



The Legal Framework for Financial Advertising: Curbing Behavioural Exploitation

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Abstract Policy makers and behavioural finance scholars express growing concern that marketing practices by financial institutions exploit retail investors' behavioural biases. Investor protection regulation should thus address these marketing practices and include mechanisms curbing behavioural exploitation. That raises the question whether the marketing communications regime of the new Markets in Financial Instruments Directive can live up to this demand. This article develops a regulatory model that integrates behavioural finance insights into the new marketing communications regime. It then determines how regulatory authorities can apply this model when they interpret and apply specific regulatory requirements. It demonstrates how a regulatory authority or a court can translate empirical behavioural finance research findings into legal arguments when assessing whether marketing practices can significantly distort a model investor's decision-making process. The article further establishes that the detailed requirements imposed on investment firms by the new Markets in Financial Instruments Directive are necessary in order to protect investors from behavioural exploitation. Finally, the article submits policy proposals that aim to protect investors more effectively from behavioural exploitation.

Keywords Advertising · Marketing · Behavioural finance · Behavioural exploitation · MiFID II · Investor protection

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1 Introduction

Financial service providers devote substantial resources to product marketing. These marketing communications have to satisfy certain regulatory standards, which have attracted only limited scholarly attention compared to rules about mandatory disclosure. Marketing communications can roughly be defined as any information that is used in sales and that is not mandatory disclosure.¹ Article 24(3) MiFID II² requires that marketing communications that investment firms address to their (potential) clients must be fair, clear and not misleading. These general and indeterminate terms are amplified in detail by Article 44 MiFID II Delegated Regulation.³ Both provisions came into force on 3 January 2018, and they will have a considerable impact on shaping future financial advertising.⁴ This is evidenced first by the key role played by financial promotions in the UK Financial Conduct Authority's overall aim of delivering an efficient and effective retail market in financial services. Two high-profile cases in 2014 leading to fines for Credit Suisse and Yorkshire Building Society for financial promotions failures displayed this approach.⁵ Second, the marketing requirements enshrined in Article 44 MiFID II Delegated Regulation can serve as guidelines for interpreting Article 77 UCITS IV Directive,⁶ which requires that marketing communications for UCITS shall be fair, clear and not misleading and which does not empower the Commission to adopt delegated acts.⁷

This article situates MiFID II's marketing communications regime in a behavioural finance context and aims to demonstrate how MiFID II's advertising provisions can be interpreted in the light of empirical research about investor behaviour. Such an analysis has not yet been provided in the literature. The article makes three main contributions to scholarship. First, at a theoretical level, it aims to bridge the gap between empirical insights and normative arguments by developing a regulatory model that integrates insights from behavioural finance into MiFID II's

¹ Cf. the wide definition of the term 'marketing communication' in: European Commission, Draft commission working document on conduct of business rules, best execution, client order handling rules, eligible counterparties, clarification of the definition of investment advice and financial instruments, Working document ESC/23/2005—rev1, 9 September 2005, pp 3–4; Koller (2012), § 31 WpHG para. 52.

² Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (recast) [2014] OJ L173/349 ('MiFID II').

³ Commission Delegated Regulation (EU) 2017/565 of 25 April 2016 supplementing Directive 2014/64/EU of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive [2016] OJ L87/1 ('MiFID II Delegated Regulation').

⁴ The terms marketing communication and advertising/advertisement will be used as synonyms in this article.

⁵ See <https://www.fca.org.uk/news/press-releases/financial-conduct-authority-fines-credit-suisse-and-yorkshire-building-society>.

⁶ Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) [2009] OJ L302/32 ('UCITS IV Directive').

⁷ In detail Brennecke (2013), pp 982–987 for Art. 27 MiFID I Implementing Directive.

investor protection regulation. Second, it determines how this regulatory model can be applied by regulatory authorities when interpreting and applying specific advertising requirements in Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation. It shows that the detailed requirements imposed on investment firms by MiFID II's advertising regime are necessary in order to protect investors from behavioural exploitation. Third, it demonstrates how the existing legal framework can be optimised in order to achieve a higher level of investor protection informed by behavioural finance research findings.

The article is structured as follows. Section 2 sets the scene by explaining why it is necessary to analyse MiFID II's marketing communications regime from a behavioural finance perspective. Section 3 uses empirical findings from behavioural finance research to answer the questions how advertising material affects investor behaviour and whether or not this material has a distorting effect on investors' decision-making processes. Section 4 develops a behaviourally informed regulatory model for MiFID II's marketing communications regime. Section 5 shows that this model is compatible with MiFID II's retail investor model. Section 6 then applies this model to specific advertising requirements contained in Article 44 MiFID II Delegated Regulation. The article demonstrates how a regulatory authority or a court can translate empirical behavioural finance research findings into legal arguments when assessing whether marketing practices can significantly distort a model investor's decision-making process. The article also submits policy proposals based on research findings from behavioural finance that aim to protect investors more effectively from behavioural exploitation.

2 The Need for a Behavioural Finance Analysis

A behavioural finance analysis of the regulatory standards for marketing communications is necessary for the following reasons. First, the regulation of capital markets law is increasingly informed by behavioural economics, both at European⁸ and at national⁹ level. Second, criticism is growing that actors in the financial sector design sales material in such a way that it exploits weaknesses in the decision-making processes of retail investors in order to lure these investors into capital investments (behavioural exploitation).¹⁰ There is thus growing recognition among scholars that retail investor protection should include mechanisms against the exploitation of investor biases by firms.¹¹ Third, a recent EU wide study on consumer vulnerability in the financial sector found that marketing practices are among the most frequent causes of consumer vulnerability and proposed that

⁸ Minor (2012), pp 163–164; Decision Technology (2010); IFF Research and YouGov (2009).

⁹ For the UK see Erta et al. (2013); Adams and Smart (2017).

¹⁰ European Commission (2016), p 334; Adams and Smart (2017); Erta et al. (2013), p 6; Hawkins (2016); Williams (2007), p 245; Yeoh (2010), p 215. See generally for firms' product design and sales processes European Parliament, Consumer protection aspects of financial services, IP/A/IMCO/ST/2013-07, February 2014, p 34.

¹¹ Armour et al. (2016), p 222; Bhargava and Loewenstein (2015), p 398.

measures should be adopted addressing marketing practices that exploit consumers' behavioural biases.¹² Fourth, big data analytics have increased the risk of behavioural exploitation by financial institutions and the European Supervisory Authorities emphasise that supervisors should evaluate and mitigate such risk.¹³ That raises the question whether such risk can be adequately addressed through the existing framework for investor protection. Fifth, the effectiveness of the existing investor protection tools can be assessed with a behavioural finance analysis. Sixth, a behavioural finance analysis is in tandem with the evolution of MiFID II's investor protection model from the protection of an autonomous and empowered retail investor to the vulnerable consumer of financial services and instruments.¹⁴

3 Why Regulate Advertising by Investment Firms?

Retail investors typically do not read complex and long mandatory disclosure documents like prospectuses before making an investment decision, but rather consult more accessible forms of information such as factsheets, flyers and other advertising material. That raises the question how advertising material affects investor behaviour and whether or not such material has a distorting effect on the decision-making process of retail investors.

This question can be investigated by using empirical findings from behavioural finance research. Behavioural finance is the study of the influence of psychology on the behaviour of investors and the subsequent effect on markets. It can provide explanations for why investors make financial decisions that deviate from classical economic models. Behavioural finance research shows that the investment decisions of a significant number of retail investors do not correspond with the neoclassical ideal of a rational investor and are characterised by bounded rationality. A common observable pattern in decision-making by retail investors is that they rely on rules of thumb (heuristics). Heuristics facilitate decision-making in a complex environment.¹⁵ Their application can,¹⁶ however, also be a source of errors (biases) and can cause errors of judgment.¹⁷ In the following section, five¹⁸ well-documented and well-studied heuristics and behavioural biases of retail investors are presented,

¹² European Commission (2016), pp xviii–xx.

¹³ Joint Committee, Discussion paper on the use of big data by financial institutions, JC 2016 86, December 2016, p 28; ESMA Securities and Markets Stakeholder Group, High-level response to JC Discussion Paper 2016 86, 7 April 2017, pp 2–3.

¹⁴ Moloney (2012), pp 177–185, 189. Critical of this development: Mülberr (2013), p 180.

¹⁵ Engel and Gigerenzer (2006), pp 2–4.

¹⁶ Heuristics do not have to be a source of biases; see Gigerenzer and Gaissmaier (2011), pp 456–458; Slovic et al. (2002), pp 332, 337; Tversky and Kahneman (1974), p 1130.

¹⁷ Jolls and Sunstein (2006), p 204. Decision Technology (2010) provides experimental evidence across EU countries that retail investors are prone to biases and do not decide optimally when making investment decisions; see also European Commission (2016), pp 196–217.

¹⁸ For a detailed description of typical biases of retail investors see Gilovich et al. (2002); Pompian (2012). For an overview, see Helleringer (2018), Part I. The representativeness heuristic, the availability heuristic and the anchor heuristic are the three heuristics discussed in Tversky and Kahneman (1974).

which will later be used for the interpretation of MiFID II's advertising regime. Some of these heuristics and biases are closely related. These heuristics and biases can be described as basic cognitive and emotional mechanisms that occur in different jurisdictions and cultural settings according to a wide range of empirical studies. Even absent EU-wide studies¹⁹ it is thus reasonable to presume that a typical retail investor in every Member State exhibits these heuristics and biases to a certain degree.

What is still unclear is how behavioural finance can serve as a means to improve the legal protection of investors. For the most part, behavioural economists and behavioural finance scholars characterise the normative standard underlying their policy recommendations as paternalistic.²⁰ Paternalistic measures can be 'harder' or 'softer', depending on how deeply they interfere with individual decisions. The influential concept of 'libertarian paternalism',²¹ which is a form of soft paternalism and includes the popular concept of nudging,²² aims to improve the welfare of boundedly rational individuals by steering them towards more reasonable behaviour and towards better choices while preserving their freedom of choice. We will see later in Sect. 4 that the regulatory model developed in this article is in harmony with libertarian paternalism.

MiFID II's investor protection regime also enhances conduct protection for professional investors. As opposed to its predecessor Article 27 MiFID I Implementing Directive,²³ Article 44 MiFID II Delegated Regulation refers not only to retail but also to professional clients. The focus of this article will nonetheless be on retail investor protection as available empirical studies on the effects of advertisements on financial behaviour mainly concern retail investors.

3.1 Heuristics and Biases of Typical Retail Investors

3.1.1 Representativeness Bias

An abundance of empirical studies shows that a significant number of decision makers choose financial instruments based on their historical performance.²⁴ Retail investors believe that past performance is representative of future performance. Past performance data can be useful in context, but retail investors often extrapolate

¹⁹ But see European Commission (2016), p 197 ('An important aspect of behavioural vulnerability drivers is the fact that they are observed across all consumer groups [...]').

²⁰ Some scholars do not support the use of behavioural finance to formulate policy recommendations. For a summary of the criticism against behaviourally informed policy-making, see Tor (2008), pp 318–325.

²¹ Developed in: Sunstein and Thaler (2003).

²² Thaler and Sunstein (2009); Sunstein (2014). For a discussion of the relationship between libertarian paternalism and nudging, see Hansen (2016).

²³ Commission Directive 2006/73/EC of 10 August 2006 implementing Directive 2004/39/EC of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purpose of that Directive [2006] OJ L241/26 ('MiFID I Implementing Directive').

²⁴ For discussion see, each referring to empirical studies, Ackert and Deaves (2009), p 143; Daniel et al. (2002), p 145; Hüßler and Wirth (2013), pp 220–221.

historical ‘trends’ into the future and over-rely on past returns information when making investment decisions at the cost of other factors like an investment product’s fees and risks. These investors are subject to a decision-making error as the actual predictive validity of past performance on future performance is poor.²⁵ Advertising that focuses heavily on past performance data of a financial instrument appeals to this decision-making error, confirms the error and is therefore successful.²⁶

3.1.2 Availability Bias

The availability heuristic relates to the propensity of decision makers to rely on readily available information to a disproportionately high extent when making a decision.²⁷ This is based on the error of judgment that events that are familiar and easy to remember are more likely or more frequent to occur (availability bias).²⁸ The availability bias particularly denotes errors in estimating probabilities. Two factors can exacerbate the availability of information: (a) if an event or information has occurred recently, it is easier to remember (recency bias)²⁹; (b) it is easier to recollect salient events or information than non-salient events or information (salience bias).³⁰ Salience is heavily influenced by the way information is presented. For example, vivid and specific information is overweighted in comparison to pallid and abstract information. Studies have shown that salient product attributes in advertisements for financial instruments tend to become overweighted in subsequent decisions among investors leading to decisions that deviate from traditional economic models.³¹ The availability heuristic can explain why retail investors base their investment decisions on sales material that is readily available and presented in prominent style without entering into a deep search for information.³²

3.1.3 Framing Bias

Framing bias denotes the propensity of decision makers to assess the same information differently based on the way or the context in which it is presented (framed).³³ Framing bias is closely related to salience bias. A considerable amount of behavioural research shows that the format in which information about risks and benefits of a financial product is presented influences retail investors’ investment

²⁵ Ackert and Deaves (2009), p 145; Hüsser and Wirth (2013), p 220; Pompian (2012), pp 90, 181.

²⁶ See Palmiter and Taha (2011), p 15.

²⁷ Pompian (2012), pp 155–156, 159; Sunstein (2011), p 1358; Tversky and Kahneman (1973), p 221.

²⁸ Jolls and Sunstein (2006), pp 203–204; Tor (2008), p 248.

²⁹ Ackert and Deaves (2009), p 97; in detail Pompian (2012), pp 179–188.

³⁰ Ackert and Deaves (2009), p 97; Sunstein (2013), pp 1846–1847; Tversky and Kahneman (1974), p 1127.

³¹ See, e.g., Cox and de Goeij (2018), p 3. For theoretical models see Mullainathan et al. (2008); Bordalo et al. (2016).

³² In detail, Pompian (2012), pp 157, 159–160; cf. Erta et al. (2013), p 59.

³³ Kahneman and Tversky (1984); Kahneman (2011), pp 363–374; Pompian (2012), pp 143–145.

decisions.³⁴ These empirical studies also demonstrate that framing effects can lead to a distorted perception of the risks and the return of an investment by retail investors, which differ from the investment's actual risk-return profile.³⁵

3.1.4 Anchoring Bias

The anchor heuristic describes the propensity of decision makers to make estimates by starting from an initial value, which can be contained in information for example, when making decisions and in particular forecasts under uncertainty.³⁶ The decision is biased towards the initial value as subsequent information that does not correspond to the initial value is downplayed, underweighted or ignored.³⁷ Studies have shown for example that a significant number of retail investors frequently use short-term historical performance data of an investment fund as an anchor for the future performance of the fund. This links the anchoring bias with the representativeness bias. Using such anchors in advertising material can have a distorting effect on how retail investors perceive the yield of a financial instrument and can lead to significant decision-making errors.³⁸

3.1.5 Emotional Bias

The affect heuristic refers to the influence of emotions on the behaviour of decision makers. It states that emotions generated by non-informative stimuli influence the perception and processing of information, the preferences of decision makers and the decision-making process.³⁹ Studies have shown that emotions triggered by advertisements are capable to guide the cognitive perception of the risks and the benefits of an investment product.⁴⁰ These results correspond with theoretical and empirical work demonstrating that persuasive but uninformative content in advertisements is capable of affecting economic outcomes because salient non-informative product attributes may be disproportionately weighted in subsequent judgments.⁴¹ A decision that is guided by the affect heuristic may lead to judgment errors (emotional bias) if the affective component of the decision-making process is controlled and manipulated by non-informative stimuli (e.g. non-informative content in advertisements).⁴²

³⁴ See with references to further studies Hillenbrand and Schmelzer (2016), p 5.

³⁵ Diacon and Hasseldine (2007), pp 35, 48; Jordan (2004), pp 97, 140, 165, 183, 191–192, 201.

³⁶ Chapman and Johnson (2002), pp 120–121; Tversky and Kahneman (1974), pp 1128–1130.

³⁷ Rabin (1998), pp 26, 29; Tor (2008), p 251.

³⁸ See the results of the study by Jordan (2004), pp 139–140, 191, 201; cf. Huhmann and Bhattacharyya (2005), p 309.

³⁹ Feigensohn and Park (2006), pp 144–145; Huang (2003), pp 31–34.

⁴⁰ Jordan (2004), pp 87, 93, 97, 165, 192; cf. Slovic et al. (2002), p 333. For the influence of emotions on retail investors' investment decisions, see also generally Hirshleifer and Shumway (2003) (emotions affect demand for securities); Lucey and Dowling (2005).

⁴¹ See, e.g., Bordalo et al. (2016); Bordalo et al. (2013); Bertrand et al. (2010).

⁴² Slovic et al. (2002), p 337; cf. Kuhnen and Knutson (2011), p 622.

3.2 Influence on Investment Decisions

Two empirical conditions must be fulfilled before the biases of typical retail investors as discussed in the previous section can be used to evaluate how marketing material by investment firms ought to be regulated. First, marketing material must address behavioural biases and second, as a consequence, it must facilitate poor investment decisions by investors. Regarding the first point, if a significant number of investors are subject to systematic decision-making errors, investment firms have incentives to exploit these mistakes in advertisements in order to increase their sales.⁴³ If one remembers advertising material for financial instruments before the coming into force of MiFID I, one can easily think of material that focused on the advantages and the past performance of a financial product in a very biased way without mentioning the product's risks or costs.⁴⁴ Marketing communications before MiFID I provide sufficient examples for material that exploits the five decision-making errors described above. In relation to the second point, empirical investigations show that advertising material for financial instruments that exploits the five behavioural biases can distort the decision-making process of retail investors and can lead to costly decision-making errors.⁴⁵ Furthermore, empirical research into the effects of advertising make it appear doubtful that the (initial) influence of marketing communications on the decision-making process can be adequately compensated by financial advice or by statutory disclosure.⁴⁶

4 Devising a Behaviourally Informed Regulatory Model for MiFID II's Advertising Regime

Since advertising can have a distorting influence on retail investors' investment decisions, the EU legislature decided to regulate marketing communications in MiFID II. This is ultimately a policy decision by the EU legislature. It is a normative conclusion based on normative arguments, i.e. a decision balancing the competing interests involved which is external to the behavioural sciences.⁴⁷ Such a policy decision and normative conclusion can, however, be informed by behavioural

⁴³ Bar-Gill (2012), pp 8–17; Friedman (2011), p 577; Mullainathan et al. (2008), p 578; cf. generally Armour et al. (2016), p 222.

⁴⁴ Empirical studies for Europe seem to be missing. For similar results for the US see the studies by Huhmann and Bhattacharyya (2005), p 304; Jones and Smythe (2003), pp 36–38.

⁴⁵ In detail Jordan (2004). Cf. Bertrand et al. (2010), pp 268, 297–298; European Commission (2016), p 335; Cronqvist (2006), pp 2–3; Huhmann and Bhattacharyya (2005), p 309. For further empirical works showing that financial advertisements can significantly influence the decision-making process of retail investors, see, e.g. Barber et al. (2006); Capon et al. (1996) at pp 67, 70; Cox and de Goeij (2017); Cox and de Goeij (2018); Gallaher et al. (2008), pp 3, 30–31; Jain and Wu (2000), pp 939, 957.

⁴⁶ See Kroeber-Riel and Esch (2011), pp 56–57 with references to advertising research. For discussion see Brennecke (2013), pp 1225–1227.

⁴⁷ For the distinction between behavioural empirical insights and normative arguments, see Cserne (2015), pp 279, 289–290; Eidenmüller (2011), p 814.

research findings about investors' bounded rationality.⁴⁸ These research findings are helpful in two ways. First, they can be used to inform the legislature's policy objectives and can affect the particular shape of investor protection legislation. Second, they can be used by courts to interpret investor protection legislation, in particular vague and ambiguous terms.

On the one hand, there is no explicit evidence showing that the authors of MiFID II and MiFID II's Delegated Regulation took empirical findings about investors' heuristics and behavioural biases into account during the law-making process. The most evidence that can be found is the European Securities and Markets Authority's (ESMA) statement in its technical advice preparing MiFID II's Delegated Regulation that insights on consumer behaviour and on the way consumers process information should be taken into account in order to effectively design disclosure for clients.⁴⁹ On the other hand, there are no indications that the EU legislature intended to exclude an interpretation of Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation in the light of research findings about investors' behavioural biases. Instead, Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation are receptive to being interpreted in the light of behavioural finance insights about marketing communications exploiting investors' behavioural biases if these insights (a) are compatible with the policy objectives of both provisions, (b) fit into MiFID II's system of investor protection regulation and (c) are consistent with the investor model underlying both provisions. That these conditions are fulfilled will be demonstrated in the remainder of Sect. 4 and in Sect. 5. Furthermore, the legal use of behavioural biases to interpret investor protection legislation requires that they occur at a systematic level (see next section), are theoretically plausible, are empirically tested in the context of investment decisions and that the empirical findings are sufficiently robust.⁵⁰

Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation serve two general aims: protecting investors from individual instances of misconduct and protecting the functioning of the financial markets.⁵¹ It is therefore necessary to establish whether regulating advertising that exploits investors' behavioural biases serves to protect both aims.

4.1 Protecting the Functioning of Financial Markets

With regard to the functioning of financial markets, behavioural finance research shows, first, that investors' biases are persistent and systematic, do not cancel out each other in the aggregate and therefore influence asset prices. A second pillar of behavioural finance research is that noise trader risk is one of the limits of arbitrage,

⁴⁸ Cf. generally Hacker (2015), pp 318, 322. Cf. also the discussion of whether behavioural studies can inform the interpretation of the 'average consumer' standard in Directive 2005/29/EC on unfair commercial practices: Sibony (2014), pp 909–910; Trzaskowski (2011), pp 384–385.

⁴⁹ ESMA, Final report: technical advice to the Commission on MiFID II and MiFIR, 19 December 2014, ESMA/2014/1569, p 115.

⁵⁰ Similarly Klöhn (2009), p 449.

⁵¹ For Art. 19(2) MiFID I and Art. 27 MiFID I Implementing Directive: Thieme (2008), p 314; in detail Brenneke (2013), pp 547–553.

meaning that rational and well-informed investors are not always able to prevail over boundedly rational or irrational market players. Biased investment decisions can thus lead to a consistent mispricing of financial instruments.⁵² This can cause a misallocation of capital⁵³ and impair the allocative efficiency of the financial markets.⁵⁴ The dot-com bubble and the financial crisis of 2007–2009 provide ample evidence for these relations. Since biased investment decisions can impair the functioning of the financial markets, regulating advertising which exploits investors' systematic behavioural biases aims to protect the functioning of the financial markets.

4.2 Protecting Individual Investors

Justifying the regulation of advertising with the objective of individual investor protection is controversial if the regulation aims to protect individual investors from themselves, for example against their own propensity to err and against their own decision-making mistakes. That kind of regulation rings the bells of paternalism. However, the underlying rationale for regulating advertising that addresses investors' behavioural biases is not that investors must be protected from their own mistakes. It is rather based on the premise that third parties ought not to exploit these mistakes. This is a fine but crucial distinction.⁵⁵ The basis is thus protecting an investor's freedom of choice from distorting external influence as opposed to helping investors to reduce or eliminate their own biases.⁵⁶ MiFID II regulates advertising in order to prevent a distorting external influence on an investor's investment decision. This rationale includes regulating advertisements that exploit investors' systematic behavioural biases.

4.3 MiFID II's System of Investor Protection: Incorporating a Behaviourally Informed Regulatory Model

Even though MiFID II's new product governance regime⁵⁷ may reflect experiences and behavioural research about the limits of disclosure to secure good investor outcomes, MiFID II's system of investor protection is still to a large extent based on mandatory disclosure (informational paradigm).⁵⁸ That is illustrated by the increase

⁵² Both pillars of behavioural finance research are controversial. In detail Avgouleas (2008), pp 6–8; Klöhn (2006), pp 90–135; see also Tor (2008), p 313. For growing recognition that retail investors' behavioural biases can affect asset pricing see Storms et al. (2015), p 4; Chien et al. (2012).

⁵³ Daniel et al. (2002), pp 173–174, 190 with references to further studies.

⁵⁴ Small deviations from rationality by economic agents can make significant differences to economic equilibria due to their cumulative effect: Akerlof (1991); Akerlof and Yellen (1985). Some scholars consider emotional reactions by investors as a key component of asset price bubbles and market crashes; see, e.g., Tuckett (2009).

⁵⁵ Cf. generally for this distinction Sibony and Alemanno (2015), pp 17–19.

⁵⁶ Legislation that attempts to help people either to reduce or to eliminate their behavioural biases falls into the category of 'debiasing through law'. See Jolls and Sunstein (2006). For critical discussion of this kind of legislation see Purnhagen and Reisch (2015), pp 14–16.

⁵⁷ Arts. 16(3) and 24(2) MiFID II.

⁵⁸ The core provisions are Art. 24(4)-(5) MiFID II.

of disclosure requirements under MiFID II compared to MiFID I. It would be incompatible with MiFID II's system of investor protection to argue that disclosure, including disclosure in advertising, is a failed regulatory approach⁵⁹ and that it should be replaced by other behaviourally informed investor protection measures. What is compatible with MiFID II's system of investor protection is to recognise the limits of disclosure and interpret vague and ambiguous terms in legislation in the light of behavioural research⁶⁰ showing that disclosed information can be made more effective if it is simplified, standardised and better visualised. This approach aims to increase the efficacy of disclosure.

Art 24(3) MiFID II and Article 44 MiFID II Delegated Regulation are receptive to incorporating a regulatory model that aims to prevent advertising material from exploiting⁶¹ investors' behavioural biases by having in place behaviourally informed, targeted requirements regarding the content, design and presentation of information in advertising. This regulatory model is in harmony with libertarian paternalism. It modifies the information environment within which investors make decisions. It does not limit investor choice and only imposes a minimal (cost) burden on those already acting rationally. It promotes investor autonomy by safeguarding that the decision-making process is not distorted by external influences.⁶² The model thus aims to guide and stimulate investors to a deliberative decision-making process rather than to a specific decision-making option as opposed to another one, which the regulator considers best for investors based on welfare grounds.⁶³ Therefore, the principle of an autonomous investment decision as expressed in Article 24(5) MiFID II is not affected by this model.

5 MiFID II's Retail Investor Model

5.1 Deviations from a Purely Rational Investor Model

Article 44(1)(d) MiFID II Delegated Regulation refers to the average member of the group to whom a marketing communication is directed, or by whom it is likely to be received. This indicates a normative investor model based on the 'average investor'.⁶⁴ Taking into account investors' behavioural biases for the interpretation of MiFID II assumes a legislative investor model that deviates from the *homo oeconomicus*. Even though Article 24(5) MiFID II may be informed by the idea of a rational investor

⁵⁹ For the argument that mandated disclosure is a failed regulatory attempt, see Ben-Shahar and Schneider (2014).

⁶⁰ See the findings in: Decision Technology (2010), pp 19–20, para. 29; Loewenstein et al. (2014), pp 396, 405–410; De Goeij et al. (2014), pp 3–4. See also Oehler and Wendt (2017).

⁶¹ An intention to exploit particular biases is not necessary.

⁶² For general discussion see Alemanno and Sibony (2015), pp 329–333.

⁶³ On this topic see Hausman and Welch (2010), pp 132–134; Sunstein (2013), pp 1857, 1887–1888; Yeung (2012), pp 137–138.

⁶⁴ See also European Commission, Background note to Commission draft for MiFID I Implementing Directive, 6 February 2006, para. 7.1 ('type of client'). For professional clients see Annex II, sentence 1 of MiFID II.

making an informed investment decision based on mandatory disclosure, the fact is that MiFID II's investor protection regime does not build upon a coherent investor model. Article 44 MiFID II Delegated Regulation in particular does not correspond to the ideal type of a rational investor. For example, Article 44(4)(b) MiFID II Delegated Regulation prohibits advertising that contains the past performance of a financial instrument that is less than 12 months old. This provision cannot be explained with a rational investor model in mind. What further militates against a fully rational investor model is that it remains a utopian ideal for a substantial part of retail investors due to their bounded rationality. The possible objection that investor protection regulation that is based on a behaviourally informed investor model could stabilise behavioural biases instead of stimulating learning processes⁶⁵ has only limited force for a regulatory model that is built on challenging behavioural exploitation and aims to guide investors to a deliberative decision-making process. Since MiFID II's advertising regime deviates from a purely rational investor model, there is a strong argument that the regulatory model presented in this article is compatible with the investor model underlying Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation.

5.2 Investor Heterogeneity and the Model Investor

A further objection raised against incorporating behavioural insights into general investor protection legislation is investor heterogeneity. Studies regularly show that different investors rely on different heuristics or the same heuristics but to a different degree when making investment decisions. Investors can show stronger or weaker levels of behavioural biases.⁶⁶ It is not doubted here that rules that permit the tailoring of investor protection to the vulnerabilities, needs and profiles of different groups of investors are better able to protect a diverse population of real investors than a one-size-fits-all model.⁶⁷ For example, tailor-made disclosure targeted to a certain individual with certain behavioural biases may be a very effective disclosure and personalised investor protection mechanism.⁶⁸ Yet, that is not the approach taken by MiFID II's disclosure and advertising regime. MiFID II recognises a differentiation of retail investors if a marketing communication is directed to or is likely to be received by a group of investors.⁶⁹ That differentiation is not, however, necessarily determined by certain behavioural biases being prevalent in certain investor groups due to personal or socio-economic factors. Instead, the differentiation is based on the dissemination of the marketing communication.

What is decisive is that the legislature can protect investors who are inclined towards the five abovementioned behavioural biases when making investment

⁶⁵ For this argument see Eidenmüller (2005), p 223; Erta et al. (2013), p 48. See also Tor (2008), p 321 (only limited significance of this argument).

⁶⁶ For a behaviourally informed categorisation of different types of retail investors see, e.g. Bailey et al. (2010), pp 18–21.

⁶⁷ In favour of such tailored investor protection regulation: Gentile et al. (2015), p 55; Lin (2015), pp 503–504; Mak (2012), pp 14–15.

⁶⁸ For articles drawing on behavioural economics to develop a legal framework for the personalisation of mandated disclosure, see Hacker (2017); Porat and Strahilevitz (2014).

⁶⁹ Art. 44(2)(d) MiFID II Delegated Regulation.

decisions even if other investors act rationally or do not possess these biases to the same degree. The legislature can determine at a general level how vulnerable a model investor is to behavioural exploitation. We will see in Sect. 6 of this article that the prohibition to advertise with the past performance of a financial instrument that is less than 12 months old is an example of such a policy choice. The legislature can prescribe a normative investor model that includes assumptions about investors being prone to behavioural exploitation and assumptions about investors possessing certain (other) rational behaviour patterns. As long as these normative assumptions do not conflict with each other and can be reconciled, the legislature can adopt a 'mixed' investor model.⁷⁰ The legislature is not limited to adopting a complete investor model based on behavioural insights that can fully replace a rational investor model. It does not need a unitary theory that explains or predicts the full range of investors' behavioural biases in order to take well-documented behavioural biases into account when making legislation.⁷¹

The next question to answer is how a regulatory authority or a court can use empirical evidence when normatively assessing how a model retail investor is susceptible to behavioural exploitation. Admittedly, MiFID II provides no guidance on the difficult issue of incorporating empirical data into the interpretation of advertising provisions. Neither does, for example, Directive 2005/29/EC on unfair commercial practices even though referring to 'the most recent findings of behavioural economics' is explicitly encouraged by the European Commission when national courts and administrative authorities assess the misleading character of a commercial practice, i.e. when they interpret the vague notion of misleading actions in Article 6 of this directive.⁷² A large number of behavioural studies about investor decision-making, employing different methodologies, show that a significant number of retail investors across the spectrum of low and high financially literate individuals are inclined towards the five abovementioned behavioural biases when making investment decisions. These robust, systematic, and predictable behavioural biases that are documented at the population level do not reflect individual-level uniformity but rather are the aggregation of significant individual-level heterogeneity in decision-making behaviour.⁷³ Yet, it is exactly this *aggregation* that can guide a court or a regulatory authority when answering the legal question to what extent the *average* retail investor is vulnerable to behavioural exploitation.⁷⁴ In this way, the

⁷⁰ That does not mean that the legislature must reflect about adopting a 'mixed' investor model in the abstract. The investor model needs to be derived from the legislation as enacted and is something that results from statutory interpretation.

⁷¹ For a different view see Posner (1998), pp 1558–1560.

⁷² Commission, Guidelines on the implementation/application of Directive 2005/29/EC on Unfair Commercial Practices, Commission Staff Working Document, 3 December 2009, SEC(2009) 1666, p 32 (available at http://ec.europa.eu/justice/consumer-marketing/files/ucp_guidance_2009_en.pdf).

⁷³ Tor (2014), p 614.

⁷⁴ This typically relates to the scenario that a marketing communication is directed to or is likely to be received by the general public, but it also applies where the marketing communications are disseminated to a certain investor group, and robust, systematic, and predictable behavioural biases are documented for this group.

empirical data can be used as an indicator for the normative evaluation.⁷⁵ MiFID II's advertising rules are general in nature; they do not mirror refined and context-dependent behavioural research findings.⁷⁶ Taking the aggregate into account is one way to circumvent this granularity gap. It follows that the limited scope for investor heterogeneity under MiFID II's marketing communications regime does not bar a behavioural finance analysis and does not bar adopting the regulatory model presented in this article.

5.3 Financial Literacy

So far, our discussion has excluded the relationship between financial literacy and behavioural biases. This relationship is important since a behaviourally informed interpretation of MiFID II would hardly be possible if (a) MiFID II's investor model irrefutably assumes a minimum level of financial literacy and if (b) empirical studies were to show that real investors with that level of financial literacy do not exhibit the behavioural biases discussed in this article or are not susceptible to behavioural exploitation.⁷⁷ An abundance of empirical studies shows that financial literacy levels are low amongst the general population.⁷⁸ Since MiFID II aims to ensure a proportionate balance between investor protection and the duties imposed upon investment firms,⁷⁹ its investor model does not adopt the known low levels of financial literacy but incorporates irrefutable normative assumptions about a minimum level of financial literacy that the average retail investor possesses.⁸⁰ What are these normative assumptions? It is helpful to take Article 25(4) MiFID II as the starting point since the execution-only regime applies without a suitability or appropriateness test. Due to the limited level of investor protection, Article 25(4)(a) MiFID II only allows firms to sell a limited range of financial instruments (non-complex financial instruments) through execution-only distribution channels. That also means that MiFID II presupposes a minimum level of financial literacy that enables the average retail investor to understand the structure and the risks of

⁷⁵ Under Directive 2005/29/EC on unfair commercial practices, the Court of Justice of the European Union (CJEU) has recognised that empirical data can inform the average consumer model: cf. CJEU, C-210/96, *Gut Springenheide and Tusky*, EU:C:1998:369, para. 35; CJEU, C-220/98, *Estée Lauder*, ECLI:EU:C:2000:8, para. 31. It is controversial whether the average consumer model of Directive 2005/29/EC on unfair commercial practices must primarily be determined by an empirical or a normative assessment. The practical differences between both conceptions in the literature are, however, small because either an empirical investor model is adjusted by normative evaluations or a normative investor model is informed by empirical data about consumer behaviour (Bornkamm and Feddersen (2017), § 5 UWG para. 1.102).

⁷⁶ See generally Alemanno and Sibony (2015), p 340; Sibony (2014), p 933.

⁷⁷ Such empirical results would inform the normative retail investor model and provide a very strong case for the normative evaluation that MiFID II's investor model does not take behavioural biases into account and assumes that the average retail investor is not prone to behavioural exploitation.

⁷⁸ For recent discussion see Hastings et al. (2013); Lusardi and Mitchell (2014); Stolper and Walter (2017).

⁷⁹ Recital 63 MiFID II Delegated Regulation.

⁸⁰ Brennecke (2014), p 369; Buck-Heeb (2013), pp 336–337.

non-complex financial instruments solely by consulting the information mandated under Article 24(4), (5) MiFID II.⁸¹

To date, there is to the best of my knowledge no empirical evidence showing that real retail investors who possess the level of financial literacy assumed by MiFID II do not exhibit the behavioural biases discussed in this article or are not susceptible to behavioural exploitation. The relationship between specific behavioural biases and financial literacy must currently be considered unresolved, and some studies point in the direction that the five behavioural biases discussed in this article do not necessarily disappear with higher levels of financial literacy.⁸² It follows that normative assumptions about the average retail investor being prone to behavioural exploitation and possessing a certain level of financial literacy are not irreconcilable.

If retail investors were able to guard themselves against behavioural exploitation by learning and optimising their decision-making in the long run, a regulatory intervention would face serious objections.⁸³ Yet, empirical findings to date on learning effects of retail investors in financial matters which are based on disclosure, education, experience, feedback or training are inconclusive.⁸⁴ Whether typical decision-making heuristics and biases of retail investors can be dispelled by learning effects is still unclear as dispelling them seems to require conditions that are typically absent in financial market settings.⁸⁵ That is why the decision for or against the regulatory model described above should not be based on the existence of such learning effects.

6 MiFID II's Advertising Regime: Curbing Behavioural Exploitation

The first aim of Sect. 6 is to show how MiFID II's specific conduct obligations for marketing communications can be interpreted as aiming to prevent advertising material from exploiting investors' behavioural biases. This behavioural finance analysis helps to explain and elucidate the purposes of these obligations, which adds further teleological force to the regulatory model adopted here. At a policy level, the behavioural finance analysis also adds justification for MiFID II's advertising

⁸¹ Compared to MiFID I, MiFID II has limited the range of financial instruments which firms can sell through execution-only distribution channels. It follows that MiFID II has reduced the level of financial literacy that the model retail investor possesses compared to MiFID I.

⁸² See, e.g., Sezer and Demir (2015) (no correlation) and Ates et al. (2016) (mixed results). The latter study also found that more experienced retail investors are significantly more likely to exhibit framing and anchoring biases compared to investors with less investment experience. Of the studies presented in Sect. 3 of this article, some involve individuals with low financial literacy and others with high financial literacy.

⁸³ Cf. Bar-Gill (2012), pp 26–31; Jolls and Sunstein (2006), pp 215, 226.

⁸⁴ For discussion see Brenncke (2013), pp 1235–1239; Dimitropoulos and Hacker (2017), pp 23–25; Fernandes et al. (2014); very critically Williams (2007), pp 244–247; Willis (2008).

⁸⁵ Brenncke (2013), pp 1236–1239; Willis (2008), pp 249–250.

modalities, some of which have been criticised as over-regulation.⁸⁶ The second aim of Sect. 6 is to use research findings from behavioural finance to evaluate the effectiveness of MiFID II's advertising regime to protect retail investors from behavioural exploitation. Behaviourally informed policy proposals will be presented that aim to better safeguard this objective.

So far, there have been no empirical studies examining how effective the advertising provisions in Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation (or its predecessor provisions in MiFID I and MiFID I Implementing Directive) are to curb behavioural exploitation. This is surprising as empirical studies about investor behaviour, carried out on behalf of the European Commission, informed the design of the key investor information document for UCITS and for packaged retail investment and insurance based investment products (PRIIPs).⁸⁷ Such empirical studies are important for investor regulation that is informed by behavioural finance because, firstly, regulators are also susceptible to decision-making errors, and secondly, we cannot (yet) determine *ex-ante* at a theoretical level and with sufficient exactitude whether certain modalities for advertising will actually prevent marketing communications from exploiting investors' decision-making errors.⁸⁸ Identifying the drivers of behavioural change is critical for the design of effective interventions. Good lawmaking standards in the area of investor protection should require that new regulatory measures must at least be tested on a limited scale before they become law.⁸⁹ Empirical investigations should be used to (a) observe the consequences of possible interventions and (b) identify appropriate regulatory measures to ensure that the future marketing communications regime effectively protects investors and does not unnecessarily burden investment firms.⁹⁰ The policy proposals presented in this article aim to offer a starting point for such studies or experiments.

6.1 Comprehensibility Requirement

Article 44(1)(d) MiFID II Delegated Regulation enshrines the comprehensibility requirement. The provision requires that information addressed to (potential) retail or professional clients must be presented in a way that it is likely to be understood by, the average member of the group to whom it is directed, or by whom it is likely

⁸⁶ For this criticism, see Zeidler (2008), p 244.

⁸⁷ IFF Research and YouGov (2009); Decision Technology (2010); European Commission, Consumer testing study of the possible new format and content for retail disclosures of packaged retail and insurance-based investment products, final report, November 2015.

⁸⁸ Alemanno and Sibony (2015), pp 338–340 list five major difficulties that arise in relation to legal use of behavioural insights: (a) the questionable external validity of laboratory experiments, (b) the temporal dimension of influencing mechanisms as the effectiveness of these mechanisms may decrease over time, (c) heterogeneity in the population, (d) a selective understanding of behavioural insights by policymakers and (e) the necessary general nature of legislation as opposed to detailed and context-dependent behavioural studies.

⁸⁹ In favour of using randomised controlled trials (RCTs) to try behaviourally informed policies before implementing them: Ulen (2013), p 1374.

⁹⁰ On the diversity of methodologies for empirical studies see Engel (2014), pp 128–137; Loewenstein et al. (2014), pp 398–399.

to be received. We have seen in Sect. 5 that MiFID II's investor model does not adopt the low level of financial literacy seen among real retail investors.⁹¹ MiFID II's model retail investor is presumed to be able to understand non-complex financial instruments based on information mandated under Article 24(4), (5) MiFID II.

In the light of the average retail investor being susceptible to behavioural exploitation, the comprehensibility requirement also aims to prevent that advertising material exploits investors' framing bias and availability bias, in particular the salience bias. This amplification of the provision's purpose is best illustrated with regard to risk information provided in marketing communications. Whether the risks of a financial instrument are presented as theoretical and abstract or as real has a considerable impact on how they are perceived and understood by retail investors. The comprehensibility requirement amplifies the clarity criterion in Article 24(3) MiFID II. The latter requires that information must be provided in such a way that its significance and intent can be easily understood by the average investor.⁹² The representation (framing) of the risks of the financial instrument in marketing communications must thus be suitable to give the average investor a realistic and accurate impression of the significance of risk information and about the scope of the risks. This implies that information about risks is sufficiently embedded in the context of other information about the financial instrument provided in the advertisement. A realistic and accurate impression of the risks and their scope entails that an average investor can correctly weigh the risks and correctly estimate the probability of their occurrence. Future empirical studies should determine which representation modes are (un)suitable for effectively enabling a typical retail investor to understand the significance and extent of the risks of a financial instrument and to correctly assess the likelihood that the risks will materialise.⁹³ The regulator could then use these research findings when providing examples of good/bad practices in marketing communications.⁹⁴ Unsuitable presentation methods in marketing communications indicate an infringement of the comprehensibility requirement. For example, the comprehensibility requirement is infringed if (a) information about the risks of a financial instrument is presented in such a way that it makes an average retail investor believe that the risks are merely abstract

⁹¹ Cf. the discussion of the rather disenchanting empirical results of European Commission, Consumer testing study of the possible new format and content for retail disclosures of packaged retail and insurance-based investment products, final report, November 2015 regarding retail investors' low level of financial literacy in Colaert (2016), pp 218–219.

⁹² Cf. Commission recommendation of 25 July 1977 concerning a European code of conduct relating to transactions in transferable securities, Annex, General principles, 2 [1977] OJ L212/37.

⁹³ Ideally, the European Commission would initiate such retail investor testing studies in relation to the presentation of risk information in the form of field experiments with a representative sample of European retail investors.

⁹⁴ ESMA has adopted the practice of providing examples of good/bad practices in marketing communications addressed to retail investors that would/would not meet the requirement to present information to clients in a manner that is fair, clear and not misleading (Art. 19(2) MiFID I, now Art. 24(3) MiFID II). See ESMA, Q & A relating to the provision of CFDs and other speculative products to retail investors under MiFID, 25 July 2016, ESMA/2016/1165, section 3, Question 1 para. 2, Question 2 para. 20.

and theoretical or if (b) the presentation of other information or non-informative content in an advertisement distracts an average investor from correctly perceiving the financial instrument's risks.

Future empirical research should also determine in what way information about risk can be presented in advertisements in order to align a financial instrument's perceived and actual risk level and in order to safeguard that a typical retail investor does not overweight the benefits and underweight the risks of a financial instrument, without at the same time leading to an overshooting.⁹⁵ What should be examined is a presentation format that incorporates knowledge about framing effects and loss aversion⁹⁶ in such a way that risks are described as a (possible) loss of assets of an individual investor.⁹⁷ Potential losses should be presented in terms of absolute amounts of money as opposed to a percentage or frequency.⁹⁸ A simplified presentation of the risks of a financial instrument on the basis of a risk scale that shows risks aggregated together may also be explored for marketing communications relating to a specific financial instrument. Such a simple risk scale is required for the key investor information document for UCITS and the key information document for PRIIPs.⁹⁹ Other forms of graphical risk indicators should also be considered as they have been shown to align a mutual fund's perceived and actual risk level and, thus, improved investment decisions for the (student) participants of the study substantially as well as reduced the participants' reliance on heuristics.¹⁰⁰ Even more simplistic is the proposal to introduce an easy-to-understand traffic light label for financial instruments.¹⁰¹ Such a traffic light labelling would take advantage of existing heuristics of retail investors.

Even though empirical research may establish that the proposals discussed in this paragraph can be regarded as good practices for presenting risk information in advertisements, it seems unlikely that one specific graphical risk indicator will be positively required under the comprehensibility test.¹⁰² That is because it seems likely that a variety of graphical risk indicators can ensure that an average retail investor can easily understand the significance and extent of the risks of a financial instrument.

⁹⁵ Overshooting relates to the risk that modifying the choice architecture with legal norms that aim to counteract behavioural biases can produce biases and errors of its own. See Jolls and Sunstein (2006), pp 230–231. Langevoort (1996), p 694 addresses the risk of overshooting for a very salient presentation of risks in information documents.

⁹⁶ For an explanation of loss aversion see Pompian (2012), pp 191–197.

⁹⁷ For proposals for an effective presentation of risk information see Gentile et al. (2015); Klöhn (2006), pp 190–192.

⁹⁸ Oehler and Wendt (2017).

⁹⁹ Art. 8 Commission Regulation (EU) No. 583/2010 [2010] OJ L176/1-15; Art. 8(3)(d) Regulation (EU) No. 1286/2014 [2014] OJ L352/1-23.

¹⁰⁰ De Goeij et al. (2014), pp 6, 22, 32–33.

¹⁰¹ HM Treasury, Reforming financial markets, July 2009, para. 8.27, available at <https://www.gov.uk/government/publications/reforming-financial-markets>.

¹⁰² On the difficulties of developing visual risk indicators that give a truthful reflection of the risk and return of a financial product see Colaert (2016), pp 217–221.

6.2 Obligation to Provide Sufficient Information in Marketing Communications

Article 44(2)(d) MiFID II Delegated Regulation enshrines the requirement that a marketing communication must be ‘sufficient’ for the average member of the group to whom it is directed. What the provision does not expressly clarify is what the marketing communication must be sufficient for. This obligation has been interpreted as requiring that advertising material that relates to a specific financial instrument must at least contain the essential characteristics of the financial instrument, including its risks.¹⁰³ Since MiFID II considers cost disclosure, together with risk disclosure, as a key element to enhance the ability of investors to assess the products that are offered to them,¹⁰⁴ the total costs also form part of these essential characteristics. This compulsory disclosure of information about the risks and costs of a financial instrument in advertisements aims to challenge behavioural exploitation by encouraging a deliberative decision-making process. It (a) aims to ensure, for example, that investors do not ignore these criteria or underweight them in relation to information about historical performance in advertisements, and (b), thus, aims to counteract a decision-making process that is solely or too strongly influenced by the representativeness bias. An investment firm infringes its obligation to provide sufficient information in marketing communications if the advertising material exclusively displays the financial instrument’s historical performance.

Nevertheless, it appears unclear whether the obligation to provide sufficient information in marketing communications in its current shape can guarantee that retail investors weigh the risks and the costs of their investment adequately in relation to past performance data when making an investment decision. For example, the participants of a US-based study were presented with advertising material which contained the costs and the historical performance of a mutual fund. They were significantly influenced by the past performance data instead of by the costs even when the advertisement contained highly salient information on fund costs.¹⁰⁵ This is surprising because the costs are an easily predictable and stable factor for assessing the investment’s future performance. However, another US-based study found that information processing improved for investors with low financial knowledge when advertising material contained information about the costs and risks of the investment product.¹⁰⁶ The result of this study suggests that displaying such information is capable of minimising the exploitation of decision-making errors by advertising material.¹⁰⁷ This is in line with the finding of a Dutch study among relatively high financially literate retail investors that salient risk

¹⁰³ For Art. 27(2) subpara. 3 MiFID I Implementing Directive see Brenneke (2013), p 735; cf. CESR, CESR’s technical advice on possible implementing measures of the Directive 2004/39/EC on Markets in Financial Instruments, CESR/05-024c, January 2005, p 45.

¹⁰⁴ Art. 24(4)(c) and subpara. 2 MiFID II.

¹⁰⁵ Pontari et al. (2009), pp 340–341, 346–348.

¹⁰⁶ Lee et al. (2012).

¹⁰⁷ Cf. Lee et al. (2012), pp 283–284.

disclosure in advertisements does increase investors' knowledge regarding the risks of the investment.¹⁰⁸ Despite the vagueness of the term 'sufficient', it would, however, be straining the language of Article 44(2)(d) MiFID II Delegated Regulation too far to require that the essential characteristics of a financial instrument must be presented in a salient manner in order to fulfil this condition.

Article 44(2)(d) MiFID II Delegated Regulation also includes a restrictive stance against advertisements for specific financial instruments that contain predominantly persuasive non-informative content. The provision intends to prevent advertisements from creating a stimuli that lets investors base their decision-making predominantly on emotions without a sufficiently cognitive engagement with the essential elements of the financial instrument. The regulator can, informed by behavioural studies, determine when addressing investors' emotions in advertisements exploits emotional biases in a typical retail investor and leads to poor investment decisions. In other words, a regulatory authority can use behavioural insights to determine where the normative border between lawful and unlawful emotional influence on an investor's decision-making process lies.¹⁰⁹ The vague term 'sufficient' allows for this determination. Restricting investment firms from exploiting investors' emotions in financial advertisements is also justified by the assessment inherent in Article 24(5) MiFID II that an informed investment decision ought to be taken primarily based on mandatory disclosure.

If the focus is drawn to improving the effectiveness of the current regime, future research should shed more light on the effectiveness of presenting the total costs and the essential risks (or a risk indicator) of the financial instrument being advertised in a salient and standardised way, which also appears in a different form than the rest of the advertising content. Providing information in a standardised format facilitates comparisons and thus increases the effectiveness of information provided to investors, though there is limited empirical evidence in this area.¹¹⁰ To the extent that the standardisation aims to achieve a comparability of advertising material, this objective is alien to the existing obligation, but not to MiFID II's advertising regime in general because a standardisation objective is inbuilt in MiFID II's specific requirements for the presentation of performance data. The Financial Industry Regulatory Authority (FINRA) in the US, for example, requires in its rule 2210 (d)(5), that an investment firm's print advertisement addressed to retail investors that presents mutual fund performance must contain information about the fund's cost in a prominent text box. What should be kept in mind is the issue of information overload as salient disclosure of fundamental product information might be ineffective if it leads advertisements to become longer. Therefore, research findings on 'visual nudges' should be taken into account that show that graphical information representations regarding mutual funds' risks (like a standardised overall risk

¹⁰⁸ Cox and de Goeij (2018), p 19.

¹⁰⁹ This is not an easy determination since (a) emotions and cognitions always work together when investors take investment decisions and (b) informative content in advertisements regularly addresses investors' cognitions as well as emotions; cf. Huang (2003), p 45. Principally, addressing investors' emotions through advertisements is permitted in the area of financial investments as well as in other areas of life; see Brennecke (2013), pp 857–861; generally McCrudden and King (2016), p 116.

¹¹⁰ See Loewenstein et al. (2014), pp 406–408 for discussion.

indicator) and expected return net of fees substantially improved investment decisions of the (student) participants of the study and reduced their reliance on heuristics.¹¹¹

Furthermore, research indicates that a significant number of mutual fund investors underweight the costs of a financial product when making an investment decision,¹¹² which has been attributed to investors exhibiting behavioural biases.¹¹³ Hence, a salient notice should be developed and tested that helps investors understand the impact of costs on their returns, for example that the costs are, apart from the asset allocation, in the long run the most important factor for the net return of a diversified portfolio. In compliance with the regulatory model presented above the purpose of such a notice would not primarily be to increase investors' financial literacy, but to safeguard that advertising presenting the benefits of a financial instrument and past performance data does not exploit investors' behavioural biases.

6.3 Equivalence Rule When Presenting Benefits and Risks

A further requirement for marketing communications stipulates that they must always give a fair and prominent indication of any relevant risks when referencing any potential benefits of a financial instrument (Article 44(2)(b) MiFID II Delegated Regulation). This requirement does not oblige investment firms to present the risks of a financial instrument in a more prominent manner than the benefits. According to ESMA, the provision is intended to provide a 'balanced presentation of the trade-off between risks and benefits'.¹¹⁴ Like its predecessor in MiFID I,¹¹⁵ the provision enshrines an equivalence rule¹¹⁶. If advertising mentions the benefits of a financial instrument, it must also refer to the risks in an equivalent manner. Without the equivalence rule, benefits could be presented in a prominent and vivid manner, whereas risks could be presented in an abstract and complex manner. That creates the danger that investors do not adequately appreciate, i.e. underweight, the risks of a financial instrument and underestimate the probability of their occurrence when making an investment decision. The equivalence rule therefore aims to minimise the risk that advertising material by investment firms exploits an investor's framing bias, availability bias and salience bias. The obligation also intends to counteract that advertising material exploits the anchoring bias by prohibiting investment firms from highlighting information about expected returns as a benefit of a financial instrument in the marketing communication without displaying the instrument's risks in an equivalent way.

Another MiFID II addition is the requirement that information must use a font size in the indication of relevant risks that is at least equal to the predominant font

¹¹¹ De Goeij et al. (2014), pp 6, 22, 32–33.

¹¹² Bailey et al. (2010), p 26; Choi et al. (2010); Pontari et al. (2009).

¹¹³ Bailey et al. (2010), p 26.

¹¹⁴ ESMA, Consultation paper: MiFID II/MiFIR, 22 May 2014, ESMA/2014/549, p 92.

¹¹⁵ Art. 27(2) subpara. 2 MiFID I Implementing Directive.

¹¹⁶ For MiFID I: German Federal Financial Supervisory Authority (BaFin), Rundschreiben 4/2010, MaComp, last updated on 8 March 2017, para. BT.3.3.3.

size used throughout the information provided, as well as a layout ensuring such indication is prominent (Article 44(2)(c) MiFID II Delegated Regulation). That requirement is best read in connection with the equivalence rule enshrined in Article 44(2)(b) MiFID II Delegated Regulation.¹¹⁷ The reference to the layout in the provision clarifies that the equivalence rule also applies to the layout of risk presentation. The reference to the font size surprises at first sight as the provision does not require a font size that is equivalent to the font size used for the indication of the benefits of a financial instrument. That does not mean, however, that the risks can be presented in a smaller font size than the benefits if the latter are shown in an unusually large font size. The meaning of Article 44(2)(c) MiFID II Delegated Regulation can rather be explained as follows: if a marketing communication contains a considerable amount of information other than information relating to the benefits of a financial instrument, e.g. non-informative content appealing to an investor's emotions, that is shown in a large font size like 16 pt and if the benefits are shown in a standard font size like 11 pt, then the information about risks must be shown at least in 16 pt. That interpretation illustrates two points. First, the provision aims to minimise the risk that advertising material exploits investors' availability, salience and framing biases. Second, Article 44(2)(c) MiFID II Delegated Regulation also aims to ensure that investors' emotional bias is not exploited by marketing communications and that an investment decision is adequately informed by the characteristics of a financial instrument rather than emotional stimuli.

What should be empirically tested is whether the equivalence rule in its current form is an effective mechanism that can safeguard that retail investors do not overweight the benefits and underweight the risks of a financial instrument. Other possible mechanisms to present risk information in advertisements were already discussed in this article under the comprehensibility requirement.

6.4 Presentation of Past Performance

Article 44(4) MiFID II Delegated Regulation contains detailed requirements for marketing communications that contain an indication of past performance of a financial instrument. In particular, an indication of past performance must not be the most prominent feature of the communication (Article 44(4)(a) MiFID II Delegated Regulation). This provision aims to prevent, firstly, that advertising material exploits the availability bias and, secondly, that investors use past performance data as an anchor for future performance (anchoring bias). Furthermore, Article 44(4)(d) MiFID II Delegated Regulation requires that marketing communications contain a prominent warning that the figures refer to the past and that past performance is not a reliable indicator of future results. The warning is intended to counteract a decision-making by investors that is affected by the representativeness bias. The requirement that the warning must be prominent makes use of the availability heuristic (in particular salience) and framing effects. Based on this analysis, a warning is prominent if its presentation in the marketing communication

¹¹⁷ To that effect see also ESMA, Consultation paper: MiFID II/MiFIR, 22 May 2014, ESMA/2014/549, p 92, para. 11, fn. 53.

is emphasised compared to the past performance figures. The salient risk warning demanded by Article 44(4)(d) MiFID II Delegated Regulation also shows that MiFID II's advertising regime is not opposed to¹¹⁸ regulatory measures that also target system 1 of decision-making, distinctly associated with behavioural biases, which is fast, automatic and intuitive as opposed to system 2, which is slow, calculative and deliberative.¹¹⁹ The salience of the warning is supposed to attract an investor's attention and activate system 2's deliberative decision processes.

The warning in Article 44(4)(d) MiFID II Delegated Regulation contains the statement that past performance data is an indicator for future performance, just not a reliable one. Against the background of the very low predictive validity of historical performance data for future performance, this wording of the warning appears too sugarcoated. Moreover, the warning is rather abstract and unspecific, i.e. not salient, which diminishes its effect. Mercer, Palmiter and Taha show in a US study that the warning 'past performance does not guarantee future results' does not discourage retail investors from relying heavily on the past performance of an investment fund when making an investment decision.¹²⁰ A warning that was formulated in significantly stronger language¹²¹ was, however, almost capable of eliminating the influence of historical performance data presented in advertising on the decision-making process of retail investors.¹²² This empirical evidence suggests that Article 44(4)(d) MiFID II Delegated Regulation does not provide an adequate level of investor protection and should be replaced by a different warning.

Two further conditions in Article 44(4)(b) MiFID II Delegated Regulation are also intended to prevent advertising material from exploiting investors' availability and representativeness biases: (a) the requirement that performance information must principally cover the preceding 5 years and (b) the requirement that this information must be based on complete 12-month periods. These two conditions aim to prohibit marketing communications that selectively present the time horizon for past returns in order to distract investor attention from fluctuations in value or reversals in trend and in order to trigger unjustified positive trend impressions. Since retail investors often place too much emphasis on a high short-term past performance of a financial instrument, those two requirements in particular counteract the recency bias and sample size neglect (overestimation of the reliability of a small sample size). Furthermore, both requirements can be interpreted as an

¹¹⁸ Regulatory measures that appeal to or activate system 1 like graphic warnings are opposed by some scholars on grounds of manipulation and an infringement of individual autonomy; for discussion see Baldwin (2014), pp 844–852; Hacker (2016), pp 13–22; Alemanno and Sibony (2015), pp 329–333.

¹¹⁹ Kahneman (2011), pp 20–21. See Evans and Stanovich (2013) for a review of the criticisms and a defence of a dual process theory of human information processing.

¹²⁰ Mercer et al. (2010), pp 449–453. Hüsser and Wirth (2013), p 238 argue that the warning 'past performance is not indicative of future results' is ineffective when consumer investors have limited attention and lower processing abilities.

¹²¹ 'Do not expect the fund's quoted past performance to continue in the future. Studies show that mutual funds that have outperformed their peers in the past generally do not outperform them in the future. Strong past performance is often a matter of chance.'

¹²² Mercer et al. (2010), pp 453, 457.

instrument against an exploitation of the anchor bias because investment firms cannot use a selectively chosen past performance period as an anchor.

6.5 Clear Identifiability of Marketing Communications

Marketing communications must be clearly identifiable as such.¹²³ This requirement is informed by the idea that an average investor knows that marketing communications do not contain unbiased information. The average investor shall have a reserved and critical approach towards a marketing communication that is clearly identifiable as such. It is possible to conceptualise this requirement as an attempt to induce a heuristic by legislation, aimed at reducing the distorting impact of advertising material on the decision-making process. If Article 24(3) sentence 2 MiFID II is seen as such an attempt, its effect can be strengthened by requiring a prominent labelling—instead of only a clear identifiability—of marketing communications. The provision’s wording is open for such a strict interpretation, but empirical testing should confirm whether this labelling would actually have the desired effect.

6.6 Compatibility with ESMA’s Supervisory Approach

To date, ESMA has not released guidelines or recommendations under Article 16 of the ESMA Regulation,¹²⁴ opinions under Article 29(1)(a) of the ESMA Regulation or Q&As under Article 29(2) of the ESMA Regulation that specifically interpret Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation in order to ensure a common and uniform interpretation of these provisions throughout the EU and in order to promote supervisory convergence. Neither has ESMA published guidelines or recommendations on the interpretation of Article 19(2) MiFID I and Article 27 MiFID I Implementing Directive. There is also no case law by the Court of Justice of the European Union interpreting these two provisions. Opinions and Q&As were provided by ESMA on the interpretation of the latter two provisions in relation to marketing communications addressed to retail investors for complex products as well as for financial contracts for difference and other similarly speculative products.¹²⁵ These supervisory tools address the particularities associated with these financial instruments. They are silent about how at a meta-level the advertising provisions aim to challenge behavioural exploitation. In other areas of investor protection regulation under MiFID I and II, ESMA has rarely explicitly

¹²³ Art. 24(3) sentence 2 MiFID II.

¹²⁴ Regulation (EU) No. 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No. 716/2009/EC and repealing Commission Decision 2009/77/EC [2010] OJ L331/84.

¹²⁵ ESMA, Opinion: MiFID practices for firms selling complex products, ESMA/2014/146, 7 February 2014, paras. 23–30; ESMA, Q & A relating to the provision of CFDs and other speculative products to retail investors under MiFID, ESMA/2016/1165, 25 July 2016, section 3.

referred to a behaviourally informed interpretation,¹²⁶ but has to this day not ruled out such an approach. Most recently, ESMA has provided draft guidelines to firms on how to take into account behavioural finance research findings about investors' behavioural biases when designing the questionnaire to collect clients' information for the purpose of the suitability assessment in Article 25(2) MiFID II.¹²⁷ The interpretation given to MiFID II's advertising requirements in Sect. 6 is thus compatible with ESMA's supervisory approach. That means that ESMA and national competent authorities can adopt the interpretative approach and the regulatory model provided in this article.

7 Conclusion

This article argued that it is necessary to analyse MiFID II's advertising regime from a behavioural finance perspective. It demonstrated how specific advertising requirements in Article 44 MiFID II Delegated Regulation can be interpreted in the light of behavioural finance research findings about financial advertisements exploiting retail investors' typical behavioural biases. The article submitted that Article 24(3) MiFID II and Article 44 MiFID II Delegated Regulation are receptive to incorporating a model that aims to prevent advertising material from exploiting investors' behavioural biases by having in place behaviourally informed, targeted requirements regarding the content, design and presentation of information in advertising. The article then explained that this interpretation is in harmony with the policy objectives of both provisions, fits into MiFID II's system of investor protection regulation, is consistent with the investor model underlying both provisions and is compatible with ESMA's supervisory approach. The behavioural finance analysis helped to elucidate the purposes of MiFID II's advertising provisions. The article further demonstrated how a regulatory authority or a court can translate empirical research findings about behavioural exploitation into legal arguments when assessing whether marketing practices can significantly distort a model investor's decision-making process. Finally, the article presented behaviourally informed policy proposals that aim to protect investors more effectively from behavioural exploitation. These proposals should be tested empirically.

The results of this article are not limited to the regulation of marketing communications under MiFID II, but merit further research in other fields of investor protection. MiFID II's new product governance regime, for example, is a move away from the informational paradigm and the rational investor model towards a more paternalistic protection of the vulnerable consumer of financial instruments.¹²⁸ The results of this article warrant the question whether an

¹²⁶ For an exception see ESMA, Opinion: Structured Retail Products—Good practices for product governance arrangements, ESMA/2014/332, 27 March 2014, para. 25 ('An understanding of the target market is particularly relevant for the following reasons: [...] c. avoiding any form of exploitation of investor behavioural biases').

¹²⁷ ESMA, Consultation paper: Guidelines on certain aspects of the MiFID II suitability requirements, 13 July 2017, ESMA35-43-748, pp 9–12.

¹²⁸ Cherednychenko (2014), pp 400–401.

investment firm that designs a financial instrument must identify and consider typical behavioural biases of end clients when determining the instrument's target market.¹²⁹ In the realm of investment advice and MiFID II's suitability assessment,¹³⁰ the question arises whether a financial adviser must obtain information regarding a client's behavioural biases and take into account these biases when assessing the suitability of a financial instrument for the client.

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¹²⁹ For initial findings, see Brenncke (2015), pp 1177–1178.

¹³⁰ Art. 25(2) MiFID II.

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