Final Report

On the European Commission mandate on certain aspects relating to retail investor protection

29 April 2022 | ESMA35-42-1227

Table of Contents

1 Executive Summary

Reasons for publication

The European Securities and Markets Authority ("ESMA") received a formal request (mandate) from the Commission on 27 July 2021 to provide technical advice on certain aspects relating to retail investor protection. With this Technical Advice ESMA responds to the European Commission's mandate, aiming to support the further work on the retail investment strategy and ultimately contributing to deliver on ESMA's investor protection objective. The mandate sent by the European Commission to ESMA is available on the Commission's website.[1]

Contents

The final report contains the technical advice in relation to certain investor protection topics under MiFID II. In this respect, in the mandate from the Commission, ESMA was requested to focus on the following three main topics:

- Disclosures
- Digital Disclosures
- Digital Tools and Channels

This report provides the analysis and rationale behind ESMA's final proposals and includes summaries of the feedback received to the Call for Evidence published by ESMA on 1 October 2021.[2]

Next Steps

The final report has been submitted to the European Commission on 29 April 2022.

[1] Calls for advice to the European Supervisory Authorities on the protection of retail investors | European Commission (europa.eu)
[2] https://www.esma.europa.eu/press-news/consultations/call-evidence-retail-investor-protection-aspects

2 Disclosures

2.1 Mandate

Extract from the Commission's request for advice

The Commission invites ESMA to provide advice on a number of focused areas: […]

Addressing and enhancing investor engagement with disclosures: identification of any significant overlaps, gaps, redundancies and inconsistencies across investor protection legislation that might have a detrimental effect on investors (i.e. which might confuse or hamper decision-making or comparability), in addition to those already identified and addressed by the recent PRIIPS level 2 work, how the different legal frameworks fit together and options as to how to remedy any identified shortcomings. We would especially appreciate to receive a supervisor's perspective on these issues, and in particular how and whether the current rules help retail investors to take well-informed investment decisions. In addition, it would be helpful to understand what might be considered the vital information that a retail investor should receive. We would also invite ESMA to reflect on how the rules work from a retail investor perspective - including on whether they have fully attained the objective of ensuring that consumers can make informed choices and adequately reflect behavioural insights, avoid information overload and overly complex information, and the specific challenges for different types of products. Conversely, are there areas where investors may not receive adequate and accurate, streamlined and clear information and in an appropriately standardised form, before investing, and are there any potential blind spots?

2.2 Analysis

1. MiFID II[3] is the key legislation covering the distribution of financial instruments. Indeed, MiFID II covers the provision of different investment services (including investment advice and the reception, transmission and execution of orders) in relation to any financial instruments to different categories of investors, including retail clients.

2. Rules on pre-contractual and on-going disclosure requirements are set out in MiFID II as well as in other sectoral investor protection legislation and in horizontal EU legislation. The PRIIPs legislation is particularly important in this respect because of its objective to provide short, pertinent, and clear information to retail investors and because of its direct impact on the distribution of retail investment and insurance-based investment products. The rules

[3] In particular, as regards information requirements, Article 24 of MiFID II; Articles 3 and Articles 44 to 52 of the MiFID II Delegated Regulation.

can differ from one legal instrument to another, which may render comparison of different products more difficult for investors.

3. With regard to MiFID II, Article 24(3) of MiFID II states “All information, including marketing communications, addressed by the investment firm to clients or potential clients shall be fair, clear and not misleading. Marketing communications shall be clearly identifiable as such”.

4. Article 24(4) of MiFID II further requires that appropriate information shall be provided in good time to clients or potential clients with regard to the investment firm and its services, the financial instruments and proposed investment strategies, execution venues and all costs and related charges. In accordance with paragraph 5 of the Article, this information shall be provided in a comprehensible form in such a manner that clients or potential clients are reasonably able to understand the nature and risks of the investment service and of the specific type of financial instrument that is being offered and, consequently, to take investment decisions on an informed basis. Member States may allow this information to be provided in a standardised format.

5. Further requirements on the topic of the provision of information to clients are specified in Chapter III of the MiFID II Delegated Regulation.[4]

6. MiFID II, compared to MiFID I, has increased the level of disclosure to be made by firms, more specifically:

   - The general principle, mentioned above, that information shall be fair, clear, and not misleading has been extended to dealings with eligible counterparties[5]. This change was introduced to address concerns that non-retail clients were not always able to understand the risks of investments.
   - New disclosures requirements have been introduced relating to cross-selling practices[6]. On this topic see also the ESMA guidelines issued in 2016.[7]
   - New disclosures requirements have been introduced relating to investment advice (whether on an independent basis or not).[8]

7. The provision of information on costs and charges now requires at least the aggregation of all costs and charges in connection with the investment service and financial instrument (an itemized breakdown being available on request). Furthermore, increased post-sale information on costs and charges is required.

[4] Commission Regulation 565/2017.
[5] Article 30(1) of MiFID II
[6] Article 24(11) of MiFID II.
[7] ESMA Guidelines on cross-selling practices [Ref: ESMA/2016/574].
[8] Articles 24(4) a) and (7) of MiFID II and Articles 52 and 53 of the MiFID II Delegated Regulation.

8. Member States may, in exceptional cases, impose additional requirements on investment firms in respect of information to clients (i.e., gold plating)[9]. Such requirements must be objectively justified and proportionate so as to address specific investor protection or market integrity risks of the market structure of that Member State.

9. Beyond the changes to MiFID II, ESMA had also provided the Commission with technical advice to develop the MiFID II delegated acts and to facilitate investors' decision-making, ensure comparability across firms, services and products while avoiding excessively complex and confusing disclosures.[10] ESMA has also used its supervisory convergence tools (such as Q&As[11]) to help ensure a consistent application of the existing requirements by firms.

Supervisory evidence from national competent authorities

10. Since the entry into application of MIFD II, NCAs have been engaged in the supervision of the MiFID II requirements on disclosures and in analysing the effect of these disclosures on retail investors. Some key examples of the results are summarised below.

11. The FR–AMF[12] have, for example, observed during a digital mystery shopping exercise they conducted, that disclosure as required by MiFID, was provided at the end of the customer journey, i.e., at a point in time when the investor had already been confronted with a lot of different information. It could be very useful for the investor if, for example, vital information (as suggested under 'vital information' later in this section) for the decision-making process is provided at the beginning of the journey (e.g., costs and charges, contractual conditions, etc.). Then, the client could read this information at his or her own pace and at a time when most useful to them (some more experienced clients may want to go faster for example whereas others need more time). Moreover, having the information at the beginning of the process would also allow clients to compare the range of products online. In addition, NCAs noted that defining the notion 'in good time' under article 24(4) of MiFID II might be beneficial in this regard.

12. The DE-BaFin[13] conducted research in 2018 and 2019 on this topic as well in the form of market surveys on how investment firms had implemented the requirements on disclosure, reporting and documentation.[14] Furthermore, BaFin questioned 3,800 retail clients via a survey on their level of satisfaction with the (new) MiFID II rules.[15] The findings observed

---

[9] Article 24(12) of MiFID II.
[10] ESMA /2014/1569.
[11] esma35-43-349_mifid_ii_qas_on_investor_protection_topics.pdf (europa.eu)
[12] Autorité des Marchés Financiers (AMF)
[13] Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)
[14] https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2019/fa_bj_1905_MiFID_II_in_der_Praxis_en.html
[15] https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Meldung/2019/meldung_190607_Umfrageergebnisse_MiFIDII.html

were that, though many investors were in favour of the new obligations, more than half of them admitted that they did not make use of the additional information.

Machine readability and durable medium

13. In the March 2020 technical advice to the Commission on the impact of the inducements and costs and charges disclosure requirements under MiFID II [16], ESMA recommended "amending Article 3 of the MiFID II Delegated regulation so that, when information must be provided in a durable medium, the provision of such information by means of electronic communications shall become the norm and default option […]". Following ESMA's advice, changes were introduced in MiFID II with the Capital Markets Recovery Package.

14. In its Consultation Document "A Retail Investment Strategy for Europe"[17], the Commission noted that "By making the contents of publicly available documentation machine-readable, the data within them can be easily extracted and used for various purposes, such as aggregation, comparison, or analysis. In the field of retail investment, examples would include portfolio management apps, robo advisors, comparison websites, pension dashboards, etc.". Furthermore, the Commission acknowledged that "In the field of retail investment, applicable EU legislation does not currently require documents to be machine-readable. However, some private initiatives are already demonstrating that there is interest from market actors in more standardisation and machine-readability of the data provided within existing retail investment information documents, such as the PRIIPs KID or MiFID disclosures. Requiring machine readability of disclosure documents could help to open business opportunities for third parties, for example by catering to the needs of advisers and retail investors who prefer direct access to execution only venues." Furthermore, machine readability requirements can help NCAs in their supervision of disclosure documents, as well as further ease and enable convergence.

Evidence emerged from ESMA's call for evidence

15. Respondents underlined the importance of machine readability of disclosure documents to allow for better comparisons. Furthermore, mandatory disclosure should be limited to vital elements.

Recommendations and conclusions

16. ESMA notes that in the above-mentioned advice on the topic of "durable medium", ESMA had also recommended that "corresponding articles (Article 66(3) and Article 47(1) of the MiFID II Delegated Regulation) should be amended so that firms are not required anymore to personally address their best execution and conflicts of interest policies to their clients,

---

[16] ESMA35-43-2126

[17] https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/2021-retail-investment-strategy-consultation-document.pdf

provided that such policies are freely accessible on the firm's website". ESMA wishes to reiterate such advice, noting that it would avoid overloading investors with information.

17. ESMA supports the above-described approach on machine-readability and believes that offering clients increased machine-readability of MiFID disclosures would indeed help the development of tools and services that allow increased comparability across firms, products, and services, thereby enhancing competition and investor experience. Obviously, the machine-readability should not come at the expense of user-friendliness/readability of information for retail clients.

Standardised format for disclosure of information

18. Article 24(5) of MiFID II requires that information "shall be provided in a comprehensible form" and notes that Member States may allow that information to be provided in a standardised format". However, as indicated by various NCAs[18], such standardised format has not yet been introduced.

19. ESMA notes that the discretionary powers given to Member States with regard to the format that can be used to disclose relevant information do not appear to be an optimal solution to create a single market of financial products and services. ESMA believes that in light of the increased cross-border provision of services by digital providers, it would be best to develop a standard EU format for the disclosure, especially in the area of costs and charges as well as for the calculations used. ESMA, however, considers that it is important that before any disclosure format is formally introduced, it should be adequately consumer tested. In addition, the creation of such format should be aligned with other existing requirements, such as the PRIIPs KID, in order to avoid additional misalignment.[19] ESMA also notes that some NCAs have already adopted rules or guidance on the disclosure to retail clients and that any changes could therefore be costly for firms; consequently, an adequate time period should be given to firms for the adoption of any new EU format.

Recommendations and conclusions

20. ESMA believes that in light of the increased cross-border provision of services from digital providers it would be best to develop a standard EU format for the disclosure of information on costs and charges.

Marketing communications[20]

[18] Including: LU-CSSF, NL-AFM, DE-Bafin, BE-FSMA, IE-CBoI, IT-CONSOB and ES-CNMV.
[19] See paragraphs at the end of this first chapter discussing the misalignment between MiFID II and PRIIPs.
[20] Marketing communication channels focus on any way a firm communicates a message to its desired market, or the market in general. Online advertising is a part of the marketing communications tools (together with promotions, sales, branding and campaigning). Marketing material and communications are directed at a specific target market/client. Marketing communications as used in this technical advice should be read as including references to advertising. Advertising is a form of marketing in the

21. MiFID II requires marketing communications to be clearly identifiable as such. The MIFID II Delegated Regulation also clarifies that information contained in a marketing communication needs to be consistent with any information the firm provides to clients in the course of providing investment and ancillary services. However, the notion of marketing communications is currently not defined, which may be contributing to confusion as to whether short messages on social media including a link to marketing communications, for example, would fall under this definition.

22. ESMA notes the key role that marketing communications can play in determining consumer behaviour and influencing investment decisions, especially considering the phenomenon of 'anchoring bias' that makes people be over reliant on the first piece of information they receive. For many retail investors, decisions about if and how to invest are significantly influenced by information conveyed in marketing communications. Retail investors who are subject to misleading marketing communications are more likely to be mis-sold an unsuitable/inappropriate financial product and service, even where correct information is provided through regulatory disclosures (such as PRIIPs KIDs or UCITS KIIDs). Younger, less experienced investors, operating online are particularly vulnerable. Such investors are especially targeted by marketing on social media through, for example, influencers (or finfluencers)[21] but also through other types of (private) messages on social networks. The FR-AMF has observed these practices in a report published in December 2021.[22] It is important therefore that (potential) investors are made aware of the influences they are subject to, so that they are in a better position to take them into consideration when investing.

23. ESMA believes that some guidance to firms on these topics should be set out in supervisory convergence tools such as new ESMA guidelines, to complement and integrate the existing rules. These guidelines should be consistent with the existing ESMA guidelines issued under the CBDF[23]. For example, the new ESMA guidelines could state, based on criteria and examples, when a firm's marketing communications shall be considered unfair (and therefore non-compliant with existing rules), such as when:

    - It materially distorts or is likely to materially distort the behaviour with regard to the product or service of the retail investor whom it reaches or to whom it is addressed.

---

form of a non-personal message to promote or sell a product or service. We will refer to advertising specifically if the context requires that.

[21] An influencer is usually someone who is active on social media and has:
- the power to affect the purchasing decisions of others because of his or her authority, knowledge, position, or relationship with his or her audience.
- a following in a distinct niche, with whom he or she actively engages.

In the case of a 'finfluencer' the influencer generates content on financial topics such as investments.
The terms influencer and finfluencer are used interchangeably throughout this document.

[22] https://www.amf-france.org/sites/default/files/private/2021-12/the-french-and-investment-scams-bva-survey-for-the-amf-december-2021_0.pdf

[23] Directive (EU) 2019/1160 and Regulation (EU) 2019/1156 on the cross-border distribution of collective investment undertakings (the CBDF framework)

- It contains false information and is therefore untruthful or in any way, including by way of its overall presentation, deceives or is likely to deceive the retail investor. Similarly, when the information is factually correct but framed in a manner that causes or is likely to cause the retail investor to take a decision to enter in a transaction that he/she would not have taken otherwise, the information could be regarded non-compliant with existing rules (for example by selectively highlighting only potential benefits of the product).
- It omits material information that the retail investor needs in order to take an informed decision on whether to enter into a transaction and thereby causes or is likely to cause the retail investor to take a decision that s/he would not have taken otherwise.
- It hides or provides in an unclear, unintelligible, ambiguous, or untimely manner material information or fails to identify the commercial intent of a commercial practice if not already apparent from the context, and where, in either case, this causes or is likely to cause the retail investor to take a decision to enter in a transaction that he/she would not have taken otherwise.

24. ESMA had already provided some guidance to firms on the topic of marketing communications related to CFDs and other speculative products. These ESMA Q&As provided details of practices that would not meet the MiFID requirement to present information to clients and potential clients in a manner that is fair, clear, and not misleading. ESMA believes that sections of those Q&As could be broadened in scope to apply to all products and could be included in the above mentioned ESMA guidelines to help ensure a consistent implementation of the MiFID II Delegated Regulation. For example, the ESMA guidelines should clarify that the following practices are not compliant with MiFID II requirements:

    - Selectively presenting in e-mails, on websites or social media only potential returns of products (in favourable scenarios) without presenting in an equally prominent manner risks, costs, and mandatory warnings.
    - Website content or information presented in languages that are not official languages of the Member State(s) where the services are to be provided, or presented in the official language(s) of the Member State(s) where the services are to be provided but that are based on translations of insufficient quality, such that this is likely to hamper the ready comprehension of the information presented;
    - Information spread over multiple different webpages or documents in such a way as to complicate its readability and comprehensibility (one example of this practice is firms attempting to hide risks and costs of the products by directing (potential) clients through various hyperlinks);

- Suggesting that complex products are suitable or appropriate for all investors and/or suggesting that an investor can become an experienced investor within a few hours or through limited training as provided by this website/firm;

- Stating or implying in the marketing material that the firm is authorised by an NCA in one Member State when it is actually authorised elsewhere and is instead operating under the freedom to provide services in that Member State[24].

25. Finally, while rules are already provided in MiFID II on the topic of marketing communications, ESMA notes the challenges supervisors face in monitoring all new forms of marketing communications. One example is the use of influencers or other developing forms of engaging clients via third parties through social media, especially in a dynamic and rapidly changing online environment. Firms' control functions and senior management must be more deeply engaged in ensuring the regulatory compliance of these communications. The investment firms are responsible for any marketing material disseminated by any third party, regardless of the type of (online) marketing communication used, such as banners, pop-ups, social media posts etc. used on the website or in the app of the firm and by the entities or persons acting on behalf of the firm. Hence the principles suggested in this paragraph apply to these third parties too. In light of the above, ESMA believes that new guidelines should clarify that:

    - mandatory controls should be performed by the compliance function on the content of the marketing communications and periodic reporting should be provided to firms' management bodies on this topic;

    - the firm's controls should include verifying that marketing communications are actually distributed as approved, i.e., without any material changes being made subsequent to the assessment by the compliance function;

    - the firm's processes and internal controls relevant to the development and distribution of marketing communications should be documented;

    - the firm has to ensure a proper record keeping process including for example 'posts' by third parties paid or incentivised through non-monetary compensation through the firm, even if those (social) media posts encompass outings that are only online for a limited amount of time[25] or can only be accessed by a group behind a log-in or invitation-only.

26. While ESMA and NCAs expect that the above controls should already be taken by firms, ESMA considers that setting out more detailed expectations on the control and oversight of marketing communications is necessary to ensure that a consistently thorough approach is taken by all firms across all Member States to the marketing requirements in MiFID, and

[24] According to Art. 24 para. 4 MiFID II and Art. 47 para. lit. d Del. Dir. (EU) 2017/565, Information about the authorising NCA is already obligatory information. Any other information would be clearly unfair and misleading.
[25] As is for example the case with regard to Instagram stories or Snapchat.

to ensure that senior management has sufficient regard to this aspect of its business. The MiFID framework requires that the management body defines, approves, and oversees a policy as to services, activities, products, third party engagements, and operations offered or provided, in accordance with the risk tolerance of the firm and the characteristics and needs of the clients of the firm to whom they will be offered or provided. ESMA and NCAs consider that this includes a requirement that the management body defines, approves, and oversees a policy in relation to a firm's marketing.

27. In addition, to tackle the significantly rising phenomenon of aggressive marketing of complex/risky financial instruments and investment services to retail clients, a suggestion would be to clarify in Article 69 of MiFID II that NCAs (and potentially, where needed, ESMA) can take effective action against these marketing practices in a swifter manner[26] than is currently possible under the product intervention measures. This would facilitate coordinated and consistent action against aggressive marketing practices across the EU. To tackle aggressive marketing practices across borders, it is proposed to include in MiFID II a mandate for ESMA to coordinate actions across Member States, where needed. The advice is also to implement a clear notification system across all Member States when one individual NCA has taken action in order for all other NCAs to be aware of this fact.

Evidence emerged from ESMA's call for evidence

28. Some respondents agreed that coordination and harmonisation of national rules for online advertising and marketing of investment products is needed. The input received focussed on cases of aggressive marketing practices observed, especially from CFD- providers and other firms marketing complex products, zero commission brokers, as well as from non-regulated firms and specifically crypto-assets providers.

Recommendations and conclusions

29. ESMA recommends including in MiFID II a definition of marketing communications to clarify that (online) advertising is part of the marketing communications tools[27] and that, for example, even firms' private messages to clients and potential clients on social media would fall under this definition both when done directly by the firm or through third parties (unless, of course, these messages include personal recommendations, in which case requirements on investment advice apply).

30. In addition, ESMA recommends amending Article 69(2)(k) of MiFID II on 'Supervisory powers' to clarify, for the avoidance of any doubts, that national competent authorities have

[26] Ephemeral (or short-lived) digital marketing content is only accessible for an extremely brief period (sometimes less than 24 hours). Supervisors need, especially in these types of cases, to be able to effectively and rapidly intervene on "temporary" content that, for example, takes advantage of the fear of missing out (FOMO) and is designed to elicit an immediate response from the user.

[27] This would help ensure that all relevant MiFID requirements would apply, including those on record keeping (Article 72 and Annex I of the MiFID II Delegated Regulation) that are essential for appropriate supervision.

the power to take timely and effective action against misleading marketing practices (in a swifter manner than would be possible under the product intervention measures that are instead a pre-requisite for the for application of the Article 69(2)(s) of MiFID II). In addition, the powers to intervene on misleading marketing practices - under Article 69(2)(k) of MiFID II - could be also extended to ESMA, where needed.

31. While ESMA intends to use existing supervisory convergence tools to address the various issues on misleading marketing highlighted in the Analysis section, ESMA also recommends including in MiFID II an explicit mandate to ESMA to develop guidelines on the topic of marketing communications.

Contractual information

32. Article 25 of MiFID II states "The investment firm shall establish a record that includes the document or documents agreed between the investment firm and the client that set out the rights and obligations of the parties, and the other terms on which the investment firm will provide services to the client. The rights and duties of the parties to the contract may be incorporated by reference to other documents or legal texts."

33. In practice, investment firms usually provide clients with very lengthy and detailed contractual information related to the provision of investment services and related services (such as bank accounts). These documents can amount to tens of pages, that together with other regulatory disclosures, may often serve to confuse rather than promote genuine understanding. Furthermore, even small changes in these contracts result in clients frequently receiving updated paper versions that they often scroll or skim through without paying attention and agree to without a second thought.

34. While ESMA understands that investment firms need to use detailed contracts with their clients, it must note that this contractual information related to the relationship firm-investor stems from contract law and/or individual firm practices, and, therefore, not from MiFID II disclosure requirements.

35. These sometimes-lengthy contracts, together with marketing campaigns and sharing of marketing material in addition to regulatory disclosures, clearly contribute to documents and information overload.

Recommendations and conclusions

36. ESMA cannot make a recommendation to the specific content of contractual information. However, ESMA underlines the importance that, in order to be effective, regulatory disclosures need to be visible and identifiable by clients and not diluted among contractual documents and various marketing material. In addition, it could further help investors if the information (marketing material, regulatory documents, and contractual information) is not all delivered at the same time as one package.

Vital information

37. There are various manners in which the information overload could be tackled. One way is by layering information, as discussed in the next section on digital disclosure. An additional solution would be to identify key information that would make it easy for investors to identify key characteristics of financial products or services at 'a glance'. Therefore, when layering information, this key information would need to be disclosed in the first layer. Vital information should also be disclosed in marketing communications, to avoid marketing communications that are only highlighting the potential gains and do not mention, or hide, the costs and risks.

38. ESMA wishes to underline that identifying what constitutes vital information is not an easy task and may indeed vary for the different financial products and services, as is also highlighted in the recently published EIOPA's Consultation Paper.[28] Preferably, the vital information would be similar on a cross-sectoral basis, in order to make it more comprehensible and comparable for consumers. A first suggestion, based on MiFID, of the key information to be displayed could be:

    - Key product features and objectives (including on possibility to lose capital invested or more; conditions for an early exit);
    - Risk information (through the use of (a) risk indicator(s));
    - Total costs and fees.

39. ESMA believes the abovementioned preliminary list largely coincides with the vital information as was identified by EIOPA in their consultation paper.[29] The European Commission should avoid, however, that a complex and long list of 'vital information' is identified that differs per financial instrument or service. Instead, vital information should remain to the point, inform clients of the key characteristics of the product or service and should also be easy to use in disclosure as well as marketing communications by firms. This identified core vital information should then be shown in the first layer of information presented to the investors, whether it concerns a UCITS or PRIIPs or any other MiFID product.

40. ESMA believes that in order to define the list of "vital information", consumer testing exercises should be carried out, both related to the content of the information as well as the presentation thereof.

Evidence emerged from ESMA's call for evidence

---

[28] Public consultation on retail investor protection | Eiopa (europa.eu)
[29] Public consultation on retail investor protection | Eiopa (europa.eu); paragraph 70 of the consultation paper.

41. The vital information identified by most of the responses include product features and objectives, risk information, and cost and value for money information. However, respondents indicated that the vital information may still differ per product.

Recommendations and conclusions

42. In light of the analysis above, ESMA recommends drafting a short subset of "vital information", that should remain focused, to the point, and aimed at informing clients only of the essential characteristics of the product or service "at a glance". The vital information should include the information as mentioned in paragraph 38. Such vital information should be prominently disclosed in all marketing communications to clients even when these are in the form of extremely brief social media messages.

43. ESMA also advises the Commission to take a cross-sectoral approach with regard to the identification and disclosure of vital information and performing a consumer testing exercise.

Alignment MiFID II costs and charges disclosures and PRIIPs KID cost disclosures

44. Both the MiFID II and PRIIPs frameworks contain provisions aimed at providing transparency about all costs and charges. With respect to the ex-ante costs and charges disclosure requirements, MiFID II requires firms to provide, in good time before the provision of the service, information about all costs and charges to the client, relating to the service(s) provided and the financial instrument(s) involved. PRIIPs requires product manufacturers to disclose all costs associated with an investment in the product in the key information document (KID).

45. Although both regimes aim at disclosing information on all costs and charges, the ex-ante costs and charges information provided under MiFID may not always be easy to reconcile with the information provided in the PRIIPs KID, creating confusion for retail clients receiving both the MiFID II information and the PRIIPs KID. For instance, respondents to ESMA's call for evidence in the context of developing its Technical Advice on inducements and costs and charges disclosures (TA on inducements and costs and charges)[30] identified several incompatibility issues between MiFID II and PRIIPs.

46. In the ESMA Q&As, ESMA already clarified several issues relating to the coherence between MiFID II and PRIIPs in terms of costs and charges disclosures, for example by clarifying that the PRIIPs calculation methodology covers all MiFID II product cost components (Q&A 9.6) and that firms are expected to use the PRIIPs transaction cost methodology for the calculation of transaction costs on an ex-post basis (Q&A 9.12).[31] However, due to the high-level nature of the MiFID II requirements on information on costs

[30] esma35-43-2126_technical_advice_on_inducements_and_costs_and_charges_disclosures.pdf (europa.eu).
[31] ESMA Questions and Answers on MiFID II and MiFIR investor protection and intermediaries topics, section 9, p. 81-100.

and charges, ESMA could not prescribe the use of a specific methodology to firms. Moreover, in its TA on inducements and costs and charges, ESMA expressed the view that the MiFID II and PRIIPs cost disclosure regimes should be aligned and consistent. However, at that time, the PRIIPs review was still underway, the outcome of which was expected to solve some of the issues identified. Therefore, ESMA stated that further clarifications or amendments to the MiFID II costs and charges disclosure requirements should be decided after the outcome of the PRIIPs review is known.

Evidence emerged from ESMA's call for evidence

47. Respondents agreed that alignment between different disclosure regimes is needed, not only to tackle information overload but also to avoid complex information. There is also a call for "disclosure discipline" among respondents, meaning that a product or service should not fall under two different disclosure regimes.

48. A majority of respondents views the differences in costs and charges methodologies between MiFID II and PRIIPs as the main issue in terms of alignment, but also the relationship with the IDD was mentioned. According to these respondents, the misalignment of costs and charges disclosures between MiFID II and PRIIPs concerns the principles and/or calculation methodologies of:

   - product costs (should inducements be included or should these be mentioned separately);
   - transaction costs (whether market movements are included);
   - performance fees (should these also be shown in a zero-return scenario);
   - presentation of costs (should costs be expressed as RiY or a monetary figure).

49. Other discrepancies that require the Commission's attention according to the respondents are the PRIIPs and MiFID II performance scenarios methodologies and risk information disclosure. In addition, respondents noted that different disclosure regulations prescribe terms (jargon) for information documents. Respondents argued that this makes information difficult to understand for investors and more flexibility should be granted to firms to allow them to use different terminology and explanation to enhance understandability for investors.

50. Respondents also highlighted that there is a need for further alignment between IDD and MiFID II on distribution rules, inducement disclosure, paper phase out (such as introduced in MiFID II), and suitability requirements.

51. Some respondents, including the SMSG, suggested requiring firms to disclose costs and charges information on an ISIN-by-ISIN basis, in line with ESMA's TA on inducements and costs and charges.

Recommendations and conclusions

52. ESMA considers that the revised PRIIPs Delegated Regulation [32] has solved, or enables to solve, several incoherence issues with MiFID II. First, ESMA believes that the adjustments to the "reduction in yield" (RiY) indicator and the tables in the cost section of the PRIIPs KID enable more consistency with the MiFID II ex-ante information on the costs and charges relating to the financial instrument. Under the revised PRIIPs Delegated Regulation, the first cost disclosure table ('costs over time') will show only aggregated figures in monetary and percentage terms, while the second table ('composition of costs') will show a breakdown per type of costs. As the ESAs clarify in the final report on draft regulatory standards to amend the PRIIPs KID[33], regarding the RiY indicator, to facilitate adjustment with the MiFID II cost and charges disclosures, a net performance of zero will be used to calculate the cost figures in the first year (or in the recommended holding period for the product, if less than one year). However, for longer investment horizons, a return based on the moderate scenario will continue to be used given that a zero-return assumption is likely to underestimate the monetary cost amounts for such longer investment horizons[34]. The second cost disclosure table will also include a new column describing the nature of each cost (including where possible a calculation basis), enabling retail investors to better understand the cost structure and how it applies in their circumstances, and enabling firms to use this information to calculate the MiFID II costs and charges disclosures.

53. Based on these adjustments, ESMA considers that the MiFID II ex-ante costs and charges requirements should be clarified, bringing them in line with the approach as required under PRIIPs. When providing ex-ante information on costs and charges, a firm should provide the information for a holding period of one year assuming that the client will sell the financial instrument after the first year. For this first year, firms should assume a net performance of zero. For products with a maturity of less than one year, the ex-ante information on costs and charges should be shown for the maturity of the relevant product, also assuming a net performance of zero.

54. Where relevant, based on the maturity and/or recommended holding period of the product, firms should provide the ex-ante information on costs and charges also for longer holding periods. This would apply to products with a fixed maturity date of more than one year and/or products with a recommended holding period longer than one year. In such instances, firms should be required to adopt the same assumptions and methodology used for the provision of costs information in the PRIIPs KID. This would effectively foster the consistency of overall information provided to retail clients, hence facilitating their understanding and ability to undertake informed investment decisions.

[32] Commission Delegated Regulation (EU) 2021/2268 of 6 September 2021, which will come into effect as of 1 July 2022.
[33] [CP PRIIPs Key Information Documents FINAL (europa.eu)]
[34] Assuming that costs are calculated in a linear way with returns, the longer the investment horizon is, the more the (compounding) effect of those costs will be.

55. Though stressing that ex-ante cost figures provided under MiFID II and PRIIPs should be aligned as much as possible, ESMA also notes that some differences will remain due to the different nature of the PRIIPs and MiFID II regimes. While the PRIIPs KID includes information on all costs associated with an investment to the extent known by the manufacturer, based on an assumed investment amount, MiFID II also includes information on all costs related to the service and requires individualised, transaction-based disclosures. This approach aims at giving a personalised picture to each client as to the actual impact of costs on his/her investment. [35]

56. As a general point, ESMA recommends to the Commission, as in other parts of this final report, to undertake consumer testing to make the information meaningful for investment decisions, including on the question of how to align the standardised PRIIPs cost disclosures and the client-targeted MiFID cost disclosures, and what type of disclosure would work best for the investor.

57. Moreover, ESMA acknowledges that differences can occur because PRIIPs requires inducements to be included in the costs associated with an investment in the product, while MiFID II requires these to be included, but separately itemised, in the service costs. Nonetheless, as indicated in ESMA's previous TA on inducements and costs and charges, for comparability reasons, firms could present a subtotal (that would not be central in terms of client information) that would be consistent in terms of scope with the PRIIPS figures (i.e., with inducements not being reclassified as service costs).[36]

58. Relatedly, regarding the inclusion of certain service costs such as distribution fees in the PRIIPs KID, differences in the total cost figures could occur in particular when the KID can only show the maximum level the distributor may charge, while in the MiFID disclosure the concrete distribution fee for the particular client will be indicated. To avoid confusion for the client, firms can add an explanatory note in the MiFID II disclosures indicating that the document shows the actual fee applied within the maximum indicated in the KID.

59. A second issue that should be clarified is the transaction cost methodology. ESMA believes that the adjustments to the PRIIPs transaction cost methodology have mitigated the risk of incompatibility with the MiFID II principle that movements in the value of a financial instrument caused by the occurrence of underlying market risk should be excluded in calculating costs and charges. Under the revised PRIIPs Delegated Regulation, the slippage methodology is retained for the calculation of transaction costs, because slippage is considered a more accurate representation of all explicit and implicit transaction costs than the bid-ask spread. As the ESAs clarify in the final report on draft regulatory standards

[35] See also ESMA Q&A 9.22 (ESMA Q&As on investor protection). A partial exception to this principle can be found in Recital 78 of MiFID II delegated regulation 2017/565 which allows firms to provide costs and charges disclosures on the basis of an assumed investment amount. Nevertheless, the costs and charges disclosed must reflect the costs the client would actually incur on the basis of the assumed investment amount (Recital 78 sentence 3).
[36] ESMA TA on inducements and costs and charges, P 8.

to amend the PRIIPs KID, ‘slippage uses the aggregation of many transactions to eliminate the impact of market movements’. While any cases of negative transaction costs should be minimal, in the residual instances in which the use of the slippage methodology does result in negative transaction costs, a minimum floor of explicit transaction costs has to be disclosed. Moreover, to avoid including the consideration of market movements in situations in which only a low number of transactions are performed, the revised PRIIPs Delegated Regulation will allow the use of a more simplified approach in such cases.

60. As both the PRIIPs and MiFID II frameworks aim at disclosing all explicit and implicit transaction costs, ESMA considers that both frameworks should use the same principles and methodologies for the calculation of transaction costs. This should be clarified in MiFID II. Moreover, the adjustments to the slippage cost methodology, combined with the possibility to use a more simplified approach where necessary, ensure that market movements are not considered in the calculation of transaction costs. Thus, when calculating transaction costs relating to the product, ESMA expects firms to use the same methodology as used by the manufacturer for the KID costs figures of the relevant product. When calculating transaction costs relating to the service, ESMA expects firms to use the simplified methodology, because in such instances usually less transactions will be performed.

61. As a final point, ESMA notes that there should be alignment between PRIIPs and the MiFID II ex-ante costs and charges information as regards the calculation of incidental costs, such as performance fees or carried interests. In this context, ESMA recommends clarifying in MiFID II that for their ex-ante disclosures, firms should calculate any incidental costs – irrespective of whether such costs relate to the service or the financial instrument - using the same methodology as prescribed by PRIIPs, i.e. by providing the average annual performance fee or carried interest based on historical data over the past five years.[37] ESMA notes that as MiFID II requires firms to disclose information about all costs and charges, the average annual performance fee, if any, should be included irrespective of whether a return assumption is used by the firm.

[37] Annex VI of Commission Delegated Regulation (EU) 2017/653 of 8 March 2017, paragraph 24-5. PRIIPs provides for a modified methodology if no full performance fee history is available.

2.3 Technical advice

Machine readability and durable medium

ESMA recommends updating the MiFID II requirements to require machine readability of disclosure documents to cater to needs of retail investors, help the development of tools and services that allow increased comparability across firms and help NCAs in their supervision of disclosure documents. Such change should also be considered for disclosures on a cross-sectoral basis.

In addition to the amendment that has been introduced in the MiFID II Delegated Regulation with the Capital Markets Recovery Package on the topic of “durable medium” and the use of electronic communications in the provision of information to clients, ESMA also recommends that firms should not be required to individually address their best execution and conflicts of interest policies to their clients, provided that such policies are freely accessible on the firm’s website, as this should help further reducing information overload to clients.

Standardised format for disclosure of information

ESMA recommends updating the MiFID II requirements to empower ESMA to develop a standard EU format for the disclosure of information on costs and charges.

Marketing communications

ESMA recommends including in MiFID II a definition of marketing communications to clarify that (online) advertising is part of the marketing communications tools (together with promotions, sales, branding and campaigning) and that, for example, even firms’ private messages to clients and potential clients on social media would fall under this definition (both when done directly by the firm or through third parties).

ESMA recommends amending Article 69(2)(k) of MiFID II on ‘Supervisory powers’ to clarify, for the avoidance of any doubts, that national competent authorities have the power to take timely and effective action against misleading marketing practices (in a swifter manner than would be possible under the product intervention measures that are instead a pre-requisite for the for application of the Article 69(2)(s) of MiFID II). In addition, the powers to intervene on misleading marketing practices - under Article 69(2)(k) of MiFID II - could be also extended to ESMA, where needed.

While ESMA intends to use existing supervisory convergence tools to address the various issues on misleading marketing highlighted in the Analysis section above, ESMA recommends including in MiFID II an explicit mandate to ESMA to develop guidelines on the topic of marketing communications.

Vital information

To help address the issue of information overload it would be important to identify, amongst regulatory disclosures, a short subset of “vital information”, that should remain focused, to the point, and aimed at informing clients only of the essential characteristics of the product or service “at a glance”.

Such vital information should be prominently disclosed in all marketing communications to clients even when these are in the form of extremely brief social media messages. ESMA believes that the identification of what constitutes ‘vital information’ should not replace but integrate regulatory disclosures (including the PRIIPs KID) and will be important for the layering of such disclosures (see more on this topic in the Chapter 3 of this advice). ESMA also advises the Commission to take a cross-sectoral approach with regard to the identification and disclosure of vital information.

ESMA recommends performing a consumer testing exercise in order to define the list of this most “vital information” that would make it easy for investors to identify key characteristics of financial products or services at ‘a glance’. The consumer testing exercise should relate both to (i) content, i.e., what should be considered as vital information; and (ii) format, i.e., the presentation of vital information.

ESMA believes that, as a starting point for the consumer testing exercise, the Commission should consider the following information as ‘vital’:

- Key product features and objectives (including on possibility to lose capital invested or more and conditions for an early exit);
- Risk information (through the use of (a) risk indicator(s));
- Total costs and fees.

ESMA also notes that significant information reaching clients is actually included in lengthy contracts and marketing campaigns. ESMA notes that, in order to be effective, regulatory disclosures need to be visible and identifiable by clients and not diluted among contractual documents and various marketing material.

Alignment MiFID II costs and charges disclosures and PRIIPs KID cost disclosures

In order to ensure that the MiFID II and PRIIPs cost disclosure regimes are as aligned and consistent as possible, ESMA recommends amending the following two aspects in MiFID II.

First, ESMA recommends bringing the MiFID II ex-ante disclosure of information on costs and charges in line with cost disclosure in the PRIIPs KID for the one-year holding period. Specifically, for ex-ante disclosure of information on costs and charges to clients, firms shall provide the information for a holding period of one year assuming that the client will sell the financial instrument after the one year, assuming a net return of zero.[38] For financial instruments with a maturity of less than one year, the ex-ante disclosure on costs and charges shall be shown for the maturity of the financial instrument, assuming a net return of zero. Where relevant, based on the maturity and/or recommended holding period of the financial instrument, firms shall provide ex-ante disclosure on costs and charges for longer holding periods.

In all instances mentioned in the previous paragraph, firms should be required to adopt the same assumptions and methodology as required under the PRIIPs Delegated Regulation, preferably through a direct cross reference in the MiFID II Delegated Regulation to relevant parts of the PRIIPs Delegated Regulation.

Second, as both the PRIIPs and MiFID II frameworks aim at disclosing all explicit and implicit transaction costs, ESMA considers that both frameworks should use the same principles and methodologies for the calculation of transaction costs and incidental costs. ESMA recommends adding the following clarifications in Article 50(2) of the MiFID II Delegated Regulation:

- For the purposes of calculating transaction costs related to the investment service and the financial instrument, firms shall use the relevant methodologies as included in paragraphs 12-20a (slippage methodology) or 21-23c (simplified methodology) of Annex VI of the PRIIPs Delegated Regulation.
- For the purposes of calculating incidental costs for the ex-ante disclosure of information on costs and charges, firms shall use the methodology as included in paragraphs 24-25 of Annex VI of the PRIIPs Delegated Regulation.

[38] Under the revised PRIIPs RTS, a net performance of zero will be used to calculate the cost figures in the first year to facilitate adjustment with the MiFID II cost and charges disclosures. However, for longer investment horizons, a return based on the moderate scenario will continue to be used given that a zero-return assumption is likely to underestimate the monetary cost amounts for such longer investment horizons.

3 Digital Disclosures

3.1 Mandate

Extract from the Commission's request for advice

The Commission invites ESMA to provide advice on a number of focused areas: […]

Drawing out the benefits of digital disclosures: an assessment of how regulatory disclosures and communications can work best for consumers in a digital, and in particular smartphone, age, and proposed options as to how existing rules might be adapted, such as allowing layered information.

3.2 Analysis

62. ESMA notes that digital innovation and technology is transforming the way firms interact with their (potential) clients and enables them to adopt various new approaches to communicate and provide regulatory disclosures[39]. Given the growing popularity of online investing, for example through the use of apps, investment choices of retail investors are often made based on the information available on these apps, websites, and social media platforms. This trend has the implication that the traditional field of financial services, including investment advice, is changing. On the one hand, this requires traditional financial advisors to adapt to social media to engage with clients,[40] while at the same time new manners in which advice is provided are being developed, such as advice in a hybrid form or through the use of financial influencers. These new forms of advice are on the rise[41] And it is therefore crucial to ensure that the requirements that are applicable to advice are clear, regardless of the manner in which the advice is provided. On the other hand, retail investors in some Member States, such as The Netherlands, seem to rely less on financial advisors when investing[42]. Whether retail investors get (online) investment services or not, it remains important to ensure that all these communications and disclosures are "fair, clear and not misleading", in order for (potential) clients to have the necessary information to make informed decisions, to understand the product and to be able to compare.

63. It is important to note that transparency is not only prescribed to protect investors but also plays a role with regard to market functioning, since transparency obligations for firms lead providers to offer better products and services at a reasonable price. It also enables

[39] With (digital) disclosure we refer to the information provided by clients under MiFID II as referred to in article 24.
[40] The Social Advisor – Putnam Investments
[41] AFM consumer research: 'The pitfalls of finfluencing', p. 6, AFM, December 2021
[42] For example, in the Netherlands the number of investing households increased by 12% in 2021, the majority have chosen to make investments without taking advice. More specifically in the Netherlands for 66% of beginning investors, non-advised investing is the most preferred investment method, see link: Almost 2 million households invest in financial instruments | AFM Consumers

financial professionals and other parties (e.g., comparison websites, platforms, independent advisors etc to use the information to help consumers/investors in making sensible financial decisions. That being said, the investor protection objective of disclosure will be the focal point of this section due to the need to provide further guidance and qualifications. In addition, it is important to note that the recommendations and analysis below are related to information provided to investors in the context of the provision of services under MiFID II.

64. Behavioural studies have shown that merely providing (potential) clients with the required disclosure information does not mean that the clients are able to process all information to make the best possible decision[43]. This may apply even more clearly in the online environment, in which there can be a higher risk of limited assistance of and communication with a financial advisor, compared to more traditional face-to-face meetings. In addition, reading regulatory disclosures on a mobile device may prove to be rather difficult. It is also easier for clients to 'click away' information and to decide faster.

65. Studies have found that disclosure is more effective when it is aligned with the behaviour, knowledge, and capabilities of its target group. This is also already reflected in Article 44(2)(d) of the MiFID II Delegated Regulation, which states that firms shall ensure "that information is sufficient for and presented in a way that is likely to be understood by the average member of the group to whom it is directed". This requires firms to consider the 'target market' receiving the information to ensure that the average member of the group actually understands the information provided. In addition, Article 10(2) of the MiFID II Delegated Directive (EU) 2017/593, regulating "product governance obligations for distributors" requires both the distribution strategy to be consistent with the identified target market as well as the investment firms to ensure that clients' interests are not compromised as a result of commercial pressures. Therefore, the effectiveness of disclosure with regard to investor protection can also benefit from the application of product governance requirements (definition of distribution strategy, including disclosure, on the basis of a clear target market for the service).

66. In addition, ESMA would like to mention the importance of financial education initiatives[44] because financial literacy of investors may contribute to a better basic understanding of disclosure. Nevertheless, it is good to note that financially literate investors may still be susceptible to biases and nudges[45] and therefore, the recommendations made in this technical advice will remain relevant whether or not investors are financially literate.

[43] see for example the joint report from the Australian Securities and Investments Commission (ASIC) and the Dutch AFM – Disclosure- Why it shouldn't be the default. https://www.afm.nl/~/profmedia/files/rapporten/2019/afm-asic-disclosure-report.pdf?la=en
[44] ESMA itself contribute to these initiatives. For instance, ESMA, together with the other ESAs, has taken a role in fostering the exchange of initiatives and best practices among NCAs and in publishing the outcome of these exchanges.
[45] On "nudges" please see the following chapter of this document.

67. Digital disclosures and the choice of a digital environment can help improve information provision substantially. It can help avoid information overload for investors through the use of layering techniques. For example, ESMA acknowledges that there may be various approaches and design concepts that firms can use in websites, email, social media, advertisements and marketing material, mobile apps, and other electronic media and that through these channels firms can offer the possibility to clients to view information in narrative, tabular or even audio/video format. Especially when dealing with younger clients, the use of illustrations, cartoons, animations, pictograms, and other media has been used to tailor the user experience to specific target groups.

68. It is important that disclosures are designed as an effective and comprehensive solution from the perspective of the client. In doing so, behavioural research may provide useful insights and should therefore be taken into account. Understanding the behavioural aspects of, for example, the choice architecture and consumer biases, will help firms and regulators improve the customer journey and decision-making process. Firms may store a substantial amount of data on clients that can be used to identify clients' behavioural biases and use them in the interest of the firm or of the client[46]. For example, data on how much time investors spent on reading disclosure or spent on making an investment decision, as well as data stemming from cookies (when gathered) on the investor's browsing activity may lead to direct investors to a certain investment proposition. Whilst firms can use this data for targeting[47] purposes, for example to target specific products at (potential but also very specific) clients, they could also use this information to inform (through i.e., pop-up message) a (potential) client when they are about to engage in trading behaviour that may not be in their best interest. It is equally important that regulators understand and look into the customer journey not only by looking at the disclosure provided, but also by looking at the 'indirect information' through, for example, nudges.

69. As part of its response to the abovementioned broad mandate by the Commission, the following parts of this chapter focus on approaches adopted in the financial sector related to disclosure and service provision under MiFID II. The advice will specifically focus on the following topics:

- Easy navigability of information;
- Retrievability of information and the possibility to save information;
- Presentation and format;

[46] The fact that firms may store such data has implications to data privacy and any collection, use as well as sharing of data needs to comply with the GDPR. We also refer to the Digital Finance Advice for this particular matter [ESA joint advice master file (EIOPA) for BOS (europa.eu)].
[47] With targeting we refer to the practice of: 'behavioural targeting'. Which is a technique used in online advertising and publishing, where data from for example visitor browsing habits (e.g., search terms, sites visited, purchases) is used to display relevant ads and offers and improve campaign effectiveness. Different methods of targeting that can be used, but the Advice refers to the collective term.

- Versioning;
- Limiting of security risks for clients;
- Use of different means to communicate, including social media and influencers;
- Risk warnings;
- Monitoring effectiveness;
- Choice environment[48], including gamification.

70. As a general remark, ESMA underlines that the Commission should also take into consideration the ongoing review of the DMFSD[49] when considering this Technical Advice, in order to avoid any further duplications or misalignments between different disclosure regimes.

Evidence emerged from the Call for Evidence - general remarks

71. Respondents underlined that the accessibility of digital services and information are not only a factor of inclusion, but can also be one of exclusion for investors that do not have the capacity or means to use digital tools. Though digital disclosures should indeed be looked at more closely, respondents urged not to discard a paper-based option completely.

72. Respondents also underlined the importance of enabling and empowering investors and consumers through financial education. Respondents support initiatives on this topic and encourage the education to take place within the (high) school system, and referred to a role for NCAs and the financial sector.

Easy navigability of information

73. The objective should be to ensure that information is provided in the best possible way to maximise the effectiveness in helping (potential) clients make the right choices. To achieve this objective, it is important that the information is easy to navigate. Complexity, abstraction and presenting large amounts of information in one go can prevent the information provided from being properly received. To improve the information and the navigability thereof, firms should present information in an upfront, visually salient, well-structured manner which enables comparisons.[50] In addition, the identification and use of

[48] The choice environment was not explicitly part of the Call for Evidence but is included here. The choice environment refers to the digital engagement practice the firm uses in its distribution channel towards the client. This can be an interface of a website or an app for example. This interface, or digital engagement practice, can include different styles or techniques to enhance the investor's experience and attract their attention. One example of such digital engagement practice is the use of gamification techniques.
[49] Directive 2002/65/EC of the European Parliament and of the Council of 23 September 2002 concerning the distance marketing of consumer financial services
[50] European Commission: Behavioural study on the digitalisation of the marketing and distance selling of retail financial services – Final Report. Prepared by LE Europe, VVA Europe, Ipsos NV, ConPolicy and Time.lex – April 2019

vital information (as mentioned in the previous 'Disclosure' section) will also contribute to better navigability and understanding of the disclosure.

74. The recommendation to firms is to ensure that clients and potential clients are able to easily identify particularly relevant sections or move around in the disclosure in a way that is meaningful to them. In practice, this can be achieved through a menu feature in an app, chapters in a video or a contents sidebar or similar on a webpage, which the client can use to immediately go to sections of the disclosure (for example to benefits and risks, the cost of the product, factors affecting returns, or how to complain). The use of colours, pop-ups, and other techniques to make information stand out (or hide it). The use of these techniques can contribute not only to better navigability but also to make investors read the information all together, since research shows that consumers do not always read the information documents presented.[51]

75. Layering of information can also improve the navigability since it can avoid an information overload for the consumer. The process of organising information in layers can break-down the complexity of information and reinforce relationships between different parts. The recommendation to firms, when it comes to layering of information, is that it should not be used to mask important information. Instead, the first layer of information should consist of the vital information, as described in the previous section. The subsequent layer of the disclosure could then go into more specific and relevant information for the financial service or instrument, such as information on specific types of risks (such as market and credit), performance scenarios, and explanation on the sustainability for instance.

76. When using, for example, hyperlinks to more in-depth information, these should not only be easy to click on for the (potential) clients, but it should also be easy for them to navigate back to the initial screen. In addition, important key information should almost be unavoidable for clients to miss or click away. One possible manner in which information can be made "hard to miss" is to make use of compliance by design techniques.[52] For example, within the customer journey stops could be included during which the client reflects on the information presented and is positively steered to read the information (without the possibility to click the information away).

77. It is important that firms monitor what works and does not work for (potential) clients when it comes to making information easier to navigate.

Evidence emerged from ESMA's call for evidence

78. Respondents were overall supportive of the suggestions ESMA made with regard to digital disclosures. Specifically, the 'layering of information' was mentioned in many responses

---

[51] Ben-Shahar & Schneider, 2011; Loewenstein, Sunstein & Golman, 2014
[52] Compliance by design refers here to the fact that a (potential) investor should not be able to click away/not receive the vital information.

as a possible way to limit information overload and to make disclosure easier to navigate, as long as it does not lead to a cascade of hyperlinks or (over)usage of pop-up boxes.

Recommendations and conclusions

79. ESMA recommends to the Commission to include a specific mandate in the Level 1 to ESMA to develop Guidelines on the topic of digital disclosures and the use of digital techniques and tools by firms and third parties, in order to provide more guidance on the related topics. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Retrievability of and possibility to save information

80. Clients should be able to easily access and find MiFID disclosures. For example, if a generic website address, hyperlink, or other direction device does not lead a client directly to the disclosure, firms should be required to provide instructions on how to access the disclosure. These instructions should be clear and easy to understand. It is up to the firm to determine which means are most appropriate for the clients to gain access easily. Similarly, it is important that firms monitor what works and does not work for clients when it comes to making information easily retrievable.

81. The key MiFID information provided through digital means should be easily transposed into a downloadable file at any point in time, so that clients may store it on their own device, turn it into a hardcopy and/or save it in a protected (online and offline) environment within the application used and can be accessed without difficulty and at any time they want in the future. Furthermore, if the information is saved in a specific online environment for example, it is important that the information remains unchanged. Such recording of information is also important in case of a claim, litigation, or involvement of an ombudsman.

82. In addition, the recommendation for digital disclosure is that it can also be easily transposed or sent in a printable format to allow consumers, if they wish to, to make physical prints of the relevant information.

Evidence emerged from ESMA's call for evidence

83. Overall, responses were positive with regard to suggestions related to retrievability of information and the ability for investors to save information as well as to the fact that information should be adapted to the device used.

Recommendations and conclusions

84. ESMA recommends to the Commission to include a specific mandate to ESMA to develop Guidelines on the topic of digital disclosures and the use of digital techniques and tools by

firms and third parties, in order to provide more guidance on the related topics. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Presentation and format

85. Investors should be able to easily access and navigate through the information provided by the financial institutions. In a digital context it is of paramount importance to ensure that (potential) clients are able to easily identify particularly relevant sections or access the disclosure in a way that is meaningful to them. ESMA encourages visually appealing and accessible disclosure to make information easy to read. Presentation and formatting could contribute to guiding (potential) clients with little or no digital skills through the process more easily. This may include, amongst others, provision of side-by-side comparisons of key service characteristics or making use of interactive features to aid readability.

86. Digital disclosure for financial services and instruments should also become more inclusive by, for example, adding features to make the information accessible for low vision, limited vision or visually impaired consumers. This can be achieved by presentation and format by providing for example sufficient contrast between colours, making it possible to enlarge font size and limiting colour in the interface to name a few[53]. The aforementioned is also covered by the Directive on the accessibility requirements for products and services which will apply from 28 June 2025 onwards.[54] ESMA recommends firms to ensure inclusivity of their services to (potential) clients as much as possible already.

87. It is important that disclosure is adapted to the device used, this entails to use a format and format size that is easily readable and does not require scrolling too much or using the zoom function to read the information. Firms could also enable the option for clients to increase the default font size to improve readability. The colours used in the digital disclosure should not diminish comprehensibility especially if the information is, for example, printed or photocopied in black and white.

88. Framing effects may be used by firms when displaying information to nudge the clients' attention and nudging towards better choices for that client. These effects (through the use of, for example, colours, pop-ups, bolded text, etc.) can narrow the definition or the presentation of an issue, by leading to focus only on certain aspects that are considered key information. These effects should ensure that the information is presented upfront and saliently. However, the use of colours can also nudge investors into making riskier investment choices, for example, a study in 2017 found that showing investment losses in the colour red reduces people's appetite for risk, which may cause them to overreact to a

[53] How to Make Websites Accessible for the Visually Impaired | Fuzzy Math
[54] Directive (EU) 2019/882: https://eur-lex.europa.eu/legal-content/EN/AUTO/?uri=celex:32019L0882

falling stock or assume it will keep falling.[55] And other studies found that there tends to be a positive association between the colour blue and trust.[56]

89. Other principles that can be beneficial for client decision-making is that information is provided in an engaging presentation format and in a manner that aids comparison between financial services. Firms should avoid that the effects used divert the clients' attention towards an intentionally highlighted piece of (one-sided) information.

Evidence emerged from the Call for Evidence

90. Some respondents underlined the importance of the fact that the requirements should remain technological neutral. Therefore, these respondents were sometimes sceptical about the possible prescription of specific formats for example.

91. The SMSG, on the other hand, welcomes more clear guidance on presentation formats, but emphasized the importance of focussing on key information that needs to be displayed adequately to retail investors, and to avoid prescribing a 'maximum number of pages' since this is not relevant in the digital context.

Recommendations and conclusions

92. ESMA recommends to the Commission to include a specific mandate to ESMA to develop Guidelines on the topic of digital disclosures and the use of digital techniques and tools by firms and third parties, in order to provide more guidance on the related topics. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Versioning

93. Firms should retain a copy of all versions of the MiFID digital disclosures provided to clients and should use technology, where possible, to maintain records of when each version was available to allow clients and potential clients to be able to prove which version of the disclosure they relied on. A clear and consistent use of version dates and numbering in the disclosure is therefore essential.

94. The records of the versions used is also of importance for firms to determine whether changes made affect the readability and effectiveness of the disclosure documents. These

[55] Visual Finance: The Pervasive Effects of Red on Investor Behavior by William Bazley, Henrik Cronqvist, Milica Milosavljevic Mormann :: SSRN
[56] Colour in online advertising: Going for trust, which blue is a must? By Broeder and Snijder (2019) *Marketing from Information to Decision Journal.* other studies include Russo and Boor, 1993; Kim and Moon, 1998; Aslam, 2006; Cyr et al., 2010;

lessons learnt will subsequently feed into improving the information documents and help the firms understand what does and what does not work for their clients.

Evidence emerged from ESMA's call for evidence

95. Respondents were divided on the versioning of disclosure, their argument being that this should already be covered by the record-keeping requirements. Other respondents were more welcoming, but urged that a balance must be struck between updating information on an ongoing basis and the possibility for clients to revisit all old information.

Recommendations and conclusions

96. ESMA recommends to the Commission to include a specific mandate to ESMA to develop Guidelines on the topic of digital disclosures and the use of digital techniques and tools by firms and third parties, in order to provide more guidance on the related topics. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Limiting security risks for clients

97. Firms should mitigate the risk of phishing and other security risks. For example, when firms deliver disclosure by email with a hyperlink to the disclosure, the email should state that the client will not be asked to provide their personal financial details online (e.g., to access the disclosure).

98. Firms should make sure that they carefully collect the data through their website or app and that it is safely stored and that their (cloud) systems are well secured. Limiting security risks should be a two-way street, meaning that not only data coming in is secured but also the data storing and/or sharing. The whole data 'supply chain' needs adequate protection from ransomware, denial of service (DoS) attacks and any other cyber security risks. To mitigate these risks, firms should ensure that regular updates of the safety measures are in place. Firms could also look at other measures such as, for example, creating back-up by spreading out any of their vital systems across multiple cloud service providers[57] or using container technology[58] to facilitate fast deployment of systems to another cloud service provider in case of a cyber-attack. A link can be made here to the European

[57] As was also recommended by ESMA's Report on Trends, Risks and Vulnerabilities, No 2, 2021 in 'Cloud outsourcing and financial stability risks' by Carolina Asensio, Antoine Bouveret and Alexander Harris esma50-165-1842_trv2-2021.pdf (europa.eu)

[58] Container technology is a method to package an application so that it can be run isolated from other processes. It is a way to standardize the process and keeping relevant items together, so that the data can be moved as if it were a unit. When the data unit then needs to be moved to for example a new cloud service it will be less costly and more time efficient to make this move. Source for limiting security risks: Insights from the 2020 Cyber Coordination Groups | FCA

Commission's Digital Operational Resilience Act (DORA) as well, which aims to strengthen the ICT risk management of firms in this regard.

Evidence emerged from ESMA's call for evidence

99. Overall, respondents acknowledged possible security risks, but no specific feedback was received on the topic.

Use of different means to communicate

100. Communication means should be proportionate to the complexity of services provided. For example, it would not be considered proportionate for complex products providers such as CFD providers to merely refer (potential) clients to a Q&A section on the website or only use a chatbot[59] to answer questions.

101. Different means that firms can use to communicate with (potential) clients can include and are not limited to live chats, chat bots, Q&As, infographics, guides, interactive tools, or similar approaches. These tools can be used to ensure that clients are adequately assisted in their interaction and commercial relationship with the firm in the digital environment. It is also important that whatever means is used, it should remain clear to (potential) clients how they can file complaints. As the Digital Finance Advice highlights, it may be very difficult to file complaints in the absence of any direct interaction.[60]

102. A well-designed distribution can help (potential) clients to understand not only the services provided by the firm but also their own needs and preferences and further enhance disclosure. To help (potential) clients to identify these needs and preferences, firms will often collect information. In turn, this can be used by the firm to develop tools to help (potential) clients understand their preferences and the financial services. Personal interaction through, for example, live chats with employees of the firm can help as well. When, however, a firm uses chatbots, it should not only be clear to clients that a chatbot is being used, but the use of chatbots should not replace the possibility to contact the firm altogether. It is recommended that a clear explanation of the exact degree and extent of human involvement is to be provided by the firm, as well as a description of how the client can ask for human interaction (if any). A good practice observed by the AMF in this regard was, that an online firm, as part of a reinforced vigilance on the proper marketing of financial products to an elderly person, had a reminder in place to ask the new elderly client whether the orders came from her/him and to check whether (s)he was going to invest in the complex or risky products for her-/himself.

[59] A chatbot, or chatterbot is a computer software application designed to simulate conversation with human users in an on-line chat conversation via text or text-to-speech, in lieu of providing direct contact with a live human agent.
[60] ESA joint advice master file (EIOPA) for BOS (europa.eu)

103. Another means that may be used by firms to engage with (potential) clients is social media, which will be discussed under the next heading below.

104. In addition, record keeping requirements should be adhered to and NCA's should have the necessary tools and competences to monitor the communications on such platforms, even when such communication takes place in a 'login environment'[61].

Evidence emerged from the Call for Evidence

105. Respondents did not provide specific input on the use of different means, but they did emphasise that legal requirements should not be overly prescriptive and should instead leave some flexibility to firms when it comes to using different digital tools and channels.

Recommendations and conclusions

106. ESMA recommends to the Commission to include a specific mandate to ESMA to develop Guidelines on the topic of digital disclosures and the use of digital techniques and tools by firms and third parties, in order to provide more guidance on the related topics. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Social Media and Influencers[62]

107. Digitalisation has improved access for retail investors to capital markets. The digitalisation has not only brought easily downloadable apps, but (potential) clients are also turning to social media for investment recommendations and information. On social media as well as on trading apps, investors can be influenced to invest without the objective and/or fundamental grounds on which an investment decision is normally based. Investors tend to be younger, take more risks, and generally more financially illiterate.[63] For many of these investors, emotions, and feelings (the thrill of investing - challenge, competition, and novelty) and social factors are the key reasons behind their investment decisions.[64] This presents a particular challenge for the achievement of balanced financial regulation in an everchanging online environment. While investors are free to choose their preferred investment style and service, regulation needs to ensure that the investors are protected from addictive gamification and gambling-like techniques which can trigger excessive

---

[61] Meaning that communications might in these cases not be publicly accessible, but only for the members registered to this particular website, forum, app etc.

[62] An influencer is usually someone who is active on social media and has:

- the power to affect the purchasing decisions of others because of his or her authority, knowledge, position, or relationship with his or her audience.
- a following in a distinct niche, with whom he or she actively engages.

In the case of a 'finfluencer' the influencer generates content on financial topics such as investments.
The terms influencer and finfluencer are used interchangeably throughout this document.

[63] AFM Market Watch 3: [AFM Market Watch | Topics AFM | AFM Professionals]

[64] AFM Market Watch 3: [AFM Market Watch | Topics AFM | AFM Professionals]

trading without sufficient understanding of relevant risks and from social media pressure which can unduly influence investment decisions.

108. In research published by the UK FCA, 58% of younger high-risk investors say that both a hype on social media and in the news lies behind their investment decisions.[65] The French AMF published a study into investment scams in December 2021, citing the main source of exposure is advertising on the Internet, applications, or social networks (mainly Facebook, YouTube, and Instagram).[66] It has been observed that social media campaigns are particularly aggressive and active with regard to riskier products such as investments in forex and crypto's. Considering that social media have therefore become a source for investors to base investment decision upon, it is important that communications on social media platforms are compliant and monitored timely. An example of an EU NCA taking action in this regard is the Spanish CNMV[67] which, on 17 January 2022, published a circular defining rules on content and format or promotional messages of crypto-asset campaigns, as well as the mandatory procedure for notifying the CNMV in case of mass advertising campaigns. In this way, the CNMV is able to supervise advertising campaigns, including on social media.

109. As shown in the Gamestop case, investors do not only do online research through social media but can also use social media and forums to coordinate strategies in buying meme stocks. which may lead to high volatility and even threaten financial stability.[68]

110. One way in which firms use social media to engage with (potential) clients, is to cooperate with influencers. The reason to engage with these influencers is that they have a wide reach, and they can therefore generate a high traction among their followers. In addition, these influencers can be perceived as more reliable by young investors, because they identify themselves more with the influencer than with an investment firm. The influencers are, however, not (always) aware of the financial regulations concerning marketing, advertisement material, the relevant disclosures or regarding the definition of what constitutes investment recommendation and investment advice[69]. Therefore, influencers are, in many cases, not well placed to provide any recommendation on financial products and/or investment strategies at all because they do not have the adequate knowledge to do so. In addition, there are currently no systematic risk warnings that can be required by ESMA and NCAs to be placed with messages for high-risk products as discussed below.

[65] Young investors driven by competition and hype | FCA
[66] https://www.amf-france.org/en/news-publications/publications/reports-research-and-analysis/french-and-investment-scams-december-2021
[67] CNMV - Comisión Nacional del Mercado de Valores
[68] Financial Stability Report (federalreserve.gov)
[69] For example, the rules on information provided under MiFID II, but also the MAR requirements may be applicable. esma70-154-2780_esmas_statement_on_investment_recommendations_on_social_media.pdf (europa.eu)

111. The Dutch AFM published an exploratory study on "finfluencers" (financial social media influencers/ content creators) in the Dutch market in December 2021.[70] Their findings were that:

- finfluencers make investing more accessible, but do not always put the interests of their followers first;
- There are few finfluencers who post in an objective, neutral manner; full transparency is often lacking;
- There is a risk that investment advice is provided without an authorisation to do so;
- Some finfluencers promote risky products;
- The AFM has reminded finfluencers and brokers of the rules.

112. The outsourcing of marketing to an influencer should ultimately be the responsibility of the (management of the) firm. A firm should not be able to argue that it is unaware of the content that will be created by the influencer with whom they have some form of cooperation or partnership. The firm should therefore monitor whether the information provided by the influencer to his/her followers complies with the necessary regulation in case the influencer gets any form of compensation/inducement by the firm or from other entities that belong to the same group as the firm. The US FINRA is currently conducting a 'sweep' (sending questionnaires to firm) as they want to understand how firms supervise activities and communications related to paid social media influencers.[71]

113. Influencers are already required to disclose on social media when their posts are sponsored.[72] However, the information shared by the influencer in relation to financial products and/or services needs to comply with financial regulation as well. This means, for example, that when an influencer is paid by the firm to post information, including marketing communications, this material needs to be fair, clear, and not misleading. The medium and 'tool' used by the firm to spread their information should not lead to an avoidance of the current investor protection rules.

114. The information provided by the influencer can fall under the definition of an investment recommendation, as was already explained by ESMA's Statement on Investment Recommendations on Social Media.[73] Furthermore, if the influencer in question is telling his/her followers to make certain specific transactions/trades then it should be assessed whether or not this information could be regarded as a personal recommendation and hence fall under the definition of 'investment advice'. This needs to be assessed on a case-

[70] AFM reminds 'finfluencers' of rules for online posts on investing | AFM Professionals
[71] Social Media Influencers, Customer Acquisition, and Related Information Protection | FINRA.org
[72] European law requires the identification of commercial communications and the persons for the account of whom they are made (art. 6 of the Directive on Electronic Commerce); and amended by the Digital Services Act, as well as Directive (EU) 2019/2161 is relevant in this context.
[73] esma70-154-2780_esmas_statement_on_investment_recommendations_on_social_media.pdf (europa.eu)

by-case basis and will depend, amongst other things, on whether the recommendation is addressed to the public or whether it is provided in a personalised manner, for example through "direct messages" (DM)[74] or a Q&A feature[75]. In case of the latter, several different elements need to be taken into account to see if there is indeed a personal recommendation, namely: the target audience, the content of the message and the language used (see CESR Q&As on "Understanding the definition of advice under MIFID"[76]). In this particular example, the followers of the influencer could in some cases be considered as part of the target audience. The firm will in most cases have selected a particular influencer considering his/her 'type of followers', and these followers should fall in the target market of the specific financial product or service that is being promoted by the influencer.

115. In addition, the knowledge and competence rules should apply to these influencers when providing specific recommendations or when they explain specific financial instruments or services, either via blogs, vlogs, livestreams or in one-on-one DMs. These requirements apply since the influencers in this case provide information to (potential) clients on behalf[77] of the investment firm in accordance with article 25(1) MiFID II.

116. Furthermore, it is worth nothing that when the investment firm is providing the finfluencer with any monetary or non-monetary benefits which can be linked to services provided by the firm to its clients, the firm is fully subject to the inducements regime and the benefits should be assessed against the inducement regime.[78]

117. ESMA also notes that investor protection issues described in previous parts of this paper and arising from the provision of biased information on risky products also apply to finfluencers that do not receive any form of compensation by an investment firm or from other entities that belong to the same group as the investment firm. In this respect, ESMA reiterates the messages provided in its 2021 Statement on Investment Recommendations on Social Media[79] and notes that it would be important invest on financial education to make retail investors aware of the risks of such a phenomenon.

Evidence emerged from ESMA's call for evidence

118. With regard to influencers and social media, respondents agreed that the channel used to distribute disclosure related to investment products and services should not have an

[74] Direct message is a private message sent on social media to a specific individual or group. .

[75] An example of the Q&A feature is the possibility to ask 1 on 1 questions on Instagram to the influencer who can then answer that person. The question and respective answer would then be published on Instagram stories, which would in turn be available to a wider public. In this case the q&a itself (irrespective of its subsequent publication) would be a more personalised communication.

[76] 10_293.pdf (europa.eu)

[77] To understand as to whether the influencer is acting on behalf of the firm, the receipt of compensation would be an indication that the s/he is.

[78] Article 24(9) MiFID II

[79] See footnote 65.

effect on the quality of the information provided and hence the applicable rules should be respected by the firms and influencers connected to those firms and be actively supervised by NCAs. The same level of investor protection should apply for digital sales, any semi-closed forums, social media groups or third parties which should be therefore closely monitored under MiFID II scope, whenever this is pertinent.

Recommendations and conclusions

119. ESMA recommends to the Commission to include a specific mandate to ESMA, in the Level 1, to develop Guidelines on the topic of digital disclosures and the use of digital techniques and tools by firms and third parties, in order to provide more guidance on the related topics. The mandate in MiFID II should specify that, in line with the scope of the overarching principles set in Article 24 of MiFID II, it would be applicable to the setup of any form of (online) engagement practices that firms may use, directly or through third parties, such as for example the use of social media and finfluencers. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Risk Warnings

120. ESMA and NCAs observe (aggressive) online marketing campaigns that reach many people, for example, by advertising a financial instrument or service online and on social media. The fact that firms can reach more potential clients can be beneficial since it can motivate consumers to start investing. However, as described above under 'social media and influencers', the social media campaigns very often cover riskier products. Since in many cases the interaction with (potential) clients is based on the use of short tools such as message and videos, these (potential) clients will not always be informed adequately of the risks and costs of the financial instrument or service.

121. While for contracts for differences (CFDs) there is an obligation to mention a risk warning (also on social media) as a result of the product intervention measures taken by EU NCAs[80] , there is no such risk warning for other risky financial services or instruments at EU level. ESMA recommends to the Commission to include a legal basis in the MiFID framework for NCAs to impose on firms the use of risk warnings for specific risky financial instruments. The warnings are aimed at informing retail investors, and they would be applied by firms in their social media messages and other marketing communications and disclosure documents related to the financial instruments covered by the warning. While ESMA is cognisant of the limitations of warnings[81], it considers that mandated warnings, such as the ones required in relation to CFDs, can be a useful tool to inform investors. The

[80] ESMA warns CFDs providers on application of product intervention measures (europa.eu)
[81] see for example the joint report from the Australian Securities and Investments Commission (ASIC) and the Dutch AFM – Disclosure- Why it shouldn't be the default.

inclusion of such power to ESMA/NCAs should be granted with a simpler process, and lower legal requirements, than for the current product intervention powers. Currently, not all EU NCAs have a mandate to impose such warnings, creating a patchwork of different approaches. Where such warnings would subsequently be required for risky products sold across the EU, there could be greater coordination in devising warnings and in supervising them.

Recommendations and conclusions

122. ESMA recommends to the Commission to include a legal basis in the MiFID framework for ESMA and NCAs to impose the use of risk warnings to firms for specific financial instruments, on the basis of a lighter process than the one regulated under product intervention powers under MiFIR.

Monitoring effectiveness

123. It is recommended that firms monitor the design and prominence of relevant disclosures by analysing client behaviour, for example gathering feedback from clients, monitoring their activities and their outcome, and following up on complaints. This is important to ensure consistency between the way in which information is provided to (potential) clients by firms and the action expected by the clients targeted by this information.

124. When it comes to disclosure, it is therefore important that firms use and work with their data. If hyperlinks are not followed or disclosure is not read, and this data is available to firms, then it is necessary for firms to take action on the basis of these findings by for example looking at other methods of conveying the required information to (potential) clients.

125. Considering the growth in online investing and hence the provision of digital disclosures over the last years, ESMA would like to underline that firms now generally have more data and tools to monitor the effectiveness of their disclosure. One can see for instance how long investors look at disclosure online, which hyperlinks they click on (or not) and which actions they subsequently take or do not take. These insights should be used to further enhance the effectiveness of disclosure in order to enable the investor to take the best possible decision, especially since in many cases of online transactions immediate availability of firms' staff is limited.

Evidence emerged from ESMA's call for evidence

126. Responses were not conclusive on applying lessons learned from data/behavioural insights. Some argued these findings are not always decisive and can be contradictory. Whereas other respondents stated these insights could be used effectively by firms to adapt information provided and to take steps to try to ensure investors read (or at least download) the disclosure documents received (nudging them in the right direction).

Recommendations and conclusions

127. ESMA recommends to the Commission to include a specific mandate to ESMA to develop Guidelines on the topic of digital disclosures and the use of digital techniques and tools by firms and third parties, in order to provide more guidance on the related topics. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Choice environment

128. In addition to the presentation and format of information in the context of digital disclosure, the choice environment in which the (potential) client is presented with the information also plays a role in the decision-making process. The context in which firms interact with (potential) clients during the customer journey affects how these (potential) clients are influenced. Overall, decisions are influenced by the environment in which information is presented.[82] Choices are not made in a vacuum, as there is no neutral way to present choices and especially in the digital age, firms use digital engagement practices in the customer journey. Presenting investment decisions in certain ways, intentionally or unintentionally, can "nudge"[83] (potential) clients to change their behaviour in predictable ways. Furthermore, gamification techniques can be used by financial firms to design the choice environment.[84] ESMA would like to underline that the design of the choice environment is part of a firm's distribution strategy and hence falls under the product governance requirements. The topic of choice environment is discussed in this section and a specific focus on gamification is provided in the following section.

129. Firms can design this choice architecture to nudge clients to make certain decisions, such as, for example, nudging the client towards making more investments in a fast manner and/or presenting strategically timed offers (that may be brought to the attention of the client by a pop-up for example) or presenting the client with default settings/options. All of this can influence the decision-making process of (potential) clients. The use of digital engagement practices by firms has become more widespread and sophisticated thanks to the evolution of digitalisation because these techniques, used to capture (potential) client's attention, can make use of artificial intelligence, sophisticated algorithms and game-like features.[85]

---

[82] Digital Nudging–Guiding Choices by Using Interface Design by Christoph Schneider, Markus Weinmann, Jan vom Brocke :: SSRN

[83] Nudge/nudging can be defined as getting people to do something that they are already interested in doing and making the process/outcome easier.

[84] ESMA acknowledges that the choice environment, nudging and gamification are only some examples of manners in which consumers can be influenced. These examples are however mentioned due to their frequent reference in studies and analysis on the use of digital means to provide services to clients.

[85] https://www.sec.gov/rules/other/2021/34-92766.pdf

130. Firms can of course also implement design effects in the choice environment that can be beneficial to the client's decision-making. An example of such an instrument is the one adding frictions to the decision-making process ('sludges')[86] such as a 'cooling-off period' or 'are-you-sure-checks' to make the client more aware of the decision they are about to take. ESMA underlines the importance for firms to test the effect that the (design of the) choice environment has on client behaviour in order to optimise the choice environment and to make it easier for investors to make sensible investments and decisions in line with the product governance requirements. In conclusion, the choice of the distribution tool needs to be in the best interest of the client and aligned with the identified target market. This entails that firms need to substantiate, on an ex-ante basis, how the tools they choose to convey information contribute to the overall distribution to the identified target market.

131. As mentioned in the previous paragraphs, firms should assess the adequacy of the service they provide to the client and therefore act in their best interest. For example, if investment choices are presented in such way to nudge a client towards significantly increasing the number of transactions, for instance, through the use of pop-ups, this can result in taking risks the client cannot bear or making trading choices which may not be optimal for the client. One then could conclude that the manner, in which the firm provides services to the client might not be suitable for the client and the distribution channel and/or specific techniques (such as gamification techniques that push the client to trade at high frequency and the trivialization of investing) used may not be in the best interest of the client.

Recommendations and conclusions

132. Considering technology is evolving at a quick pace legislation has to be kept under review to ensure it can be kept technological neutral as well as applicable to different forms of interactions that firms may use directly or through the use of third parties. ESMA underlines the importance of the current open norm in Article 24 of MiFID II that requires firms to act in the best interests of the clients and that requires information to be fair, clear, and not misleading. It is important to note that these principles are also applicable in regard to online engagement by firms through the use of third parties and/or by using any type or form of (online) engagement including for example social media. ESMA believes that guidance on the use of digital disclosure and engagement tools should be provided to firms and therefore recommends that ESMA is provided with an explicit and specific empowerment to develop such guidance.

133. Therefore, the recommendation is to include a mandate to ESMA in the MiFID II framework to develop Guidelines on the digital techniques and tools used by firms in the sales process, as well as related to content principles of digital disclosures, as described above (such as layering of information). The digital techniques and tools are to be

[86] Unlike nudging, sludging makes a process/outcome more difficult to arrive at, it slows down the process.

interpreted broadly for the purpose of the Guidelines, as well as in the mandate. The Guidelines must then include the use of influencers, or any other ‘external persons’ by firms, in addition the Guidelines should also take into account future developments such as for example ‘the metaverse’[87] , that firms use to market their services.

Gamification

134. Gamification techniques add games or game-like competitive elements[88] to non-game contexts such as financial services.[89] The use of these game-like features can help convey complex information in a simple and rewarding way, it can demystify investing and can encourage people to save and invest their money because it can contribute to making investing more accessible. Gamification can also be used as an instrument in the customer experience (choice environment, as described previously), when deciding on transactions. Or similarly, firms can add game-like features to information gathering processes such as the suitability and appropriateness assessment. The French AMF has, for example, observed practices where these assessments were presented as interactive quizzes with game elements.

135. The use of these techniques for investment decisions can also push and tempt investors to take actions based on emotions rather than rational decisions. Gamification often comes in the form of introducing competition elements into an everyday process and these elements may be designed in such way to encourage habits that are difficult to shake: by hooking and holding the clients using the app and nudging them to, for example, making more and riskier investment trades. This specific type of nudging may not always be in the best interest of investor and insofar as it might even lead to addictive behaviour it is never in the best interest of the investor.[90] These possible negative effects of using gamification techniques especially came to the attention in the analysis following the recent “GameStop case”.

136. Recent data suggests investor demographics are changing and users of investment apps that use gamification techniques are increasingly younger. For example, the UK FCA published a warning that young investors are taking on big financial risks (March 2021). In their research the FCA found that the younger investors using new investments apps come from less privileged socio-economic backgrounds and the risks associated with these services may therefore have a bigger impact on these investors.[91] On 20 October 2021, the

[87] The metaverse can be defined as a simulated digital environment that uses augmented reality (AR), virtual reality (VR), and blockchain, along with concepts from social media, to create spaces for rich user interaction mimicking the real world.
[88] Examples of game-like elements are earning of points or badges; keeping score or leader boards; showing performance graphs; by using meaningful stories or avatars to engage users; or introducing teammates to either induce conflict, cooperation, or competition.
[89] Tara J. Brigham (2015
[90] Addictive behaviours may reach levels requiring specific treatments, such as in the case of certain cryptocurrency trading, spread betting and day trading addictions.
[91] FCA warns that younger investors are taking on big financial risks | FCA

FCA released a new press release referring to research that finds that three quarters of younger, high-risk investors say they feel competitive when investing in high-risk products.[92]

137. The changing demographic of investors is also confirmed by the AMF. The AMF concludes in their November 2021 report that more investors have started investing since the COVID pandemic and that these new entrants tend to be younger individuals who also tend to be more interested in investing through newer players such as neo-brokers.[93] The AFM reported an increase in (young) investors back in April 2021 as well.[94]

138. The German regulator BaFin has indicated that gamification techniques are seldom used in Germany. This finding resulted from a survey which BaFin held (“surf day”) that specifically focussed on trading apps. Only two investment firms included in the survey used motivation elements such as cash bells ringing (for successful sales) or a shower of sparks (for bonus shares). Even if there were not many gamification features used by investment firms, other aspects of behavioural finance were used excessively. For example, dark patterns[95] seem to be used frequently when clients place their orders (while the button to sell or buy is displayed in bright colours the button to cancel the order process is usually grey and sometimes nearly invisible). Another technique used, as observed by BaFin, includes the use of charts of declining stock prices that blink red within a trading app when they are displayed in grey in the web trader of the same investment firm. The blinking red of the declining stock prices will attract the investors’ attention more easily than when it is displayed more neutrally and hence increases the chances of the investors acting upon ‘blinking red signals’, even when that might not be in their best interest.

139. When a firm uses nudges to influence the behaviour of the clients such as by using pop-ups in an app, the question is whether this type of nudging towards a particular transaction in a certain instrument[96] can be perceived as a personalised communication or a personalised recommendation (taking the personal circumstances into account) to the client.[97] This is important since it could mean that a suitability assessment may need to be performed by the firm in this case. Regarding the requirement to assess suitability, ESMA believes that when the client receives a pop-up message, an e-mail or other type of message to nudge him/her into making a transaction in a specific financial instrument

---

[92] Young investors driven by competition and hype | FCA

[93] Retail investors and their business since the COVID crisis: younger, more numerous and attracted by new players | AMF (amf-france.org)

[94] Steeds meer Nederlanders beleggen om vermogen op te bouwen | april | AFM

[95] Dark patterns are deceptive online interface designs that are used to trick people into making decisions that are in the interests of the online business, but at the expense of the user. Bits of advice: the true colours of dark patterns - Oxera

[96] The Dutch newspaper Financieel Dagblad describes the use of these type of nudges with potential detrimental effect on clients in a recent article: Op beleggingsplatform Etoro is spaargeld zo weggespeculeerd (fd.nl)

[97] Reference can be made here to the CESR Consultation Paper: Understanding the definition of advice under MiFID, more specifically to paragraph 64 which defines the target market as: *the way the firm selects the clients to whom the message will be sent can have an incidence on the qualification of that message as investment advice. For example, when the internal procedures of a firm specify that a financial instrument may only be sold to a sample of clients selected on the basis of certain factors, such as clients under a certain age or who hold no similar products, the selection of the target audience will not automatically mean that the firm is providing investment advice. However, highlighting the particular personal circumstances that led the individual to be contacted, for example, is very likely to mean that the product is being presented as suitable for the particular investor).*

taking into account personal circumstances of that client[98] this can be considered a personal investment recommendation to the client. Thus, when this is the case, firms are required to request all necessary information from the client to perform a suitability assessment and use that information when providing investment recommendations. If the firm does not take into account the personal circumstances of the (potential) client but still does nudge the client towards a (specific) instrument, this may put into question whether the firms' behaviour is consistent with its obligations under MiFID II.

140. In particular, ESMA would like to mention the case of a firm nudging its clients towards transactions subsequently resulting inappropriate in accordance with the assessment of appropriateness, which is required by MiFID II, inter alia, in all cases of transactions in complex financial instruments. In such a case, it would be difficult for the firm to demonstrate that nudging a group of clients towards inappropriate transactions was compliant with its specific product governance obligations and with the general obligation to act in accordance with the best interest of clients. In addition, it is worth recalling that when investment firms provide investment recommendations, they should adhere to the MAR regulation for the identity, rules for presentation and conflicts of interest requirements as well.[99]

141. Furthermore, considering that the abovementioned nudging through, for example, pop-up messages, emails, or other types of notifications, are used by the firm to communicate with the (potential) clients, this information should be 'fair, clear, and not misleading' in accordance with Article 24 (3) MiFID II. Firms should therefore have the necessary controls in place to ensure that all communications are compliant (see also recommendation made in previous section concerning marketing materials).

Evidence emerged from ESMA's call for evidence

142. Responses to the Call for Evidence mentioned, inter alia, that gamification techniques can be used to make investing more educational, interactive, accessible and investor friendly. The use of gamification elements could therefore help guiding investors to accessing the capital markets.

143. However, respondents indicated that gamification effects can also have a negative effect on investors. As an example, push notifications were mentioned by several, since they can lead investors to take higher risks.[100]

144. As to which rules should apply, the SMSG for example, referred in their response to the fact that these gamification techniques are part of the distribution strategies and are

[98] For example, the client in question has an ongoing account and relationship with the firm,
[99] Commission Delegated Regulation (EU) 2016/958
[100] This particular example is supported by by: Arnold, M., Pelster, M., & Subrahmanyam, M.G. (2021) Attention Triggers and Investors Risk Taking, *Journal of Financial Economics*.

therefore subject to the current regulatory framework including in particular product governance requirements. Hence, attention should be paid, in the product governance process, to the fact that gaming may indeed distort the investors' ability to appreciate risks and costs.

Supervisory evidence from national competent authorities

145. The AMF has seen gamification techniques also being used as part of the suitability/appropriateness questionnaire. In these cases, the assessments are sometimes approached as a game by the institutions. The AMF has seen formulations "pass the questionnaire" or "quiz" being used in this context. Some institutions sent educational guides on the instruments and services concerned at the time of the order and prior to the presentation of the questions. In addition, it was found that some firms gave customers the correct answers when the customer had given a wrong answer. It was also noted that one firm did not indicate the value of the questionnaire, nor did it encourage the client to complete it. In fact, the questionnaire was described as a "quiz", a semantic characteristic of a "game", and its purpose was not explained, so that one could execute the order without realizing the importance and consequences of completing the questionnaire.

Recommendations and conclusions

146. ESMA agrees that, as noted by the SMSG, gamification techniques are part of firms' distribution strategies and are therefore subject to the current regulatory frameworks under the requirements on product governance and the requirement that information has to be fair, clear, and not misleading. ESMA intends to develop further guidance to firms on the topic of gamification within the ongoing review of its MiFID II guidelines on product governance requirements. ESMA believes that a firm's 'product governance arrangements' should clearly set out the various aspects of the firm's distribution strategy (including aspects such as the firm's choices on the product offering; distribution channels; marketing approaches, including gamification techniques used; etc.), to help ensure that such a distribution strategy is consistent with the identified target market of the various products and services offered.

147. In this respect, ESMA believes that the use of gamification techniques that are intended to nudge (retail) clients to undue risk taking and that lead to addictive behaviour are never in the best interest of the investor and that they are therefore not compliant with existing MiFID II requirements.

3.3 Technical advice

Digital disclosures

The overarching principles set by the MiFID II legislative framework (firms' obligation to provide information that is fair, clear, and not misleading; obligation to act honestly, fairly, and professionally in accordance with the best interests of the client; and relevant implementing measures) apply to the provision of investment and ancillary services irrespective of the channel and the communication means. The evolving nature of different forms of interaction between firms and their clients or potential clients suggest not to crystallise changes at the legislative level and rather rely on more flexible "Level 3" guidance.

While ESMA intends to use existing supervisory convergence tools to address, for example, issues of misleading marketing campaigns on social media, as discussed in the Analysis section above, ESMA recommends, including in MiFID II, an explicit mandate to ESMA to develop guidelines on the topic of digital disclosures and the use of digital techniques and tools by firms.

The mandate in MiFID II should specify that, in line with the scope of the overarching principles set in Article 24 of MiFID II, it would be applicable to the setup of any form of (online) engagement practices that firms may use, directly or through third parties. In addition, ESMA notes that some updates will likely be needed to the Articles in the MIFID delegated acts to ensure alignment in wording and scope with the principles resulting from the mandate given to ESMA.

Risk warnings

ESMA recommends that the Commission should include a legal basis in the MiFID framework for ESMA/NCAs to impose on firms the use of risk warnings for specific complex and risky financial instruments aimed at informing retail investors. These warnings would subsequently need to be incorporated by each firm in marketing communications and disclosure of these financial instruments

Such power to ESMA/NCAs should be granted with a simpler process, and lower legal requirements, than for the current product intervention powers.

4 Digital tools and channels

4.1 Mandate

Extract from the Commission's request for advice

The Commission invites ESMA to provide advice on a number of focused areas: […]

Assessing the risks and opportunities presented by new digital tools & channels: an assessment of both risks and opportunities with respect to retail investing stemming from both the increasing availability of digital tools and the increasing levels of direct investor .participation, in particular via online trading platforms and robo advisors. It would consider in particular whether the existing regulatory requirements continue to be appropriate given these new risks, with a focus on the efficiency of safeguards such as best execution requirements and risk warnings provided to clients (e.g. as in the GameStop case). This assessment would, in addition, explore whether and how far value chains should be 'opened' up by the sharing of specific investor data amongst investment firms and third party providers, and how far new markets for services, such as advice via platforms, might be expected to develop, bearing in mind, on the one hand, the need to protect investor rights, but also to bring down cost and allow for innovation in products and services.

4.2 Analysis

148. The analysis of Chapter 4 is divided in the following three parts: (i) Robo-advisors; (ii) Online brokers (lessons from the GameStop case) and (iii) Open finance.

Robo-advisers

149. Recent developments of technologies and digitalisation allowed firms to increasingly provide services through the internet. A growing number of consumers therefore use automated tools when managing their finance, to invest their money, to compare costs, features and benefits of different products.

150. The increasing availability of digital tools and the increasing levels of direct investor participation, in particular via online trading platforms and robo-advisors, creates both risks and opportunities with regard to retail investing.

151. The phenomenon of robo-advice had been analysed by the Joint Committee (JC) of the three European Supervisory Authorities (ESAs)[101] and the following opportunities had been identified:

- reduced costs for both customers and financial institutions;
- easy access to more products and services to a wider range of consumers and wider client base for financial institutions; and
- improved quality of the service provided (in terms of standardised consumer experience and possibility of rapidly processing large quantities of evolving data on a real-time and ongoing basis, if needed).

152. Within its analysis, the ESAs had also identified some risks for investors, such as:

- investors having limited access to information and/or limited ability to process that information (due to the limited possibility of human interaction);
- flaws in the functioning of the tool due to errors, hacking or manipulation of the algorithm.
- In terms of emerging business models, the ESAs concluded in 2018 that these kinds of automated services were being offered, through partnerships, by established financial intermediaries, rather than by pure FinTech firms. Some new trends seem to emerge in the follow-up analysis (such as the use of Big Data, chatbots and extension to a broader range of products), but no substantial change to the overall market had occurred since the publication of the first ESA Report in 2016.

153. ESMA has subsequently integrated its Guidelines on certain aspects of the MiFID II suitability requirements (from here onwards 'suitability guidelines') to take into consideration the phenomenon of robo-advice and more specifically in relation to:

- the information to be provided to clients on the investment advice and portfolio management services when these services are provided through an automated tool (this concerns both what information should be provided and how information should be illustrated to clients);
- the assessment of the suitability (with particular attention to the use of online questionnaire with limited or without human interaction);
- the organisational arrangements that firms should implement when providing robo-advice.

[101] In September 2018 the JC published a Report on the results of the monitoring exercise on 'automation in financial advice' (Ref: JC 2018-29). The Report followed the 2015 Joint Committee Discussion Paper on automation in financial advice and 2016 Report on automation in financials advice published by the three ESAs

154. In its suitability guidelines, ESMA clarified that, to guarantee a level-playing field, it did not intend to introduce additional requirements for robo-advisers, but rather highlight certain aspects that may be of particular importance for the provision of services through fully or semi-automated tools. ESMA clarified that the MiFID II requirements and the ESMA guidelines apply to all firms offering the service of investment advice and portfolio management, irrespective of the format used for the provision of these services, i.e., the means of interaction with clients.

Evidence emerged from ESMA's call for evidence

155. Respondents to ESMA's Call for Evidence have indicated that robo-advisory services have not taken off in the EU. The main barriers identified to explain the relatively low use of robo-advice are:

a) preference of investors to rely, at least partially, on human interaction in the advice process. Therefore, a hybrid-model seems more common and used by firms, whereby certain processes are automated such as listing clients' preferences, ensuring audit trail of client journey, selecting products among the offer suitable with client's profile, to name a few.

b) Tech-related: the implementation of robo-advisory tech can be costly. Reference is made to the implementation of the tech itself and to the additional expertise needed to understand and operate the technology.

156. In terms of risks and opportunities for investors arising from the use of robo-advisory services, responses do not evidence significant evolution or changes in the phenomenon since the last analysis performed by the three ESAs. In particular, the following aspects were highlighted through the responses to the call for evidence:

- individuals may be more honest online (they don't feel judged) but also prone to make impulsive and biased choices, since online decision-making is faster and with more shallow attention;
- users may interact with information differently depending on the 'screen' they use to view information.

157. Many respondents expressed the view that there is no need for regulatory changes as the current framework is appropriate, including the changes introduced to the suitability Guidelines, and provides for sufficient investor protection. The existing framework is not considered a barrier for the further development of these kinds of business models. In this context, respondents stressed the need to maintain a technology neutral approach (according to the principle "same business, same risk, same rules") and reiterated the key aspects to be considered when dealing with semi-automated means such as:

- ensure consistent suitability assessment when providing services through automated tools;

- guarantee algorithm transparency on design and oversight including on the selection and allocation processes to avoid or manage conflicts of interest;
- safeguard data protection and cybersecurity;
- ensure convergence of practices.

Recommendations and conclusions

158. The results of the analysis show limited growth of the phenomenon of robo-advisors and no significant evolution or changes in the phenomenon since the last analysis performed by the three ESAs and confirmed that the existing regulatory framework is appropriate. Therefore, no need for regulatory changes was identified to specifically address the provision of services through robo-advisers and the existing framework is not seen as a barrier for the further development of these kinds of business models.

159. However, the common trends identified in the context of the provision of services through digital means are also valid in the context of robo-advisory services. In particular, the analysis performed, and the recommendations provided in Chapter 3 (digital disclosures) apply in this context.

160. Finally, considering the overall importance of the topic, ESMA will continue monitoring the development of the market and the evolution of the phenomenon, with a particular focus on its impact on retail investors.

Lessons from recent episodes of very high volatility: "PFOF and zero-commission brokerage"

PFOF

161. In the context of the recent episodes of very high volatility (often identified as "GameStop case"), the business models of "zero-commission brokers" and the practice of "payment for order flow" (PFOF) have been thrusted in the limelight. On 13 July 2021, ESMA issued a public statement warning investors and firms of the risks arising from PFOF.[102] ESMA defined PFOF in this statement as the practice of brokers receiving payments from third parties for directing client order flow to them as execution venues. In this statement, ESMA concludes that 'in light of the serious investor protection concerns raised by PFOF and the multiple requirements applying to it, it is in most cases unlikely that the receipt of PFOF by firms from third parties would be compatible with MiFID II and its delegated acts.' A key concern is the conflict of interest between the firm and its clients caused by the receipt of PFOF, incentivising the firm to choose the third party offering the highest payment, rather than the best possible outcome for its clients.

---

[102] esma35-43-2749_esma_public_statement_pfof_and_zero-commission_brokers.pdf (europa.eu)

162. Though pointing to the serious investor protection concerns raised by PFOF, ESMA could not conclude that the receipt of PFOF is entirely incompatible with MiFID II. This conclusion is based on the current MiFID II conflict of interests, inducements, and best execution requirements, which impose strict conditions on, but do not prohibit the receipt of this type of third-party payment (other than when portfolio management and independent investment advice are provided). Nevertheless, in light of the multiple requirements applying to PFOF and the serious investor protection concerns mentioned above, ESMA concluded that it is in most cases unlikely that the receipt of PFOF by firms from third parties would be compatible with MiFID II.

163. ESMA is aware that, in the meantime, the Commission's legislative proposal on the review of MiFIR[103] includes a ban of PFOF. The proposal is currently discussed in the context of the ordinary legislative procedure.

164. This advice to the Commission gives the opportunity to further explain and develop, also on the basis of evidence made available in the meantime, ESMA's position in relation to PFOF, as expressed in the Statement published in July 2021.

Evidence emerged from ESMA's call for evidence

165. The responses received by ESMA on PFOF were quite divergent. On one hand, almost all respondents did agree on the observation that there are different approaches within the EU on the treatment of PFOF as well as on the conclusion that some change is needed. However, the suggested changes varied, ranging from more transparency to a consistent application of the relevant MiFID II requirements, or to support banning the receipt of PFOF from third parties in line with the Commission's proposal.

166. Some respondents commented that the advice by ESMA should be evidence-based. In case of a possible ban, respondents argued that the recommendation should be based on proven detriment to investors for example through inadequate application of best execution requirements.

167. Respondents that were opposed to a ban underlined the importance of business models using PFOF as a source of revenue in providing cheaper access to investors to the capital markets. Such respondents also referred to the current MiFID II rules on best execution and conflicts of interest as being sufficient. Still, respondents called for a thorough check and research on the use of PFOF in such business models and their possible non-compliance with current rules.

168. Respondents advocating for a PFOF ban raised concerns about the conflicts of interest and stated that even though PFOF might lead to a situation in which the explicit costs for

---

[103] Commission proposal for amending Regulation (EU) No 600/2014, published on 25 November 2021.

investors are lower, it might also have a negative effect on the price retail investors get and may therefore be detrimental to them.

Recommendations and conclusions

169. ESMA recommends to the Commission to complement its legislative proposal to ban PFOF, in the context of the MiFIR review, by also amending, where relevant, other MiFID II requirements.[104] Considering the wide on-going discussion on this topic, already on the basis of the Commission proposal mentioned above, ESMA would like to provide further background concerning its recommendation.

170. According to some market participants, the inherent conflict of interest brought by the receipt of PFOF can be addressed by including additional safeguards in MiFID II. For example, when receiving PFOF, firms could be required to request the same amount of PFOF to all third parties considered when choosing where to execute their client orders and to disclose the exact amount of PFOF received from third parties in their RTS 28 reports. However, ESMA is of the opinion that such measures will not adequately address the investor protection concerns raised by PFOF. Even with such measures in place, firms will remain incentivised to consider only those third parties that are willing to provide PFOF when choosing where to execute their client orders, even though other third parties may offer a better price for their clients. Moreover, charging the same amount of PFOF to the third parties considered does not address the risk that receiving PFOF from third parties may affect the bid-ask spread offered by such third parties and result in a worse price for the client compared to the situation in which the third party would not provide PFOF. Based on the analysis that the inherent conflict of interest brought by the receipt of PFOF cannot be properly managed, ESMA considers that the receipt of PFOF should be clearly prohibited under MiFID II.

171. Some market participants argue that the receipt of PFOF has the effect of lowering the entry barriers to investing for retail clients, because the receipt of PFOF enables a firm to reduce the level of commissions charged to its clients or to charge no commissions at all. As costs are an important element in determining investors' net returns, ESMA acknowledges that, other things equal, lower trading commissions will benefit investors.

172. However, as indicated above, while PFOF may enable the firm to reduce explicit costs for their clients, implicit costs are likely to increase, due to higher bid-ask spreads offered by the third party providing PFOF. This risk has also been identified by several stakeholders in response to the call for evidence, and ESMA considers that there is sufficient evidence suggesting that PFOF indeed has a negative effect on execution quality.

---

[104] In particular, as far as the Level 1 is concerned, Article 27(2) of MiFID II should be deleted to provide further clarity. Additional changes may be needed in the relevant delegated acts.

For example, evidence has been provided by the Dutch AFM and the Spanish CNMV[105], whose studies show that execution venues involving PFOF consistently produce worse execution prices for retail clients compared to multiple other execution venues that do not involve PFOF.[106] Both studies are based on a method that uses post-trade data relating to Dutch or Spanish shares respectively to compare the execution prices of shares on one execution venue to the price of execution on multiple other trading venues. Several other studies also suggest a negative effect of PFOF on execution quality (see Annex I for a more comprehensive overview of the available empirical research on PFOF). On the other hand, a study commissioned by a firm that receives PFOF, concludes that the implicit costs are often better on the execution venue involving PFOF than on the chosen reference market.[107] This study is based on a method that compares executed prices of the sample with the order book price (i.e., post-trade with pre-trade data) of only one reference market right before the execution.

173. ESMA notes that the above-mentioned studies only considered shares and ETFs, while PFOF is also received in relation to the execution of orders in other types of products, such as structured products. Indeed, according to some stakeholders, the average amount of PFOF received in relation to the execution of an order in a structured product is a multiple of the average amount received in relation to the execution of an order in an equity instrument. In ESMA's view, this may mean that the risk of a worse execution price due to PFOF is even higher for such products.

174. Lastly, ESMA considers that receipt of PFOF is not a necessary pre-condition to be able to charge relatively low commissions to clients, as evidenced by the existence of so-called neo-brokers who charge relatively low commissions to their clients without receiving PFOF. Therefore, banning PFOF does not necessarily undermine brokers' business models charging low commissions to clients. Indeed, using PFOF to enable the firm to charge no explicit commissions to clients creates the risk of giving clients the incorrect perception that trading is free. This way, the receipt of PFOF could incentivise clients to trade more than they would otherwise have done, stimulating trading behaviour by retail clients without sufficient awareness of risks.

[105] BaFin also indicated having performed a study on PFOF, stating that "in some cases order execution on quote-driven (PFOF-_venues even seems to be favourable for retail clients". It stated that it broadened the methodology to include also "transaction costs, order volume and the general liquidity of shares as new variables in order to receive more differentiated results". Bafin indicated that it will share the results as soon as the study is finalised.

[106] AFM, 'Assessing the quality of executions on trading venues. The comparative pricing model, January 2022. CNMV, Payment for order flow: an analysis of the quality of execution of a zero-commission broker on Spanish stocks, working paper no. 79, March 2022.

[107] Steffen Meyer, Charline Uhr and Lutz Johanning, 'Private Investors and the emergence of neo-brokers: Does payment for order flow harm private investors?, 2021.

Zero-commission brokers

Evidence emerged from ESMA's call for evidence

175. As for input specifically received on zero-commission brokers, some respondents stated that there currently is no clear definition of zero-commission brokers and they asked ESMA to provide one.

176. Respondents mentioned that zero-commission brokers can be regarded to be beneficial to clients since they allow investors to trade with lower costs than the traditional brokers. Some respondents underlined the need to make a clear distinction with firms that operate with a PFOF business model, since not all zero-commission brokers generate their revenue through PFOF.

177. On the question what the main sources of revenue are of these business models, respondents answered this could be generated through:
    - Receiving PFOF;
    - Operating a systematic internaliser;
    - Cooperating with only one execution venue;
    - Trading as counterparty to the client, e.g., for CFDs;
    - Charging 'other fees' to clients such as: custody fees, subscription fees, fees for enhanced services (margin trading for example) and via bid-ask spread costs;
    - Engaging in securities lending in relation to client financial instruments.

178. The main concerns that were mentioned by respondents were that zero-commission brokers often engage in aggressive advertising, and that they are not always fully transparent on, for example, the implicit costs incurred by retail clients. Some respondents urged therefore to apply MiFID II requirements such as best execution, product governance, cost transparency, appropriateness, and suitability in a consistent manner across the EU.

Zero-commission brokers - Supervisory evidence from national competent authorities

179. BaFin has, for example, published a national Q&A on marketing communication of zero-commission brokers.[108] BaFin's conclusion was that so far, the existing rules on fair, clear and not misleading information to clients, seem to be sufficient.

Recommendations and conclusions

[108] See section H 'Werbung' in the Bafin publication: https://www.bafin.de/SharedDocs/Veroeffentlichungen/DE/Auslegungsentscheidung/WA/ae_040518_faq_mifid2_wohlverhaltensregeln.html

180. ESMA stresses that “zero-commission brokers”, like any other firm providing RTO and execution services to retail clients, should provide information to the client on all costs and charges relating to the service and the financial instrument. Indeed, this was also highlighted by ESMA in its Statement of 13 July 2021[109], stating that clients of “zero-commission brokers” will always incur costs (e.g., implicit costs and third-party payments received by the firm). ESMA highlights that all such costs should be disclosed to the client on an ex-ante and ex-post basis, the same goes for the “other costs” as mentioned by respondents to ESMA’s call for evidence. Therefore, firms should not market their services as “cost-free”.

181. ESMA also takes note of the input received on the revenue sources of “zero-commission brokers”. ESMA notes that some of those practices may deserve further analysis. For example, the practice of securities lending in relation to client financial instruments increases the risks incurred by retail clients and stringent MiFID II requirements apply to firms engaging in such practices.

Open finance

182. In 2020, through its “Communication on a Digital Finance Strategy for the EU”[110], the Commission announced its objective that “by 2024, the EU should have an open finance framework in place, in line with the EU Data Strategy, the upcoming Data Act, and Digital Services Act”. In this context, a legislative proposal for a new open finance framework will be presented by the Commission by mid-2022, building on and in full alignment with broader data access initiatives.

183. In May 2021, the Commission issued a consultation paper on “a retail investment strategy for Europe”[111], to gather, inter alia, feedback in relation to the development of the open finance framework in the field of retail investments, focusing on benefits and potential risks as well as on the services that might be enabled through the development of open finance.

184. The development of an open finance framework would allow the sharing and use of customer-permissioned data held by financial institutions with third-party providers to enable them to offer more personalised services.

185. As noted by the consultative group on innovation and the digital economy of the Bank for International Settlements “an open finance ecosystem can benefit financial system participants and society in general by creating an environment in which the competitive advantage of different players can be used to provide people with better financial

[109] esma35-43-2749_esma_public_statement_pfof_and_zero-commission_brokers.pdf (europa.eu)
[110] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0591&from=EN
[111] https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/2021-retail-investment-strategy-consultation-document.pdf

services"[112]. In fact, several benefits and risks can be attributed to the development of open finance.[113]

186. Potential benefits connected to the development of an open finance framework include:

- Increased competition with a positive effect on innovation and the development/availability of better financial products. For example, the sharing of data might help the comparison of prices and product features associated with different investment products, with a positive effect on competition among financial services providers. Open finance could also lead to a more targeted advice, as it could make it easier for investment advisers to gather information on a customer (e.g., through the development of new services that collect information about a consumer's personal situation from different sources).

- The greater transparency around people's personal situation led by the sharing of financial data could improve access both to a wider range of products and services and could also foster financial inclusion providing access to basic financial services for some currently excluded consumers.

- Open finance could bring benefits to both incumbents (i.e., traditional financial institutions) and IT and FinTechs companies. The former by holding strong customer relationships and being in control of the customer data and the latter by having strong digital competencies. The sharing of data could lead to new forms of business cooperation building on the trust that the public already places on incumbents for the management of their information.

- The development of an open infrastructure could bring improvements in fulfilling regulatory and compliance requirements (e.g., KYC/AML processes).

187. Potential risks connected to the development of an open finance framework include:

- The misuse of client data, including the use of client data without the consent, which could lead to an increased risk of fraud and incorrect advice to clients (where incomplete or outdated data is shared and used) and generally lead to poor consumer outcomes. Furthermore, the use of personal data can also lead to more discrimination, for example increased prices for certain consumers.

- An increased risk connected to data breaches, privacy and security risks associated with the sharing of consumers' financial data.[114]

[112] https://www.bis.org/publ/othp36.pdf

[113] Please note that the list of potential benefits and risks connected to the development of an open finance framework does not represent ESMA's view at this stage. The list has been compiled based on several reports, including the feedback statement from the FCA on open finance (https://www.fca.org.uk/publication/feedback/fs21-7.pdf) and the responses to the Commission's consultation paper on "a retail investment strategy for Europe".

[114] The GDPR remains applicable however and should in theory offer the necessary protection and guarantees to minimise the risks mentioned, when applied correctly of course.

- Possible damage to consumer confidence due to a lack of information or non-compliance with data protection requirements. The over-simplification of products for comparison purposes could also lead to poor consumer outcomes.
- The risk of exclusion for the consumers that do not to participate in data sharing.
- Risk of an un-level playing field for companies in the financial sector:
    - Regulatory unequal treatment / regulatory arbitrage vis-à-vis non-regulated companies;
    - No (or insufficient) compensation for data preparation and storage by companies that access and use data;
    - Disclosure of trade secrets;
    - Unequal treatment of data exchange compared to other industries ("lack of reciprocity"). In fact, asymmetrical information access requirements could disadvantage incumbent firms in favour of 'big tech' companies as, by requiring certain entities to share data with third parties without reciprocation, these initiatives could limit the ability for incumbent firms to invest in innovative technologies and may have negative implications on their ability to maintain and continuously improve their technical infrastructure and business model;
    - Data exchange can strengthen the market position of data-driven platforms / technology providers and thus advance oligopolisation through to monopoly ("winner takes it all").
- Implementation costs are likely going to be high. Incumbents will incur costs for the development of the technology necessary to share the data with third parties. Implementation costs could have a particular impact on small firms, and the sharing of information with third parties might be practically unfeasible for small firms (i.e., without a sophisticated portfolio management system).

188. Another element to consider, in the public sphere, is the need to strengthen capabilities, more generally in the digitalisation area, across NCAs as well as the need to build a structured cooperation framework between competition and data protection authorities and financial regulators.

Lessons learned from the development of an open banking framework

189. Open finance could be seen as an opportunity to build on the concept of open banking, extending it to a wider range of financial services and products. Along with the revised Payment Services Directive (PSD2)[115], open banking introduced a secure environment that

[115] Directive (EU) 2015/2366.

enables customers to consent to third parties to access their payment account information or to make payments on their behalf.

190. Open banking has brought innovation and enhanced competition in the banking and payment services areas. As an example, one of the areas that sees an application of open banking is consumer lending. In fact, the sector is becoming increasingly digital. The sharing of relevant data enabled by the open banking architecture facilitates the performance of more accurate risk assessments and a better evaluation of consumers' creditworthiness. This can bring benefits, including, inter alia, faster screening and approval procedures and reduced administrative costs.

191. However, the implementation of the data sharing infrastructure between banks and third market players has been difficult under different aspects. From a policy perspective, the drafting of the relevant RTS has been complex due to the technicality and novelty of the topic, the strict linkages to data protection aspects, the number of stakeholders involved, and the sensitivity of the data involved (with the reluctance to share data from credit institutions), making the set-up of the APIs[116] very long and very complex.

Evidence emerged from ESMA's call for evidence

192. Even though the responses varied as to whether or not an open finance framework would work for the securities market and would be beneficial to all market participants, respondents did agree on the risks such implementation might bring. The following risks were identified: risks associated with data-sharing and possible breaches, cybersecurity risks financial exclusion, risk of distortion of the level-playing field due to access to data by unregulated entities and the creation of data asymmetries. The main identified barrier for the development for open finance were the underlying costs, with respondents expecting the implementation costs of such framework to be much higher than the costs of PSD2. Additional barriers mentioned include the lack of standardisation of data and interoperability of systems, the absence of incentives to develop an open finance framework, noting that all participants in the framework need to have appropriate incentives for their participation, and the existing lack of trust around the sharing of data.

193. With regards to investors data that could be shared in the context of an open finance framework, respondents mentioned the following type of data:

- Digital onboarding (KYC/AML, customer identity)
- Client balance data, information on financial assets/investments across different accounts, frequency of transactions and transaction data,

[116] An API, or application programming interface, is basically software that acts as an intermediary between other pieces of software. As the acronym implies, an API is a program that acts as the interface between applications

- Some customer data supporting the assessment of suitability or appropriateness e.g., education level, experience and knowledge of economic and financial concepts,

194. The respondents that were positive about a possible open finance approach mentioned that it could improve distribution and execution processes, result in tailored and more suitable/appropriate products for investors, provide investors with a better view and understanding of their financial situation. It was also underlined that participation in such an open finance framework should always be the conscious choice of investors and that they should remain in control of their own personal data.

195. Responses on the creation of a portable digital identity were more positive. For example, respondents mentioned that such a digital 'ID' could bring improvements to the onboarding of new clients by making KYC processes smoother.

196. As regards to the key conditions that would allow open finance to develop in a way that delivers the best outcomes for both financial market participants and customers, respondents mentioned the need for the framework to be developed horizontally on a cross-sectoral basis rather than proceeding a sector at a time, focusing on developing an open data economy approach to facilitate the development of innovative services and a level playing field for all actors. Other key elements reported by respondents include the need to create a framework that embeds incentives for all participants to join, the need to foster financial literacy for costumers with a focus on digital financial literacy and to apply the principle of proportionality in the design of the regulatory framework, in order to avoid burdensome rules that lead to concentrate the development of open finance to few market participants.

Recommendations and conclusions

197. Considering the results of the analysis, the complexity of the topic and the different stakeholders affected by the development of an open finance framework, ESMA recommends to the Commission to consider all the potential risks and benefits and the different concepts set out in the analysis section above when developing any legislative proposal on the topic of open finance.

198. Moreover, ESMA shares its interest in following closely, cooperating, and supporting the Commission in its work on the development of the open finance framework.

4.3 Technical advice

Robo-advisers

As set out in the analysis part above, ESMA does not believe that, at the moment, regulatory changes to MiFID II are needed on this topic (in addition to the proposed changes in other part of this technical advice, which will also impact robo-advice). ESMA notes that while the phenomenon of automation in investment advice seems to be slowly growing, the overall number of firms and customers involved still seems to be quite limited. Furthermore, information available on consumer complaints shows low figures relating to these services and, while several NCAs noted that supervisory work has been carried out at national level in relation to automated advice, no specific issue emerged that would require a change in the legislative framework.

ESMA therefore considers the current regulatory framework appropriate and not constituting a barrier for the further development of these kinds of business models. ESMA will nonetheless keep monitoring the phenomenon and its evolution to ensure the ongoing adequacy of the framework and to guarantee supervisory convergence across Member States. In this respect, ESMA has provided detailed guidance to robo-advisers in its MiFID II guidelines on certain aspects of the MiFID II suitability requirements and will keep these guidelines updated in light of any further (technological) evolutions of the advisory market.

PFOF

ESMA recommends to the Commission to complement its legislative proposal on the review of MiFIR through amendments of MiFID II so as to prohibit the receipt of PFOF from third parties, on the basis of the investor protection concerns arising from this practice.[117]

Open Finance

ESMA recommends to the Commission to consider all potential risks and benefits set out in the analysis section when developing any legislative proposal on the topic of open finance. Moreover, ESMA shares its interest in following closely, cooperating, and supporting the Commission in its work on the development of the open finance framework.

[117] While the majority of ESMA Board of Supervisors members were in favour of this recommendation, please note that some ESMA Board members would have preferred not including this recommendation in the technical advice (at least until further cost-benefit analysis had been conducted).

Annex 1 - PFOF - Some details on published evidence

199. Further to the information provided in par. 169-171, below a list is provided with more detail on the most relevant and recent pieces of empirical research on the impact of PFOF on best execution.

200. AFM – *Assessing the quality of executions on trading venues: The "Comparative Pricing Model"* [118]

Research question	Analysis of the execution quality between two PFOF trading venues (TVs), and one non-PFOF TV, all three used by pan-European operating low-cost neo-brokers, as well as one low-cost investment firm. The method shows whether a client's order would have been better off when executed on another European TV, assuming the prices of the equity instruments considered would have been available on aggregate over multiple timestamps.
Key findings	The PFOF TVs considered structurally offered worse execution prices based on a comparison of executed transactions on these venues and those of multiple (ten) other TVs in the EU. This supports the view of having inducement ban, in place in the Netherlands, as well as the ESMA warning published in July.
Data sample and methodology	Consolidated TRS/MIFID II tape on actual transactions of Dutch shares over the timestamp of one second in 1H21. The execution price for every transaction in the considered TVs is compared to the prices in the same instrument in the same second on ten other venues and labelled better or worse if it is lower/higher (according to the client-side) than the prices of all transactions in the same instrument in the same second on all other TVs.
Further research	Pre-trade data and post-trade comparison as an alternative indicator of the execution quality. These additional results lead to similar conclusion compared to the post-trade analysis. Potential addition: the commissions charged by the brokers using the non-PFOF venues. Ongoing work also in view of anonymising firms or venues.

[118] AFM, 'Assessing the quality of executions on trading venues. The comparative pricing model', January 2022.

201. CNMV – *Payment for Order Flow: an analysis of the quality of execution of a zero-commission broker on Spanish stocks*[119]

Research question	Study of the execution quality between a PFOF TV, on behalf of the clients of a single prominent broker with which a payment for order flow agreement was in place, compared to the execution prices observed in other ten most liquid TVs for Spanish securities at each moment in time.
Key findings	Best execution was seldom achieved (only a 3.3% of the trades) and in most cases (86%) the prices obtained by clients were worse than the worse alternative in the group of comparable trading venues. The average price deterioration was estimated at EUR 1.09 per EUR 1,000 traded.
Data sample and methodology	Consolidated TRS/MIFID II tape on actual transactions of 82 Spanish securities over the timestamp of one second in 1H21. The execution price for every transaction in the PFOF TV is compared with the prices in the same instrument in the same second on ten other venues and labelled better or worse if it is lower/higher (according to the client-side) than the prices of all transactions in the same instrument in the same second on ten other TVs.
Further research	Analysis of the overall cost including both implicit and explicit components (i.e., both quality of execution and commissions). The necessary set of data not yet available to the CNMV.

202. Meyer S., Uhr C and Johanning L – *Private investors and the emergence of neo-brokers: Does payment for order flow harm private investors?*[120]

Research question	What are the implicit costs (execution quality) of trading at neo-brokers? What are the explicit (trading costs charged to clients) costs?
Key findings	Execution prices at Trade Republic are on average better than at Xetra and seldomly worse. Overall, this leads to lower implicit trading costs. This leads to the conclusion that PFOF does not seem to harm private investors.
Data sample and methodology	Focus only on Trade Republic clients: sample of trading data of 100,000 randomly drawn customers between July 2020 and June 2021 at a millisecond time stamp. TVs analysed: Lang Schwarz and Xetra
Further research	Impact of these low costs on trading activity and returns, and long-term stock market participation and effects on pension savings.

[119] CNMV, 'Payment for Order Flow: an analysis of the quality of execution of a zero-commission broker on Spanish stocks', February 2022.
[120] Meyer S., Uhr C and Johanning L on behalf of Trade Republic, 'Private investors and the emergence of neo-brokers: Does payment for order flow harm private investors?', November 2021.

203. Besson P. and Comperon, L. – *EURONEXT QUANTITATIVE RESEARCH REPORT*[121]

Research question	Execution quality comparison of trades on the same stock universe between Best-of-Book (BoB) Euronext based on the central limit order book and Apex (Equiduct) identified as an Equiduct segment involving PFOF.
Key findings	Overall, BoB outperforms Apex in terms of net trading prices, including trading costs., BoB outperforms Apex in net terms by +1.36 bps in terms of average per trade, or by +2.47 bps in terms of turnover weighted averages.
Data sample and methodology	Data from QuantHouse on 369 stocks traded both on Equiduct Apex and Euronext BoB. Period December 2019 until April 2020. All BoB and Apex trade prices on this universe are compared to the benchmark price European Best Bid Offer (EBBO). It is calculated from QuantHouse consolidated orderbook based on a series of primary exchanges (11) as well as main MTFs (4) and the Equiduct central limit order book.

204. CFA – *Payment for Order Flow in the United Kingdom Internalisation, Retail Trading, Trade-Through Protection, and Implications for Market Structure*[122]

Research question	Examine the execution quality of retail-sized orders on the UK primary market, the London Stock Exchange, before and after the FSA's updated guidance banning PFOF arrangements in May 2012.
Key findings	The loss of a potential source of revenue from retail PFOF arrangements has caused retail-sized equity order execution to become a competitive service. The best execution regime appears to be working well. The paper argues that this is positive for market integrity overall because it implies that displayed liquidity providers are being rewarded with executions at the price they quote, something that may not be happening in markets with PFOF where internalisers are able to step ahead of the quoted price on the order book.
Data sample and methodology	Data for the UK market between 2010-2014 from IFS LiquidMetrix. For each day, data collected from the LSE on 50 stocks, 25 large- and 25 small-cap. Order book constructed to a depth of five levels for trades with a value below £7,000 (the size of the average retail trade in FTSE100 stocks and close to the MiFID definition of a retail-size trade 7,500). The trade price is compared with the best available price in the market as if a market order of equal size were sent to the market at that instant. Two benchmark prices for calculating price improvement are used: "touch" price as the effective trade; "depth-weighted" price. These two prices are compared with the actual trade price to determine the level, if any, of price improvement.

[121] Besson P. and Comperon L., 'Euronext Quantitative Research Report', October 2020.
[122] CFA Institute, 'Payment for Order Flow in the United Kingdom', June 2016.

205. Public Brokerage Ltd – Post on *Delivering on price execution without PFOF*[123]

Research question	Following Public Brokerage Inc, an US-domiciled brokerage firm, decision to end its participation in PFOF, at the beginning of 2021, an analysis was conducted to show how Public achieved optimal price execution for its members without relying on market makers or PFOF.
Key findings	Public's available data strongly suggests that Public has been delivering better execution quality on average to customers than its peer firms that accept PFOF from market makers. Irrespective of the metric used in the analysis, the analysis shows that quality price execution is possible without routing to market makers in exchange for PFOF. This conclusion is based on Public's own data and what Public's peers publish, but there are currently no standards in US for retail brokers to publish execution quality statistics.
Data sample and methodology	All Public.com execution data used in this post is provided by S3 Matching Technologies LP, a trade data and execution analytics platform that is also used by Robinhood and WeBull. Data for Public's peers are all Robinhood and WeBull execution quality data taken from their execution quality websites. Main metrics is given by the effective spread over quoted spread (EFQ). Public optimises for EFQ, which represents how much price improvement an order received. The lower the EFQ percentage, the closer it is to the midpoint of the national best bid and offer price (NBBO) and therefore the better its execution quality. The analysis however looks also at other metrics used by Public peers such as At-or-Better (AoB), and gross and net price improvements. AoB reflects the percent of shares that are executed at or better than the NBBO at the time of order submission. The higher the AoB percentage, the more total trades are executed at least at the NBBO for customers. Gross price improvement is the notional amount of price improvement received on shares executed at a price better than the NBBO. The net price improvement subtracts from the gross any executions that slip outside of NBBO.

[123] Public Brokerage Inc, 'Delivering on price execution without PFOF', December 2021.