RETAIL MARKET CONDUCT TASK FORCE
FINAL REPORT

The Board

OF THE

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Executive Summary

Misconduct and harmful practices affecting retail investors continue to be persistent global problems. Harmful practices span a spectrum of conduct. On one side of the spectrum, inadvertent or even legal practices can cause harm to retail investors; on the other, there are egregious examples of deliberate and targeted misconduct. Bad actors in the financial landscape use a range of increasingly sophisticated tactics to build trust and exploit vulnerabilities and opportunities brought about by the pressures of the current economic environment and market conditions. These and global inflationary pressures, have resulted in more frequent offerings of risky and unsuitable products to the retail segment via technological means, which have resulted in significant retail investor losses.

IOSCO has core objectives of enhancing investor protection and promoting market integrity. For the last two and a half years, driven largely by these objectives and their linkages to financial stability, the IOSCO Retail Market Conduct Task Force (RMCTF) has dedicated its efforts to collecting and examining global views on emerging retail market conduct issues. The RMCTF's main aim is to highlight IOSCO's role with respect to investor protection and market integrity and to facilitate discussion on the evolving landscape for retail investors and a range of potential measures to mitigate misconduct arising from it.

The RMCTF's Final Report is a culmination of significant work and extensive stakeholder consultation designed to provide "a global point-in-time view" on an evolving area with wide-reaching impact. It sets out substantive analysis on market environment, retail investor trends, related conduct implications, and an adaptive toolkit for regulators to consider in developing their respective approaches.

Underlying these issues is a universal need for regulators to access resources, effective practices, tools and techniques to better fulfil their respective mandates. Established just prior to the onset of the COVID-19 pandemic, this senior Board-level group has traversed "live" issues arising from the crisis, reflected on lessons learned and heard from a broad range of stakeholders beyond the IOSCO membership in developing its report. Some major milestones include:

- The RMCTF's interim report in December 2020[1] with initial observations on the COVID-19 impact on firm and retail investor behavior, common regulatory challenges and member approaches to dealing with these;
- A comprehensive members' survey conducted in 2021, focusing on specific issues raised in the interim report;
- The March 2022 Consultation Report[2], seeking views on the RMCTF's broader findings on retail conduct issues and possible regulatory responses. The public consultation sought perspectives from investors, regulators, market participants, regulated entities, financial consumers, academics and other international bodies; and
- Two consumer roundtable sessions and a joint session with IOSCO's Affiliate Members Consultative Committee (AMCC) as additional mechanisms to directly engage with and gain insights from industry, regulators, and consumer groups.

Key thematic findings on recent retail investor trends and related conduct challenges in this Final Report (covered in **Chapters 2-6**) centre on:

- **The impact of technological advances, social media, and changing market conditions on retail trading activity -** the surge in self-directed online trading, and more frequent offerings of riskier products – often at times highly leveraged, and with higher retail participation (particularly in the younger investor demographic), along with the emergence of crypto-assets, gamification of investment tools, and ubiquitous marketing by firms and unlicensed parties, during and beyond periods of normal and stressed market conditions;

- **The opportunities and challenges with the rise of digitalization** – opportunities can include greater retail accessibility to investments, increased competition and reduced costs; but

1 IOSCO Retail Market Conduct Task Force – Initial Findings and Observations about the impact of COVID-19 on Retail Market Conduct (December 2020)

2 IOSCO Retail Market Conduct Task Force – Consultation Report (March 2022)

challenges include effectively monitoring, identifying and disrupting misconduct hidden behind the digital veil, and the increasing influence of social media on retail investment decisions;

- **Common financial consumer issues** – such as amplified risk taking, poor understanding of complex products, information overload and asymmetries, behavioral issues and social/psychological/financial pressures in times of uncertainty (e.g., COVID-19 pandemic), as well as situational vulnerabilities;
- **The escalation in unlicensed activity, scams, fraudulent or harmful behavior and reported investor losses** – ranging from egregious and deliberate acts targeted at retail investors, to those inadvertently falling foul of the law, largely assisted by more sophisticated veneers enabled by technology (e.g., clone investment firms, crypto-asset scams such as rug pulls and ICO pump and dump schemes, unregulated or unlawful practices of 'Finfluencers', mis-selling, mis-labelling, and misleading disclosures); and
- **Increased greenwashing risk**[3] – which has been seen with the rapid growth in assets-under-management (AUM) and global interest in Environmental, Social, and Governance (ESG) investments and sustainable finance products. Greenwashing may take different forms and erodes the needed trust in disclosures regarding such investments, including in the retail segment.

THE TOOLKIT OF MEASURES

Considering the rapidly evolving retail landscape and mostly steered by technological developments, the regulatory toolkit (outlined in detail in **Chapter 7)** offers a suite of measures for regulators to consider in developing their respective approaches to address emerging retail market conduct issues. Some measures derive from traditional regulatory approaches, whereas others may be considered novel. Some may not be appropriate in a particular jurisdiction. These are crafted as adaptive and broad to accommodate a variety of scenarios in managing the continuum of retail investor risks.

1. HEIGHTENING REGULATORS' DIGITAL PRESENCE & ONLINE STRATEGY TO PROACTIVELY AND EXPEDITIOUSLY ADDRESS RETAIL INVESTOR HARM

The first measure is aimed at helping regulators to be proactive, agile and vigilant with respect to misconduct in the digital environment, considering the pace and volume of information, the continuously changing environment, and the lack of visibility (anonymity) and reliability that may exist in online offerings.

- **Targeting fraudsters directly where misconduct occurs**
- **Monitoring and assessing online marketing and distribution trends to interrupt harmful channels of marketing, such as detrimental Finfluencer activity**
- **Issuing public alerts, warnings, and monitoring consumer sentiment**
- **Enhancing engagement with online service providers, where possible, for early prevention and disruption of misconduct**
- **Tailoring messaging to retail investors for different websites and social media forums**

2. HONING APPROACHES TO BETTER IDENTIFY AND MITIGATE MISCONDUCT

The second measure describes preventative means to help early detection and/or mitigation of misconduct, as well as identification of the actors behind the misconduct. Since retail investor behavior

[3] For the purposes of this report, the term "greenwashing" refers to the practice of misrepresenting sustainability-related practices or the sustainability-related features of primarily investment products. In the "race to promote their green credentials," some asset managers may misleadingly label products as sustainable without meaningful changes in the underlying investment strategies or shareholder practices. We note that such practices may vary in scope and severity, from the inappropriate use of specific sustainability-related terms used in an offering document, to misrepresentations about an entity's sustainability-related commitments, to deceptive marketing practices that deliberately misrepresent a product's sustainable impact. https://www.iosco.org/library/pubdocs/pdf/IOSCOPD688.pdf

may be heavily influenced by various psychological factors and external influences (as highlighted in Chapter 2), a practical, technology-based regulatory approach against retail market misconduct, which considers behavioral aspects[4], may support better outcomes.

- **Enhancing internal/in house capabilities and/or employing third-party vendors to streamline regulatory surveillance and supervision efforts**
- **Developing technological tools and using advanced data analytics to better facilitate the earlier intervention and identification of bad actors**
- **Using behavioral science to analyse retail behavior and design consumer protection initiatives**
- **Enabling easier access to whistleblowing and an intake system for triaging tips, referrals and complaints**

3. ENHANCING CROSS-BORDER AND DOMESTIC SUPERVISORY AND ENFORCEMENT COOPERATION FRAMEWORKS, BOTH BILATERALLY AND MULTILATERALLY

The third measure reiterates the fundamental notion of cooperation – a cornerstone of effective domestic and international regulation – and the continued need for robust cooperation frameworks to support effective supervisory and enforcement capabilities, and the mitigation of emerging threats and harms amidst a changing environment. IOSCO's MMoU and EMMoU, for example, represent the global gold standard for multilateral cross-border enforcement cooperation, with the former marking its twenty year use in 2022. The exchange of supervisory information and best practices also play a crucial role in dealing with the ever fluid and complex nature of global financial eco systems – crypto-assets being the example showcased in this report.

- **Facilitating greater cooperation & collaboration, minimizing regulatory arbitrage, where possible**
- **Working with other domestic and international agencies where appropriate, to address common issues of misconduct, identify individuals and groups involved in misconduct, and promote early intervention and disruption of misconduct**

4. ADDRESSING RETAIL INVESTOR HARMS THAT STEM FROM CRYPTO-ASSETS

The fourth measure provides tools for regulators, particularly for counteracting crypto-asset related harms considering the significant growth in investor interest in crypto-assets, and commensurate rise in crypto-asset related scams.

- **To the extent not already covered by an existing regulatory framework, determine whether there are regulatory powers that can be used to provide KYC and trade reporting databases for crypto-asset transactions**
- **Employing applicable regulatory intervention powers to address cross border crypto-asset fraud and theft to retail investors**

5. IMPLEMENTING NEW REGULATORY APPROACHES AGAINST RETAIL MARKET MISCONDUCT

The fifth measure presents a variety of tools that can be considered together in tackling misconduct issues in today's rapidly changing retail landscape.

- **Rules related to the marketing of high-risk products**

[4] See also Credible Deterrence In The Enforcement Of Securities Regulation, IOSCO, June 2015.

- **Consumer Helplines and AntiScam Campaigns**
- **Use of mystery shopping to supervise the point of sale**
- **"Regulatory sandbox" approach**
- **Use of intrusive supervision and enforcement techniques**
- **Using tools to better identify firms' compliance with climate disclosure standards and to better detect greenwashing activities.**

Whilst this report primarily serves as a guide for regulators, there is utility in the findings and observations for all stakeholders in building greater awareness and engagement with retail conduct issues given their transcendence across sectors and presence in both emerging and developed markets.

This Report is designed also to complement various IOSCO Committee and Task Force driven work, such as ones on digitalization, crypto-assets, "decentralized finance" (DeFi), sustainable finance and investor education, which may present more specific targeted tools to address particular retail market conducted related scenarios. The recently published IOSCO reports on Retail Distribution and Digitalization and Decentralized Finance are examples.

IOSCO remains committed to promoting investor protection, market integrity and greater global regulatory cooperation and coordination in this space and welcomes opportunities for further collaboration with other international bodies and stakeholders in the pursuit of this objective.

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 measures for regulators as part of a toolkit to consider as they 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).[5]

1.2. Prior RMCTF reports

The RMCTF delivered a short-term report in December 2020 with a specific focus on the retail conduct implications of COVID-19.[6] The report set out 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.

Subsequent work of the RMCTF was to analyze broader implications of recent retail market trends and the related regulatory implications, as well as regulatory responses. Examples of issues considered included the impact of social media on retail trading decisions, activist retail activity, and gamification, amongst others. The RMCTF's Consultation Report was published in March 2022. It sought views from a broad range of stakeholders including investors, regulators, market participants, regulated entities, financial consumers, academics, and other international bodies. Most relevant concerns provided in the feedback centered on:

- Implications of the emergence of a new generation of investors;
- Technological trends and retail participation;
- Social media and financial influencers (Finfluencers);
- The role and impact of gamification within retail markets;
- Emergence of new crypto-asset trading trends;
- Evolution in fraudulent activities and emerging trends in retail fraud;
- Various regulatory issues emanating from cross-border issues and challenges; and
- Product intervention approaches.

1.3. Consumer Roundtables and the IOSCO Affiliate Members Consultative Committee Feedback

In addition to the Consultation Report feedback, the RMCTF organized two roundtables with stakeholders in March 2022. A joint information session with the AMCC – consisting of members with self-regulatory organization (SRO) powers – was also undertaken to obtain insights on their retail market conduct relevant work and perspectives on recent trends and issues. Some observations shared on retail landscape and proactive activities were that:

- Increased retail participation is expected in the future due to new retail participants, digitalization and low-cost online trading platforms;
- Large-scale educational campaigns may have limitations and therefore, must be complemented with other regulatory tools;
- Using behavioral economics and experiments efficiently brings various benefits, particularly in the context of social media;
- Some regulatory approaches to disclosure can and should be more proactive;
- Crypto-asset products and retail suitability are global concerns;
- Cross-border issues could be addressed by an international alert system and enforcement network;

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5 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 and U.S. SEC.

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

- Fraudulent behavior in the aftermath of the COVID-19 pandemic has increased;
- Targeting fraudsters directly on the platforms that they use might be an efficient tool; and
- A different approach to remedies for retail losses and redress mechanisms may be needed.

1.4. Final Report

The Final Report provides an overview of the rapidly evolving retail trading landscape and a suite of potential measures for regulators to consider in building or enhancing their respective regulatory approaches to retail misconduct issues.

This report is based on extensive stakeholder consultation conducted via the Consultation Report, earlier survey responses, industry outreach and other information from IOSCO members. The report 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, such as social media and digitalization, on retail trading.

While the focus of this report is not on the impact of COVID-19 on retail investor trends and behavior, IOSCO has observed influence on retail consumer behavior and retail trading patterns from responses to the COVID-19 pandemic (e.g., government lockdowns, business closures, and economic support measures), and broader trends such as an increase in fraudulent activity targeting retail investors.

Previous IOSCO reports, closely related to retail trading and investor protection issues and which may be considered in conjunction with this Final Report, are listed in Annex 1.

CHAPTER 2 – THE EVOLVING RETAIL TRADING LANDSCAPE

- **Retail investor participation in capital markets and the volume of retail trading reportedly grew in 2020 and around market events in January 2021. Multiple factors related to the current macro environment ("low interest rates for too long" or "rapidly increasing inflation"), technological developments and demographic trends, as well as unexpected disruptions such as the COVID-19 pandemic and the recent global geopolitical tensions, are all contributing interacting factors at play in explaining the growth in retail trading.**
- **Increased retail investor participation is partly driven by demographic trends. Investors of all ages are likely to encounter challenges, and vulnerability of retail investors is not only linked to age. Regulators need to be responsive to changes in external conditions and investor behavior.**
- **Technological developments are changing the way in which retail consumers interact with financial services and products. There is an increasing use of online trading platforms and mobile apps, and of social media to promote the offerings of securities and other financial products. As such, technological developments bring various conduct risks.**
- **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, exchange traded leveraged products and crypto-assets. Investors increasingly care about sustainability preferences, and the ability for greenwashing to occur throughout the investment value chain is exacerbating risks posed to retail investors.**
- **Certain retail trading patterns may result in or magnify retail risks and losses. Periods of high market volatility may influence retail investor behavior as they seek higher returns. The impact of rapidly rising inflation on retail investor behavior merits careful consideration by IOSCO members.**
- **Increasing use of leverage by retail market investors is another magnifier of risk. Some IOSCO members are taking measures to curb excessive leverage.**
- **Retail investors are increasingly engaged in "self-directed trading", and technological developments may support the increasing "gamification" of retail investing. These trends may have induced inexperienced investors into trading more frequently than they would otherwise and taking on risks outside their tolerance and beyond their financial capacity.**

Background

This Chapter sets out the current complex and rapidly evolving retail trading landscape. Different jurisdictions may experience the trends analyzed in this Chapter to various degrees. Key trends IOSCO has observed based on the feedback from its members and stakeholders are set out below.

2.1. Retail investor participation is growing

The RMCTF's December 2020 report had noted an increase in retail trading, particularly 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 as a proportion of overall equity trading. Many 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 new retail trader numbers beyond historic norms in certain jurisdictions. Several jurisdictions experienced very significant increases in trading participation.[7] For example, some academic

[7] Some jurisdictions observed a correction of these volumes in 2021.

commenters have observed that following the onset of the COVID-19 pandemic, there was 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).[8] That figure reportedly doubled to roughly 20% in 2020, and reached as high as 26% during the January 2021 market events.[9] 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,[10] with a substantial proportion of that activity coming from retail investor orders.[11]

IOSCO's Roundtable findings also showcase that retail participation is expected to grow due, in part, to increased digitalization and the proliferation of low cost online trading platforms. More tech-savvy younger investors in particular can be more influenced by social media resulting in increased retail participation for that demographic. The appeal of higher returns is often accompanied by a misperception of the level of risk. In this context, digitalization and gamification are driving forces, recognizing the easy access to investing for retail investors provided via these channels. The speed at which transactions occur also poses a big challenge to regulators, requiring an increasingly rapid response in situations of misconduct.

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-faceted and complex. Some of these factors are explored further below.

(a) Demographic trends and social and psychological factors

Increased retail investor participation may be driven by certain demographic trends,[12] potentially accelerated by or in conjunction with current market conditions and the government responses to the COVID-19 pandemic.

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.

8 *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).

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

10 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 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).

11 In a study based on transaction data from the first half year 2020, BaFin found that retail investors changed their investment behavior 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.

UK markets data shows that 1.15 million new accounts were opened by four trading app firms in the first four months of 2021, almost double the amount opened with all other retail investment services combined (632,000). Half of these were opened in January 2021, driven by the surge in investments during GameStop and other meme-stock volatility.

Similarly, Hong Kong data suggests that recently, the trading participation among tertiary students has increased from 2% to 18%.

12 For example, a survey sponsored by FINRA 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

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. Research conducted for the UK FCA indicate that there is a new, emerging, distinct and more diverse audience getting involved in self-directed investing.[13]

Regarding gender, members reported varying trends in distribution of trading based on gender. Interestingly, one member noted the sharp rise in the proportion of new female investors over the recent period.[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 "traditional" securities such as shares and bonds, but instead invest more into ETFs, leveraged certificates and Contracts For Difference (CFDs). They may be more likely to invest in overseas companies (either directly or via ETFs, mutual funds and collective investment schemes, etc.).

- Users of digital trading platforms are generally younger, perhaps with an inclination towards riskier instruments. Furthermore, research conducted for the FCA on Understanding Self-Directed Investors[15] identified a younger, more diverse group of investors, who are more likely to use newer investment apps and seek advice on social media. This newer audience are often attracted into high-risk investments, while demonstrating lower levels of understanding of risk and individual financial capacity to withstand losses.

These examples also highlight the fact that different groups may require protection measures that are tailored to their circumstances. Investors of all ages are likely to encounter challenges, and vulnerability of retail investors is not only linked to age.[16] For example, the following aspects might be relevant:

- whether younger adults are saving enough for retirement,
- whether those with more investable assets can access suitable advice, or
- whether particular groups are more vulnerable to scams.

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).

13 See Britain Thinks research https://www.fca.org.uk/publication/research/understanding-self-directed-investors.pdf

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.

15 Ibid 13.

16 The FCA's Financial Lives Survey[16] reports that the proportion of adults with one or more characteristic of vulnerability (including poor health, experiencing a negative life event, low financial resilience, or low capability) is similar in all age groups between 18 and 74 (44-46%). The age group with the highest proportion of adults with one or more characteristic of vulnerability is over 75s (57%). Furthermore, research conducted by Ignition House for the FCA's Evaluation of the Retail Distribution Review and the Financial Advice Market Review found that among adults who are more likely to need retirement planning support, only 53% have received support related to retirement planning in the previous 12 months (as of mid-2022) (https://www.fca.org.uk/publication/research/ignition-house-consumer-research-report.pdf).

Regulators also need to be responsive to changes in external conditions and/or investor behavior.[17] Despite an increase in risk-appetite, some respondents to the IOSCO consultation do not favor enhanced/tailored investor protection based on demographics. Generally, a high level of financial literacy of retail investors is perceived as the most important feature for different investor protection measures. While public authorities' responses to the survey consultation favor actions towards all retail investors, the picture is more diverse in the private sector responses. The majority favor general regulatory intervention targeted at financial literacy and ability to withstand downturn in financial wealth, rather than imposition of stricter measures, for example, on younger investors. Those respondents argued that the regulatory focus should be on broader financial literacy, as opposed to taking a more demographically focused approach.

(b) Current macro-economic conditions

Changing macro-economic conditions may influence retail trading volumes and facilitate opportunistic and predatory retail market behavior, which will be further explored in Chapter 4. Initially, the general macro environment, which saw retail access to 'cheap debt' due to an extended low interest rate environment, might have driven retail investors to search for investments with purportedly higher returns when faced with an increasingly inflationary environment. The impact of rapidly rising inflation on investor behaviour, and its implications on both short- and long-term investor behaviour, merits some very careful consideration in this context.[18]

As an important warning, the FCA drew attention to potential retail harm risks in the current environment. Many consumers appreciate the ease of investing offered by new investment channels; however, the lack of friction makes it easier for consumers to make bad decisions and bypass existing support mechanisms. This ease of access combined with the current higher cost of living might be a potential risk magnifier. A higher cost of living may increase investors' appetite for risk as they search for returns that can beat inflation. This may see consumers forced to make untimely withdrawals from their investments and potentially realise a loss (if markets deteriorate) to fund an increase in their household expenditure. Some of the issues that this may cause are the following:

- Consumers may turn to high risk/unregulated investments in search of higher returns, which may increase their risk of falling prey to scams and/or fraud;
- Non-advised consumers may expose themselves to higher risks than they can tolerate by investing in higher risk/high risk/unregulated investments;
- Investors may also suffer avoidable losses via early withdrawals or punitive charges through unauthorised pension withdrawal scams; and
- A fall in revenue for firms who charge on a percentage of assets under management is likely due to higher levels of withdrawals, lower savings rates and potentially poor investment performance. This may prompt firms to develop new, potentially high-risk products/services to grow revenues.

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17 The FCA's two cited policies are a good example of how this regulatory objective can be achieved with respect to issues that affect two different types of consumer groups:

- Following the introduction of 'pension freedoms' in the UK in 2015 and the general shift from defined benefit to defined contribution employer pension schemes, consumers have had to take more responsibility and more investment risk in their pension planning. The FCA is taking various measures to help this group of investors.
- Similarly, younger people are now investing, due to a range of issues including the long-term low-interest rate environment, increased accessibility of investments through investment apps, sharing information on social media, and finally increased levels of savings during the pandemic. The FCA's measures to protect investors includes, among others, stronger rules to help tackle misleading advertisements that encourage investing in high-risk products and investor education campaign to educate younger investors of the risks of investing. https://www.fca.org.uk/news/press-releases/fca-clamps-down-marketing-high-risk-investments-consumers

18 The FCA's consumer research with 1,009 UK adults aged 40 and over with a workplace or private pension found that a quarter (25%) would consider withdrawing money from their pension earlier than planned to cover the cost of living. https://www.fca.org.uk/news/press-releases/fca-research-quarter-consumers-would-withdraw-pension-savings-earlier-cover-cost-living

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

Additional available household savings resulting from decreased spending via traditional in-person contact channels during COVID-19 lockdowns, or possibly official sector stimulus measures providing financial relief might have facilitated more retail investment savings to invest in 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.[19]

The feedback IOSCO received to its Consultation Report also confirms that the COVID-19 pandemic and increased digitalization has exacerbated the existing drivers and conditions for fraudulent behavior in retail investor markets. The peak of overall scams in 2020 seems to have abated somewhat, but the conditions are still the same, and the risks within digital landscapes still persist and scams overall are on the rise, presenting challenges to regulators. There have been reports of false fundraisings to lure people to donate money, especially related to the war in Ukraine. This is just another tactic of exploiting retail consumers. This along with other misconduct may create a level of distrust in financial markets.

2.3. Technological changes

The technological changes occurring in retail markets relate not only to the way in which retail investors participate in markets (discussed below) but are also fundamentally changing retail market structure and related conduct issues. As a global observation, retail investors have taken up digital trading platforms at high rates, for a variety of reasons. [20]

The increasing influence of social media on retail trading behavior was ranked by IOSCO members in survey responses as one of the most important trends affecting retail trading behavior. The consultation responses also confirm the views of IOSCO members on social media's impact on retail investor 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).

Social media can be used in beneficial ways, i.e., to reduce information asymmetries. However, despite its potential benefits, social media may disseminate information relating to a variety of products and services 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 and pump & dump scams. For detailed analysis on the impact of social media, see Section 3.3.

2.3.1 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 and stakeholders 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, and mobile and online trading apps have made

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

[20] 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 Hong Kong.

trading and stock markets more easily accessible to retail investors. Advances in technology have increased accessibility of retail investments, with trading apps growing rapidly; [21]
- Retail investors are increasingly engaged in self-directed trading and 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 processes 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 "commission free" trading platforms based on mobile applications and lower or no-cost broker advertising services making trading more accessible to retail investors. Competition among internet-based securities brokers has also led to significant reduction in fees/commissions and the emergence of online discount brokers (also known as Order Execution Only dealers or self-directed investing) might have also contributed to this paradigm. Availability of fractional share trading was also highlighted by some members as a potential factor in the increase of retail trading. These might have contributed to the increase in retail trading activity.[22] (Discussed further in Section 2.9. 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.

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 flexibility and simplicity and to start with small investments.[23] In certain jurisdictions, the retail interest for ETFs was on the rise, and in other jurisdictions significantly high.
Undertakings for Collective Investment in Transferable Securities (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 has been growing rapidly over recent years. Crypto-asset market participants may be operating outside of,

[21] 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.

[22] 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.

[23] 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.

	or in non-compliance with, regulatory regimes in most jurisdictions. Data on crypto-asset trading is incomplete and may be inaccurate.[24]
Equity	As equity is one of the most popular asset classes, many members have observed an increase in equity trading of retail investors. 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 because of the lockdowns and COVID-induced volatility, which allowed more investors access to 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 products providing exposure to market sectors or reference indices 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 breakdown of retail trading in different asset classes. The statistics that members have submitted are not homogenous. For instance, one item that is not clear from the survey responses is the proportion and origin 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.

Furthermore, several consultation respondents view digitalization, social media presence, and a more connected financial world as the driving forces for higher participation, especially from young investors.

As an overarching observation, consultation responses highlight the positive aspects of technology, while at the same time noting the various risks that come with it. The observable increase in investments can be a positive from a capital growth and financial inclusion perspective; however, there can be negative implications as well, such as an extreme push to unreasonably risky investments and notably less transparency of market conduct compared to that in more traditional markets. Relatedly, respondents support the restriction on retail investing/trading of certain products such as leveraged or short-term ones.

2.5. Increase in Retail Risk Appetite

Some IOSCO members have observed that retail investors are increasingly attracted to high-risk investment opportunities. 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. Based on some IOSCO members’ feedback, average retail investment size is small in general, however, as mentioned, the number of retail investors that are actively investing is high and increasing.[25]

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[24] Bitcoin, the crypto-asset with the biggest market share, has experienced a steady rise in popularity across the world. As one IOSCO member noted, crypto-asset industry participants can engage in cross-border trading, as regulators and governments discuss how best to regulate this segment of industry.

[25] According to FCA research Consumer Investments: Strategy and Feedback Statement, nearly 70% of consumers in the UK believe they can make investment decisions themselves, and only 8% had received financial advice in the last 12 months.

Moving to higher risk products in the search of yield may expose retail investors to conduct risks such as poor design and sale of poor value products, as well as fraud and market abuse.

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 COVID-19 pandemic macro-economic effects and geopolitical tensions have brought to the fore is 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)[26]
- **Vaccine news** (A short period of market volatility in November 2020)
- **Commodity derivatives and physical commodity market volatility** (January 2021, March 2022 onwards due to Russia-Ukraine conflict)[27]

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 prices 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 order flow; (3) trading in dark pools and wholesalers; and (4) the market dynamics of short selling.[28]

The RMCTF posed a specific question in its members' 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 many jurisdictions have not observed any such collective behavior.

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

27 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.

28 In December 2022, the US SEC announced proposed new rules and rule amendments related to equity market structure and best execution. See SEC Proposes Amendments to Enhance Disclosure of Order Execution, SEC Proposes Regulation Best Execution, SEC Proposes Rule to Enhance Competition for Individual Order Execution, and SEC Proposes Rules to Amend Minimum Pricing Increments and Access Fee Caps and to Enhance the Transparency of Better Priced Orders.

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, except for 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.[29]

IOSCO members have put in place various measures to address volatility, such as circuit breakers, ceiling and floor prices, short selling measures, and higher margin requirements, to mitigate the impact of extremely volatility on stock markets.[30]

2.7. Increasing Use of Leverage by Retail Investors

Leverage increases the sensitivity of an investor's margin to price movements in the underlying asset 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 may increase the probability of a larger loss to a greater extent than the probability of a larger gain for retail investors. This is a key risk that retail investors may not fully understand despite disclosures or written warnings.[31] Therefore, leverage is 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;
- The amount of investors who were borrowing to invest, margin trading, and margin loans advanced by brokers;
- 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.[32]

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[29] 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) in the United States, 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).

[30] 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.

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

[32] 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

Relatedly, it is also important to consider the tools and marketing practices used by firms. 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 advertisements.[33]

2.8. Hidden Revenues and Disclosure of Conflicts of Interest

In the context of brokers using hidden revenue raising mechanisms, one consultation respondent drew attention to the persistent conflicts of interest in investment firms, who design and offer retail OTC leveraged derivatives, such as CFDs, that are marketed and distributed to retail clients via the firms' own online OTC-trading platforms. There is a concern that conflicts of interests are not fully resolved yet, leading to potential adverse effects for retail investors, who often cannot assess the perceived arbitrary price setting mechanism, especially in CFD markets.

In addition, the concept of implicit costs in these markets may often not be clear to retail investors, when zero costs are implied or advertised. Some IOSCO members have noted that there is not always clarity and transparency on fees and charges, which should be clear and unambiguous. For example, these members have noted that there should be a consistent method for disclosing FX fees and inducements for instant settlement, which may charge higher fees. This issue is important as FX fees account for large proportion of revenue for many neo-brokers.[34]

Another relevant point highlighted by some IOSCO members was the impact of the increasing interest rate environment in many countries, which may impact retail investor returns in a negative way as they may erode against inflation. This happens when service providers do not offer interest on cash linked to the trading accounts, which in turn can make the effective cost of trading on the platform more expensive than the low headline rate may suggest.

2.9. The Rise of Self-Directed Trading

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.[35] The following are the core reasons reported to IOSCO for the increase in self-directed trading among retail investors:

- Short-holdings to benefit from intraday volatility;
- Quick/near instant account openings;
- Discounts in trading fees, and zero commissions;
- Availability and increasing use of mobile apps, and user friendly interfaces;
- Availability of analytical and execution tools;
- Influence of social media; and
- Emergence of neo-brokers[36] in certain jurisdictions.

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cases 1:400-500 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 to retail consumers 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.

33 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.

34 A neo broker is an investment service provider which offers its services primarily online (via a mobile app, for example). Typically, neo brokers also maximize the use of digital technologies to make processes more efficient. Neo brokers do not necessarily have to be licensed stockbrokers or banks.

35 For example, the UK FCA has noted increased ownership of investments, including shares and equities as well as unregulated products. They noted advancements in technology have increased the accessibility of retail investments.

36 Neo-brokers have recently emerged, mainly supplementing the services offered by established brokers. 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 and smartphone trading applications. Compared to established online

These trends may have resulted in inexperienced investors trading more and taking on risk outside their tolerance and beyond their financial capacity.[37] One of the main regulatory concerns is that the lowering of regulatory access thresholds for retail investors to invest in securities, and, as analysed below in section 2.11, the effects of gamification may not be accompanied by a proportional increase in financial consumer understanding. Financial education of retail investors has an important role to play in promoting investor protection, and it should also be noted, particularly in a context of weak regulation or supervision, or limited enforcement action. Therefore, regulators should also consider:

- whether relevant regulation has kept pace with market developments; and
- the role, behavior, and responsibilities of firms.

Importantly, advertising and marketing strategies, particularly by unregulated and non-supervised 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. The question arises whether such marketing strategies work in the best interest of their customers as should be expected under principles of financial consumer protection[38] and suitability standards (e.g. IOSCO report on Suitability Requirements with Respect to the Distribution of Complex Financial Products) or the regulatory requirements in place at the level of each jurisdiction. IOSCO members are closely watching gamification trends, and advertising and marketing strategies, particularly by platforms that offer trading in crypto-assets.

2.10. Payment for Order Flow

Payment for Order Flow (PFOF) is compensation that broker-dealers receive in exchange for placing trades and or routing orders with market makers and electronic communication networks, which aims to facilitate liquidity whilst also executing trades for a slight profit. One consultation respondent mentioned that, as evident in the GameStop incident, PFOF schemes might be harmful to investors and may warrant regulatory focus. PFOF continues to be a contentious topic and there are different views in different jurisdictions as regards to permitting PFOF.

The European Securities and Markets Authority (ESMA) raises concerns that PFOF recipients most likely do not comply with MiFID II, as the practice of PFOF would cause a conflict of interest between the broker and its clients.[39] Furthermore, Dutch AFM examined PFOF venues and found that 68-83% of trades by PFOF venues resulted in worse outcomes than other venues.[40] PFOF venues are banned in the Netherlands. Similarly, Spanish CNMV found that in 86% of the PFOF trades in their study, the prices offered to the clients were worse than in other venues.[41] German BaFin found that for small order volumes PFOF venues were predominantly beneficial. While BaFin shares ESMA's concerns, it does not favour

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".

37 For example, see the US SEC Staff's Joint Public Statement Regarding Complex Financial Products and Retail Investors, October 2020. See also, FINRA's Regulatory Notice reminding firms of their sales practice obligations for complex products and options and soliciting comments on effective practices and rule enhancements, May 2022.

Additionally, one market study in India shows that self-directed investors who began trading during a market run tend to mistake luck for skill and have increased risk taking.

38 The G20/OECD High-Level Principles of Financial Consumer Protection were first endorsed by G20 leaders on 3-4 November 2011 and adopted by the OECD Council on 17 July 2012. The Principles were developed in response to the call from G20 Leaders to enhance financial consumer protection, as part of the strategic response to the global financial crisis and sets out the elements of an effective and comprehensive financial consumer protection framework.

39 ESMA warns firms and investors about risks arising from payment for order flow, 13 July 2021

40 Assessing the quality of executions on trading venues, March 2022

41 Payment for order flow: an analysis of the quality of execution of a zero-commission broker on Spanish stocks, March 2022

an EU-wide ban.[42] In the US, the SEC staff highlighted their concerns that PFOFs would incentivize broker/dealers to incentivize retail traders via various methods to trade more frequently than they otherwise would. Further, SEC staff highlighted the potential conflict of interests.[43]

2.11. Digital Engagement Practices and Other Changes to Customer Experience

Firms have started to employ a variety of "digital engagement practices[44]" (or the so-called "gamification") 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.[45] 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.

Relatedly, a recent study [46] finds that push notifications lead to investors taking higher risks and that this attention-induced risk-taking especially affects younger and inexperienced investors. In addition, certain gamification techniques may incentivize retail investors to trade more often, which may not be aligned with retail investors' long-term investment goals.

In the U.S., the SEC 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 request was issued to develop a better understanding of market practices associated with the use of digital engagement practices by firms, provide a forum for market participants (including investors) and other interested parties to share their perspectives on the use of digital engagement practices and the related technological tools and methods, and to facilitate assessment of existing regulations and consideration of whether regulatory action may be needed. [47]

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.[48] ESMA published its final report on the European Commission mandate on certain aspects relating to retail investor protection on 29 April 2022. [49]

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. The harms posed by gamification

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42 https://www.bafin.de/SharedDocs/Veroeffentlichungen/DE/Meldung/2022/meldung_2022_05_16_PFOF_Studie.html

43 Staff Report on Equity and Options Market Structure Conditions in Early 2021, 14 October 2021

44 "Digital Engagement Practices" or "DEPs", include behavioral prompts, differential marketing, game-like features (commonly referred to as "gamification"), and other design elements or features designed to engage with retail investors on digital platforms (e.g., websites, portals and applications or "apps"), see US SEC's relevant Request for Information and Comments https://www.sec.gov/rules/other/2021/34-92766.pdf.

45 For instance, a common feature of the CFD industry has been to offer trading benefits (monetary and non-monetary), such as bonuses, gifts, tutorials or reduced costs to attract retail clients. These industry practices serve as a good example of gamification.

46 See Arnold M., Pelster M., Subrahmanyam M. G., 2021, Attention Triggers and Investors' Risk-Taking

47 See the U.S. SEC's Request for Information.

48 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.

49 See esma35-42-1227_final_report_on_technical_advice_on_ec_retail_investments_strategy.pdf (europa.eu)

may operate on a psychological level that may steer consumer decisions. Furthermore, to promote greater investor confidence, the proper framework of regulation, supervision, and enforcement, complemented by investor education and investor awareness, should be in place.

The FCA sees potential risks and benefits to self-directed trading and to tools used to enhance investor engagement (such as gamification techniques).[50] A potential risk is that these could incentivise gambling-like behavior that is inappropriate and may lead to poor outcomes for investors. Gamification could also drive investment behaviors that are not conducive to effective investment strategies, such as:

- trading too frequently (e.g., day trading); and
- “herd investing” (as has been observed with respect to certain US tech stocks).

Regulators should consider the types of customers drawn in by and attracted to gamification. As an interesting finding from IOSCO’s consultation, a related behavioral theme is *“regret in investing”*. Most investors at some point make investment decisions that they later regret.[51]

2.12. Self-Directed Trading

Many IOSCO members have 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. FX and crypto-asset trading were highlighted as the most popular, while self-directed trading is becoming popular.

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.[52] Following this review, SEC Staff will make appropriate recommendations to the Commission as to whether potential new rulemakings, guidance, or other policy actions should be undertaken.

Despite its cost reduction benefits for retail investors, some IOSCO members noted that lack of specific regulation on self-directed trading may lead to investor protection issues. Firms may be operating under existing regulatory structures or exemptions to offer products in ways, or to an extent, that may not have been envisaged. 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 also other examples);
- Marketing of zero-commission trading in US securities (subsidized by payment for order flow in some cases);
- Zero brokerage ETF trading - this is for buying only as brokerage is charged when the securities are sold;
- Copy trading, whereby several 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. Some additional key risks to retail investors when copy trading include but are not limited to:
  - An overreliance on an unlicensed Finfluencer’s trading strategy that loses money; whether due to a problematic strategy or a fraudulent pump & dump scheme;
  - Liquidity risk if the instruments traded on online trading platforms experience illiquidity amidst volatile markets;

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50 See https://www.fca.org.uk/publications/research/gaming-trading-how-trading-apps-could-be-engaging-consumers-worse

51 For example, in a previous trust study, the CFA Institute asked retail investors if they regretted an investment decision, and what action they took afterwards. Sixty-one percent of the respondents said they regretted a past investment decision. Of those, 39% took action by either hiring or replacing a financial advisor, 27% took action and stopped using an adviser, or became less trusting of the markets, and 34% did nothing.

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

- Unclear and opaque transaction fee structures associated with FX copy trades due to higher spreads and overnight fees[53]; and

- Some behavioral research underlines certain risks that may stem from the lack of comprehension of products by retail investors.[54] In this context, "choice architecture"[55] might be a significant factor in determining the decision-making process of retail investors.[56] Consequently, a specific architecture may induce retail traders to trade more frequently than they would otherwise or trade in ways that are adverse to their own risk-tolerance levels. Furthermore, a profit-maximizing broker might have incentive for complex pricing structures that retail clients struggle to understand.[57] This is an issue that fundamentally requires regulatory and oversight action, complemented by effective enforcement and, to some extent, investor education.

2.13. Increased Greenwashing Risk

Greenwashing can occur throughout an investment value chain. Greenwashing erodes the needed trust in disclosures for sustainable finance products, including trust in the retail segment.

In November 2021, IOSCO published two sets of recommendations aimed at addressing greenwashing, one in the asset management space, and the other one on ESG rating and data providers in which IOSCO called for oversight of ESG rating and data providers. These were followed by a Call for Action in November 2022 to raise awareness among voluntary standard setting bodies and industry associations to promote good practices amongst their members stemming from the IOSCO recommendations.[58]

The IOSCO report on Retail Investor Education in the Context of Sustainable Finance Markets and Products, (31 August 2022), indicates that securities regulators have increasingly focused on whether sustainable finance claims are accurate and if investors have the information they need to evaluate sustainable finance products. To make informed decisions, retail investors need to understand the characteristics of such products. Accordingly, the report identifies some of the main challenges and sound practices for developing educational content on these matters, informing investors of the features and risks of sustainable investments, and fostering educational activities that create the conditions for better protecting and informing retail investors on the opportunities and risks related to sustainable finance products. The report describes educational activities that regulators should consider, taking into account the level of sustainable finance and retail investor participation in their markets. This includes, for example:

- explaining to retail investors how to obtain sustainability-related information and to search and understand whether the offered product(s) matches their sustainability-related preferences; and

- supporting initiatives of market participants to help retail investors understand ESG certifications, labels and scores regarding the financial products offered to individuals and

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53 Overnight fees are often calculated by inter-bank offered rates (interest rates banks charge to other banks for borrowing money e.g., LIBOR) plus a markup that's determined by the copy trading platform.

54 Lunn P., McGowan F., Howard N.,2018, *Do some financial product features negatively affect consumer decisions? A review of evidence*, ESRI Research Series 78

55 The presentation of choices in different ways will impact decision making. As IOSCO defines the term: "Choice architecture is the different ways in which choice can be presented to consumers. The way the choice is presented, thus changes consumer choice". See IOSCO Report on Retail Distribution and Digitalisation.

The term choice architecture was first used by Richard Taller, the Nobel Prize winning behavioural economist for his "nudge theory", to describe how insights from behavioural economics could be used to influence choices, without changing their objective values.

56 Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press

57 Carlin, B. I. (2009). Strategic price complexity in retail financial markets. Journal of Financial Economics, 91(3), 278-287

58 IOSCO's Sustainable Finance Task Force work stream on Promoting Good Practices published a Call for Action in November 2022 containing the recommendations issued by IOSCO in the reports published in November 2021. See, Call for Action (IOSCO Good Sustainable Finance Practices for Financial Markets Voluntary Standard Setting Bodies and Industry Associations)

encouraging and/or facilitating training that helps financial advisors better understand greenwashing and how to protect investors against unsubstantiated or misleading sustainability claims.

In this context, the report highlights three objectives for financial education on sustainable finance:

- First, raising awareness. Different surveys have highlighted that not all retail investors are aware of the availability of different sustainable finance products (and in some cases they do not know what ESG stands for). In other cases, retail investors need to be aware of the risks and opportunities associated with sustainable investments.

- Second, enhancing understanding. The current situation characterized by the lack of a common language, definitions, labels, metrics, etc., is a given that should not refrain regulators from taking action. Raising awareness on the current situation is a first step, but regulators should also help retail investors understand what sustainable investments are, where to find basic information on sustainable finance products, what to expect from a sustainable finance product, and how to mitigate the risk of greenwashing, among other useful points to be considered by retail investors.

- Third, translating awareness and understanding into informed decision-making. Financial education could support better financial decisions by helping retail investors identify opportunities and mitigate risks.

The report complements other IOSCO efforts in this area, including the work of the Sustainable Finance Task Force (STF), which has recommended that "Securities regulators and/or policymakers, as applicable, should consider promoting financial and investor education initiatives relating to sustainability, or, where applicable, enhance existing sustainability related education initiatives" (IOSCO Report on Recommendations on Sustainability-Related Practices, Policies, Procedures and Disclosure in Asset Management", November 2021).

CHAPTER 3 - DIGITALIZATION, SOCIAL MEDIA AND RETAIL TRADING

- **Increasing influence of social media on retail trading decisions creates increased vulnerabilities around fraud risk.**
- **The hype around and increase in crypto-asset investment among retail investors exacerbates the impacts of various suitability issues, fraudulent platforms and scams that may result in retail harm.**
- **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 crypto-asset and so-called DeFi market.**
- **Inappropriate online marketing and "Finfluencer" activity exacerbate retail conduct issues and vulnerabilities.**

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 the benefit of 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 which suggests it may be helpful for regulators to continue enhancing their actions, including through investor education initiatives, to promote a stronger base of informed investors with sound attitudes, approaches and behaviors).

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 spot markets for crypto-assets that are not securities, may further exacerbate the potential risks. Taken together, these risks may create an environment where retail investors can incur losses exceeding their risk-tolerance levels.

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 potential misinformation, market manipulation and unsuitable investments. Many IOSCO members responding to the survey have observed the increasing use of social media or online platforms in promoting scams via sophisticated ways to target retail consumers.[59]

Easy use and access to mobile trading apps and online platforms, as well as overreliance on search engines to conduct research that forms the basis of retail investment decisions are other factors that may steer retail investors to self-directed, and in some cases, uninformed decisions. Furthermore, the risk of relying on non-formal advice/information exists across a range of non-formal sources including family and friends, and professionals on the fringe of formal advice, in addition to the Finfluencer activity.

Unauthorized firms frequently target the most vulnerable members of society, as technology can make it easier 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.

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[59] For example, the HK SFC has observed that an increasing number of retail investors have fallen victim to pump 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 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).

While stakeholders mention the positive aspects of digitalization and social media, they also raised concerns about the various accompanying issues discussed below. Social media-based trends may have various supervisory implications and increased vulnerabilities against fraud risk.

Chapter 3 analyzes risks from a technology perspective in general, and social media more specifically, and how technology 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.[60] The main reasons for the exponential increase in retail interest in crypto-assets are highlighted as ease of accessibility to crypto-asset trading (small investment permissible); 24-hours online trading; hype phenomenon; Fear-Of-Missing-Out (FOMO)[61] and low returns from traditional asset classes.

IOSCO is engaging in detailed analyses of trading platforms, intermediaries, and the role of retail investors. IOSCO has dedicated international coordination groups such as IOSCO's FinTech Task Force (FTF) whose Crypto and Digital Asset (CDA) and Decentralized Finance (DeFi) workstreams aim to analyze and respond to market integrity and consumer protection issues in the crypto-asset space.

IOSCO members have highlighted the risks for retail investors in crypto-assets, including the following:

- Unsuitability for most retail investors due to lack of underlying value and high price volatility;[62]
- Trading without basic investor protection;
- Security breaches, possibly leading to loss of investors' crypto-assets; and
- Fraudulent activities and scams related to crypto-assets. [63]

This report has identified certain areas of concern in the crypto-asset market affecting retail investors. IOSCO is engaging in comprehensive analysis that will include investor protection concerns. In response to the consultation report questions, some IOSCO members have noted that, popular unbacked 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 the exception of some stablecoins[64], also have high volatility. Given the risks involved with crypto-assets, they may be unsuitable for most retail investors. There is also opacity in price discovery of crypto-assets and financial instruments based on

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60 Recent studies reveal that the emerging investment shift towards crypto-assets have resulted in more than 200 million crypto-asset holders worldwide by the beginning of 2022. The UK FCA reported an increasing number of enquiries to its helpline about potential crypto-asset scams. See UK FCA's Consumer Investments: Strategy and Feedback Statement. Bloomberg reported that "Wounds from Bitcoin's 70% plunge since its November highs of around $69,000 are still fresh. Coinbase said as part of its second-quarter earnings announcement that its core retail customer has been less active and is sitting on the sidelines".

61 FOMO is regularly advertised on social media platforms, such as Facebook, Reddit Forums, and is often quoted by Finfluencers who market investments in crypto-assets as a 'life changing' investment opportunity.

62 CBoI published a Consumer Warning on Virtual Currencies in April 2021, warning consumers about the risks of buying or investing in crypto-assets, including so-called 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 directly or through financial CFDs and/or certificates that track the price of crypto-assets.

In April 2021, Consob and Bank of Italy warned against risks inherent in crypto-assets, addressing in particular small savers.

63 See March 2022 ESMA warning: https://www.esma.europa.eu/press-news/esma-news/eu-financial-regulators-warn-consumers-risks-crypto-assets

64 Stablecoins are marketed as having less price volatility than other crypto-assets and could be pegged to and/or backed by particular assets, algorithmically controlled or have their value float freely. It should be noted that several currently traded stablecoins are not "backed" by reference assets and stablecoin holders are not entitled to redemption (at face value) OR01/2020 Global Stablecoin Initiatives (iosco.org)

crypto-assets[65] and poor transparency and unclear disclosure obligations for crypto-asset platforms that issue tokens to facilitate trading on their respective platforms. Retail investors who use crypto-asset platforms should be able to verify that their crypto-assets stored within the platforms' hot-wallet are redeemable on demand and are available as displayed on a one-to-one basis, as preferably verified by an independent audit, such as an External Statutory Financial Audit.[66] Following the collapse of crypto-asset platform FTX, such disclosures will be important to ensure that tokens issued by crypto-asset platforms that are offered to retail investors are redeemable, should a crypto-asset platform face a liquidity crisis and that investors are fully aware of their rights to such tokens and whether those rights are unencumbered. [67]

Many crypto-asset activities and markets currently operate in non-compliance with applicable regulations or are unregulated. In some jurisdictions, crypto-assets may qualify as securities, derivatives or other regulated financial instruments, while in others, crypto-asset activities may fall outside of the regulatory perimeter. Even where crypto-asset activities fall within the existing regulatory perimeter, market participants may be operating in non-compliance with applicable regulations. As a result, although some countries have put in place national frameworks to limit the risks,[68] 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.).

In response to the public consultation, one stakeholder informed IOSCO that it conducted research of professionals who are licensed investment advisers and they informed that 55% of their clients are asking about advice on crypto-assets, however only 9% of these licensed professionals are providing such advice. When asked about the top two reasons for not providing advisory services, these professionals drew attention to the following: 1- Their licensee / firm / employer does not permit them to provide advice (39%); and 2- This is not an area on which they want to provide advice (35%). When the reasoning was broken down, the issues and concerns mentioned were the following:

- Crypto-assets are not a regulated financial products, therefore the professionals would be acting outside of regulation;
- There is no professional indemnity insurance to protect the professional on their advice; and
- The employer firm does not permit giving investment advice, meaning the professionals do not also have protection from the employer.

This feedback highlights another important problem with the crypto-assets markets currently. Without access to professional advice mainly due to non-compliance in some jurisdictions, and lack of regulation and a regulatory framework in others - retail investors are relying on other forms of information to buy crypto-assets, often influenced by parties who do not have appropriate qualifications, professional

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65 In August 2022, ASIC released REP 735, which examined retail investor motivations, attitudes and behaviors in the period following the onset of the COVID-19 pandemic. One of the topics explored involved retail interest in crypto-assets. Of the 1053 retail investors surveyed, 44% reported holding crypto-assets, making them the second most common product type held after Australian shares at 73%. A quarter of surveyed investors who reported holding crypto-assets indicated that cryptocurrency was the only investment they held. The research also showed that, after bank trading platforms (used by 31% of surveyed investors), the three most used platforms all specialized in crypto-assets. Only 20% of survey participants who were crypto-asset owners considered their investment approach to be 'risk taking'.

On October 19, 2022, the Ontario Securities Commission published the results of an online survey of 2,360 Canadians, available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.osc.ca/sites/defa ult/files/2022-10/inv_research_20220928_crypto-asset-survey_EN.pdf. The survey found, among others, that 13% of Canadians currently own crypto-assets or crypto-asset based funds. Half of crypto-asset based investment funds were reported to be under $10,000 and just over half of crypto-assets (53%) were under $5,000. The survey also found that the Canadian's knowledge of an experience with crypto-assets or crypto-asset based funds was limited.

66 See CoinSpot - The First Australian Cryptocurrency Exchange to complete an External Statutory Financial Audit – CoinSpot (zendesk.com)

67 See FTX and Binance's ongoing saga: Everything that's happened until now (cointelegraph.com)

68 For example, France introduced the PACTE regime in May 2019 for ICOs and CASPs operating in France.

obligations, or regulatory oversight to support them making appropriate investment recommendations or acting in the interests of the product purchaser.[69]

Additionally- mainly due to non-compliance in some jurisdictions, and lack of regulation and a regulatory framework in others - 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, creating additional challenges to bringing enforcement action against bad actors or protect investors who are defrauded or scammed. It also lacks trading transparency, application of consistent trading rules or standards, and regulated intermediary involvement. These are important issues that IOSCO is engaged in studying in a comprehensive manner (See Section 3.2 – IOSCO Crypto-Asset Roadmap).

To date, jurisdictions have taken actions affecting crypto-asset markets. In the EU, European Authorities prepared the Markets in Crypto Assets regulation bill (MiCA)[70], which will address various aspects of the aforementioned issues, including licensing requirements, supervision of crypto-assets service providers and infrastructure (such as trading platforms), disclosure requirements for all crypto-asset issuers and investor protections requirements for issuances of so-called "stablecoins", amongst others. On 5 October 2022, the European Parliament's Committee on Economic and Monetary Affairs (ECON), has approved MiCA framework[71] in a vote of 28 in favour and one against. Following the MiCA vote, the Committee also overwhelmingly approved a provisional deal on the Transfer of Funds Regulation (ToFR) - an anti-money laundering bill that obliges transfers made in crypto-assets to include data on the payer and payee. Both MiCA and ToFR are anticipated to be voted on by the full European Parliament in February 2023[72]. After this, a 12-to-18-month rulemaking process starts with guidelines on implementation of the new laws set to be completed sometime in 2024.

Other jurisdictions have brought enforcement actions to address the non-compliance in the crypto-asset markets. The US SEC, for example, has brought more than 100 such cases to date, involving violations of the US federal securities laws by a variety of crypto-asset market participants. Recent cases include charges against the individuals involved in the creation of Trade Coin Club, a fraudulent crypto Ponzi scheme that raised more than 82,000 bitcoin, valued at $295 million at the time, from more than 100,000 investors worldwide; against Bloom Protocol, LLC, for conducting an unregistered initial coin offering of crypto-asset securities; against a former Coinbase product manager, his brother, and his friend for insider trading ahead of multiple announcements regarding certain crypto-assets that would be made available for trading on the Coinbase platform; and against Kim Kardashian, for touting on social media a crypto-asset security offered and sold by EthereumMax without disclosing the payment she received for the promotion. The SEC maintains an ongoing list of enforcement actions relating to crypto-assets on its website.[73]

In October 2022, the Financial Stability Board (FSB) published a proposed framework for the international regulation of crypto-asset activities. The core components of this framework are proposals for:

69 In fact, this concern is evidenced from this industry body's survey, where 62% of investment advice professionals responded that they have clients who had suffered a financial loss from purchasing a complex product, such as crypto-assets, and 90% of those clients that suffered a financial loss did so without the benefit of having received professional financial advice. In other words, these clients acted as self-directed investors or based on the recommendations of social media influencers, friends or family.

70 EUR-Lex - 52020PC0593 - EN - EUR-Lex (europa.eu)

71 AG (europa.eu)

72 See EU Delays Vote on MiCA Crypto Legislation Until February (coindesk.com)

73 See SEC.gov | Crypto Assets and Cyber Enforcement Actions.

- Recommendations that promote the consistency and comprehensiveness of regulatory, supervisory and oversight approaches to crypto-asset activities and markets and strengthen international cooperation, coordination and information sharing; and
- Revised high-level recommendations for the regulation, supervision, and oversight of "global stablecoin" arrangements to address associated financial stability risks more effectively.

The proposed recommendations are grounded in the principle of "same activity, same risk, same regulation": where crypto-assets and intermediaries perform an equivalent economic function to one performed by instruments and intermediaries of the traditional financial sector, they should be subject to equivalent regulation. Regulation should also take account of novel features and specific risks of crypto-assets and address potential financial stability risks that could arise from the growing interlinkages between the crypto-asset ecosystem and the traditional financial system.

High regulatory standards should apply to crypto-assets – such as stablecoins – that could be widely used as a means of payments and/or store of value, as they could pose significant risks to financial stability. The proposed revisions high-level recommendations for the regulation, supervision, and oversight of "global stablecoin" arrangements strengthen the requirements for users' redemption rights and for a robust stabilisation mechanism.

3.2. IOSCO Crypto-Asset Roadmap

IOSCO´s Crypto-asset Roadmap includes two important workstreams. The first covers "Crypto and Digital Assets", while the second covers "Decentralized Finance". Both workstreams will primarily focus on analysing and responding to market integrity and investor protection concerns within the crypto-asset space. IOSCO´s work will be channeled into the FSB's financial stability agenda through close and continuous engagement with relevant workstreams. IOSCO's consultation with its membership revealed there is a need for international coordination through groups such as IOSCO's FinTech Task Force, in light of the trend of increasing market interest in crypto-assets and their cross-border nature.

3.3. 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 IOSCO members. One emerging technological area that may be a source of emerging risks is the growth of DeFi[74]. DeFi seeks to replicate traditional financial (TradFi) product and services, but DeFi market participants currently are acting outside of, or in non-compliance with, regulatory frameworks.

The revolutionary aspect of DeFi is to attempt to disintermediate and decentralize legacy ecosystems by eliminating the need for some traditional financial intermediaries and centralized institutions. Many of the financial products, services, arrangements, and activities in DeFi mirror, and in some cases overlap with, more traditional securities and derivatives products, services, arrangements and activities. In addition to certain novel risks, the same traditional risks, such as credit, liquidity, operational, also exist in the DeFi eco-system. Therefore, understanding the risks emanating from digital-assets requires an understanding of the regulatory implications arising from DeFi and requires analyzing the totality of the DeFi ecosystem, its interrelationship with centralized crypto-asset trading platforms and service providers and traditional markets and activities. DeFi may present challenges to the traditional approach to financial regulation, given novel risks arising because of the technology used, such as the manipulation of the consensus mechanism. However, 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 exist 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, investors and other market participants may generally lack investor protections and other types of protections (such as against cyber risk), and are subject to greater risk of fraud with limited ability for redress, either through private means or government enforcement. Hence, investors may not enjoy the kind of regulatory guardrails or protections that one might expect in comparison to similar regulated traditional products.

[74] DeFi commonly refers to the provision of financial products, services, arrangements and activities that use smart contract provisioned "DLT" (distributed ledger technology).

Public reports 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. The quality of the code used in DeFi self-executing smart contracts may need to be subject to rigorous technical audits to ensure that they are fit for purpose for retail investor use. Due to the structure of DeFi products and services, there is also additional potential for investor harm due to more important operational risks inherent to the blockchain technology.

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

3.4.1. Social media influence and risks

Over the last decade, social media has become increasingly integrated into the retail investing landscape. Whether they are looking for them or not, users of social media can be presented with many investment opportunities on social media, which may give them easy access to investments that might be unsuitable, misleading or fraudulent.

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 relying on registered advisors with knowledge and expertise of trading in markets.[75]

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 to exchange investment tips and trading strategies. 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 these platforms and others (including Facebook and TikTok) to learn of and research what they view as investment opportunities. The use of social media by registered entities, if done responsibly, has the potential to provide important information to a new demographic of investors that access these channels, however current use, unfortunately, is characterized by overly promotional and unbalanced information. Social media's influence on the decision-making process of retail investors is broad and varied.[76]

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 the retail segment;[77]
- 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' and 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;

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[75] ASIC's REP 735 discovered that investors are using digital channels and social media platforms to source information on investing, rather than conducting thorough due diligence prior to making investment decisions.

ASIC recently released its REP 735 report on retail investors motivations, attitudes and behaviors, which found that the most accessed social media sources of information for retail investors were 'YouTube' (20%), 'Facebook' (11%), 'podcasts' (10%) and 'financial influencers (e.g., on social media)' (10%). When investors were asked whether they had noticed any advertisements about investing across a range of channels over the last six months, 69% recalled seeing something, with YouTube (28%), Facebook (23%) and Google advertising (22%) being the most recalled advertising channels.

[76] For example, Quebec AMF reported on the results of a recent survey on 'The Fear of Missing Out' (FOMO) that found young people consider social media a good source of investment information.

[77] 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).

- 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.

3.4.2. Increasing influence of Finfluencers and celebrities on social media

Various IOSCO members noted the increasing influence of "celebrities", "influencers" and "Finfluencers"[78] 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[79], 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 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. Such use may also allow misconduct to thrive unchecked in unregulated spaces. 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.

- The conclusions of an exploratory study[80] by the Dutch Authority for the Financial Markets (AFM) into more than 150 Finfluencers presented the following findings and reminded Finfluencers and brokers of the rules:
- Finfluencers make investing more accessible, but do not always put the interests of their followers first;
- There are few Finfluencers who post neutrally, and transparency is often lacking;
- There is a risk that investment advice is provided without a licence to do so; and
- Some Finfluencers promote risky products.

3.5. 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 using social media, communication is not generally supervised by financial regulators. Since the onset of the pandemic, this trend has continued. 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,[81] various IOSCO members responded that they observed aggressive marketing practices via social media and sales techniques that are not in clients' best interests. Members also reported instances of misleading marketing such as the use of sponsorship arrangements or

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78 Finfluencers offer information and tips about investing via social media. They reach their audience through various channels such as YouTube, Instagram, Facebook, Twitter, Spotify and websites. They share knowledge of investing or discuss their investment portfolios, but also offer services ranging from training, courses and meetings to subscriptions to a restricted online community. In some cases, influencers recommend followers to become clients of a particular investment firm. See, The pitfalls of 'finfluencing', Dutch AFM.

79 For example, the US SEC charged a celebrity for touting on social media a crypto-asset security without disclosing the payment she received for the promotion, serving as a reminder to celebrities and other influencers to avoid breaching federal securities laws through promotional activity. The celebrity agreed to settle the charges, pay $1.26 million in penalties, disgorgement, and interest, and cooperate with the Commission's ongoing investigation. SEC.gov | SEC Charges Kim Kardashian for Unlawfully Touting Crypto Security

80 Ibid 75.

81 See Report on Retail OTC Leveraged Products and Report on Cross-Border Distribution and Digitalization.

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.[82]

Similarly, the IOSCO Roundtable feedback highlighted the increasingly sophisticated methodologies in the marketing sector in the form of dark patches, for instance in crypto-asset space, where one side has better knowledge than the other. This is an integration of cognitive science in financial markets, that when accompanied by unique macro environments retail investors are investing in and the impact of COVID-19 pandemic, have led to new problems which may exacerbate retail conduct issues from a regulatory perspective.

Proliferation of sources of information and how retail investors get information from different platforms is another important area. Some respondents noted that financial advice blogs, unlicensed celebrity and Finfluencer endorsements or testimonials on social media, discussion on messaging groups, and marketing and sales techniques (e.g., Google or Facebook ads) for high-risk products all may overwhelm retail investors. This list of sources can be extended to other sources of online information such as government websites, financial information provided by banks or other regulated financial institutions, and comparison websites.

For example, in recent years, the FCA has taken steps to improve the marketing of high-risk promotions to retail consumers. The FCA has limited powers over many issuers of high-risk investments because firms offering these products are often not carrying on regulated activities when they issue an investment product. However, the FCA can make financial promotion rules on how they market their investments. These apply when an authorised firm approves or communicates the financial promotions related to those investments. To enforce their financial promotion rules and effectively protect consumers, the FCA has to monitor financial promotions online.[83] This allows the FCA to identify and act against non-compliant financial promotions, firms or individuals advertising services which they are not authorised to provide, or investment scams. The FCA seeks to disrupt these activities by issuing consumer alerts and taking steps to remove websites.[84,85]

Various IOSCO members noted that social media may promote excessive speculation, and lead to investment that is not based on fundamentals. 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, advertisements that make false or misleading claims and scams that 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 opinions and recommendations on certain stocks and trade against these recommendations to gain illegal profits;

82 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.

83 The FCA worked closely with online platforms to ensure they do more to deliver on their public commitments to stop harm from online advertising. For example, since their engagement with Google and the introduction of their new financial services advertisement policy, the FCA has seen a significant reduction in non-compliant paid for advertising by unauthorized entities on their platform.

84 In 2021 the FCA published 1,410 consumer alerts about unauthorized firms and individuals, an increase of 18% from 2020. Just under 30% of these alerts related to 'clone scams', and many of them related to breaches of financial promotions restrictions online.

85 In its Perimeter Report 2020/21, the FCA noted that unauthorized entities were increasingly relying on exemptions in the Financial Promotions Order (the UK's legislation in this area) relating to 'high net worth' and 'sophisticated' investors to market high-risk investments. The FCA saw evidence that strengthening its financial promotion rules had resulted in more unauthorized issuers using, or purporting to use, the exemptions to target ordinary consumers with high-risk investments and scams. The FCA saw evidence of unauthorized firms abusing these exemptions by coaching ordinary consumers to self-certify. Investors who do not meet these tests are being 'pushed' through them, often by unregulated firms.

- Some unsupervised companies or digital platforms that also 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.[86]

3.6. IOSCO Members' Views on the Overall Impact of Social Media on Retail Investors

Overall, the impact of social media on retail investor behavior 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 behavior and decisions. In Chapter 7, IOSCO further considers what regulatory tools some regulators may adopt in considering frauds and misconduct related to social media and other emerging risks.

Many consultation respondents have stated that a direct and close collaboration with social media platforms could play a vital role, particularly in assessing the efficiency of different engagement methods with retail investors. Some members went one step further by suggesting the imposition of certain investor protection related obligations on internet companies. For example, the FCA has contributed to the discussion around the UK's Online Safety Bill. In its Perimeter Report 2021/22, the FCA welcomed the UK Government's announcements that the bill would include a duty on the largest online platforms to protect consumers from fraudulent paid-for advertising while designating content relating to fraud offences as 'priority' illegal content.

86 For example, as an interesting fraud pattern, in "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 to be prevalent recently in certain jurisdictions http://www.kokusen.go.jp/e-hello/news/data/n-20200213_2.html.

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

- **Retail fraud is on the rise. 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 and help them reach a wider target audience and enables them to engage in regulatory and supervisory arbitrage to attempt to evade detection and prosecution.**
- **While fraudsters continue to use traditional means to perpetrate fraud (increasingly via internet and use of technology), novel forms of crypto-asset or technology-based fraud are increasing. Such fraud is mostly based on impersonation and the use of behavioral techniques on the retail segment, whereby fraudulent activities are accompanied by intense digital marketing and promotions.**
- **The threat of fraudulent behavior from external actors outside national borders continues to be a persistent global problem. There is a role for IOSCO to address some of the issues that regulators face regarding cross-border online fraud, by trying to map the common issues and look for ways for greater cross border co-operation.**
- **The regulatory hook or arbitrage problem, legal issues presented by cross-border activity and the lack of data on online cross-border transactions complicates regulatory action when products are offered on a cross-border basis by firms located in other jurisdictions. This in turn makes supervision and enforcement of cross border cases challenging. More cooperation among jurisdictions may help address these issues.**
- **A revised and holistic regulatory approach may be necessary against online and cross-border fraud. Regulators should consider working with domestic and external actors, and importantly, with service providers and online platforms to combat against retail fraud.**
- **Regulators should consider redress mechanisms for expedited recovery of retail losses.**

Background

This Chapter builds on the description of the recent retail trends set out in Chapters 2 and 3. 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 two years.[87] This coincides with the COVID-19 pandemic.

Interacting factors, such as the pressures of the current pandemic on investors, individual economic hardships, recent volatility episodes, increased use of synthetic leverage by retail investors, and technological developments might have all contributed to the increased levels of fraud and created opportunities for fraud to occur. Particularly, some of the technological developments analyzed in Chapters 2 and 3 seem to have enabled the emergence/proliferation of some new fraud and scam techniques. [88]

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[87] To quantify 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.

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

4.1. Most Observed Frauds and Scams

The consultation feedback highlights the emerging trends and evolution in retail fraud, with a focus on new developments in fraudulent practices in retail markets.

Respondents mainly described and classified two types of persistent frauds, both of which may have an online element:

- Traditional types of frauds, such as Ponzi schemes and unauthorized payments; and
- New forms of crypto-asset or technology-based fraud committed via technological channels (based on impersonation and the use of behavioral techniques on the retail segment).

Based on membership and stakeholders feedback, this chapter presents the most commonly observed fraud types and patterns[89], which are the following:

4.1.1. Traditional types of fraud

Misleading information/promotional material and pump and dump schemes: This fraud pattern continues to be a persistent problem in many jurisdictions, as also highlighted in the short-term report. Information-based manipulation cases (dissemination of false or misleading information that is relevant to the value of the respective financial instrument) accompanied by pump and dump schemes are commonly observed. [90] 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.

Ponzi/pyramid fraudulent schemes: Fraudsters target retail clients with little to no experience to invest in a product, often related to FX or crypto-asset trading, with the promise of high profitability through large investments. The cash flow from new investors is used to pay earlier investors. Products can be online courses or token-like products which only work if the victim lures in further victims to pay in.

Fake/imitation trading platforms, unauthorized payments and impersonation: As highlighted in the Retail OTC Leveraged Products Report[91], there is an increase in the number of unauthorized investment firms providing investors with access to imitation 'trading platforms' which are essentially staged '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, leaving no obvious trace. Fraudsters sometimes encourage clients to install a program that supports transactions. In fact, this activity is used to steal funds from clients' personal accounts Fraudsters also impersonate trusted entities such as regulators to spread false information about their products to potential victims.

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89 In its 2021 annual report, AMF France identified the top themes of requests related to non-regulated entities reported to AMF Epargne Info Service helpline as crypto-asset investments, FX investments, and fake investments. Identity theft targeting French and European investment services providers, financial investment advisers and asset management companies continued to make up 27% of requests related to non-regulated entities and become a more common form of scam. See, https://www.amf-france.org/sites/default/files/private/2022-07/AMF_RA21_EN_0.pdf (p.55).

UK FCA's Consumer Investments Data Review (April-September 2021) identifies the main fraud types as reported to the FCA's Consumer Helpline to be boiler rooms, cryptocurrency scams and FCA impersonation scams. During this period, about 25% of the alerts issued about unauthorized firms or individuals related to clone firms.

90 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. The offeror does not own the shares and only uses the name of the well-known firm to lure investors.

91 Report on Retail OTC Leveraged Products, September 2018.

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 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.[92] 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.[93]

Unauthorized/fraudulent online platforms/scams offering FX or retail OTC leveraged product: This fraud pattern occurs predominantly online and is prevalent on social media, such as Instagram. Unregulated/Unauthorized intermediaries mostly located overseas are targeting foreign investors, offering them the chance to trade complex financial instruments, such as FX 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 up to a shifting point where the account is suspended and all communications are shut down.

4.1.2. Novel types of crypto-assets and technology based fraud

In the overall scheme of frauds, the fraud patterns that cause the most harm remain "online scams". For the wrongdoers, they are low risk, high volume and enable them to remain largely disguised.[94] Respondents have identified unregulated entities and Finfluencers as driving forces behind this type of fraud.

Crypto-asset scams: Despite a recent downturn, significant rises in the market values of crypto-assets have made this market segment a ripe target for scammers. Crypto-assets and related products are highly speculative and volatile. Additionally, crypto-asset trading platforms may be acting outside of, or in non-compliance with, regulatory regimes. These in turn may give rise to various retail investor protection issues. For example, one recent notable type crypto-asset scam is the "rug pull scam"[95]. Rug pull scams often involve scammers promoting or "pumping" up a new crypto-asset, DeFi protocol, or NFT-related project to get funding before disappearing with investors' funds. Malicious developers often exploit the ability to raise funds under pseudonymous identities and introduce 'bugs' or flaws that create 'backdoors' into the code of self-executing smart contract protocols to steal user funds and perpetrate exit scams.

92 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.

93 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).

94 From FCA's Consumer Investments Data Review (April-Sep 21), the main fraud types reported to the FCA's Consumer Helpline are boiler rooms, cryptocurrency scams, FCA impersonation scams, recovery room scams, FX scams and advance fee fraud. Cryptocurrency, pension transfers, bonds and FX were the most reported products or opportunities reported to FCA's ScamSmart website. Reports about cryptocurrency to ScamSmart were up 49% on the previous 6 months. During this period, the FCA issued 735 alerts about unauthorized firms or individuals; around 25% of these related to clone firms

95 Rug pull scams accounted for $2.8 billion in lost money for victims, or approximately 37% of all crypto-asset scam revenue in 2021 according to a 2022 Chainanalysis report.

Updated 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 fraudulently offered, securities. Here, fraudsters use direct scams or, alternatively, re-direct investors to another website where they conduct the fraud. The scam product typically does not entail the advertised features or is a completely made-up product. Oftentimes, fraudsters use cold-calling strategies using various communication channels. Furthermore, fraudsters may use a "recover room" scam subsequently, where the perpetrator pretends to be a credible company, helping the victim to recover her losses for an upfront fee.

Social media scams: Fraudsters, displaying themselves as financial influencers, use social media to engage with the victim to make illicit profits. The perpetrator recommends unsuitable products such as CFD's to the victim or lures the victim into transferring money into the fraudster's account.[96]

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

- Unauthorized online portfolio management activities; and
- So-called "initial coin offerings" or "ICOs".

4.2. Fraudulent Activities Are Accompanied by Digital Promotions and Online Marketing

Most of the time, the 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,[97] 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.

4.3. Regulatory Approach to Online Fraud

Fraud cases have been increasingly conducted by the exploitation of online platforms. The protection of investors from illegal online scams may be strengthened through clear obligations in legislation, where possible.[98]

Fraudsters quickly find gaps in the law and exploit them. That is why regulatory programs (e.g., UK Online Advertising Programme) should consider a holistic review of the regulatory framework, including not just platforms, but the role of all actors across the entire advertising supply chain. This includes advertisers, platforms and publishers (who provide the advertising space) and intermediaries (who connect advertisers and platforms/publishers). Thus, collaboration with third-parties, such as webhosts and social media companies, which in certain cases can be used in the marketing of financial scams, can be an effective and beneficial tool in deterrence of misconduct.

Some respondents, who have the authority to do so, proposed facilitating whistleblowers' ability to report frauds and having regulators enhance their monitoring of brokerage services. IOSCO members might benefit from further discussions and areas for potential collaboration concerning regulatory and or supervisory arbitrage as an enforcement concern.

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96 Retail Market Conduct Task Force Consultation Report, March 2022. As another example, the US SEC announced charges against eight individuals in a $100 million securities fraud scheme in which they used social media platforms to manipulate exchange traded stocks. See https://www.sec.gov/news/press-release/2022-221.

97 These services offer a possibility of accessing securities to carry out various operations (e.g., stock exchanges, CFDs, FX, 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".

98 In this context, the UK Government's forthcoming Online Safety Bill (OSB) is expected to address online fraud. It will impose broad duties on providers of user-to-user and search services, including to assess, mitigate and manage the risks of harm to users from illegal content on their platforms. Furthermore, the largest platforms will need to put in place proportionate systems and processes to prevent fraudulent paid-for advertisements being published or hosted on their service.

Regulatory and supervisory arbitrage remains a significant source of harm to society as a whole and diminishes the effectiveness of members' enforcement actions. This is an issue of particular relevance in the context of online marketing and digitalisation, as perpetrators of online illegal activities tend to take advantage of regulatory gaps and differences through scams or shell companies deliberately located in less-regulated jurisdictions. In such cases, IOSCO members may not have jurisdiction over the individuals/entities engaged in the misconduct, or the products being marketed online, and/or are unable to obtain critical information needed in response to a request for assistance from a foreign regulator. In order to address the regulatory arbitrage problem, the Report on Retail Distribution and Digitalisation recommends additional efforts to address regulatory and supervisory arbitrage, whereby IOSCO members could consider additional efforts to address regulatory and supervisory arbitrage in the interest of facilitating international enforcement cooperation and enhancing investor protection on a global scale.[99]

4.4 Cross-Border Fraud - Issues and Challenges

4.4.1. Unauthorized foreign firms

Fraud, and particularly the threat of fraudulent behavior from external actors outside national borders, continues to be a persistent problem globally. IOSCO has analyzed various implications of this issue in its Retail OTC Leveraged Products Report and Final 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 24 months.[100]

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 issues 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 and legal difficulties where entities structure themselves in a manner that scatters mutually dependent operations across jurisdictions.[101]

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 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[102] and the lack of regulatory reach to firms that 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

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99 Report on Retail Distribution and Digitalisation, Recommendation 5, Enforcement Toolkit.

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

101 For example, the U.S. SEC staff noted in its survey response that a challenge in enforcement matters was 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.

102 National competent authorities as defined in Europe are organisations that have the legally delegated or invested authority, or power to perform a designated function, normally monitoring compliance with the national statutes and regulations. National Competent Authority - EUPATI Toolbox

services to retail investors, and they typically employ gamification techniques. The cross-border nature of the offerings require a coordinated regulatory response.

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

Many 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 offered products include but are not limited to crypto-assets, FX-derivatives, CFD's, and alternative investment products.

Direct targeting via social media (i.e., Instagram, Facebook, dating apps, etc.) is very common. 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. Unauthorized retail credit firms and moneylenders use cold calling via VOIP to spoof legitimate providers numbers. [103]

Fraudulent operators also may use IOSCO members' logo or impersonate licensees to lend legitimacy to their operations, leading retail investors to think they are dealing with a well-regulated financial services firm or licensee and providing false reassurance for retail investors in other jurisdictions.

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 supposed friendship or romance, establishing trust, and then later recommending, as an example, an overseas OTC derivatives service provider, which is in reality a scam.[104]

4.5.1. Retail investor complaints related to cross-border offerings

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

- Aggressive commercial practices and marketing of risky products by foreign trading platforms;[105]
- Difficulty/impossibility in closing accounts;
- Order execution issues;[106]
- Redirecting of clients to institutions located outside the jurisdiction;[107]
- 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.[108]

There may be a role for IOSCO to address some of the issues that authorities face with entities outside of their jurisdiction, by trying to map the common issues and looking for ways that greater cross border co-

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103 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.

104 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 malware.

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

106 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.

107 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.

108 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.

operation could help. Joint and/or coordinated enforcement investigations could be useful tools to act against cross-border actors. Going forward, the issue of jurisdictional reach would require enhanced cooperation among the IOSCO membership and ensuring that the cooperation infrastructure (including, enforcement cooperation and information sharing under the IOSCO MMOU and the E-MMOUs) remain fit for purpose.[109] Such enforcement cooperation could take the form of conducting coordinated investigations against bad actors operating internationally and employing coordinated disruption operations against bad actors.

The consultation report asked stakeholders about issues related to cross-border transactions and associated regulatory cooperation and information sharing. Participants generally support regulatory responses to cross-border offerings, however, they pointed to some of the unaddressed issues, such as data availability and product identifiability for retail trades. Respondents asked IOSCO for more coordination and communication among regulators, and more financial resources to be allocated to national authorities to conduct cross-border surveillance and analysis. Also, some respondents said they would be in favor of stricter measures on retail cross-border trades.

Due to complexities stemming from cross-border issues and differences in regulatory approaches across jurisdictions and regions, respondents to the Consultation Report have highlighted that a one-size-fits-all approach to regulation is not viable, and data sharing across authorities could significantly enhance bilateral/multilateral coordination across jurisdictions. Likewise, engaging with website domain name registrars to identify malicious actors, where consistent with legal and regulatory requirements, may help regulators in addressing some of the challenges.

4.6. Redress Mechanisms for Expedited Recovery of Retail Losses

There are various recovery and sanctioning mechanisms in place when retail losses occur, which may include administrative and criminal sanctions.[110] For example, imprisonment, fines (criminal and administrative), and suspension or revoking of licensing, may be applied by law depending on the gravity of the misconduct.

While credible deterrence is important to avoid misconduct and ensure orderly trading, it is also important that effective ex-post redress mechanisms are in place for retail investors to recover their losses. Such recovery becomes challenging when an investor is defrauded by an unregulated individual or firm, or one which is not in compliance with regulations. Additionally, the cost of litigating may exceed the loss in some cases. There is an opportunity to improve the framework for recovery of fraudulent investments. For example, shortened and simplified processes for the recovery of fraudulent and scammed funds from crypto-asset investment firms or their bankers may mitigate the impact of victims experiencing life changing losses[111]. It is important to note that a tech neutral regulatory approach should be adopted when exploring such tools to expedite the recovery of retail losses.

When regulated individuals engage in misconduct there are a few more options for retail investors. There is a mechanism for recovery in the form of a securities arbitration system. This system requires broker dealers and the representatives to arbitrate when an investor requests. Regulators can consider civil dispute management as part of a regulatory toolkit. Hence, there can be easier access to civil recovery, through means such as investor dispute resolution.

Securities arbitration may be less expensive and faster than court proceedings whereby brokers are required to pay rewards against losses. To the extent possible, regulators can consider creating similar systems that provide regulatory sanctions, where investors can choose to commence arbitration against regulated firms and individuals

[109] Various stakeholders suggested that IOSCO should act as an information resource and assist regulators in establishing shared frameworks for broader cooperation.

[110] Credible Deterrence In The Enforcement of Securities Regulation, IOSCO, June 2015.

[111] Topics on crypto-asset retail distribution/custody as well as trading, settlement, execution & abusive behaviors will be explored further in the work of the IOSCO Fintech Task Forces' Crypto & Digital Assets (CDA) workstream, which aims to publish its report by H1 2023, and also through its Decentralized Finance (DeFi) workstream. OR03/22 Crypto-Asset Roadmap for 2022-2023 (iosco.org).

Regarding this issue, the IOSCO report on Complaint Handling and Redress System for Retail Investors, (January 2021), clearly indicates that Retail investors are important participants in the capital markets and the protection of their rights and interests is fundamental to the healthy and stable development of capital markets. When an investor or financial consumer is harmed by misconduct or illegal practices, the existence of effective mechanisms for addressing the issue is important not only for the aggrieved individual, but also for producing positive externalities such as improving market discipline and promoting investor confidence in financial markets. In this regard, the Report includes a set of nine Sound Practices covering, among others, the following aspects:

- Taking steps to raise investor awareness of various available complaint handling systems.
- Taking steps to support complaint handling systems.
- Encouraging financial service providers (FSPs) to offer a wide range of resolutions to retail investor complaints.
- Using complaint data to identify areas for new or enhanced investor education initiatives.
- Using complaint data for regulatory and supervisory purposes.
- Seeking input from retail investors about their experience with complaint handling systems.

CHAPTER 5 - DISCLOSURE, PRODUCT DESIGN and PRODUCT INTERVENTION

- **Traditional disclosure[112] by firms may not always solve the problems of complexity in financial services markets. Therefore, disclosure should compete for retail investor attention. It should not be perceived as a standalone default option (tick the box) in investor protection.**
- **Most retail investors struggle with disclosures due to the excessive use of technical language, lengthy and non-user-friendly formatting, and the delivery method of disclosures. Disclosure should be tailored to the needs of the target investor group[113].**
- **If product intervention is used, triggers of such power should be determined clearly in regulation.**

Background

The information in this Chapter is based on IOSCO's comprehensive information gathering on members' disclosure rules, which shows that the use of product governance and product intervention powers is well established, with two-thirds of jurisdictions having such powers. Most IOSCO members have requirements they impose on regulated entities to adjust disclosure when circumstances change during the product life-cycle. A few IOSCO members also use "tailored disclosure" techniques that some may consider to be more innovative.

5.1. Disclosure of Material Information

Disclosure of financial results, risks, costs, 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. 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 information about the following:

- The product itself
- Risks associated with holding the product
- The issuer/firm
- External factors[114]
- Fees, costs or charges
- Tax implications or tax-related costs
- Conflicts of interest
- Commissions

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112 As defined in some jurisdictions, disclosure is information securities law and regulations mandate must be provided to consumers by firms. Disclosure presents material information about the characteristics, fees and/or risks of financial products and services. Financial firms can provide disclosure in hard-copy document form or electronically (e.g. emails or on websites). Some examples of disclosure documents are: 1- Detailed disclosure documents (e.g. prospectuses and Product Disclosure Statements) 2- Summary tools (e.g. key facts sheets and dashboards, and financial information leaflets and Key Information Documents) 3- Warnings. Firms may be required to provide the information to prospective customers at or close to the time of sale, as well as throughout the lifecycle of the product. See, ASIC - AFM Joint Report "Disclosure: Why it shouldn't be the default"

113 While there is no agreed definition of "Tailored Disclosure", the joint ASIC-AFM Report highlights that, while essential:
- Disclosure does not always solve the complexity in financial services markets;
- Disclosure must compete for consumer attention;
- One size does not fit all – the effects of disclosure are different from person to person and situation to situation;
- In the real world, disclosure can backfire in unexpected ways; and
- There are limitations to the effectiveness of warnings that firms have to display about the risks and features of certain products and services.

114 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.

- Complaints, including if there is a dispute resolution system and how it can be accessed.

Whilst disclosure plays a key role in contributing to market transparency, integrity and efficiency in retail financial services markets; a joint ASIC-AFM Netherlands report noted that mandated disclosure requirements should avoid a 'one-size fits all' model that doesn't account for retail investors' individual and context-specific differences with regards to processing information for financial decision-making. The context in which consumers engage access disclosure can significantly affect their engagement with such materials and can be influenced by the physical environment (i.e., *engaging with disclosure documents in an undisturbed office environment versus engagement during a 'rush hour' period on public transport*); distribution channels (*i.e., online environments can vary, and time constraints, like a digital countdown timer, can be imposed to rush our decisions*); as well as our emotional mindset and physical states.

The report also explored how real-world testing and monitoring is required to assess the effectiveness of 'simplified' and 'enhanced' disclosures before concluding that such disclosures achieve optimal consumer protection outcomes. Furthermore, disclosure requirements can also place a heavy burden on consumers with poor financial literacy to overcome complexity to the extent that it backfires and creates unanticipated risks for consumers.[115]

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). Firms can also tailor and improve their product information distribution mechanisms to present 'timely' disclosures to consumers through proactive alignment of product design, distribution and communications that accommodate consumer needs, capabilities, and expectations to better build customer trust and minimize regulatory costs.

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 indicate that they apply novel approaches to disclosure, there are likely to be differences in the interpretation of what constitutes a "novel" approach.[116]

ASIC referred to the evidence about the limitations of traditional disclosure, which is analyzed in their co-publication REP632 Disclosure: Why it shouldn't be the default.[117] ASIC also noted that the limitations of disclosure were a key driver for the introduction of new product governance and intervention laws.

Various consultation respondents mentioned that most retail investors struggle with disclosures. Some common reasons are stated to be the excessive use of technical language, lengthy and non-user-friendly formatting, and the delivery method of disclosures.

Among responses received, most common solutions are suggested as below:

- Using concise information in clear language;
- Increased digitalization of disclosures; and
- Formatting the disclosures to highlight the risks and important information regarding the product.

115 See LT Mullet, L Smart & N Stewart, Blackbird's alarm call or nightingale's lullaby? The effect of tweet risk warnings on attractiveness, search, and understanding (PDF 4.02 MB), Occasional Paper 47, FCA, December 2018.

116 For instance, nine jurisdictions provided examples of requirements for additional information with respect to more complex products and/or investors classified as nonprofessional clients. Two jurisdictions also have investor tests intended to, for example, make consumers acknowledge risk and seek suitable products. No jurisdiction provided examples or results of testing effectiveness of any of novel approaches to disclosure.

117 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.

Some respondents highlighted that shortening the disclosures by firms will not solely improve investors engagement with the disclosures, and that the focus should be on revising and transforming disclosures into a format such that investors can find the most important information in a convenient and succinct way.[118]

In a stressed market environment, disclosure can be a useful tool if deployed alongside other tools such as more personalised support. For example, in recognition of the exceptional conditions around COVID-19, the FCA published extensive information on FCA's expectations for firms during the pandemic. This included guidance for firms on how they could avoid straying into making personal recommendations when bringing out the implications for customers of realising their investments. The FCA also published information targeted at consumers to help them spot scam activity and better protect themselves.

According to one asset manager, which responded to IOSCO's Consultation Report, for the disclosed information to be useful to investors, those investors must be engaged with the disclosure, which means the level of engagement is a first-order determinant of the success of the disclosure regime. Therefore, that commenter stated that disclosure may not always be effective, as retail investors are overloaded with information. In addition, AMF France published a study highlighting that an effective disclosure with the following component tends to work better: [119]

- very simple in terms of the language and text;
- visual (preferably);
- telling investors about the intention of the offering party, details about the motives of the offering party and how they are making money; and
- tested.

5.4. Product Intervention

Jurisdictions may adopt a broad range of regulatory responses that range from increased disclosure requirements expected of regulated firms to product intervention powers. It is important to note that not every IOSCO member may use such product intervention powers and their use may vary across jurisdictions. For jurisdictions who have authority to determine whether particular products can be offered and sold, 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,

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118 The FCA's behavioral research has found mixed results about the effectiveness of disclosure on consumer choices and improvements to information given to consumers has only a small positive effect. However, testing of 'nudges', has provided further insights for effective regulation. For example, in a large field trial of credit card customers, FCA researchers found that removing the minimum payment as a specified option when signing up for a direct debit, resulted in 20% more customers agreeing to pay back a fixed amount (an amount higher than the minimum) – which would help them repay their debts more quickly and cheaply. However, 1 in 20 customers, when not presented with a default minimum payment, dropped out of signing up for a direct debit at all. This highlights how solutions to these challenges need to recognise that consumer behavior is not identical and methods to help them navigate this complex market need to be nuanced. FCA research note: Helping credit card users repay their debt: a summary of experimental research https://www.fca.org.uk/publication/research/research-note-helping-credit-card-users-repay-their-debt-summary-experimental-research.pdf. The FCA also published research notes for its work on improving outcomes for consumers considering investing in high-risk investments https://www.fca.org.uk/publications/research/improving-outcomes-consumers-high-risk-investments.

119 AMF France set up in 2018 a monitoring of retail investors' perceptions of the clarity of the regulatory documents. These documents are tested with a group of retail investors. It published in September 2022 a synthesis summarizing the findings of the studies conducted on different kinds of investment, which reveals difficulties of understanding and the need for a less technical language. To make the regulatory documents more readable, the following principles were considered positive by the investors who took part in the studies:

- An attractive layout.
- Highlighting of important information.
- The use of short sentences and the active voice.
- The elimination of superfluous abstract words and unnecessary details.

See: https://www.amf-france.org/en/news-publications/publications/reports-research-and-analysis/findings-studies-conducted-readibility-information-documents structured deposits, financial instruments, derivatives; and certain types of financial activity or practice. Powers in other jurisdictions having the authority to determine whether products can be offered and sold also include:

- prohibitions and conditions on sales of financial products;
- conditions on promotional materials;
- 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);[120]
- negligence;
- orders that should not exceed certain volume/price thresholds; and
- extreme volatility or special clearing in the event of force majeure.

For example, ASIC in its Regulatory Guide RG 272 summarises the regulatory tools available to ASIC to improve consumer outcomes including the ability to ban financial products and credit products when there is a risk of significant consumer detriment. ASIC exercised its product intervention powers (PIP) and banned the issue & distribution of binary options to retail clients on 3 May 2021 following reviews that discovered that approximately 80% of retail clients lost money trading binary options due to product characteristics that weren't favorable to retail investors. ASIC estimated that retail clients' net losses from trading binary options were around $490 million in 2018.

Over two-thirds of jurisdictions that responded to the IOSCO 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 five product intervention measures so far.[121] 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.

The FCA's work on speculative illiquid securities is a good example of how product intervention may work well. Where the FCA saw evidence of harm, this triggered the use of FCA's product intervention powers.

The latest version of MiCA will see ESMA having temporary intervention powers (*Articles 89a to c*). ESMA may temporarily prohibit or restrict (a) the marketing, distribution, or sale of certain crypto-assets

120 See FCA's Product Intervention and Product Governance Sourcebook (PROD).

121 See, https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Pressemitteilung/2022/pm_2022_09_30_AllgV_Futures_Beschraenkung_en.html;jsessionid=B1C0E7F5BA109D5B94BDF79E789D0CC9.2_cid502

other than asset-referenced tokens or e-money tokens with certain specified features or (b) a type of crypto-asset activity or practice provided certain conditions are met.

5.5. Product Governance

Similarly, for jurisdictions that have authority over the structure of particular products, 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. 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[122] 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.

[122] See, RG 274 Product design and distribution obligations | ASIC

CHAPTER 6 – INVESTOR EDUCATION

- **Financial education is a key element to enhance investor protection, and it complements the policies, regulations, oversight, and enforcement actions that securities regulators may undertake to support the sound and proper development of the markets.**
- **In addition to the traditional education model, regulators should explore new ways to build investor capabilities through different forms of engagement that seek to build skills rather than just knowledge, as both aspects complement each other.**
- **Experimental studies around investor behavior and using aspects of digitalization with the potential to be used in positive ways to improve investor knowledge such as through gamification.**
- **Educational campaigns should not push responsibility towards the financial consumer and away from service providers and regulators. In fact, financial education is not a substitute of proper regulation and effective oversight, although the former complements the latter. Regulators should be mindful of and warn retail investors about the potential pitfalls of choosing the "do-it-yourself" route, through tools, such as wider communication campaigns with educational elements to help retail investors make better-informed decisions.**
- **It is important to design specific financial education initiatives that are tailored to and address the characteristics of self-directed retail investors, including in venues where these investors may be seeking investment information, including social media.**
- **Data utilization plays a key role in identifying emerging investing behaviors, analyzing financial education needs of retail investors, as well as tailoring the most efficient financial education tools for self-directed retail investors.**
- **IOSCO may want to consider capacity building on sharing experience and exchange views on the design and implementation of investor education initiatives.**

Background

This Chapter considers investor education, which is a 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 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.

Importantly, some stakeholders, particularly IOSCO's roundtable speakers who are experts on economic, social and behavioral research, acknowledged the limitations of investor education (in particular in a context of weak regulation, limited supervision, or ineffective enforcement), and highlighted that in certain cases large educational campaigns may have marginal impact. Educational campaigns may push responsibility towards the financial consumer and away from service providers and regulators.

6.1. Educational Campaigns Focused Solely on Knowledge Might Have Limited Effect

There is academic evidence that large educational campaigns may not always work as intended. Therefore, while they are extremely important, there is a need to reassess the effectiveness of investor education initiatives and regulators should shift from an 'education' model to explore new ways to build investor capabilities through different forms of engagement that seek to build skills rather than knowledge. As part of potential solutions, stakeholders and academics cited experimental studies around investor behavior and using positive aspects of digitalization, such as gamification in improving the investor knowledge.

The multi-factorial nature of the behavioral phenomenon that we are seeing can be very complex. Regulators need evidence-based approaches to investor education and consumer protection. One of the roles that behavioral sciences had to play in the last few years is to use this information to craft better consumer protection and better regulatory policies to think about how we can improve deliveries for consumer education, etc. Researchers need to adapt to the different paradigms. They need to be better at innovation sharing for research and its evaluation to achieve better outcomes.

6.2. Adapting the Delivery of Investor Education Initiatives During Unusual Times

It is important that IOSCO members be open to considering novel channels to better promote investor education initiatives. 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, Quebec AMF and AMF France 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.

6.3. 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.

6.4. 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 the demographic changes among retail investors; financial literacy needs and increasing offering and trading of higher risk products and frauds, including various emerging trends and behavior across the retail segment.

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 crypto-assets 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.[123]

6.5. Considerations for the Investor Education Toolkit In Light of Increased Self-Directed Trading and Digitalization

The six building blocks of an investor education toolkit could be the following in this context:

- **A targeted approach is necessary**. It is important to design specific financial education initiatives that are tailored to and address the characteristics of self-directed retail investors. This is mainly because their financial education needs, and levels of risk tolerance might be different from more experienced retail investors or those who work with licensed investment professionals.

  Some stakeholders have highlighted that due to social media increasing the speed in which information spreads, the financial education initiatives that focuses on self-directed retail investors should be constantly updated to prevent dissemination of false information.

- **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.

[123] For example, AMF France conducted a study to assess the scale and diversity of the phenomenon of investment scams in 2021, before running an anti-scam campaign. See, https://www.amf-france.org/en/news-publications/publications/reports-research-and-analysis/french-and-investment-scams-december-2021

- **Harnessing behavioral science has potential to help improve financial consumer outcomes**: Persuasion techniques and behavioral biases are not innately good or bad; they can be deployed to help consumers or to take advantage of them.[124]

6.6. Crypto-Asset Products and Retail Investor Education

Crypto-assets carry risks that investors may not fully understand and that may lead to investor losses. Retail investors need to be aware of the complexity of these products and the risks attached to them, such as market liquidity risk, volatility risk, operational risk, and the risk of fraud, in particular in the absence of, or non-compliance with, regulation.

IOSCO continues to publish material to assist regulators in their efforts to educate retail investors, for example, the *Investor Education on Crypto-Assets Report*, which explores:

- warnings to retail investors and prospective investors regarding the risks of investing and holding crypto-assets and the likelihood of incurring losses;
- educational awareness initiatives designed to educate investors about the red flags of fraud in the crypto-asset space;
- articles, podcasts and videos that inform retail investors about fraud and how they can avoid being misled by unlicensed firms offering crypto-assets.
- new ways regulators are exploring to enhance investor education on crypto-assets, including for example through social media and some apps.

Given the global outreach of the IOSCO World Investor Week (WIW) campaign, the IOSCO Board Fintech Task Force (FTF) has joined the campaign to discuss investor education and investor protection in relation to crypto-assets (i.e., WIW webinar on “Crypto/Digital Assets and DeFi – Look Before You Leap”, 5 October 2022). This complements the WIW key messages on crypto-assets and frauds and scams prevention (https://www.worldinvestorweek.org/?p=resources&id=key-messages).

IOSCO has also published a report on *Investor Behavior and Investor Education in Times of Turmoil: Recommended Framework for Regulators based on Lessons Learned from the COVID-19 Pandemic (30 November 2022)*, which refers that many regulators have acted on retail investors’ increased interest in risky investment products during the pandemic. Some adopted bans on the sale of crypto-asset derivatives to retail investors; others increased regulatory requirements, such as a knowledge test for retail investors who want to open crypto-assets trading accounts. There were also increased requirements implemented for advertisements, promotional materials, and disclosures. One regulator consulted with internal behavioral economics and design units to strengthen its rules on financial promotions for high-risk investments, including crypto-assets.

[124] In its recent article in the Behavioral Economics Guide 2022, ASIC shares how regulators and financial services firms can use behavioral insights to get better outcomes for consumers. ASIC’s review of over 100 ASIC reports revealed how some firms have exploited or ignored consumers’ behavioral vulnerabilities in the choice architecture of their products and how important it is for firms to design and distribute their products appropriately to meet consumer needs. The review also identified 5 common ‘behavioral levers’ that can be used by firms to influence consumers and 5 ‘situational vulnerabilities’ that can amplify poor consumer outcomes regardless of how active, experienced, and confident a retail investor is. Understanding these factors not only enhances regulators’ ability to identify describe, prove, and prevent harm, but can also be relevant in determining firms’ Design & Distribution obligations and regulators’ Product intervention powers that enables regulators to temporarily intervene in a range of ways to prevent significant consumer detriment and improve consumer outcomes.

6.7. Capacity Building

Regulators may be in different stages of the development of the retail investor market. They may thus have different experiences in investor education. IOSCO may want to consider capacity building on sharing experience and exchange views on designing and implementing investor education initiatives both with IOSCO groups and or committees and with other international standard setting bodies where appropriate (e.g., FinCoNet).

CHAPTER 7 – THE REGULATORY TOOLKIT OF MEASURES

The toolkit in this report has been developed with the goal of enhancing investor protection by providing regulators that are developing or reviewing their regulation with possible approaches that may help address certain concerns. The proposed tools are intended to allow for a wide range of application and adaptation in different jurisdictions, and regulators may choose to implement some, all, or none of them in their jurisdiction. Regulators may conclude that the relevance of specific tools in their jurisdictions may vary according to the characteristics of their specific regulatory framework, the characteristics of the issuing entity, the characteristics of the product involved, or other factors. Regulators may therefore wish to incorporate these tools on a more selective basis or in a manner best suited to their circumstances and national legal frameworks.

Drawing from multiple sources, such as the March 2022 Consultation Report, consumer roundtables and AMCC discussions, the toolkit is a collection of adaptive measures for regulators to consider when dealing with retail market conduct issues.

The measures are framed in general terms for broader applicability; some traditional, others more novel. Regulators are encouraged to take a flexible and proactive approach that helps them tailor the right regulatory tools for the right problems according to their legal and regulatory framework and situational context.

We note that while crypto-assets are used as a case-study, this report is not designed to reflect a comprehensive analysis of issues arising in the crypto-asset markets and, rather is intended to focus on particular issues facing retail investors. IOSCO has already published materials in the crypto-asset area (see Annex I) and is continuing to engage in a comprehensive analysis of crypto-asset markets and market participants. Those analysis are expected to present a more comprehensive discussion of the crypto-asset markets and issues for jurisdictions as they consider appropriate regulatory approaches to crypto-assets.

1. HEIGHTENING REGULATORS' DIGITAL PRESENCE & ONLINE STRATEGY TO PROACTIVELY ADDRESS RETAIL INVESTOR HARM

- **Targeting fraudsters directly where misconduct occurs**
- **Monitoring and assessing online marketing and distribution trends to interrupt harmful channels of marketing, such as detrimental Finfluencer activity**
- **Issuing public alerts, warnings, and monitoring consumer sentiment**
- **Enhancing engagement with online service providers, where possible, for early prevention and disruption of misconduct**
- **Tailoring messaging to retail investors for different websites and social media forums**

2. HONING APPROACHES TO BETTER IDENTIFY AND MITIGATE MISCONDUCT

- **Enhancing internal/in house capabilities and/or employing third-party vendors to streamline regulatory surveillance and supervision efforts**
- **Developing technological tools and using advanced data analytics to better facilitate the earlier intervention and identification of bad actors**
- **Using behavioral science to analyse retail behavior and design consumer protection initiatives**
- **Enabling easier access to whistleblowing and an intake system for triaging tips, referrals and complaints**

3. ENHANCING CROSS-BORDER AND DOMESTIC SUPERVISORY AND ENFORCEMENT COOPERATION FRAMEWORKS, BOTH BILATERALLY AND MULTILATERALLY
• **Facilitating greater cooperation & collaboration, minimizing regulatory arbitrage where possible** • **Working with other domestic and international agencies where appropriate, to address common issues of misconduct, identify individuals and groups involved in misconduct, and promote early intervention and disruption of misconduct**
4. ADDRESSING RETAIL INVESTOR HARM THAT STEM FROM CRYPTO-ASSETS
• **To the extent not already covered by an existing regulatory framework, determine whether there are regulatory powers that can be used to provide KYC and trade reporting databases for crypto-asset transactions** • **Employing applicable regulatory intervention powers to address cross border crypto-asset fraud and theft to retail investors**

5. IMPLEMENTING NEW REGULATORY APPROACHES AGAINST RETAIL MISCONDUCT
• **Rules related to the marketing of high-risk products** • **Consumer Helplines and AntiScam Campaigns** • **Use of mystery shopping to supervise the point of sale** • **"Regulatory sandbox" approach** • **Use of intrusive supervision and enforcement techniques** • **Using tools to better identify firms' compliance with climate disclosure standards and to better detect greenwashing activities**

1. HEIGHTENING REGULATORS' DIGITAL PRESENCE & ONLINE STRATEGY TO PROACTIVELY ADDRESS RETAIL INVESTOR HARM

Targeting fraudsters directly where misconduct occurs

Regulators can target perpetrators of misconduct and reach out to fraudsters and scammers directly on the social media platforms they use. Such interventions should emphasise the illegality of the conduct and clarify that the regulator is aware and is monitoring such behavior, while at the same time reiterating the potential consequences for perpetrators. Some IOSCO members have used this tool to deter perpetrators and also to alert investors, posting warning messages on social media groups and broadcasting information about fines and penalties that would apply in the case of misconduct, thereby limiting further impact of the misconduct.

ASIC for example, has been using social media platforms to directly engage with people who are involved in pump and dump activity to address misconduct in the market. ASIC set up accounts on Telegram to post warning messages and provide reminders around the illegality of providing false and misleading advice regarding financial services or products. The 'pump and dump' commentary ceased following this targeted messaging strategy and served as a cost-effective approach to address misconduct and reduce fraud. ASIC also 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.

In another example and in light of the increase in apparent market manipulative activities, in particular the rising number of suspected ramp and dump scams via popular social media, the HK SFC issued a Circular in June 2021, notifying all intermediaries that the SFC expects full cooperation from intermediaries once they are approached by the SFC for information. Curbing ramp and dump scams is a top enforcement priority of the SFC, as exemplified in the recent joint operation of the SFC and the

Hong Kong Police in September 2022 against a ramp and dump syndicate in which thirteen people were charged with various criminal offence.

Monitoring and assessing online marketing and distribution trends to interrupt harmful channels of marketing, such as detrimental Finfluencer activity

The proliferation of illegal or harmful marketing and distribution of investment products and services online means regulators need to constantly monitor and assess trends to identify and manage hot spots. The proliferation of Finfluencers and targeted social media financial advertisements has facilitated a paradigm where retail investors are constantly bombarded with financial product information under what may be viewed as a patina of expertise. Amidst such an environment, it is important for regulators to acknowledge how easy it is for consumers to be exposed to misleading and deceptive information online, especially from non-accredited sources.

In relation to online marketing activity, IOSCO´s recent work on Retail Distribution and Digitalization recommends that IOSCO members should consider requiring financial services firms to:

- Have proper internal rules, policies, processes and tools for their online marketing and distribution, and review them on a regular basis.[125]
- Assume responsibility for the accuracy of the information provided to potential investors on behalf of the firm.[126]
- Assess the necessary qualifications for digital marketing staff.

As mentioned earlier in the report, the emergence of "Finfluencers" – essentially, unlicensed individuals who utilize social media to generate or promote content on financial products and services – is one such trend that might result in harmful marketing and distribution. To enhance transparency and increase access to public information on Finfluencers that purport to provide financial advice, some IOSCO members have suggested developing a public register of Finfluencers covering:

- The relation of the Finfluencer to the promoted financial product or service;
- Any potential conflicts of interest with the promoted financial product or service;
- The referral fees and remuneration structure earned by the Finfluencer for promoting the financial product or service; and
- The Finfluencers' qualifications and financial accreditations.

IOSCO´s recent work on Retail Distribution and Digitalization highlights some IOSCO members' assessment that any responsibility for online communication of affiliates, such as Finfluencers, is generally the responsibility of the firm engaging them, unless there is no established nexus of monetary benefits between the firm and the Finfluencer.

Regulators can also provide further guidance on the licensing requirements and obligations that may be required of Finfluencers. ASIC's INFO 269 set out how financial services law may apply to social media influencers who discuss financial products and services online whilst also setting out the obligations that Australian financial services licensees who use a Finfluencer should be aware of.

Regulators should also be able and willing to intervene promptly by taking enforcement or disruptive action against Finfluencers where they are promoting misleading and deceptive financial products or information. While enforcement aspect is not the focus of this report, given its extreme importance particularly against online and cross-border misconduct, IOSCO strongly encourages its members to make use of the measures in the Report on Retail Distribution and Digitalisation, particularly, the

125 This should include that any use by firms of targeting, behavioral techniques and gamification elements should be done in a way that ensures fair treatment of financial consumers and aims to avoid potential financial consumer harm.

126 Including those provided via various social media channels, including influencers, and the timely disclosure of necessary information regarding potential risks and conflicts of interest to avoid potential financial consumer harm.

Enforcement Toolkit Measure 2 on *Powers to promptly take action where websites are used to conduct illegal securities and derivatives activity, and other powers effective in curbing online misconduct.*[127]

Issuing public alerts, warnings, and monitoring consumer sentiment

To complement traditional media communications (e.g., newspaper, television, radio), regulators can harness their online presence to issue real-time warnings or public alerts to better reach their audience and tap into what consumers may be facing by hearing from them directly on those channels. As many risky and complex financial products may not be well understood by consumers, live discussions or alerts on social media or a regulator's website regarding unregulated, misleading, or fraudulent activity may assist in combatting retail investor harm. Some regulators noted an increase of activity in this space. For example, CMVM Portugal notes alerts have increased 200% over 18 months.

Particularly, in the context of social media, there is a range of measures against scams and fraud that IOSCO members have been using. Some of these include the following:

Proactive Alerts:

- CONSOB 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.
- As another example, the US SEC Staff has issued various investor alerts and promoted alerts, including on social media, on topics including those related to crypto-assets, social media influencers, and complex products, cautioning investors about fraudulent investment schemes that may involve social media.
- BaFin published a warning notice on 18 February 2021, cautioning against statements made on social media concerning share recommendations.
- ESMA has also published a corresponding statement to BaFin's warning notice.
- The FCA seeks to disrupt and act against non-compliant financial promotions made on social media by issuing consumer alerts on such misconduct.
- ASIC has warned brokers to be careful about offering high-risk products and services to retail investors, such as securities lending, crypto-assets and offers of 'zero' or 'low-cost' brokerage – where the true cost is masked.
- The HK SFC has warned the public about online scams in media interviews and its official Facebook page. It has also worked closely with the Hong Kong Police's Anti-Deception Coordination Centre to produce short videos and hold community outreach events to raise public awareness.
- Some IOSCO members have also noted that they have issued warnings directly to specific entities (rather than the public) that were promoting scams or would attempt to engage with the industry more generally about scam conduct.
- The Investor and Financial Education Council (IFEC) in Hong Kong also provides information and issues warnings on prevalent issues observed causing retail investor harm, e.g.:
  - Online scams;
  - Fraudulent virtual asset trading platforms; and
  - Unlicensed persons selling investment advice.
- IOSCO also maintains an Investor Alerts Portal.

Innovative Engagement:

- In one very interesting practice, the US SEC staff set up a website, HoweyCoins.com, that mimics a bogus coin offering to educate investors about what to look for before they invest in a scam. Anyone who clicks on "Buy Coins Now" will be led instead to investor education tools and tips

[127] Enforcement Measure 2 encourages IOSCO members to seek additional powers to be more effective in promptly curbing illegal online conduct, including the power to shut down or block access to illegal websites, or seeking a legal order to do so, where appropriate.

from the SEC staff and to other educational materials concerning crypto-assets.[128] The HK SFC launched various campaigns through multiple channels to alert the public about the use of online platforms to defraud investors. For example, In September 2020, the SFC issued an Enforcement Reporter to explain how the scams operate and provide tips for avoiding them.

- In 2021, the HK SFC launched an online campaign which simulated the experience of being drawn into an investment scam. This campaign is part of the SFC's ongoing efforts to alert the public about the use of online platforms to defraud investors. Web banners featuring language commonly used to lure potential victims to join scam-related chat groups were posted on local discussion forums, mobile investment applications and financial news website over a three-week period. Viewers who clicked on the banners were directed to a webpage with SFC warnings on unsolicited stock tips and signs of ramp and dump scams.

Market Monitoring:

- In 2021, AMF France added 422 fraudulent website and e-mail addresses to its warnings and blacklists that can be accessed from the Retail Investors area of the AMF website. This number was 58% more than in 2020 and twice higher than in 2019.The SEC Thailand monitors social media scams that have been perpetrated through various channels such as Facebook and websites. Identified misconduct activity is then published in the SEC Thailand's investor alert list on its website to better advise investors of potential scam misconduct and prevent retail investor harm.
- Since 2017, the HK SFC has closely monitored the virtual asset landscape in Hong Kong and issued a number of publications reminding investors of risks relating to trading of virtual assets such as a statement warning investors about potential scams involved in initial coin offerings and trading virtual assets on an unregulated platform.

Enhancing engagement with online service providers, where possible, for early prevention and disruption of misconduct

Regulators can consider engaging with online service providers to ensure that they do more to deliver on their public commitments to mitigate harm arising from use of their platform. This may take the form of service providers performing more due diligence or vetting of prospective clients to ensure their use of their platforms are bona-fide or streamlining the processes for shutting down websites/social posts that advertise unlicensed or fraudulent activity.

Engagement with service providers such as Google may help mitigate the potentially harmful effects of "position bias" - the tendency of retail investors to disproportionately select the top results when searching for financial product information – so that they are not exploited by malicious actors who have the resources to ensure that harmful and misleading information is ranked highly and prioritized when retail investors are searching for financial product information. Regulators might also consider engaging with social media providers such as Facebook to access more granular data (e.g., scans for tweet shares and counts of post likes) to better predict and prevent herd-behavior demonstrated by retail investors who invest in risky and misleading financial products.

The consultation feedback has also suggested that IOSCO could develop guidance for the webhosts of financial institutions to keep details of their clients (e.g., details of ex-clients whose accounts have been closed; the authorized URLs of financial service businesses) and how to share other relevant information with regulators whenever a website has been closed due to fraudulent activity. Such a repository of information can enable IOSCO members to easily identify phishing scams, the cloning of legitimate businesses and fraudulent unregistered businesses.

At the global level, and in addition to the efforts of its individual members to collaborate with internet service providers, IOSCO, as an international organization, can consider engaging with major internet service providers or an international organization representing the ISPs to establish protocols for collaboration to curb online cross-border misconduct.

[128] See, SEC.gov | The SEC Has an Opportunity You Won't Want to Miss: Act Now!

Efficient, homogeneous, fast and accurate exchange of information on unauthorized entity activities between securities markets supervisors is increasingly necessary. To enable for the effective utilisation of data to better protect investors, as well to enhance the efficacy of IOSCO's existing 'Investor Alerts Portal'[129]; IOSCO could review the Portal to determine whether updates are needed to facilitate exchange of information about unauthorized entities, whilst simultaneously (i) improving the quality of information exchanged (ii) improving the usability of such information and (iii) allowing third parties to use and access such information to automate warnings and aid in the execution of their respective investor protection controls.

Tailoring messaging to retail investors for different websites and social media forums

Regulators can improve engagement of retail investors with financial products and services via tailored messaging for different websites and social media forums that employ simplified technical language around disclosure, investor financial capability programs and other relevant investor education messages. In this context, regulators can take advantage of an increased digital presence to better collect feedback from investors directly and in real time to better inform their retail investor engagement strategy.

In relation to disclosure obligations, many respondents indicated that further experimentation to identify the optimal formatting of the lengthy and technical language associated with disclosures are required to increase retail investors' understanding and engagement with the disclosures. This is because merely shortening or summarizing disclosures might have adverse effects on the utilization of disclosures.

IOSCO's Committee on Retail Investors (C8) released a report[130] that revealed how shorter disclosures may not always lead to better outcomes for retail investors. Even short, one-to two-page disclosures can be complex and confusing for investors. Whilst elements that ease comparison between different products (e.g., pie charts or ratings), could be easier for some investors to process; behavioral biases may lead some other investors to interpret these elements in different ways from what was intended.

To achieve an optimum balance between establishing concise disclosures that don't compromise on the necessary information that investors require, regulators can utilize targeted social media messaging to ensure that disclosure requirements for retail investors are simple, plain, and easily understandable.

The RMCTF's consumer roundtable discussions highlighted that disclosure may not always work as intended, as retail investors are often overwhelmed with a large amount of technical, lengthy, and sometimes contradictory disclosures of financial products and services. A suggestion presented during the discussions was to keep disclosure as simple as possible in terms of language and text (e.g., ASIC prepared RG 228 for issuers and financial advisers that explains how to word and present prospectuses and other documents in a "clear, concise and effective" manner).

As disclosure materials face substantial competition for investors' attention, regulators can consider whether changes to disclosure requirements are the most appropriate tool for fostering improved outcomes for investors, or whether other regulatory tools should be explored.

2. HONING APPROACHES TO BETTER IDENTIFY AND MITIGATE MISCONDUCT

Enhancing internal/in house capabilities and/or employing third-party vendors to streamline regulatory surveillance and supervision efforts

Regulators may wish to consider developing or commissioning the use of advanced technologies, such as "webscraping" for automated collection and analysis of data from the web to proactively identify scams that are channeled through fraudulent and or misleading websites. Data mining and the more effective prioritization of resources are issues with which regulators are familiar. Therefore, employing third-party vendors to streamline regulatory surveillance and supervision work could assist regulators in

129 IOSCO receives and publishes the alerts and warnings that are voluntarily issued by each national authority member of the organisation. Each IOSCO member has access permission to the website through which it can upload alert information (national warnings) and download the warnings submitted by other members. The Investors Alerts Portal is updated on a weekly basis.

130 FR05/2019 The Application of Behavioral Insights to Retail Investor Protection (iosco.org)

their surveillance and supervision efforts. The FCA, for example, has noted that whilst the ability to collect large volumes of web data is a step forward, the capability to subsequently filter through the gathered data for the most relevant results is equally important to prevent or disrupt misconduct.

ASIC, for example, monitors trading on Australian licensed markets through its sophisticated real-time surveillance system and by integrating trade data with data from third parties. This enables ASIC to see underlying clients, to identify networks of connected parties and to analyse trading patterns. ASIC has also sought the tools of third party vendors to enhance its ability to detect and identify misconduct.

In addition, NASDAQ highlighted in its consultation feedback[131] that it utilizes third party vendors to help assess whether social media chatter may have contributed to surveillance alerts of potentially fraudulent or manipulative activity. The data from these vendors is then incorporated into the real-time tools used by surveillance analysts to alert them of heightened "buzz" – an indicator for short-term volatility. These data-driven tools enable stock exchange surveillance teams to better decide on when to refer suspicious activity to a relevant enforcement body.

Enhancing internal or external capacities would have cost implications. IOSCO Report on Retail Distribution and Digitalization states that IOSCO members should consider whether they have the necessary powers and adequate supervisory capacity to oversee an increasing volume of online marketing and distribution activity. Regulators need extra budget to enhance their surveillance and supervision capacity via use of advanced technology, including outsourcing, as well as having technologically skilled professionals in place.

Developing technological tools and using advanced data analytics to better facilitate the earlier intervention and identification of bad actors

Regulators should consider using advanced technology to spot trends in consumer/scammer behavior at an early stage. 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.

Whilst regulators may decide to employ data driven strategies and statistical analysis via monitoring firms' business models to prevent the build-up and unravelling of risk in the retail consumer market, there are also several established regulatory tools that regulators may use in new or innovative ways to facilitate the earlier intervention and identification of malicious actors.

Various IOSCO members are already deploying advanced technology as regulatory tools to monitor social media content, including artificial intelligence & machine learning (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:

131 Nasdaq, Inc. comment letter dated 23 May 2022 to CR 03-22 (IOSCO Retail Market Conduct Task Force Consultation Report).

- 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 France uses FI.S.H to identify fraudulent websites; SPA.DE is used to detect future scams at an early stage; and WETREND to detect fraudulent financial offers.
- SEBI has launched an initiative to bolster the regulatory processes with the use of AI/ML. SEBI regulated 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.
- To counter stock price manipulation through recommendations on social media, Chinese exchanges have established a complete set of monitoring analysis and clue reporting 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.
- The US SEC Division of Examinations (EXAMS) continues to enhance its use of new technologies and advanced data analytics to prioritize examination candidates and further analyse 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 analyse 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 analyse 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.
- The HK SFC's investigations of company misconduct and enquiries into the fitness and properness of individuals, supervisory and enforcement teams use network analytics extensively to identify relationships among target individuals and listed companies.
- A major SupTech initiative is data standards for order life cycles, or DS-OL. In July 2019, the HK SFC issued new data standards to prescribe the minimum content and presentation format of trading-related data submitted to them by in-scope brokers. This facilitates their use of data analytic tools in inspections, allowing the SFC to examine large volumes of complex trading-related data to identify potential trading misconduct and systemic control deficiencies in key compliance areas such as short selling, best execution and conflicts of interest. In the SFC's recent pilot testing, the analytic tool analyzed execution outcomes of similar orders placed by clients and internal trading desks to identify abnormal patterns of best execution and preferential or unfair treatment of clients.

Use of real-time technical tools: IOSCO members could consider using technical tools for real time listening and consumer protection, if available and appropriate, against malicious activities on the surface web, Deep Web and Dark Web to better detect trigger incidents. Members could consider publicising these trigger incidents to minimize negative impact to retail investors.

Use of regulatory tools to address data gaps: Where there is non-compliance, or lack of regulations as to a financial product's status, there is no regular data collection by IOSCO members. One example of such limitations is the crypto-asset market. To the extent requirements are not already in place, regulators can consider how to have market participants provide information on the volume of retail investor crypto-asset transactions and KYC details to better detect and intervene where required to mitigate market abuse activities (e.g., to better identify ICO pump and dump schemes associated with the promotion of a crypto-asset token that is targeted at retail investors).

Use of RegTech and SupTech: Several respondents suggested that a digital due diligence framework could enable regulators to identify market participants and investors and combat fraud. Such a framework could be facilitated by RegTech firms that are currently developing AI-based biometric tools to support remote on-boarding.

Regarding the general use of RegTech, SEBI has launched an initiative to integrate social media scanning into an alert generation process using AI/ML and RegTech. Singapore 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 authorities have dedicated units or teams in place to support the development of SupTech tools. This is the case for the MAS where a dedicated office – MAS's Suptech Division drives the SupTech agenda.

Whilst the application of SupTech and RegTech can improve financial supervision and assist regulators to identify malicious actors, some respondents suggested that regulators should ensure that the use of such technologies does not infringe individual rights to privacy and non-discrimination. Those respondents also suggested that regulators should ensure that they abide with and/or consider how their guidance can address privacy concerns or adopt an equivalent global privacy standard (e.g., The EU's General Data Protection Regulation) when using SupTech and RegTech AIML capabilities to conduct market supervision activities especially when collecting public data.

Those respondents also suggested that regulators should also consider, to the extent possible, developing adequate data encryption capabilities to promote the operational resilience of collected data from their market supervision activities when using SupTech tools.

Finally, respondents suggested that when conducting their market supervision activities, regulators should also consider whether their SupTech capabilities are subject to coded bias and may wish to consider the following factors:

- What are some possible subjective characteristics coded into SupTech actions that regulators should be aware of?
- To what extent might these characteristics impact in some firms' activities being unfairly discriminated against?
- What are the appropriate metrics, standards and or guidance regulators should consider when coding their SupTech capabilities to identify bad actors?

Webscraping: Regulators can consider using webscraping to automatically collect large volumes of data from the web for regulatory purposes. The capability to subsequently filter the gathered data for the most relevant results is important. The coverage, quality and timeliness of data from social media varies greatly by platform – and there is no "one size fits all approach". For example, webscraping has provided a better view of ICOs in Belgium by the FSMA and can proactively detect fraud.

Addressing the challenges in identification of bad actors

Timely detection and prosecution of fraudulent online content is crucial for protecting investors from investment scams. One significant regulatory (in particular enforcement) challenge is the difficulty in identifying bad actors and hold them accountable. This challenge mainly emanates from some of the unique features of the internet and social media which include nearly instantaneous communication with many users in multiple jurisdictions at a relatively low cost; ease to create a site, account, email, direct message, or webpage that appears legitimate; potential for anonymity; the sheer volume of content on the internet; and speed of change that make identification of bad actors very challenging.

Fraudsters can hide behind online and the cross-border nature of online misconduct. The online environment also provides opportunity to hide one's identity through the use of sophisticated advertising targeting technology, encrypted and private messages, and fake accounts. Perpetrators try to exploit jurisdictional differences and gaps, and the online environment enables concealing legal identity and/or changing it rapidly through the use of different internet domains and changing them easily within a short span of time. These in turn make it difficult to identify whether a website belongs to a firm that is authorised under national law. It also becomes difficult for IOSCO members to attribute liability to the firm.

Thus, there is an urgent need to adopt tools and strategies to overcome this challenge. To this end, IOSCO encourages its members to benefit from the Enforcement Toolkit Measure 1 on Proactive technology-based detection and investigatory techniques in the IOSCO Report on Retail Distribution and Digitalization, to support the detection and investigation of illegal digital conduct.

The IOSCO MMoU is also an essential tool in combatting online harm with an international angle.

Using behavioral science to analyze retail behavior and design consumer protection initiatives

As suggested during the consumer roundtable discussions, and supported by previous research conducted by IOSCO, there are limitations to disclosure and investor education in preventing retail investors from investing in unsuitable products, in particular in a context of weak suitability and disclosure requirements. Eligibility quizzes, consumer warnings, and consumer education might serve as tools, however, should not be regarded as panaceas to retail investor harm. Indeed, many attempts of collaboration between regulators and the private sector to develop investor quizzes to test the appropriateness of a financial product for retail investor consumption have failed due to misaligned consumer and firms' interests when designing such tools.

Instead, regulators may consider utilizing different approaches to support investor education initiatives, including, for instance, behavioral science research to better identify and analyse behavioral levers and nudges, and underlying factors of online marketing trends that drive retail investor behavior. Such assessments can complement the policies and regulations that some regulators are taking to better tailor consumer protection policies and design other regulatory interventions (e.g., product intervention or design and distribution obligations (for example, DDO, as in the case of ASIC).

Financial education initiatives could also consider the broader policy and regulatory agenda. In this context, it is important for regulators to acknowledge the ability and power of financial firms to ensure that their online platform choice architecture - including how they design and distribute products - can help prevent, rather than perpetuate harm on their customers. Firms should ensure that they maintain robust product governance frameworks and product monitoring capabilities during the end-to-end product lifecycle and across other related operational processes. To prevent consumer harm, regulators can also consider implementing targeted and principles based DDO obligations in relation to financial products. Such obligations would require issuers and distributors to have adequate product governance frameworks to ensure that financial products are targeted at retail investors appropriately. If regulators are not satisfied with firms' target market determination (TMD) and or product disclosure statements (PDS) prior to issuing a product; regulators can consider using product intervention powers, if available, through "stop orders" when there is a risk of significant consumer detriment.

As many malicious actors use "dark patterns" (e.g., carefully designed features on websites, apps or other digital interfaces that can influence consumer behaviors and cause them to act against their own interests or intentions) to manipulate the way people behave, regulators can consider utilizing behavioral science to identify such behavioral levers to identify and use malicious actors' biases against them.

Digital interfaces and online trading can provide regulators with the necessary infrastructure to experiment and test regulatory tools with regards to retail investor behavior within a controlled environment. By conducting experiments on digital interfaces, regulators could better analyse retail investor motivations and determine policy options through evidence-based data that will enable regulators to design the necessary interventions where required (e.g., regulators could consider implementing PIP powers, if available, to restrict the sales on risky leveraged products to retail investors after assessing behavioral experiment data that such products have caused substantial losses to investors).

Enabling easier access to whistleblowing and an intake system for triaging tips, referrals and complaints

Whistleblowing regimes can help reduce retail misconduct risk by providing an alternative means of notifying firms and regulators where employees/third parties become aware of potential misconduct issues. The opacity of some markets, such as the crypto-asset markets, means that misconduct can be harder to detect. Effective whistleblowing procedures can act as a deterrent to misconduct if they increase the perceived chance of detection. There are a wide range of whistle-blower policies, and their scope may vary from jurisdiction to jurisdiction, including process for the submission of the information, protections for whistle-blowers, incentives for reporting misconduct (such as monetary awards), etc.

The US SEC has long-standing 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 whistle-blowers who voluntarily provide the SEC with original information that leads to a successful enforcement action yielding monetary sanctions of over $1 million.

The OSC also established a 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.

The HK SFC has various channels for the public to file complaints against intermediaries and market activities. There are also requirements under paragraph 12.5 of the SFC Code of Conduct for licensed and registered person to report to the SFC on a wide range of matters, including any material breach, infringement or non-compliance of market misconduct provisions that firms reasonably suspects may have been committed by its clients.

3: ENHANCING CROSS-BORDER AND DOMESTIC SUPERVISORY AND ENFORCEMENT COOPERATION FRAMEWORKS, BOTH BILATERALLY AND MULTILATERALLY

Facilitating greater cooperation & collaboration, minimizing regulatory arbitrage where possible

The concept of developing and maintaining supervisory and enforcement frameworks is not a new one; however the effectiveness and efficiency of those frameworks is predicated largely on those who are committed to supporting and nurturing them.

IOSCO's MMoU and EMMoU are examples of frameworks that have been successfully used by signatories as enforcement and information sharing mechanisms to combat and mitigate misconduct, and increasingly that of a cross-border nature. Enforcement matters and investigations often turn on the quality of the information received and the speed at which it is transmitted, including information obtained through the assistance of foreign counterparts. It is also vital that signatories continue to look for ways to improve the speed and quality of cooperation, including investing adequate resources to provide effective and timely international cooperation, and considering the possibility and appropriateness of coordinating investigative actions or public messaging with other regulators when undertaking enforcement actions against a bad actor that operates internationally.[132] Signatories should also demonstrate a willingness to cooperate as much as permissible under their respective legal frameworks in relation to matters involving new or emerging products or services, such as crypto-assets.

Additionally, Measure 3 of the Enforcement Toolkit of the Report on Online Distribution and Digitalisation on "*Increasing efficient international cooperation and liaising with criminal authorities and other local and foreign partners*" recommends IOSCO members to increase efficient cross-border cooperation and collaboration in investigations and enforcement actions and enhancing liaison with criminal authorities and other relevant local or foreign partners.

Related to the above, the increased prevalence of areas outside of the scope of international regulation (e.g.,, jurisdiction or areas not covered by international cooperation agreements) presents a significant barrier to successful enforcement cooperation and represents safe zones for bad actors. Strategies to address and minimize the prevalence of these areas should be taken.

Similarly in the supervisory cooperation context, the success of any partnerships, whether bilateral or multi-lateral, will rely on the general consistency, reliability and speed of information sharing between the regulators involved. The IOSCO Board and the policy committees, task forces and groups that sit underneath regularly convene to share information and intelligence on securities and derivatives issues, new and emerging, including lessons learnt. IOSCO also meets periodically with other organizations such as the Financial Stability Board, in the pursuit of similar objectives and in recognizing that global cooperation and a multi-pronged approach to minimizing regulatory arbitrage and achieving a level of regulatory convergence is vital in an increasingly 'borderless' world. These efforts go some way in overcoming obstacles that present from geopolitical issues or divergent practices, laws and regulations between jurisdictions.

As regulators sharpen their regulatory arsenal of tools, focus should also lie in the uplifting of internal operational capabilities and ensuring regulators are adequately equipped and resourced where possible. Reducing frictions in the sharing of data and intelligence internally and across organizations, can promote greater agility and more informed approaches in dealing with regulatory issues.

More than two-thirds of IOSCO members stated the importance of improvements in the speed of information sharing between IOSCO members to address cross-border fraud more efficiently and timely. Numerous members and stakeholders have highlighted that, thus, there may be a role for IOSCO to try to map the common issues and look for ways that greater cross border co-operation to help regulators, firms, and other stakeholders, such as industry organizations. Such an effort could facilitate more effective coordination between all relevant stakeholders in fighting and disrupting cross-border fraud/scams/misconduct and minimizing consumer harm.

IOSCO could also consider building on its existing framework for enforcement cooperation and information sharing under the MMOU and EMMOU to explore ways to facilitate more efficient sharing of *relevant and high value* intelligence about cross-border misconduct between authorities. Access to a wider pool of quality intelligence on cross-border misconduct will be beneficial to jurisdictions individually and collectively, helping them to detect cross-border misconduct earlier to take prompt actions to minimize the scale of investor harm.

The HK SFC's efforts is a good example of fostering effective regulatory and enforcement cooperation with fellow regulators in Hong Kong, mainland China and major overseas markets. Cooperation is often founded on MoUs which set out the agreed approaches to issues ranging from enforcement to market development. Over the years, the SFC have signed several bilateral or multilateral agreements with local, Mainland and overseas regulatory bodies.

In terms of the ever-changing crypto-assets ecosystem, the importance of global cooperation and collaboration is clear. The evolution of crypto-assets, once considered a new and emerging area, is now mainstream in markets and a top item on the national and global agendas. The ability of regulators to mitigate cross-border misconduct arising in this space has very much relied on drawing from the

132 Coordinated enforcement efforts should be carried out in a manner that does not compromise the independence or discretion of each regulator to exercise powers in its own jurisdiction.

collective learnings and experience of regulators across the board as well as with market participants, consumer groups and other stakeholders. As mentioned earlier, given the cross-border nature of crypto-asset investments, IOSCO has dedicated international coordination groups that aim to analyse and respond to market integrity and consumer protection issues in the crypto-asset space.

While this report uses crypto-assets as an example of how enhancing cooperation frameworks is important, it is recognized that the dialogue among regulators will continue to evolve to cover other emerging areas as technological change continues to impact markets.

Working with other domestic and international agencies where appropriate, to address common issues of misconduct, identify individuals and groups involved in misconduct, and promote early intervention and disruption of misconduct.

IOSCO wants to emphasize the importance of working with other types of regulators, including those dealing with banking, consumer or AML requirements to collaborate to identify scam actors and channels and to support each other in disrupting or blocking scam activities directly or the fund flows associated with the scams. Efforts on this important issue needs to be increased.

Regulators should work together with partner organisations as appropriate, including other law enforcement agencies and online platforms, as 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 experiment with a social media scanning tool, which will assist the detection of bots that can create an artificial impression of scale. In another 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.

The increasing complexity and high-risk/high-profit nature of the products traded via online platforms makes them particularly attractive for unlicensed firms to use as tools for defrauding retail investors. As such, unlicensed firms distributing the products via online platforms pose a significant risk to investor protection. This has led to increased levels of investor detriment and associated investor complaints and enquiries.

Given that risky and leveraged products are predominantly offered to retail investors through online trading platforms, new firms offering the products can enter the market relatively easily with minimal or no physical presence in the jurisdiction where their products are sold, purchasing off-the-shelf trading platforms and marketing themselves with minimal capital expenditure and very low, fixed overheads. This can make it difficult for IOSCO members to locate, identify and take action against a firm before it closes and possibly reopens under a new entity.

Some jurisdictions have set their regulatory perimeter to only require firms that market, offer or sell the products to residents of that jurisdiction to be licensed. In these jurisdictions, firms that offer the relevant products to non-residents are exempt from the requirement to be registered for the purposes of those activities and are therefore not subject to any regulatory oversight in that "home" jurisdiction. A number of firms in the sector have exploited this regulatory gap to target foreign investors, by locating in jurisdictions where they are not required to be licensed.

IOSCO members have used a number of different enforcement actions to address such problems. These include bringing actions to assert the regulator's jurisdiction; blocking access in their jurisdiction to websites offering illegal binary options; obtaining court orders for disgorgement, customer restitution and penalties; publication of legal action; shutting down illegal businesses; and obtaining reciprocal orders based on actions of fellow regulators.

To cope with these challenges via use of practical actions, IOSCO members are encouraged to consider ways in which they can better utilise existing mechanisms to share and disseminate information, to improve communication between them, and allow for greater collaboration in investigations, both domestically and internationally. For example, IOSCO members may consider greater engagement with their counterpart criminal authorities regarding fraudulent firms.

Intelligence databases and formal intelligence gathering plans about fraudulent offerings can also help regulators to identify the individuals and entities involved in fraudulent activities and better understand how they are related to different fraudulent schemes. Such information is also valuable for regulators for developing appropriate strategies to target the schemes and the individuals and entities operating them. For example, in Canada, the Canadian Securities Administrators (collectively, the CSA) CSA Task Force put in place a national data collection plan to collect intelligence more effectively about fraudulent binary options schemes. The intelligence collected was used to develop an understanding of the binary options ecosystem, produce statistics for public awareness campaigns, and provide insights to investigations.

Raising awareness with relevant stakeholders such as advertising facilitators, mobile application providers, banks and payment platforms would also be very effective. Fraudsters commonly use internet sites and mobile apps to mass market the products to the public. Advertising facilitators and mobile app providers may not be aware of their illegal nature. Raising awareness with payment facilitators and service providers and infrastructure may result in such entities no longer offering their services to firms that are likely to be fraudulent to mitigate the reputational risk of being associated with fraud. For example, some IOSCO members have raised awareness about binary options fraud and unlicensed firms offering binary options to retail investors among mobile application stores. This engagement has resulted in certain app stores preventing unauthorised firms from offering binary options apps through their sites.

The increasingly online and cross border nature of retail fraud (fraud without borders) warrants enhanced international and domestic regulatory cooperation both for enforcement and supervisory purposes In some cases, IOSCO members may want to consider setting up national task forces comprised of domestic authorities.

For example, in December 2021, the HK SFC, the Hong Kong Police Force, Singapore MAS and the Singapore Police Force have conducted a joint operation against an active and sophisticated syndicate suspected of operating ramp-and-dump manipulation schemes in Hong Kong and Singapore. The simultaneous joint operation involving securities regulators and law enforcement agencies in Hong Kong and Singapore is the first-of-its-kind in tackling cross border ramp-and-dump scams.

- A total of 10 people – including individuals believed to be the key members of the syndicate and their associates and some senior executives of Hong Kong listed companies – were arrested during searches of 33 premises in Hong Kong and Singapore by more than 190 officers of the SFC, the Hong Kong Police, the MAS and the Singapore Police. The Hong Kong-Singapore joint operation came after the SFC, which first discovered suspicious trading activities of the syndicate, referred the case to the MAS and the Hong Kong Police because of a cross-border element and the scale of suspected money laundering offences, in addition to specific market misconduct offences under the Securities and Futures Ordinance (SFO).
- The joint operation was conducted under the arrangement of:
  - the MoU signed between the SFC and the Hong Kong Police.
  - the IOSCO Enhanced Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information and Multilateral Memorandum of Understanding and the bilateral Memorandum of Understanding between the SFC and the MAS.

4. ADDRESSING RETAIL INVESTOR HARM THAT STEMS FROM CRYPTO-ASSETS

To the extent not already covered by existing regulatory frameworks, determine whether there are regulatory powers that can be used to provide KYC and trade reporting databases for crypto-asset transactions

A recent report[133] by the crypto-asset analytics provider "Chainalysis", revealed that total scam revenue for 2022 currently sits at $1.6 billion as of August 2022. Furthermore, in 2022, Chainalysis estimates that much of the value stolen from DeFi protocols can be attributed to malicious actors affiliated with North Korea (e.g., elite hacking units such as the Lazarus Group).

The crypto-asset sector is an emerging area that has been cited by consumer roundtable respondents that regulators should focus on. Many centralized crypto-asset trading platforms and intermediaries are

133 Mid-year Crypto Crime Update: Illicit Activity Falls With Rest of Market, With Some Notable Exceptions - Chainalysis

operating in non-compliance with existing regulations, which contributes to poor data availability and product identification for retail trades of crypto-assets, which can contribute towards increased cross-border issues and challenges. IOSCO is engaging in a comprehensive analysis of the crypto-asset market, including evaluating the regulatory implications of these assets.

To the extent not already addressed by their existing regulatory regimes, regulators can consider whether there are regulatory powers that can be used to obtain KYC and trading reporting databases to provide information that may assist regulators in confronting cross-border misconduct that may arise by using crypto-assets (e.g., Money Laundering and Terrorist Financing) whilst adhering to principles of 'tech-neutrality' where appropriate.

As information sharing is a fundamental part of the blockchain, regulators can employ the services of third-party data providers who already analyze information about trends in crypto-asset markets. In the same way, regulators can use trading flow tracking tools for crypto-assets to assess trading volume in several markets to the extent that centralized crypto-asset trading platforms' trades are recorded on a public blockchain and are not merely recorded internally.

Regulators could consider how to obtain reporting from virtual asset service providers (VASPs), such as the crypto-asset trading platforms, to do reporting on their activities. Proposed amendments currently being discussed during MiCA's negotiations may require EU VASPs to be established and have substantive management in the EU, including a resident director and registered office in the member state where they apply for authorization. There will be robust checks on management, persons with qualifying holdings in the VASP or persons with close ties. Regulators can consider implementing temporary stop orders if AML safeguards are not met by prospective crypto-asset service providers.

To the extent clients' crypto-assets can be used for staking or borrowing in DeFi lending protocols under existing regulatory requirements, crypto-asset service providers should maintain clear disclosures to clients concerning such activities and maintain appropriate internal record keeping and governance mechanisms to mitigate the potential risks involved with the co-mingling of investors' funds as collateral. To the extent the risks of such activities are addressed by existing regulatory regimes, regulators should seek to enforce these requirements.

Regulators may consider immediately implementing the Financial Action Task Force's (FATF) 'Travel Rule' that requires crypto-asset service providers/VASPs to share relevant originator and beneficiary information alongside virtual asset transactions. This can help progress AML/CTF initiatives and helps to improve crypto-asset/virtual asset audit transparency. To the extent possible, IOSCO members and committees should be open to consider further continuous engagement opportunities with other international standard setting bodies to improve access to data for crypto-asset transactions. The IOSCO CDA and DeFi workstreams will also consider systemic risk concerns to complement the Financial Stability Board's crypto-asset and DeFi work in addition to their mandate of analysing and responding to market integrity and investor concerns in the crypto-asset space.[134]

Finally, there should be clear disclosure by firms to their clients on how and where client assets are being held, including for staking or borrowing, with appropriate internal record keeping and governance given the risks involved and prominence of co-mingling of funds.

Employing applicable regulatory intervention powers to address cross-border crypto-asset fraud and theft to retail investors

Crypto-asset trading platforms and intermediaries do not operate in a regulatory free space, and many are operating in non-compliance with existing regulations. As with other investments that are available through the internet, the crypto-asset space is argued to be borderless and becoming easier access due to developing technology. Retail investors have access to a myriad of crypto-asset platforms internationally (e.g., international crypto-asset trading platforms such as Coinbase) and can buy or sell any number of crypto-assets easily. Given this easy access to crypto-assets internationally, the risks of crypto-asset related misconduct inflicted on retail investors increases proportionately. Therefore, IOSCO member

[134] See OR03/22 Crypto-Asset Roadmap for 2022-2023 (iosco.org)

regulators can consider using regulatory intervention powers, if available, to mitigate cross border crypto-asset retail investor harm where appropriate.

Some jurisdictions currently regulate crypto-asset trading platforms and intermediaries. For example, in Canada, the OSC and other members of the CSA, now expect crypto-asset platforms to provide a pre-registration undertaking[135] to their principal regulator. The pre-registration undertaking process requires crypto-asset platform to comply with terms and conditions that address investor protection concerns and to be compliant with certain requirements that are currently applicable to registered platforms. Some of these obligations imposed on crypto-asset platforms as part of the undertaking process involve introducing:

(i) The requirement for crypto-asset platforms to assess whether it is appropriate to open an account for a client through information obtained from short trading questionnaires regarding the retail investors' experience and knowledge with crypto-asset investing, financial situation and risk tolerance;
(ii) Net rolling 12-month purchase limits of $CAD 30,000 for non BTC, Ethereum, Litecoin and BTC Cash crypto-assets[136](where the platform only assesses account appropriateness);
(iii) Portfolio loss notifications;
(iv) Crypto-asset derivatives data trade reporting; and
(v) Market integrity obligations.

CSA members may take further action if a crypto-asset platform is not prepared to file an undertaking or does not abide by the terms of such an undertaking.

Regulators can continue to take early decisive steps to mitigate consumer harm and ensure that retail investors are aware of the risks associated with crypto-asset investing. Since January 2022, the Singapore MAS has restricted crypto-asset market participants from promoting crypto-asset services in public spaces which has led to the dismantling of Bitcoin ATMs and the removal of crypto-asset related advertisements in MRT stations[137]. The MAS is currently considering introducing customer suitability tests and restricting the use of leverage and credit facilities for crypto-asset trading[138]. Similar moves to restrict crypto-asset advertising have been adopted in Spain. Since January 2022, the Spanish CNMV[139] requires influencers with more than 100,000 subscribers who are paid to promote crypto-asset and crypto-asset advertisers to submit the content of their upcoming campaigns to the CNMV. Crypto-asset advertisers must include warnings about the risks of what they are selling to retail investors.[140]

The terms of MiCA will see crypto-asset platforms needing authorisation to operate in the EU, with the largest crypto-asset platforms to be monitored by ESMA. Both ESMA and the European Banking Authority (EBA) will have intervention powers to prohibit or restrict the provision of VASPs, as well as the marketing, distribution, or sale of crypto-assets in the event of a threat to investor protection and market integrity. VASPs will be required to introduce liability for damages or losses caused to their customers due to hacks of operational resilience failures that could have been avoided in addition to having to give clear warnings to investors about the risk of volatility and losses that are associated with crypto-asset trading and complying with insider trading disclosure rules. The HK SFC will also introduce

135 Canadian securities regulators expect commitments from crypto trading platforms pursuing registration - Canadian Securities Administrators (securities-administrators.ca)

136 What are these new regulatory changes? (August 2022) – Newton

137 MAS Issues Guidelines to Discourage Cryptocurrency Trading by General Public

138 "Yes to Digital Asset Innovation, No to Cryptocurrency Speculation" - Opening Address by Mr Ravi Menon, Managing Director, Monetary Authority of Singapore, at Green Shoots Seminar on 29 August 2022 (mas.gov.sg)

139 Circular 3_2021 (cnmv.es)

140 In a different example, the US Securities and Exchange Commission announced charges against Kim Kardashian for touting on social media a crypto-asset security offered and sold by EthereumMax without disclosing the payment she received for the promotion. SEC.gov | SEC Charges Kim Kardashian for Unlawfully Touting Crypto Security

intervention powers under an AML amendment bill, which proposes to introduce a licensing regime for regulating centralized exchanges trading non-security tokens.

5. IMPLEMENTING NEW REGULATORY APPROACHES AGAINST RETAIL MISCONDUCT

Global developments in retail investor behavior may justify further reviews by regulators of their current approaches. The following trends were observed as significant according to stakeholders:

- Consumers are increasingly exposed to complex decision making about their financial future, including whether and how they invest which can exacerbate the risk of things going wrong.
- Consumers are losing significant sums of money to investment fraud and scams.[141]
- Consumers are looking for help in avoiding scams or dealing with their consequences.[142]
- Many consumers who might gain from investing currently hold their savings in cash.[143] Over time, these consumers are at risk of having the purchasing power of their money eroded by increasing inflationary trends in the globe.
- Other consumers are investing in higher risk investments, many without realising the risks.[144]
- The characteristics of investors are changing, as well as the way they invest. Younger people are twice as likely to have invested in higher risk investments as adults overall. [145]
- Financial advice is not reaching all parts of the market.[146] This can translate to additional risks of consumers being presented with misleading sustainability-related information (e.g., greenwashing).

In this environment, IOSCO encourages all regulators to take a proactive, flexible and agile approach to mitigate potential regulatory risks that may stem from recent retail investor trends, and to regularly review practices as the environment changes.

Regulators can use a combination of a diverse range regulatory tools. These include rule-making, requesting legislative changes (when harms fall outside the regulatory perimeter), and supervision and enforcement tools. For example, they can use simultaneously scam awareness campaigns, information sharing and cooperation with external partners, supervision and enforcement work on financial promotions and work actively and continuously to disrupt unauthorised businesses who seek to defraud consumers.

In consideration of the limitations of traditional regulatory tools in an increasingly digital environment, as a non-exhaustive list, IOSCO members can consider some of the following innovative tools under a

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141 For example, in the UK, 23,378 consumers reported they lost an estimated £569m to investment fraud from April 2020 to March 2021 - an almost threefold increase since 2018. On average, consumers lost over £24,000 each.

142 Again in the UK, in the FCA's Consumer Investments Strategy and Feedback Statement it said it received approximately 1,400 calls a month related to investment scams. This was double the amount received in 2016/17 and 23% higher than in 2019. In addition, over 10,000 people visited FCA's ScamSmart website per month on average.

143 In 2020 there were 15.6 million UK adults with investible assets of £10,000 or more. Of these, 37% held their assets entirely in cash, and a further 18% hold more than 75% in cash (Financial Lives Survey – FLS 2020).

144 6% of investors increased their holdings of higher risk investments during the pandemic (FLS) or invested in high risk products for the first time. Yet research conducted for the FCA revealed that there is a lack of awareness of the risks associated with investing, with 45% of non-advised investors failing to recognise that 'losing some money' was a risk of investing.

145 For example, 44% of cryptocurrencies and 31% of crowdfunding investments are held by people under 34 (FLS). In addition, there is a new, younger, more diverse group of consumers getting involved in higher risk investments. Nearly two-thirds (59%) of whom claim a significant investment loss would have a fundamental impact on their current or future lifestyle (BritainThinks).

146 In 2020, half of UK adults with £10,000 or more of investible assets had not received any formal support to help them make investment decisions over the last 12 months (RDR / FAMR Evaluation). Moreover, only 8% of UK adults had received financial advice and only 1.3% of adults had made use of online robo-advice in the last 12 months.

holistic and flexible approach. In this regard, references can be made to the Enforcement Toolkit at section 8.2 of the IOSCO Report on Retail Distribution and Digitalisation**.**

Rules related to the marketing of high-risk products

Regulators may consider introducing several policy changes via regulation, including greater investor protection in the marketing of high-risk investments, which for some jurisdictions may include clearer risk warnings and banning inducements to invest in high-risk investments.

For example, the 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.

The FCA has taken steps to improve the marketing of high-risk promotions to retail consumers. Whilst the FCA has limited powers over many issuers of high-risk investments, as firms offering these products are often not carrying on a regulated activity, it can make financial promotion rules on how they market their investments. These apply when an authorised firm approves or communicates the financial promotions related to those investments. To enforce their financial promotion rules and effectively protect consumers the FCA is monitoring financial promotions online. The FCA has also worked closely with online platforms to ensure they do more to deliver on their public commitments to stop harm from online advertising. For example, since their engagement with Google and the introduction of their new financial services advertisement policy, the FCA has seen a significant reduction in non-compliant paid for advertising by unauthorised entities on their platform. This is also a good example of cooperation with service providers.

Consumer Helplines and AntiScam Campaigns

Such initiatives can support consumers directly and educate inexperienced investors regarding the risks of investing and how they can best protect themselves from fraud. AntiScam campaigns can help consumers protect themselves from scams:

For example, the Belgium FSMA 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.

In another example, 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., TikTok, 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.

In view of the increasing number of financial scams, the IFEC in Hong Kong ran a mass media campaign in early 2021 to caution the public against investment including ramp and dump schemes on social media platforms, email phishing, with reminders to adopt good cybersecurity practices. An online anti-scam quiz based on real life scenarios was launched to raise awareness.

As another creative example, AMF France ran an anti-scam campaign in December 2021, with two target groups: young people and traditional investors. For the younger group the campaign was on Instagram and TikTok, which produced very good results (2 million impressions on TikTok for a limited budget). For traditional investors, the messages were mainly disseminated on Facebook. On the two targets and on all social media, the number of impressions was 4.5 million.

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. 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.[147]

"Regulatory sandbox" approach

Regulatory sandboxes can observe new risks presented by financial services and products. For example, 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 and regulated firms, both from the CBoI and other European authorities.

In Hong Kong, in September 2017, two Circulars were issued by the HK SFC to announce the SFC Regulatory Sandbox (Sandbox) relevant to Fintech business conducting regulated activities in Hong Kong.

- The Sandbox is established to provide a confined regulatory environment for qualified firms to operate regulated activities under the SFO before Fintech is used on a fuller scale. The Sandbox would enable qualified firms, through close dialogue with and supervision by the SFC under the licensing regime, to readily identify and address any risks or concerns relevant to their regulated activities.
- The Sandbox is available to both licensed corporations and start-up firms that intend to carry on a regulated activity under the SFO.

Use of intrusive supervision and enforcement techniques

Regulators can consider adopting a range of supervision and enforcement techniques to better detect and mitigate fraud and areas of consumer harm associated with financial services and products. 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 as a more rapid outcome than a lengthy investigation and hearing process. The enforcement functions of some other jurisdictions partnered with criminal law enforcement agencies in their own jurisdictions to conduct search operations against suspected perpetrators and freeze their financial assets. Some other jurisdictions have created specialized task forces to address specific areas of fraud.

Using tools to better identify firms' compliance with climate disclosure standards and to better detect greenwashing activities

Regulators may consider using AIML powered RegTech 'webscraping' and Natural Language Processing (NLP) techniques[148] to identify if disclosures concerning sustainable finance products are consistent with their jurisdictional requirements to better identify greenwashing risks to retail investors. Webscraping could also be used to provide inputs into an indicator that quantifies the number of companies publishing sustainability reports. Regulators may also consider in-house development or using third party sustainability software to automate the collection of energy consumption data, the management of emission factors and the calculation of emissions to better conduct analysis to assess if firms are engaging in greenwashing practices. [149]

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

148 See, Poster-DS3-A1 (ds3-datascience-polytechnique.fr)

149 See AI Utility NovA! to Unlock Opportunities for Green Financing and Combat Greenwashing (mas.gov.sg)

CONCLUSION

The retail trading landscape is complex and ever changing. The report presents “a point in time” review of the retail trading landscape, where circumstances are rapidly evolving. IOSCO will continue to monitor these developments, with a view to any areas for further collaboration.

There is a wide range of retail trends and sources of potential retail investor harm, which are highlighted in detail in this Report. The changes in the retail trading landscape are a result of the interaction of various factors, such as the recent global pandemic, changing macro conditions (“low for long” or “rapidly increasing interest rates” and “inflationary environment”), demographic trends, and importantly, technological developments. These trends are global.

In an online environment, where information comes from social media, regulators need to develop and use technological tools to facilitate early identification of misconduct for rapid intervention. The review of the regulatory approach to retail investor protection should not solely be based on the actual or potential developments, but also on the scale at which they take place.

Important as they are, large educational campaigns may have limitations. In addition to the traditional education model, regulators should explore new ways to build investor capabilities through different forms of engagement that seek to build skills rather than just knowledge, as both aspects complement each other.

Shortening the disclosures by firms may not solely improve investors engagement with the disclosures. Relevant studies suggest that the focus should be on revising and transforming disclosures into a format that investors can find the most important information in a convenient and succinct way.

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. Wrongdoers use a range of effective and sophisticated tactics to build trust and exploit vulnerabilities. While it offers benefits, social media may allow access to information 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 and may result in harmful behavior and fraud.

Fraud patterns are evolving with global trends and the advancements in technology. Crypto-asset scams and greenwashing are two relevant examples. More and more, fraudulent activities are accompanied by digital promotions and online marketing, Regulators should aim to address potential retail investor harm at its source and eliminate detrimental online marketing channels, as well as any other source of misleading, inaccurate or false information.

As a global trend, the exponential interest in crypto-assets brings various risks that investors may not fully understand. Crypto-asset fraud is leading to massive retail investor losses. It is more important than ever that IOSCO members cooperate on combatting global fraud and that members use regulatory intervention powers to mitigate cross border crypto-asset related retail investor harm, where available and appropriate.

Regulatory hook/arbitrage challenges resulting from the 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 and a deepening of co-operation between jurisdictions is needed.

Finally, IOSCO members should carefully observe the implications of increasing inflation on the retail population. Going forward, a higher cost of living may increase investors' appetite for risk as they search for returns that can beat inflation. This may incentivize retail investors to turn to high risk/unregulated products. This in turn may increase their risk of falling prey to scams and fraud.

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
- Retail Investor Education in the Context of Sustainable Finance Markets and Products
- Retail Distribution and Digitalization
- Investor Behavior and Investor Education in Times of Turmoil – Lessons Learned From COVID-19
- IOSCO Decentralized Finance Report
- Complaint Handling and Redress System for Retail Investors
- Core Competencies Framework on Financial Literacy for Investors
- The Application of Behavioral Insights to Retail Investor Protection
- The Application of Behavioral Insights to Financial Literacy and Investor Education Programmes and Initiatives
- Senior Investor Vulnerability
- Sound Practices for Investment Risk Education
- Survey on Anti-Fraud Messaging
- Strategic Framework for Investor Education and Financial Literacy

ANNEX 2 – FEEDBACK STATEMENT

<u>Question 1: Demographic focus</u> **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?**
Responses to public consultation generally do not favour a focus on specific demographic groups, however, rather focus on financial literacy. Feedback from two IOSCO members described the retail market conduct related challenges for investors of all age groups. Most private sector responses confirm these view (e.g., EFAMA, ESBG, ADAN, FPSB, ALFI, ANBIMA, CFA, FESE, NFA, WFE, AIMICHIA, HSBC). One response (AFMA) would support demographic specific measures, but only on an information campaign basis.

<u>Question 2: Retail trends</u> **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?**
Overall, the consultation responses see the retail trends highlighted in the report accurately captured. One response (HSBC) highlights that stock tokens are typically traded on unregulated platforms and hence would potentially need to be included. One regulator highlighted the potential regulatory implications of some of the emerging trends. There is concern that, consumers, in the search for returns, may turn toward risky or fraudulent investments. Non-advised investors might take on higher risks and the resulting decrease in AUM by asset managers might incentivise development of new, potentially more risky business models that may not prioritise investor protection. These all, in turn, increases the importance of investor protection and education initiatives. Several responses (e.g., EFAMA, AFMA, AIMICHIA) noted an increase in unregulated trading and advisory activity, which may have potential long-term implications. Lastly, one respondent (HSBC) highlighted higher scam activity as an implication.

<u>Question 3: Implications of gamification and self-directed trading</u> **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?**
Slightly different than the feedback to other questions where there is generally consensus in stakeholders´ views, the responses vary in relation to the implications of gamification and self-directed trading. Regulators view investor education and access to information as upmost important. One regulator underlined the difficulty in prohibiting certain trading activity due to missing definitions of the actual activity. Private sector responses suggested bans and prohibition for certain business models (EFAMA, FPSB, HSBC) and more information disclosure or warning systems against conduct risks (CFA, FESE, AIMICHIA).

Question 4: Monitoring crypto-asset trading
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?
Views on how to regulate the crypto-asset environment differ largely. While some respondents favour the use of statistical tools for real-time trade surveillance (e.g., ADAN) or periodical reporting (e.g., FPSB, WFE, AIMICHIA), others focus on business conduct. Several answers are in favour of "same business, same risks, same rules" approach (e.g., ESBG, FESE, AFMA), whereas others focus more on strengthening knowledge and experience of retail investors and the training of the service/product providers (SEC Thailand). Furthermore, two responses support an alignment for crypto-assets with the existing MiCA regulation in the EU (ALFI, WFE).

Question 5: Regulatory approach to emerging trends
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?
Many respondents favour an approach focussed on the underlying business models and risks. Similar to Question 4, several responses propose regulatory treatment according to "same business, same risk, same rules" (e.g., ESBG, ALFI, AFMA, HSBC) or making the providers liable for the actions of their distribution channels (e.g., FPSB). Other responses underline the importance of online disclosure and warnings by providers (e.g., EFAMA, ADAN) and regulators. One respondent mentioned trade-flow tracking as a means to monitor trading (AIMICHIA). Lastly, two regulators would support to step-in and give public alert in case of a proven misconduct.

Question 6: Monitoring social media
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?
While a broad majority of the answers favour proactive monitoring of social media, the proposals as regards to how to do this differ. Several respondents see the cross-border and non-transparent nature of product offerings and offerors, as well as Finfluencers, as a problem (e.g., AIMICHIA, HSBC, ANBIMA, FESE). Some respondents support mandatory reporting imposed on firms who are working with Finfluencers (e.g., ANBIMA, FESE, HSBC). Some respondents understand that if Finfluencers cross the line from information to selling or advice they must be licensed like other market participants and suggest a certification for those that do not cross that line, for providing a level of competency and standard setting (e.g., FPSB, ANBIMA). Many responses propose monitoring of social media via third-party data vendors or collaboration with social media providers

(e.g., SECT, NASDAQ, AIMICHIA, FPSB). Moreover, one respondent sees MiFID II regulation as sufficient and would favour an overseas extension of it (ESBG).

Question 7: Fraud types

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?

Generally, most responses agree on the main fraud types covered by the consultation report. The two most prominent fraud types are related to impersonation of trustable institutions in order to wrongfully advertise the fraudster's product (e.g., FPSB, DBG) and false information about the product offered (EFAMA, FPSB, ICMA, HSBC). Furthermore, many respondents highlighted traditional frauds such as boiler rooms (HSBC, AFMA), Ponzi schemes (HSBC), and rug-pulls (ADAN) as the most common fraud types. Responses also point out that frauds typically do not emerge from registered and reputable institutions with long-standing history, but rather from unregistered entities (NFA, ESBG). There are also newer forms of fraud, such as identity theft (DBG) forgery, and blackmail (AIMICHIA).

Question 8: COVID-impact

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?

Broadly, most responses confirm a steep increase in both legitimate as well as illegitimate trading activity since the outbreak of COVID-19 (ADAN, HSBC). A number of responses propose actions from regulators, such as complaint channels (AIMICHIA), public alerts or use of advanced technologies such as use of apps to check the legitimacy of a service provider. Other responses support better investor education (AFMA) or stronger communication between the investor and his/her advisor to fulfil suitability requirements and ensure realistic financial opportunities (FPSB).

Question 9: Cross-border Challenges

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?

As a key-challenge, many respondents highlight legal enforcement related obstacles for cross-border fraud (e.g., EFAMA, FESE, HSBC). Many respondents favour stronger collaboration among regulators (e.g., FPSB, FESE, WFE, HSBC), That being said, some respondents highlight the fact that a one-size-fits-all approach should be avoided (NASDAQ). Other supervisory approaches include collaboration with social media (FPSB) and data gathering for supervision (HSBC).

Question 10: Disclosure **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 enhancing the ability of retail investors to process the disclosure?**
The most commonly mentioned concern about disclosure is understandability. Responses, hence, propose either a simple language (EFAMA, ESBG, FPSB, ALFI, CFA, HSBC) and/or presentation that does not mislead clients, as multiplication of information can be difficult to understand for retail investors (e.g., ALFI, HSBC). Furthermore, responses point out to the importance of completeness of disclosure (e.g., NFA, ICMA), which is perhaps why some respondents oppose to too short disclosures in order to ensure adequate and complete information provided to the investor on their investments.(e.g., ICMA, KAIKO). Another way of making disclosure easily available to retail investors could be short messages via social media (e.g., EFAMA, FIDELITY). Alternatively, two responses highlight the importance of enhanced investor education to enable retail investors to better understand complicated disclosures (WFE, DBG). Lastly, several responses point out the timely accessibility of disclosures as upmost important to retail investors (e.g., ESBG, NFA).

Question 11: Product intervention **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?**
There is general consensus about the usefulness of product intervention. That said, while some responses view product intervention as a generally useful tool for investor protection or in curbing market abuse (e.g., EFAMA, ALFI, FESE, HSBC), others would solely opt for product intervention as a last resort in case of materialized investor harm (e.g., ESBG, DBG, AFMA,). Also, two responses, rather see the danger for retail investors in high-risk products, irrespective of leverage level (e.g., EFAMA, WFE). Another response would support the ban of leveraged product for retail investors (FPSB). Finally, one answer proposes safety nets for providers such as through mandatory margining (NFA).

Question 12: Global versus regional trends **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?**
A big majority of responses think that the current global developments related to retail trends justify further review of the regulatory approaches to retail investor protection (e.g., EFAMA, ESBG,

ADAN, NFA, AFMA). Many responses see digitalization, social media, and a younger investor base as driving factors of recent retail trends (e.g., ADAN, WFE). Responses also highlight inflationary pressures (ADAN) and regulatory gaps (FPSB) as some of the causes of the change in retail investor behavior. Two responses voice concerns about a global approach due to regional differences (FESE) or missing enforcement powers in certain jurisdictions (AIMICHIA).

Question 13: Appropriateness of tools

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)?

While most responses see the proposed tools as appropriate, there are several proposals for extensions or additions. A number of responses highlight the need for increased use of RegTech and data intelligence for regulatory purposes (e.g., SEC Thailand, HSBC, NFA) or extended product intervention (EFAMA) or enforcement powers (e.g., EFAMA, NASDAQ, AIMICHIA) directly conferred to the regulator. Alternatively, some responses propose more guidelines from regulators for business conduct (e.g., ADAN, ALFI, HSBC). Other responses focus on the tools accessible to retail investors such as self-assessment questionnaires (SAQs) and warnings (e.g., HSBC, FPSB).

Question 14: New trends since August 2021

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?

Since August 2021, respondents have noted three major trends with impact on retail investors and investments. Firstly, two respondents noted a shift from bull to bear markets, including strong outflows from the retail segment (AFMA). Secondly, two responses noted global inflation pressures (FPSB, HSBC). Finally, one respondent pointed out to the mandatory sustainability preferences within the EU (ESBG).