-border challenges affecting retail investors? As an international body, what could be IOSCO's role in addressing the cross-border challenges highlighted in this consultation report?

[61] Repeated and/or unsolicited calls or texts, incentives to invest, promises of quick gains, are most common patterns.

[62] Clients complained, for example, that their buy or sell orders and their various positions were not acted on or that, conversely, orders were placed in their name without their knowledge. These incidents resulted in unwanted investments on the one hand and, on the other hand, losses due to orders that were incorrectly executed or not executed at all.

[63] For example, in most of the cases in the EU, investors stated that they were redirected to a foreign subsidiary of the service provider with which they had had a first contractual relationship. Thus, retail investors thinking they were making investments with an authorised European service provider were being redirected, without knowing it, to third-country entities with which they no longer benefit from the protection provided by EU law.

[64] Often funds can be raised in one or more jurisdiction. The fund raising can use fraudulent representations to encourage consumers to invest. These representations can include security over a large asset in the third jurisdiction, when in fact the asset is not accurately described, or the security is deficient or non-existent.

5. CHAPTER 5 - DISCLOSURE, PRODUCT DESIGN and PRODUCT INTERVENTION

This Chapter looks at some of the more established tools that regulators have used to address retail investor harm. The information in this Chapter is based on IOSCO's comprehensive information gathering on members' disclosure practices. The use of product governance and product intervention powers is well established, with two thirds of jurisdictions having such powers. The IOSCO survey showed that most responding IOSCO members have requirements they impose on regulated entities to adjust disclosure when circumstances change during the product life-cycle. IOSCO also asked members about the use of "tailored disclosure" techniques that some may consider to be more innovative, but few IOSCO members indicated that they took this approach.

5.1. Disclosure of Material Information

Disclosure of financial results, risks and other information, which is material to investors' decisions should be full, accurate, and timely to enable a reasonable person to make a fair evaluation of or decision about an investment product. Requirements to provide material information are found in securities laws and regulations. The content of material information may be in the following forms and depends on the type of product (e.g., UTF, ETF, REIT, CEF, MF etc.) and its characteristics. Content of material information can include the following:

- **Information about the product:** Significant characteristics, features of the product; the rights (e.g., applicable cooling-off regime), terms, conditions and obligations attaching to the product; the types of investors for whom the product is intended; any significant benefits to which a holder of the product will or may become entitled; if the product may generate a return; etc.
- **Risks:** Risk profile of the product including risks associated with holding the product.
- **Information about the issuer/firm:** Organizational structure; strategy and objectives; business activity results; significant factors such as unusual or infrequent events or new developments materially affecting the issuer/firm's income; past performance (year by year returns, best and worst returns, average returns); etc.
- **External factors:** Any governmental, economic, fiscal, monetary or political policies or factors that have or could materially affect the issuer's business activity; the extent to which labor standards or environmental, social or ethical considerations are taken into account; etc.
- **Fees, costs or charges:** That are applicable or may be incurred by the investor.
- **Tax:** Any significant taxation implications or tax-related costs (e.g., stamp duty, transactions tax).
- **Conflicts of interest:** Potential conflict of interests (e.g., fees received by third parties, relationship with product issuers); etc.
- **Commissions:** Details about any commission or other similar payment that has or has not been received.
- **Complaints:** If there is a dispute resolution system that covers complaints by holders of the product, and how it can be accessed.

5.2. Timing of Information

The timing of material information provided to investors varies across jurisdictions (e.g., immediately, fortnightly, monthly, ongoing basis, yearly, regular basis, in good time, timely). This may also depend on the type of product (e.g., debt schemes, funds). In some instances, this might be open to interpretation.[65]

5.3. Obligation to Adjust Disclosure During The Product Life Cycle and Novel Approaches to Disclosure

Most jurisdictions have requirements to adjust disclosure when circumstances change during the product life cycle.

While some jurisdictions indicated that they applied novel approaches to disclosure, there are likely to be differences in the interpretation of what constitutes a "novel" approach.[66] Examples of approaches applied by some jurisdictions include:

- Belgium, where marketing and information documents must be approved by the Belgian authority before dissemination to the public in most cases.
- The Central Bank of Ireland sending a letter of expectations including disclosure principles and guidelines for firms to follow when engaging in unregulated activity.
- The UK FCA's Smarter Communication Initiative in 2016 to bring about a change in the way information is both communicated and delivered to consumers and the proposed new Consumer Duty in 2021 which includes proposals to help equip consumers to make effective, timely and informed decisions.

ASIC referred to the evidence about the limitations of traditional disclosure, which is analysed in their co-publication REP632 Disclosure: Why it shouldn't be the default.[67] ASIC also noted that the limitations of disclosure were a key driver for the introduction of new product governance and intervention laws. Similarly, one jurisdiction pointed to product governance rules, as an alternative to a disclosure-based approach.

Q10: What may be the concerns or issues that regulators should ask for disclosure of (at both firm and product level), keeping in mind the balance between quantity of disclosure and the ability of retail investors to absorb such disclosure? Should markets continue to seek to put in place special arrangements that could encourage companies during stressed market events to provide disclosures and updates that help retail investors better evaluate current and expected impacts of such events? If so, what may be the practical options to achieve this, including who should provide this information? Are there specific technological measures or non-technological measures (e.g. changing the timing,

65 For example, the UK FCA requires firms to keep consumers 'appropriately informed' before, during and after the point of sale.

66 For instance, nine jurisdictions provided examples of requirements for additional information with respect to, for instance, more complex products and/or investors classified as rather than professional clients. Three of these jurisdictions explained that this is the proportionate approach to disclosure required under the MiFID 2 framework. Two jurisdictions also have investor tests intended to, for example, make consumers acknowledge risk and get suitable products. No jurisdiction provided examples or results of testing effectiveness of any of novel approaches to disclosure.

67 The report explores the limits of disclosure, using case studies from ASIC, the AFM Netherlands and other relevant sources as evidence. These case studies are drawn from the full range of financial products and services in different financial markets and include all forms of disclosure.

presentation of the information) you would suggest to enhance the ability of retail investors to process the disclosure?

5.4. Product Intervention

The most common form and content of product intervention powers is conferred under MiFID II and MiFIR, which are applied in the EU. Under the MiFID approach, competent authorities can prohibit or restrict marketing, distribution or sale of products including certain financial instruments, structured deposits, financial instruments, derivatives; and certain types of financial activity or practice.

Powers in other jurisdictions also include:

- prohibitions and conditions on sales of financial products;
- suspension of trading;
- mandatory pre-authorization of investments products; and
- orders for redemption of shares to be paid in other ways (than cash).

The most dominant triggers for the use of product intervention powers include where products:

- raise significant investor protection concerns; and
- will harm/likely harm consumers or investors.

Other triggers for the use of product intervention powers in various jurisdictions include the following with respect to various product types:

- threat to the orderly functioning and integrity of financial markets or commodity markets or to the stability of whole or part of the financial system (MiFID approach);
- breach of law/guidelines;
- detrimental effect on the price formation mechanism in the underlying market (MiFID approach);
- price/market manipulation;
- impediments to effective competition (UK)[68];
- negligence;
- orders that should not exceed certain volume/price thresholds; and
- extreme volatility or special clearing in the event of force majeure.

Over two thirds of jurisdictions that responded to the survey indicated that they have product intervention powers and approximately half have used those powers. For example, BaFin has been using product intervention powers since 2015 and has released four product intervention measures so far. Furthermore, some jurisdictions have banned the distribution and sale of binary options and imposed conditions on the sale of CFDs. Other products in relation to which the powers have been used include a short-term credit model of lending; life insurance contracts linked to insurance capital funds; and speculative illiquid securities, all of which have posed retail investor risks. In some jurisdictions, orders including corrective disclosure and ceasing marketing and fundraising have been issued with respect to the offer of redeemable preference shares; and a stop order has been issued with respect to an IP until certain actions were taken.

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[68] See FCA's Product Intervention and Product Governance Sourcebook (PROD).

Q11: Where product intervention powers exist, what factors should regulators consider to determine when it should be used and at what stage to ensure suitability and to mitigate investor harm? For example, should regulators monitor leverage levels in retail trading and/or seek the power to limit leverage? If so, is it possible to describe the kind of situation in which such powers could justifiably be used?

5.5. Product Governance

The requirements of product governance aim to ensure that during all stages of the product life cycle, products are designed to meet the needs of, and distributed to an appropriate target market. In particular, MiFID II has detailed product governance requirements and applies in EU jurisdictions. Under MiFID II, product governance and suitability are two separate, but closely related requirements.

A broadly similar approach is also used in Australia and the UK. These approaches could be described as taking a consumer-centric approach to product design to deliver appropriate consumer outcomes.

The most common factor sponsors are required to take into consideration, including across many of the jurisdictions that have product governance laws, is what could broadly be described as "product suitability". It is important to note that there is considerable variation in what constitutes "suitability", how it is described, and the context, products, and investor types/target markets in relation to which it is required.

6. CHAPTER 6 – INVESTOR EDUCATION

6.1. General remarks

This Chapter considers investor education, which is another well-established and important regulatory tool for addressing (and preventing ex-ante) retail investor harm. The IOSCO survey exercise has highlighted that investor education is far from being a static regulatory tool and can be used flexibly to address the emerging trends outlined in Chapter 2.

IOSCO members' feedback[69] on their investor education practices showcased that the pandemic did not slow down investor education efforts across the world. On the contrary, many jurisdictions continued, expanded, and/or adapted their investor education initiatives. The increase in new and self-directed investors prior to or during the pandemic prompted a response from many jurisdictions, including creation of new investor education tools and initiatives. In addition, IOSCO members reported various research and survey efforts to explore investor behavior during times of crises. Results from such inquiries were often used by regulators to identify trends that they may need to act upon for investor protection objective. In certain cases, these results were used by members to update their portfolio of investor education tools.

6.1.1. Adapting the delivery of investor education initiatives during unusual times

Particularly during the COVID-19 period, many IOSCO members increased their online and virtual presence to replace in person activities. These include hosting events and webinars on traditional channels, webinars, telephone-based investor outreach events, and establishing social media platforms. Notably, a handful of members have also launched campaigns on newer, non-traditional platforms such as Reddit and TikTok. As an example of different innovative initiatives by some members, the Ontario SC used Reddit (a social media platform used by some young self-directed investors as a source of information), and Thailand SEC and Quebec AMF incorporated TikTok into their crypto-asset risk awareness campaigns.

Many members have also posted COVID-19 related information online, such as information on various scams and personal financial challenges and issues. Some members created dedicated resource hubs. Others built on their previous work and fine-tuned their content to reflect the implications of the pandemic.

6.1.2. Increase in new and self-directed investors

In recognition of the increase in new and self-directed investors, some jurisdictions adapted their investor education approach quickly by developing new educational tools to help investors make better-informed decisions. In some cases, IOSCO members warned new investors about the potential pitfalls of choosing the "do-it-yourself" route, through tools, such as simulation-based webinars or wider communication campaigns with educational elements to help retail investors make better-informed decisions.

6.1.3. Studies and surveys on investor education

Several IOSCO members have reported conducting research and surveys to support their investor education work. The research efforts generally reflected four overarching themes:

1- demographic changes among retail investors;

[69] 44 IOSCO members from 41 jurisdictions submitted responses to the two questions in the RMCTF Survey that focused on investor education. From a regional perspective, 7 out of the 44 respondents are from the Africa/Middle-East Region, 11 from the Asia-Pacific Region, 15 from the European Region, and 11 from the Inter-American Region. 19 respondents were from developed markets and 25 from Emerging Markets.

2- emerging trends and behaviours;
3- financial literacy; and
4- higher risk products and frauds.

Demographic changes: Some members are monitoring the increase of younger and new investors to further adapt their educational tools offerings. They are carrying out research to understand who these new investors are and whether they have different investing characteristics in comparison to existing investors.

Emerging trends and behaviors: Many IOSCO members regularly carry out research to analyze the behavior of retail investors in the stock market. This includes, for example, research and use of other information on retail investor activity for the purpose of informing financial education needs, as well as research on how firms are serving retail investors and using techniques that may impact retail decision-making.

Financial literacy: Many IOSCO members use surveys to analyze financial education needs of retail investors.

Higher risk products and fraud: Investor surveys help regulators to discover scams, such as those involving cryptocurrencies and online trading platforms, and the way in which they targeted different investors. Members use these investor surveys to run anti-scam campaigns targeted at retail investors.

6.2. Considerations for the Investor Education Toolkit

The five building blocks of an investor education toolkit could be the following:

- **A targeted approach is necessary**. In some cases, IOSCO members are developing specific initiatives that focus on self-directed retail investors, whereas in other cases, it is difficult to discern whether these are general financial education initiatives taken by the authorities or *ad hoc*/specific initiatives focused on self-directed retail investors. While in general any financial education initiative could benefit both experienced investors and newcomers, it is important to design specific financial education initiatives that are tailored to and address the characteristics of self-directed retail investors (this is because their financial education needs, and their risk exposure might be different from those of retail investors with a different profile, attitudes or behavior).

- **Data is key for a solid and successful financial education initiative**. Data is key for gaining knowledge about the mindset, attitudes and/or behaviors of self-directed retail investors. Data can also help regulators design targeted financial education initiatives that address specific protection-related concerns or risks of self-directed retail investors. Moreover, data can help establish metrics and outcomes to evaluate the effectiveness of such initiatives, which can assist the regulator in assessing and improving upon the measures it takes. Some (but not all) participating members have designed (or are planning to design) initiatives that are supported by data or specific research on self-directed retail investors.

- **Cooperation and exchange of experiences is a useful tool for regulators**. Many of the respondents have indicated that they leverage the knowledge of other financial authorities, market participants and universities/schools. This is for the design phase of their investor education initiatives for self-directed retail investors, but also to target potential new retail investors or potential self-directed retail investors. Depending on the local circumstances, a regulator may consider liaising or partnering with other stakeholders to address self-directed retail investors-related issues and concerns.

- **Dialogue and cooperation between the investor protection/financial education department and the supervisory and enforcement departments is a useful source of information and knowledge on self-directed retail investors**. Some members keep an open dialogue with their supervisory and/or enforcement colleagues to gather intelligence on trends or relevant issues concerning self-directed retail investors. This finding reinforces the view that regulators have available different tools to address specific issues, including policy changes, supervisory and enforcement actions, as well as financial education initiatives. There may be circumstances where education initiatives can work alongside other regulatory tools to help address an issue, and it could be worth looking further at examples where this has been done and whether it has been more effective than education alone.
- **Strategically adapting to and communicating through a digital environment is key**. The increased number of self-directed retail investors has grown alongside the availability and ease of use of new digital apps. Social media is also more influential in retail investor decision making. The pandemic has accelerated both of these pre-existing trends and regulators need to learn to adapt to this new more digital environment in how they engage retail investors.

7. CHAPTER 7 – THE REGULATORY TOOLKIT

The analysis in the previous Chapters has identified key issues relating to risks to retail investors in the context of the rapidly evolving retail trends and landscape, as well as current technological developments and other contexts.

IOSCO is already engaged in work on various relevant areas touched based in this consultation report, such as outsourcing, DeFi, crypto-assets, AI/ML, cross-border issues and sustainable finance, including greenwashing risks.

The purpose of a regulatory toolkit would be to place in front of regulators key questions that they could consider as part of their regulatory strategies. In this case, the regulatory toolkit would be designed to allow regulators to work out their strategies to engage with the risks arising from the changing retail investor behavior outlined in this report. To design the regulatory toolkit, IOSCO would appreciate stakeholder views on the concerns or issues discussed and questions raised in this consultation report.

7.1. Identified Regulatory Challenges

IOSCO members have highlighted a range of regulatory challenges or other challenges in communicating with retail investors they are facing in relation to retail investor protection, including:

- **Potential regulatory perimeter concerns or issues, with respect to DeFi and crypto-assets –** Many IOSCO members have identified some areas, where "gaps" in regulatory reach or compliance may help facilitate retail investor harm. These include retail investment in crypto-assets and associated pump and dump schemes and risks that stem from DeFi. Another challenge is increasing use of big data and artificial intelligence (BDAI) in finance and the difficulties in differentiating between BDAI solutions and the established/traditional processes. Other regulatory perimeter related concerns or issues that some IOSCO members have identified include sustainable finance and greenwashing.

- **Regulatory line of sight over social media –** The evolving role of social media was discussed in Section 2.3 as a key part of the retail investor landscape, and a potential driver/source of fraud or misconduct behavior in Section 3.3. An overwhelming majority of regulators indicate they face challenges in raising awareness about unlicensed activities and scams promoted via social media.

- **Difficulties presented by unlicensed online trading –** Most regulators responded that unlicensed online trading operations are hard to identify and supervise. Likewise, online losses of retail investors are difficult to quantify. As firms employ various tactics to avert regulatory detection and enforcement action, it becomes increasingly difficult to detect online fraud and warn investors.

- **Outsourcing of services –** Some investment firms may often use external companies, which may not be regulated or under the remit of securities regulator/regulation to carry out customer support and services or sales activities in relation to risky investment activity and product offerings e.g., CFDs, without adequate supervision, which may not always operate in the best interest of retail investors.

- **Investors and gamification –** As noted in Sections 2.2. and 2.8.1., an important recent trend in the evolving retail investor landscape is that investors, particularly younger investors, are increasingly active and may behave in ways different to other investors.

The increasing gamification of financial services and products can be linked (albeit not exclusively) to preferences of younger investors. The regulatory challenge becomes how regulators can enhance their outreach to these investors to better educate themselves and address 'gamification' elements that may harm retail investors.

The above summarizes significant regulatory challenges identified based on the survey feedback, however, it is not an exhaustive list. Other challenges identified include for example "data protection laws" that may impact transfer of records among regulators on a cross-border basis and the "impact of LIBOR transition" on investors, including retail investors, as a specific risk.[70]

IOSCO notes the above challenges directly emerging from the retail investor landscape. Taking a forward-looking view as to what risks and challenges are likely to intensify is important. More broadly, many of the challenges in the retail investor space have a cross-border component which can make supervision and enforcement more difficult.

Q12: Are the developments in retail investor behavior sufficiently significant and persistent to justify reviews by regulators of their current approaches to retail investor protection? If so, is that true globally or only in some markets? If some, what are the characteristics of the markets for which that is most true?

7.2. Regulatory Tools Used by IOSCO Members Related to Monitoring of Social Media and Frauds and Scams involving Social Media

The analysis has identified how technological developments may be disrupting the way in which retail investors interact with financial services, and the increasing use of social media to engage in scam and fraud conduct. There is a range of measures against social media scams and fraud that IOSCO members have been using including:

- ***Public alerts or warnings*** – A number of IOSCO members noted that they published alerts on their websites, or issued press releases, to advise investors of potential scam conduct.[71]
- ***Specific warnings to firms***– Some IOSCO members noted they had issued warnings to specific entities promoting scams or would attempt to engage with industry about scam

70 the transition from LIBOR to replacement rates may create value transfer problem in contracts, such as retail consumer loans and mortgages, that may affect retail consumers. Firms are required to communicate with retail clients and explain the implications of the interest rate change on their contract. They are required to treat clients equally and prohibited from using the transition opportunity to impose inferior conditions. In addition, for example, the SEC Staff are actively engaged with other agencies and market participants on the transition from LIBOR and working on this transition through various channels. In June 2020, SEC staff published an alert on this topic, and in December 2021, Staff published a statement that, among other things, reminded investment professionals of their obligations when recommending LIBOR-linked securities. Similarly, the UK FCA published conduct expectations from firms during LIBOR transition.

71 For example, CONSOB Italy published a warning on its website about advertising campaigns relating to alleged investments, implemented through banners, advertisements, pop-ups variously displayed on websites and social networks or, sometimes, through email or telephone messages. Some regulators noted an increase of activity in this space – e.g., CMVM Portugal notes alerts have increased 200% over 18 months.

In light of the recent retail investor issues, the US SEC staff has also issued various investor alerts cautioning investors about fraudulent investment schemes that may involve social media.

BaFin published a warning notice on 18 February 2021, cautioning against statements on social media to buy shares. ESMA has also published a corresponding statement.

conduct, although it was not always clear to what extent this was separate to public awareness campaigns and/or public alerts.

- ***Public awareness campaigns or investor education*** was one of the most commonly mentioned counter measures with a number of jurisdictions providing examples.[72]
- ***Regulation*** - For example, China SRC emphasized the impact of social media on retail investors and that they attach great importance to the regulation of this area.
- ***Social media monitoring and surveillance*** – IOSCO members use advanced technologies to monitor potential fraudulent/unlicensed advice or scams on social media, in certain cases as a response to investor complaints.
- ***Litigation*** – A number of jurisdictions noted the role of efficient court proceedings in responding to scam conduct.

7.3. Use of Advanced Technological Surveillance and Monitoring Tools

As firms increasingly use innovative techniques and technologies in digital offerings and online cross-border fraud tactics, IOSCO members should consider, whether they have the adequate surveillance and supervisory capacity, within the limits of their mandate and supervisory power, to oversee an increasing volume of online activity. IOSCO members should also consider ways to develop appropriate monitoring programs for the surveillance of potential online fraudulent activity, including on social media. Within the context of domestic legal frameworks, considerations for enhancing surveillance and supervisory capacity could include:

- The power to request access to content to detect illegal or misleading promotions;
- Having regulatory channels in place to report consumer complaints for misleading and illegal promotions; and
- Suitable evidence tracking processes in place to cope with the fast pace and changing nature of online information.

Various IOSCO members are already deploying advanced technology as regulatory tools to monitor social media content, including **AI/ML technology, webscraping** and **social media scanning tools** to sweep digital platforms and social media to identify potential fraud schemes, unauthorized entities, and to detect misconduct. Some members use constant streamed data to monitor stocks, focusing on topical risks supported by data and AI analytics. Such tools also may track scams on social media and may detect messages most likely to influence stock prices.

Some of the advanced surveillance and monitoring tools and techniques already used by some IOSCO members are the following:

- In France, Financial Scam Hunter (FI.S.H), Spam Detection (SPA.DE.), WETREND – specific AI-based tools – are part of a system that is designed to prevent financial scams and monitor unauthorized offerings. AMF uses FI.S.H to identify fraudulent websites;

72 For example, the Belgium FSMA noted that it conducted a large-scale digital campaign in 2020 about investment fraud on Facebook and Google aiming to raise public awareness of investment frauds. Bursa Malaysia noted that it conducted investor education via a series of programmes, seminars, its education portal, and the media.

SPA.DE is used to detect future scams at an early stage; and WETREND to detect fraudulent financial offers.[73]

- In another example, **webscraping** has provided a better view of ICOs in Belgium by the FSMA and can proactively detect fraud.
- In India, SEBI has launched an initiative to bolster the regulatory processes with the use of AI/ML. Indian exchanges have integrated **social media scanning into an alert generation process**. Exchanges also communicate directly with the investors by sending them transaction related details through e-mail/ SMS besides making such information available on their website. An integrated information/alert dashboard which provides information about alerts on orders and trades which are abnormal in nature has also been developed. Exchanges also monitor and issue price and volume alerts and monitor for market abuse activities, e.g., for spoofing and excessive order modifications observed in a security/exchange contract.
- "Momentum Ignition" that encourages rapid trading activity has prompted ASIC to take a holistic view of the practice to determine the scale and prevalence of trading. Its **Momentum Ignition Detection Tool** focuses on the gatekeepers and those parties facilitating Momentum Ignition activity to review their filters, controls and algorithms.
- For market monitoring BaFin uses regular sources of information, which comprises complaints from investors or consumers, information from whistleblowers and information available from other law enforcement authorities or consumer protection organizations. BaFin also uses inquiries and media reports, which originate initial or additional information. Besides, BaFin may also observe marketing activities of investment firms on social media.
- MAS has a project that will see the collection of comprehensive granular data from financial institutions providing financial advisory services (e.g., customer profile, products, transactions, remuneration, complaints, misconduct reports, disciplinary actions, etc.) that will be used to inform supervision.
- Some members have started using **Electronic Know Your Customer (E-KYC) standards** to improve the effectiveness of online channels ensuring users are properly identified and verified.
- To counter stock price manipulation through recommendations on social media, Chinese exchanges have established a complete set of monitoring analysis and **clue reporting**

[73] FI.S.H operates in three stages. First, it identifies websites related to finance on secondary search engines (Bing). Secondly, it separates financial news websites from financial investment websites and finally it labels websites as fraudulent or non-fraudulent.

SPA.DE. AMF works in partnership with Signal Spam, a French association which collects spams from the French public. Signal Spam routes 2000 spams/day to 3 different AMF mailboxes (miscellaneous assets, crypto-assets, financial scams), only 1% is relevant. Many irrelevant and relevant spams were labelled in order to make SPA.DE able to distinguish them. Spam detection at an early stage enables the understanding of future scam trends.

WETREND: Email campaigns stand out first among investor's complaints. Signal Spam confirms fraudulent financial offers. WETREND analyses the spam content and detects words linked to the same topic, e.g., health, finance, sustainable development etc. WETREND has the ability to track the occurrence of a flagged word over a selected period.

systems as a counter-manipulation measure. These are founded under three categories of analysis, 1. An early warning of public opinion before trading 2. Real-time monitoring during trading 3. After-hours data analysis. To tackle cross-border manipulation the exchanges have collaborated with other exchanges to promote the establishment of a see-through account system for the Stock Connect.

- In the US. as part of the SEC´s **Division of Examinations ("EXAMS")** 2021 priority to protect retail investors, SEC´s Division of EXAMS continues to enhance its use of new technologies and advanced data analytics to prioritize examination candidates and further analyze information collected during examinations. SEC´s Division of EXAMS also has implemented program efficiencies through technology to improve its oversight of retail advisory services offered by registered investment advisers. Specifically, SEC´s Division of EXAMS is advancing its capacity to use data to analyze regulatory filings and trading activity. Among other things, SEC´s Division of EXAMS has developed a **National Exam Analytics Tool ("NEAT")** that allows examiners to collect and analyze large datasets of trading records to identify potentially problematic activity and better understand a firm's business during examinations. NEAT initially focused on analysis of investment adviser trading records, but it was subsequently expanded to provide analysis of broker-dealer trading records. Currently, examiners are leveraging NEAT in their analysis of broker-dealer's compliance with Regulation Best Interest.

It is apparent from the above tools that IOSCO members are already using technology to bolster regulatory responses to fraud and misconduct, and to new challenges arising from monitoring and detecting such conduct online.

7.4. Jurisdictions' Other Regulatory Tools

Jurisdictions' other regulatory tools used which may take the form of proactive approaches, but not necessarily based around technology are the following:

- **Proactive engagement with online forum moderators:** ASIC engages newer technology stakeholders, e.g., moderators of online forums to understand how they monitor posts and deal with poor conduct and internet search platforms to discuss their search structures such that investors are not being misled on the results that are provided for certain searches.
- **Dedicated strategic task force for retail matters:** In 2017, the US SEC announced the formation of the Retail Strategy Task Force (RSTF), comprised of experienced members of the SEC Enforcement Division, to pursue two primary objectives: (1) developing data-driven, analytical strategies for identifying practices in the securities markets that harm retail investors and generating enforcement matters in these areas; and (2) collaborating with internal and external partners on retail investor advocacy and outreach. The RSTF leverages enforcement resources and draws on expertise from across the Commission's divisions and offices to develop and implement strategies for addressing the types of misconduct that most affect retail investors.
- **Social media-based education campaigns:** OSC has launched a consumer communication campaign that warns consumers of the risks involved with high- risk investments through the channels they use, e.g., Tik-Tok, and the people who influence their decisions, e.g., social influencers. Investor Office Branch developed innovative initiatives, including social media campaigns, to educate investors. These include a Reddit-based initiative and Twitter chats, resulting in a reach of 2.4 million and 16.4

million respectively. The OSC used promoted posts (a paid "public service announcement" educational campaign) to reach investors on Reddit with educational information about the risks of using social media for investing information and the importance of checking registration to avoid receiving guidance from unregistered individuals. The OSC used Reddit-style language and imagery in its posts which outperformed Reddit's benchmarks. The OSC received Reddit "karma" for the posts and were given a "Helpful Award", both of which are user-generated.

- **Tips, complaints and referrals from the public including whistleblowing programs:** For example, the US SEC has long-standing enforcement programs in place that facilitate effective investigation of matters involving new and emerging activities. Investors, the public at large, regulated entities, and other agencies can submit tips, complaints, and referrals regarding any type of potential securities law violations to the SEC through an online form on the SEC's website. SEC Staff reviews all tips, complaints, and referrals submitted through the online form and assesses them for potential further investigation or other response. As another example, Section 922 of the Dodd-Frank Act provides that the SEC shall pay awards to eligible whistleblowers who voluntarily provide the SEC with original information that leads to a successful enforcement action yielding monetary sanctions of over $1 million. The Act also expressly prohibits retaliation by employers against whistleblowers.[74]

  The OSC also established Whistleblower Program in 2016 which offers monetary awards along with robust confidentiality and anti-reprisal protections to encourage information relating to "hard to detect" forms of misconduct. The Program proved to be a fruitful source of information resulting in enforcement action, particularly for fraudulent online schemes. It has resulted in the receipt of information from company insiders as well as external individuals.

- **Use of mystery shopping to supervise the point of sale:** Mystery shopping is a tool used by some IOSCO members to understand and analyse firm practices. It is also used for inspecting and auditing firm level execution of specific customer services based on regulatory standards. Some IOSCO members are conducting mystery shopping. In a few jurisdictions, IOSCO members are empowered to conduct undercover investigations and mystery shopping in the context of online marketing and distribution of products and services, using pseudonyms/non-real email addresses and in certain cases fake passports and/or bank accounts. As reported by these IOSCO members, this may be a tool to verify ties to a local jurisdiction and to gather information and evidence, including information useful to determine the scale of potential harm and to identify and locate the persons behind the illegal activity.[75]

- **Comparison tools for financial products:** Use of a comparison tool, e.g., the Australian, ATO "Your Super comparison tool", is intended to help retail investors compare products on key differences related to fees, performance, insurance and investment options and services.

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74 The SEC also has a wide spectrum of tools for facilitating and rewarding cooperation in its investigations and related enforcement actions. These include proffers, deferred prosecution agreements, and non-prosecution agreements. A non-exclusive list of cooperation tools appears in the SEC's Division of Enforcement Manual in section 6.2; see publication available at: https://www.sec.gov/divisions/enforce/enforcementmanual.pdf.

75 See CR02/2022 Report on Retail Distribution and Digitalisation (iosco.org), p.25.

- **Partnering with other government entities:** This can create synergies, for example, the French AMF has engaged the Digital Regulation Expertise Centre, part of the French Ministry of Economy and Finance to develop a social media scanning tool, which assisted the detection of bots that can create an artificial impression of scale.

- **Training of staff** that involves other important entities, e.g., universities, research institutes or other NCAs, to enhance knowledge and awareness of innovative tools available to supervise financial markets, e.g., use of the data available to supervisors generated or gathered under MiFID II/MiFIR, EMIR, SFTR and MAD/MAR in the EU.

7.5. New or Innovative Use of Traditional Regulatory Tools

There are also more established regulatory tools that some regulators may use in new or innovative ways, against a wide range of conduct. For example:

- **Guidelines and specific websites on online distribution and self-directed trading:** HK SFC has issued Guidelines on Online Distribution and Advisory Platforms which require intermediaries to ensure suitability in the sale of complex products online. The Guidelines also set out specific requirements that apply to robo-advisers concerning information for clients, client profiling, system design and development, supervision and testing of algorithms and rebalancing. QAMF has a new website content, see "Investing on your own" section on its website, as an increase of self-directed investors during the COVID-19 lockdown prompted a need for new content and a stronger than usual stance on the risks involved. Also QAMF has a new webinar "Investing on your own: beware of costly mistakes".

- **Use of intrusive supervision techniques:** For example, OSC uses "knock-and-talks" where staff, with the assistance of a police officer from an OSC law enforcement partner agency, knock on the door of a subject of enquiry. They can deliver a warning letter. This is found to be effective in furthering the investor protection mandate and more rapid than a lengthy investigation and hearing process.

- **Regulatory "sandbox" approach:** Regulatory sandboxes can observe new risks presented by financial services (See the CBoI example in footnote 51).

- **Use of larger forums to co-ordinate**: For example, ESMA's Common Supervisory Action on Suitability, aims to ensure that firms in the EU meet the same standards of investor protection and disclosure as traditional investment services across all channels, including digital.

7.6. Regulatory Tools Related to Self-directed Trading and Gamification

IOSCO has noted that certain trading patterns may result in or magnify retail risks and losses during high volatility, together with the increased use of leverage, increased self-directed trading, and the increasing popularity of apps that use 'gamification' and the level of trading carried out by retail investors engaging with apps that use gamification.

IOSCO members use a wide range of regulatory tools against such risks. Some of these are applicable for general investor protection purposes and not specifically designed to address emerging trends. That said, certain tools used to curb market volatility, such as short selling and trading halts, might be more relevant to situations like the Gamestop incident. Based on IOSCO membership feedback, below are some examples of tools that IOSCO members are using:

7.6.1. Tools to address market disruption and volatility

- Short-selling rules, trading halts, position and price limits, concentration margins;
- Public statements to curb volatility caused by retail trading based on information from social media;
- Investor alerts and warnings;
- Monitoring marketing of products and retail investment trends;
- Enhancing surveillance capability of social media to quickly identify 'pump and dump' activity and unlicensed investment advice; and
- Engaging with social media platforms and moderators and regulatory guidance on discussion forums.

7.6.2. Short-selling rules, trading halts, position and price limits

While it continues to be a contentious topic, some members highlighted the utility of short-selling and trading halts in curbing extreme volatility in stock prices in secondary markets. Some members also highlighted that position limits may prevent outsized net short positions that may cause undue volatility, while the price limit and at-tick rules help to ensure orderly stock price movements. Most members apply position limits and concentration margins to mitigate potential "cornering" in the market.

7.6.3. Being proactive and innovative in regulatory approach

A few members highlighted the importance of being pro-active under a holistic approach[76] and effective coordination with others since social media provides outreach without borders. It is important that regulated firms understand the features and potential risks and implications associated with the structures they are utilizing. Regulators need to consider creative tools and interventions to effect change in the absence of law reform.[77] For example, if product providers use behavioral triggers such as constant messaging, it is challenging for the regulator to intervene to reduce this type of interaction. Some IOSCO members continually update their educational materials to cover topics of relevance to investors (See Section 6.2. investor education for self-directed trading). They also experiment with new ways of connecting with investors, including short creative videos on a range of topics to reach new audiences.

7.7. Regulatory Disclosure Requirements and Investor Education

Most IOSCO members use product-design and product intervention powers as a regulatory tool in situations of potential retail investor risk. Investor education is also well established as a key regulatory tool in addressing retail investor harm. In particular, investor education can be an effective tool where the five building blocks of an investor education toolkit (see 6.2.) are used, for example when the investor education approach is targeted, data-based, and adapted to the environment (e.g., to a digital environment).

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[76] For example, the FCA continues to pro-actively monitor SDT and potential areas of consumer harm and will engage with firms the FCA believes are not acting in the best interests of consumers.

[77] Certain members have introduced New Regulation, Guidelines and Measures, which included: 1- Rules on communications with clients; 2- Guidelines on suitability; 3- Rules on digital onboarding; 4- Specific FinTech regulation; and 5- Guidelines on technology risk management.

7.8. Other Areas to Consider

There are other areas where an appropriate regulatory tool could be considered, either to respond to conduct risk or as an enabler/supporter of other regulatory tools. These include:

- **The use of regulatory tools to address data gaps** (e.g., tools supporting data collection) - While IOSCO members have access to data on traditional asset classes, such as equity and funds, there is no regular data collection in most jurisdictions on assets that may pose higher risks, such as crypto. Access to data can support other regulatory tools – for example data is key for a solid and successful investor education initiative. Data also informs regulator as to areas of retail investor harm and where priority areas may be.
- **The use of regulatory tools to address cross-border challenges**, such as tools that increase efficient cross-border cooperation and collaboration. Cooperation and exchange of experiences is a useful tool for regulators. In the fraud and misconduct space, dialogue and cooperation between regulators can provide useful information and knowledge.

7.9. Development of a Regulatory Toolkit

At this time the experience of jurisdictions is highly varied, and a proportionate approach will require detailed jurisdiction-by-jurisdiction insight. A one-size-fits-all approach is not appropriate. Rather, IOSCO proposes to consider the responses to this consultation and to develop a regulatory toolkit which will be rolled out to its members through the publication of a final report so that regulators can better analyse the issues they face.

Q13: Are the above regulatory tools appropriate, proportionate, and effective? Are there other regulatory tools regulators might consider? What new technologies may help regulators as they continue to address misconduct and fraud (including online/via social media)?

Q14: Since the date of the IOSCO survey exercise in August 2021, have there been any other measurable changes in retail investor trends that should be taken into consideration?

CONCLUSION

Misconduct in capital markets has profound and far-reaching consequences for all levels of society. Consumers, investors, capital markets, institutions, national economies and the global financial system may be impacted when the integrity of capital markets is undermined by misconduct. The feedback presented in this consultation report serves a good picture of the rapidly changing retail investor trends on a global scale. The increased retail participation in securities markets could mean an increasing influence of retail investors on market trends and pricing.

The ease with which retail investors can access markets and products can create an environment where consumers are less informed, but more exposed. In addition to investing in risky and volatile markets, a majority of retail investors are investing without regulated advice, thus leading to more high-risk investments. This together with the trends for digital brokerages and platforms to promote gaming type environments and processes that can benefit from behavioral trends of retail investors is identified by IOSCO members as a significant risk.

Based on the extensive survey feedback, IOSCO has considered some recent popular questions such as the reasons for increasing gamification and self-directed trading and potential implications; role of retail investors in increased volatility; whether retail investors have acted together for manipulative motives (Gamestop); increasing use of leverage as a greater potential magnifier of retail losses; and the influence of social media on retail investor behavior. The consultation report analyses possible regulatory and market-wide implications of these issues and trends.

For all the reasons highlighted in this report, the current market environment may have created a fertile ground for fraudulent or scam activity by fraudulent or unauthorized or otherwise non-compliant firms. In an environment where consumers are seeking returns because of the low interest rates, they may move to higher risk products that are frauds or scam instruments. Furthermore, social media may provide greater exposure to a variety of products and services, sometimes on a cross-border basis without being subject to adequate supervision or investor protections in an investor's home jurisdiction.

In such an environment, fraudsters may use a range of effective and sophisticated tactics to build trust and exploit vulnerabilities to defraud investors and cause investor losses. Disclosure alone may not be sufficient to address such risks.

The consultation report highlights various approaches IOSCO members are using in response to the challenges of today's rapidly evolving retail landscape. According to survey responses, such approaches not only include the use of traditional investor protection measures, but also innovative tools that are mainly technology based.

IOSCO is asking for stakeholder feedback on consultation questions to inform its Final Report. Consultation responses will be of great assistance for the finalization of the work so that regulators can appropriately consider their strategies to address the risks arising from the changing retail investor behavior outlined in this Report.

ANNEX 1 – RELEVANT IOSCO REPORTS

- Initial Findings and Observations About the Impact of COVID-19 on Retail Market Conduct
- Digitalization and Cross-Border Distribution
- Retail OTC Leveraged Products
- Suitability Requirements With Respect To the Distribution of Complex Financial Products
- Principles on Point of Sale Disclosure,
- Social Media and Automation of Advice Tools
- Order Routing Incentives
- Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms
- Investor Education on Crypto-Assets
- The Application of Behavioral Insights to Retail Investor Protection
- Senior Investor Vulnerability

ANNEX 2 – LIST OF CONSULTATION QUESTIONS

Q1: In their risk analysis, should regulators specifically consider/target specific demographic profiles/groups for additional or enhanced investor protection measures? If so, should greater attention be focused on younger age groups or older age groups? Is there a tipping point in behaviors beyond which regulators should become concerned?

Q2: Does the consultation report capture accurately the important retail trends and the reasons for increased retail trading? Are there any missing concerns or issues and other potential risk magnifiers? What may be the current and potential long-term implications of increased retail participation in markets in your view?

Q3: What may be the potential implications of self-directed trading and gamification from a retail risk and conduct perspective? Should high risk aspects of these activities be regulated or prohibited, for example, certain risky gamification techniques?

Q4: How should regulators consider whether to monitor crypto-asset trading by retail investors? Are there ways that the apparent data gaps with regard to retail investor crypto-asset trading could be filled or other protections for retail investors or ways in which regulators could begin to monitor crypto-asset trading? Are different approaches likely to be more or less effective in jurisdictions with different regulatory, statistical and other governmental and private sector approaches to data gathering?

Q5: How should regulators approach these trends (e.g., both trading for crypto-assets or brokerages using hidden revenue raising mechanisms) and when should they seek to intervene?

Q6: Should regulators proactively monitor social media and online statements for retail investor protection and if so, when and how? Should social media be subject to additional regulatory obligations regarding securities trading and/or crypto-asset trading? How could such monitoring be implemented, and obligations enforced proportionate to the harm/potential harm? Are there any legal (e.g., data protection) or technical obstacles? What sort of risk assessment should regulators do to determine where to allocate their resources?

Q7: Are the main fraud types covered correctly (e.g., crypto-asset scams, boiler room scams, clone investment firms, and misleading information and promotional material)? What are the fraud patterns that cause/have potential to cause most retail investor harm? Are there other types of frauds or scams that regulators should consider?

Q8: How has COVID-19 impacted retail conduct and frauds? How should regulators best respond to fraud and misconduct in the current environment, also in consideration of the impact of COVID-19 on retail market conduct?

Q9: Does the Consultation Report capture well the existing cross-border challenges? Are there any missing concerns or issues that are not highlighted? Are there any other novel ways of addressing cross-border challenges affecting retail investors? As an international body, what could be IOSCO's role in addressing the cross-border challenges highlighted in this consultation report?

Q10: What may be the concerns or issues that regulators should ask for disclosure of (at both firm and product level), keeping in mind the balance between quantity of disclosure and the ability of retail investors to absorb such disclosure? Should markets continue to seek to put in place special arrangements that could encourage companies during stressed market events to provide disclosures and updates that help retail investors better evaluate current and expected impacts of such events? If so, what may be the practical options to achieve this, including who should provide this information? Are there specific technological measures or non-technological measures (e.g., changing the timing, presentation of the information) you would suggest to enhance the ability of retail investors to process the disclosure?

Q11: Where product intervention powers exist, what factors should regulators consider determining when it should be used and at what stage to ensure suitability and to mitigate investor harm? For example, should regulators monitor leverage levels in retail trading and/or seek the power to limit leverage? If so, is it possible to describe the kind of situation in which such powers could justifiably be used?

Q12: Are the developments in retail investor behavior sufficiently significant and persistent to justify reviews by regulators of their current approaches to retail investor protection? If so, is that true globally or only in some markets? If some, what are the characteristics of the markets for which that is most true?

Q13: Are the above regulatory tools appropriate, proportionate, and effective? Are there other regulatory tools regulators might consider? What new technologies may help regulators as they continue to address misconduct and fraud (including online/via social media)?

Q14: Since the date of the IOSCO survey exercise in August 2021, have there been any other measurable changes in retail investor trends that should be taken into consideration?