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IN RESPONSE TO THE EUROPEAN COMMISSION'S CALL FOR ADVICE OF 13 JUNE 2016

29 September 2017

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Abbreviations

BCBS	**Basel Committee on Banking Supervision**
IC	**Initial Capital**
FOR	**Fixed Overheads Requirements**
MTF	**Multilateral Trading Facility**
OTF	**Organised Trading Facility**
PMC	**Permanent Minimum Capital**
RtC	**Risk to Customers**
RtF	**Risk to Firm**
RtM	**Risk to Market**
SSA	**Simplified Standardised Approach**

Background and legal basis

1. On 13 June 2016, the European Commission submitted a call for advice (CfA) to the EBA seeking detailed technical advice on the first two recommendations in the 2015 EBA Report on investment firms ('the 2015 Investment Firms Report').[1] These recommendations were the following:

   a) Recommendation 1 proposed a new categorisation of investment firms consisting of three classes: systemic and 'bank-like' investment firms, which should be subject to the full CRD IV requirements (Class 1); other investment firms ('non-systemic'), which should be subject to a less complex prudential regime (Class 2); and very small 'non-interconnected' firms, which should be subject to a very simple regime.

   b) Recommendation 2 called for the development of a new prudential regime for Class 2 and Class 3 firms.

2. The first part of the Commission's CfA sought advice regarding Class 1 investment firms and specifically on the criteria to identify this class and the rules which should apply to them. The EBA provided its response to this part on 19 October 2016,[2] recommending that Class 1 investment firms should be those identified as G-SII[3] or O-SII[4] in accordance with the current regulatory framework for assessing the systemic importance of credit institutions and investment firms.

3. Nevertheless, the EBA acknowledged that those O-SII guidelines were designed and developed within a different regulatory framework, and that it was premature to conclude that they perfectly fit the purpose of the identification of investment firms in that class. Therefore, the EBA recommended that the suitability of the O-SII guidelines for the purpose of identifying the investment firms that should be subject to the full CRR and CRD be revised after the new prudential framework for investment firms is completed.

4. The second part of the Commission's CfA sought advice regarding the new prudential regime for Class 2 and Class 3 firms, and in particular on:

   a) The criteria for identifying Class 2 and Class 3 firms;

[1] Report on investment firms response to the Commission's call for advice of December 2014, EBA/op/2015/20, issued on 14 December 2015.

[2] Opinion on the First Part of the Call for Advice for investment firms, EBA-Op-2016-16, issued on 19 October 2016.

[3] Commission Delegated Regulation (EU) No 1222/2014 of 8 October 2014 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards for the specification of the methodology for the identification of global systemically important institutions and for the definition of subcategories of global systemically important institutions (OJ L 330 of 15.11.2014).

[4] Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs) – EBA/GL/2014/10 of 16 December 2014.

b) The appropriate design and calibration of all the relevant aspects of the new prudential regime, which should include, but not necessarily be limited to, capital requirements;

c) The appropriate level of initial capital (IC) requirements;

d) The necessity of any liquidity requirements and the appropriate liquidity regime;

e) The impact of the proposed prudential regime;

f) The suitability of the proposed prudential regime for specialised commodity derivatives firms and, in case the new framework was not suitable, an alternative new regime for these firms.

5. In addition, the Commission sought advice in relation to the application of the CRD and CRR remuneration requirements and corporate governance rules to the investment firm population, distinguishing, where relevant, between the proposed investment firm classes.

6. On 4 November 2016, the EBA issued a Discussion Paper on the design of new prudential regime for investment firms (EBA/DP/2016/02) to gather the stakeholders' opinion at an early stage. The public consultation lasted three months and the EBA received 59 written responses, of which 47 are published on the EBA website. The responses have been analysed and taken into consideration when preparing this Opinion.

7. Alongside the publication of the Discussion Paper, the EBA launched a data collection exercise on 15 July 2016 to support the calibration of the new prudential regime and the impact assessment related to its proposals. The data collection was addressed to MiFID investment firms and to management firms and managers subject to the Undertakings for Collective Investment in Transferable Securities Directive (UCITS Directive[5]) and the Alternative Investment Fund Managers Directive (AIFMD[6]) that conduct MiFID activities or services. In addition, an ad hoc collection for commodity derivatives investment firms was also launched on 20 December 2016. Data were received from 1 033 MiFID investment firms, 725 UCITS and AIFMD management companies and 6 commodity derivatives investment firms and were used for underpinning the recommendations provided in this opinion.

8. The EBA has also updated all the relevant stakeholders on the progress of this opinion in a public hearing held on 3 July 2017. In particular, the EBA presented the preliminary results of its data collection and the calibration of the underlying methodology.

9. Following the feedback received and the additional analysis undertaken, many valuable improvements have been made to the original proposals presented in the Discussion Paper. Therefore, the EBA considered it necessary to conduct a supplementary data collection in summer 2017 to allow a complete calibration and a final impact assessment of the

[5] 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)

[6] Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010

proposed regime. Data were collected from 724 MiFID firms and the results were used in finalising this opinion.

10. The EBA Opinion includes a proposal for a new framework where the focus is on risks to customers and markets and risks to the firm itself. This framework includes detailed prudential requirements aiming to take into account proportionality and different business models.

11. The calculation of the capital requirements, based on a risk (K-factor) approach, is the most innovative aspect of the proposed new prudential regime. Therefore, this K-factor approach is explained in detail and the proposal is accompanied with a clear description of the relevant risk drivers, the proposed calculation methods and the calibration of the relevant proxies.

12. The EBA Opinion covers all the most important aspects related to the prudential requirements for investment firms. The methodologies related to capital requirements, including the K-factor approach, are discussed in detail. The proposal envisages the role of fixed overheads requirements (FOR) and a permanent minimum capital (PMC) as 'floors' to the aforementioned K-factor approach to the calculation of capital requirements. It also describes the criteria to categorise firms into the different prudential classes, which are based on the K-factors.

13. Given the specific mandates, the EBA Opinion also includes the proposal for liquidity requirements and a section on the prudential treatment of commodity derivatives investment firms. Other aspects that will be subject to the prudential regime are included as well. These include the need for consolidated supervision, the opportunity to monitor large exposures for investment firms, the consequences that the introduction of a new prudential regime would have on the reporting requirements, the need for competent authorities to have the power to address firm-specific issues, if need be, and capital and liquidity add-ons. Finally, a dedicated section on governance and remuneration is also included, as explicitly requested by the CfA.

14. This document constitutes the EBA's response to the second part of the Commission's CfA. The EBA competence to deliver an opinion is based on Articles 8 (2) and 34 (1) of Regulation (EU) No 1093/2010.

1. Introduction

15. The principal objectives of the new prudential framework for investment firms are to strengthen the stability of financial markets, protect customers and ensure an orderly wind-down of failing investment firms. In developing the proposed framework, the EBA has sought to simplify the existing prudential categorisation of investment firms and arrive at a single harmonised approach to their prudential requirements. The EBA has also aimed to increase proportionality and risk-sensitivity while at the same time reducing the undue complexity compared to the existing framework.

16. In approaching this subject, it has to be remembered that the overall population of investment firms covered by this review is both large and extremely diverse. It covers MiFID investment firms with various different prudential treatments currently set out in the CRD IV, including those for which capital requirements are currently minimal and those for which there are currently no common requirements in the European Union (EU). The latter subset includes firms that will be brought into scope for the first time by virtue of the extension of the scope of MiFID II. All these firms vary greatly in terms of size, business model, risk profile, complexity and interconnectedness, ranging from one-person companies to large internationally active groups. Because of this diversity, particular attention has been given throughout to proportionality, alongside the need to find a common minimum framework that is appropriate to address the relevant risks for all types of investment firms. These considerations have also been applied to the calibration and impact assessment of the proposal.

17. The EBA has also recognised that certain types of investment firms, namely firms trading on their own account or in their own name on behalf of customers, are often in direct competition with banks. Given this, consideration has been given to address level playing field concerns and ensure that there are similar prudential requirements for firms that are carrying out similar activities. Notwithstanding this, it was also acknowledged that some proportionality adjustments may be needed to account for the inherent characteristics of investment firms. Consequently, the proposed framework strikes the appropriate balance between introducing simpler approaches tailored to the specificities of investment firms and the need of not to deviate substantially from the approaches used by banks undertaking similar activities.

18. The proposed framework builds on a new categorisation of investment firms consisting of three classes. This is in line with the recommendations of the 2015 Investment Firms Report, where it was proposed to categorise investment firms as small investment firms with non-interconnected services (Class 3 firms), other investment firms (Class 2 firms) and systemic investment firms or investment firms which are exposed to the same types of risks as credit institutions (Class 1 firms).

19. The treatment of Class 1 investment firms has been already addressed in a separate EBA Opinion published in October 2016, where it is submitted that these firms should be subject to the full CRD IV. In this regard, it was also suggested that those firms should be identified following the criteria indicated in the regulatory technical standards (RTS) for the identification of G-SIIs and the guidelines (GL) for the assessment of O-SIIs. However, given the different nature of investment firms with respect to credit institutions, the EBA proposes to develop a dedicated Level 2 regulation for the identification Class 1 taking into account the specificities of investment firms.

20. The categorisation of Class 2 and Class 3 investment firms takes a risk-based approach and forms the basis for determining the applicable prudential requirements. This allows the level of prudential requirements and supervisory focus to be aligned with the risks posed by the firm, providing a way to implement the principle of proportionality throughout the framework. The categorisation is based on, firstly, the risks that an investment firm can pose to customers and markets, which are reflected in risk proxies, namely the K-factors, and, secondly, the impact it can have on others as a consequence of its size. Hence, larger investment firms and firms with higher intrinsic risk embedded in their business model are classified as Class 2, since their failure could have a greater impact on markets and customers. Specifically, Class 2 includes primarily large asset managers, trading firms, and firms that hold client money and client assets. On the other hand, Class 3 firms include those that tend to have a lower potential impact if they fail, because they are small and less risky and have no or limited interconnectedness with the overall system.

21. One of the crucial aspects of a new regime is to ensure that investment firms hold sufficient resources to support an orderly wind-down. Consequently, for all investment firms the regime sets minimum prudential standards that allow an orderly liquidation, consistent with a 'gone-concern' regulatory approach. These include a three-month FOR in addition to PMC requirements as well as a one-month fixed overheads liquidity requirement. For Class 3 firms, such a very simple regime is considered sufficient, because these firms tend to have limited potential impact on the markets and customers if they were to fail.

22. The framework, however, is not solely based on 'gone concern' requirements but takes into consideration also a 'going-concern' perspective for firms posing greater risks to customers or markets, namely Class 2 firms. The prudential requirements are calculated based on the K-factor formula and are designed to limit in particular the operational risk of these firms, and where relevant, the market and counterparty credit risk. Therefore, this framework ensures that the solidity of the firm is preserved on an on-going basis, that investors are well protected and that systemic consequences in case of default, either individually or at broader industry level, are well contained.

23. The EBA consultation on the new prudential framework focused on the design of the framework and did not touch on the matter of calibration. The calibration was done based on a data collection launched alongside the report. Any new design of the prudential framework entails a change in the capital requirements faced by an individual firm, and the

EBA is mindful that such a change needs careful monitoring. The shift towards a more risk-sensitive framework aims to achieving a better-balanced framework, as investment firms have in some cases been subject to Pillar 2 requirements to capture risks not captured by the minimum requirements.

24. It should, however, also be stressed that the intention of the EBA in its calibration of the new framework has not been to increase capital requirements significantly beyond the current level in the overall system. The objective is instead to have clear and transparent rules with a stronger link to risk-sensitivity. Moreover, investment firms should not be subject – on an aggregate basis – to stricter requirements than those applied to credit institutions. To mitigate the effect of the introduction of the new prudential regime on capital requirements, the EBA proposes transitional arrangements that limit the impact on capital requirements to twice the level of the capital requirements under the current regime for the first three years. This will allow for a stable transition to the new prudential requirements. The EBA stands ready to report to the Commission on the appropriateness of the calibration and the impact of the new regime as part of the proposed review after 3 years.

25. The EBA has taken as a given that the current scope of the proposed regime covers all MiFID firms, including those that will be brought into scope by MiFID II.

26. Overall, the EBA is of the opinion that investment firms would benefit from having a consolidated single rulebook, separate from the one applied to credit institutions, while recognising the need of relying on some concepts and requirements of the CRD IV. The banking regulation builds to a large extent on the internationally accepted principles for internationally active banks developed in the Basel Committee on Banking Supervision (BCBS) capital accord. That framework, however, is overall less suited to capture the risks faced by most investment firms, which include asset managers, trading platforms and advisory firms. Consequently, a separate regime provides a simpler and more risk-sensitive framework for all investment firms.

Recommendations:

Recommendation 1. **It is recommended to develop a consolidated single rulebook, separate from the one applied to credit institutions, for all MiFID investment firms not falling in Class 1 based on the recommendations given in this Opinion.**

Recommendation 2. **In order to ensure a stable transition to the new regime, the capital requirements on an individual and consolidated basis can be limited to twice the level of the capital requirements under the current regime for three years after the entry into force of the new regime. To make use of the transitional requirement, the investment firm must also calculate the capital requirements under the current regime. For firms previously subject only to the initial capital requirements, the capital**

	requirements can be limited to twice the level of the current initial capital. For firms not previously subject to capital requirements, the capital requirements can be limited to twice the level of the fixed overheads requirement. After two years, the EBA stands ready to report to the Commission on the appropriateness, in particular the calibration, of the new regime, as part of the review referred to in Recommendation 62.

2. Categorisation

2.1 Introduction

27. Investment firms in the EU are highly diverse in terms of size, risk profiles and structure, as well as in the nature, scope and complexity of their investment activities and services. In order to account for this heterogeneity in the population, proportionality has represented a guiding principle for EBA when developing the proposed framework. In this context, one of the key tools used by EBA to ensure that the prudential requirements are applied in a proportionate manner is the new categorisation of investment firms. Indeed, this prudential categorisation has been used to apply the principle of proportionality throughout the framework, including the level of capital requirements and reporting requirements, and in relation to remuneration and governance provisions.

28. In line with the conclusions of the 2015 Investment Firms Report, the EBA consulted on a proposal to separate investment firms that are not in Class 1 into two separate categories:

    a) Small and non-interconnected investment firms (Class 3);
    b) Other investment firms (Class 2).

29. For both classes, it is considered important to ensure that the minimum requirements allow an orderly wind-down. The Discussion Paper also, however, highlighted that Class 2 firms should be subject to more restrictive requirements for the following reasons:

    a) Non-systemic investment firms can create system-wide impact collectively;
    b) Some investment firms can have significant trading activities and their failure can create an adverse impact on market confidence;
    c) Their failure can have an impact on customers and markets.

2.2 Feedback on proposed categorisation as set out in the Discussion Paper

30. The Discussion Paper proposed to distinguish between the two classes based on MiFID services.[7] Specifically, it was considered that a firm cannot be considered very small and non-interconnected if it is authorised to do or engages in any of the following:

    a) Holding client money or securities belonging to clients;
    b) Ancillary service of safekeeping and administration (MiFID B1);
    c) Dealing on own account (MiFID A3);
    d) Underwriting or placing with a firm commitment (MiFID A6);

[7] Please refer to Annex I of MiFID for a list of all the MiFID investment services and activities.

e) Granting of credits or loans to an investor (MiFID B2);
f) Operating a multilateral trading facility (MTF) (MiFID A8);
g) Operating an organised trading facility (OTF) (MiFID A9);
h) Being part of a wider group;
i) Using a MiFID passport;
j) Using tied agents.

31. The chosen approach was consequently based on a type of business model categorisation. The feedback from the industry, however, considered this too restrictive and proposed to apply quantitative thresholds as well. There was a general consensus in the responses that being a member of a wider group, using a MiFID passport or using tied agents should not preclude a firm from being in Class 3. According to the respondents, being a member of a wider group could also play as a risk mitigant and would otherwise be addressed through consolidation. Furthermore, using a MiFID passport does not increase the level of risk and to treat it otherwise would go against the principle of the Single Market and the Capital Market Union (CMU). Finally, using tied agents was not seen as a risk factor.

32. Most respondents felt that there was no need to consider the risk of holding client money/assets, as this is dealt with in MiFID segregation rules. Some proprietary traders suggested that they should be eligible for Class 3 when they have no external customers. Another example included operators of MTFs who argued that operating an MTF/OTF should not preclude them from being in Class 3 because of the limited riskiness of their business. While some respondents supported both qualitative and quantitative criteria, it was suggested that the quantitative threshold not be set too high in order to avoid putting all the firms in the same class.

33. Furthermore, some respondents expressed their concern that advisory-only firms would be subject to a more complex regime in the future, while they pose very limited risks. They suggested therefore including them in Class 3 but exempting them from the FOR in line with their current regime. Finally, several respondents called for a distinction between brokerage firms that engage in trading on their own account and/or underwriting on a firm-commitment basis, which should remain subject to stricter requirements, and asset managers and other firms, which may require modifications to their current treatment.

34. Given the subsequent analysis undertaken, the EBA agrees that using a MiFID passport shall not preclude a firm from falling under Class 3. In addition, using tied agents shall not preclude a firm from falling under Class 3, because the financial risks that tied agents might create are addressed by the FOR. These are examples of categorisation criteria that focus less on the risk posed by the firm and, in the view of the EBA, have been correctly identified in the consultation as problems.

35. The EBA also finds that extending the scope of Class 3 by also including firms operating an MTF or OTF is reasonable, given the limited riskiness of such firms. While it is true that the failure of such a platform may lower the ability of counterparties to perform transactions,

alternative trading venues often exist and placing onerous criteria on such platforms may also be seen as a hindrance to promoting market liquidity.

36. Finally, the fact that a firm is part of a wider group should not preclude the firm from being a Class 3 firm, as it should depend on the activities of the investment firm. However, while the argument that the group can function as a risk mitigant is correct, the reverse is nonetheless also correct, namely that the failure of other group entities can cause an increase in risk. In addition, it is important to avoid a situation whereby a group can be structured in such a way that it avoids becoming classified a Class 2 firm, despite the aggregate risk of the group warranting this. Consequently, EBA considers it more appropriate to apply certain criteria on a combined basis for investment firms that are part of the same group, to counterbalance these effects.

37. Overall, the consultation has highlighted that relying on the MiFID services categorisation, which was considered preferable, as it ensured a direct link with MIFID/MIFIR, comes at the cost of being overly restrictive, as it does not allow other risk characteristics, such as the size of the firm, to be taken into account. Based on the feedback received and further considerations on different practices across Member States in granting MiFID service authorisation, a revision of the original criteria was deemed necessary.

2.3 Revised categorisation

38. The EBA has conducted a quantitative analysis based on the data collection, which indicated that it was possible to use only quantitative thresholds to capture differences in terms of size, risk profiles and business models across investment firms. Hence, it is proposed to deviate from the strict MiFID services-based categorisation and use instead quantitative indicators (K-factors) that reflect the risk that the new prudential regime intends to address. The advantages of this approach are that (i) it is relatively simple, (ii) it is more risk sensitive than an approach that relies only on MiFID services and activities and (iii) it provides for a direct alignment between the categorisation and the risk that an investment firm can pose to others. As an example, while the activity of holding client money is considered to be one of the riskiest from a supervisory perspective, in some cases the EBA has observed that permission to conduct this activity has not been utilised. Thus, relying on the MiFID licence may be misleading and instead it would be preferable to categorise these firms as Class 2 based on their holding positive amounts of client money. The use of a MiFID-only categorisation would therefore not be sufficiently risk sensitive and relying on actual activities, as reflected in the K-factors, is considered a superior alternative.

39. In addition, it is proposed to use certain catch-all provisions, to ensure that large investment firms that can potentially have an impact on others are classified as Class 2 firms, irrespective of their business model or risk profile. These should be based on a set of size thresholds.

40. Given that only Class 2 firms would be subject to capital requirements based on the K-factor formula (see Section 5. for details), the cost of this principle is that Class 3 firms will also have to calculate the K-factors for categorisation purposes. However, given that not all K-factors will be relevant to all firms and that most of the K-factors should be readily available to firms as part of their ordinary business, the operational burden of this is considered negligible. The gain is, however, a more precise categorisation that creates a stronger link to the riskiness of the firm and the impact it can have on others.

2.3.1 Methodology

41. The methodology is based on a threshold approach whereby an investment firms is precluded from being in Class 3 if an indicator exceeds a pre-defined threshold ('categorisation thresholds'). The selected indicators are the K-factors and a set of size metrics to reflect the risk that an investment firm can pose to customers and markets and thus its potential impact on others. This approach assumes that the threshold is a good approximation of the intrinsic riskiness of a firm and the potential impact it can have on others, and therefore of the level of capital requirements and supervisory attention warranted.

42. As a starting point for the categorisation, firms holding client money, administering and safekeeping client assets or trading in their own name were considered to entail higher intrinsic risk and higher potential impact on customers or markets regardless of the size of the activity, and were therefore automatically excluded from Class 3. Accordingly, for the K-factors reflecting these activities, namely K-CMH (client money held), K-ASA (assets under safekeeping and administration), K-NPR (net position risk) or K-CMG (clearing member guaranteed), K-TCD (trading counterparty default) and K-DTF (daily trading flow), any amount higher than zero will preclude an investment firm from Class 3.

43. For the remaining K-factors, the distribution of each K-factor was examined individually in order to determine reasonable thresholds, calculated based on particular percentiles. This was done to get a preliminary view on the possible size of Class 3; firms not exceeding any of the thresholds would all be in Class 3. The chosen thresholds would put about 32% of the sample in Class 3 and 68% in Class 2.[8] The EBA judged that setting the thresholds at lower levels would result in many small and non-interconnected firms being included in Class 2, which would be against the objective of proportionality and the need to have simpler regime for these firms (a detailed analysis can be found in Section 13.4.1).

44. As a result of the analysis, the proposed thresholds for each K-factor would be the following (the precise definitions of the K-factors can be found in Section 5.):

    a) K-AUM (assets under management under both discretionary portfolio management and non-discretionary (advisory) arrangements) – higher than EUR 1.2 billion;

[8] The sample of firms that responded was skewed towards larger firms and therefore it is expected that in practice many more smaller firms will be in Class 3.

b) K-COH (customer orders handled) – higher than EUR 100 million a day for cash trades and/or higher than EUR 1 billion a day for derivatives
c) K-ASA – higher than zero;
d) K-CMH – higher than zero;
e) K-NPR or K-CMG and/or K-DTF and/or K-TCD – higher than zero.

45. Apart from individual K-factors, it seems reasonable to apply a general size threshold to all investment firms, irrespective of the type of their business model, to distinguish large firms, whose potential impact on others is likely to be higher and therefore justifies excluding them from Class 3. The EBA analysed both total gross revenues and balance sheet size by applying different percentiles and concluded that a threshold based on total gross revenues should be set to around EUR 30 million and a threshold based on the balance sheet size should be set to EUR 100 million. 'Total gross revenues' is intended to be the annual operating income linked to the MiFID activities of the firm, i.e. stemming from interest receivable and similar income, income from shares and other variable/fixed-yield securities, commission/fee income, gains/losses on trading assets/assets held at fair value/hedging and other operating income, but excluding any income not linked to the MIFID activities of the firm.

46. All the K-factors are explained in more detailed in Section 5.4.1. Although, there is not a specific K-factor for the operations of an MTF/OTF, an MTF/OTF operator can become a Class 2 firm if it exceeds any of the categorisation thresholds.

47. In order to prevent arbitrage and reduce the incentive for firms to structure themselves in such a way as to avoid falling into Class 2, the thresholds for K-AUM, K-COH, balance sheet size and total gross revenues should be applied on a combined basis for all investment firms that are part of the same group. For example, if two investment firms belong to the same group and each has a K-AUM of EUR 700 million, then both firms would be classified as Class 2, as their combined K-AUM is EUR 1.4 billion (= EUR 700 million + EUR 700 million), which exceeds the threshold of EUR 1.2 billion.

48. For K-CMH, K-ASA, K-NPR, K-CMG, K-TCD and K-DTF, the thresholds should apply at solo level, since the threshold is set as any amount higher than zero and firms have limited incentive to split up these K-factors across different entities. Although this may be true for individual K-factors, firms may still have the incentive to structure their business model to avoid regulatory scrutiny when they engage in different activities and hence have different K-factors. Nonetheless, there may be cases where firms within the same group genuinely have separate and non-interconnected business, not as the result of deliberate structuring. Given this, competent authorities should have the power to address this issue through consolidation when they have evidence that the group has deliberately structured itself into separate entities to avoid higher capital requirements (see Section 3. for more details). This would be a more appropriate way to tackle the issue instead of forcing all the firms within the group to be classified as Class 2.

49. Although the K-factors used for the categorisation are to be defined in exactly the same manner as for calculating capital requirements, the way they are measured for the categorisation may be different from the way they are measured for the calculation of the capital requirements. For the categorisation, the end-of-day levels should be considered for all K-factors except for K-CMH, where a firm should be classified as Class 2 even if it holds positive amounts of client money intra-day. The balance sheet size and total gross revenues should be set to the levels at the end of the last financial year. Furthermore, since changes in the levels of K-factor may lead to a change on categorisation, it is recommended to introduce a transition mechanism to limit any cliff effect; this mechanism is described in the next subsection.

2.3.2 Transition between Class 2 and Class 3

50. An investment firm that exceeds the thresholds for K-ASA, K-CMH, K-NPR, K-CMG, K-DTF and K-TCD should be classified as a Class 2 firm from that moment. The threshold should be applied to the end-of-day levels except for K-CMH, for which intra-day balances should be assessed. For K-AUM and K-COH, a firm exceeding the thresholds should be classified as Class 2 at the end of the deferral period as set out in Table 10 – i.e. after three months from the date of breaching the thresholds. This should ensure an equal treatment across Class 2 firms because a firm that is already Class 2 will know the level of capital requirements to apply three months in advance while a Class 3 becoming Class 2 will face a cliff effect on the day (see Section 5.8). For the remaining K-factors, for which the threshold is set at zero, even if the firm becomes Class 2 immediately, the calculation of capital requirements will be based on smoothed K-factors, limiting any cliff effect. Since the prudential requirements should be met on an on-going basis, an investment firm should be ready to meet the prudential requirement from the day it is reclassified.

51. However, being classified back to Class 3 from Class 2 should not be automatic and a monitoring phase should be envisaged. It is therefore suggested that a Class 2 firm can be re-categorised as Class 3 firm if it meets all the conditions to be classified in Class 3 and remains below the level of the thresholds for at least six months.

52. It is expected that firms monitor the possibility of reclassification on an on-going basis; this is especially relevant to firms close to the thresholds or firms experiencing high growth rates. Therefore, investment firms should be prepared to handle such transitions, especially as the thresholds have been set in a manner that gives complete transparency of the regulatory framework.

Recommendations on categorisation:	
Recommendation 3.	**It is recommended to introduce a new categorisation of MiFID investment firms distinguishing between:** **a) systemic investment firms or investment firms which are exposed to the same types of risks as credit institutions (Class 1) to which the full CRD/CRR requirements should be applied;** **b) other non-systemic investment firms (Class 2) above specific thresholds that should be subject to a more tailored prudential regime based on K-factors; and** **c) small and non-interconnected investment firms (Class 3) providing limited services in terms of number and size to which a very simple regime should be applied.**
Recommendation 4.	**In order to identify Class 1 firms[9], the EBA should develop dedicated Level 2 Regulatory Technical Standards in order to carry out such identification, taking into account the specificities of investment firms.**
Recommendation 5.	**All the investment firms that fulfil one or more of the following conditions (‘categorisation thresholds’) should be excluded from Class 3:** **a) K-AUM (for assets under management under both discretionary portfolio management and non-discretionary (advisory) arrangements) is higher than EUR 1.2 billion;** **b) K-COH (client order handled) – is higher than EUR 100 million a day for cash trades and/or higher than EUR 1 billion a day for derivatives;** **c) K-ASA (for assets safeguarded and administered) is higher than zero;** **d) K-CMH (for client money held) is higher than zero;** **e) K-NPR or K-CMG, K-DTF, K-TCD are higher than zero;** **f) Balance sheet total is higher than EUR 100 million;** **g) Total gross revenues is higher than EUR 30 million;** **h) The thresholds under (a), (b), (f) and (g) should be applied on a combined basis for all investment firms that are part of the same group. The threshold under (c), (d) and (e) should be applied on a solo basis.**
Recommendation 6.	**All the investment firms that are not included in Class 1 or Class 3 should be categorised as Class 2 firms.**
Recommendation 7.	**All the investment firms should meet the prudential requirements on an ongoing basis. Investment firms should be reclassified to Class 2**

[9] Opinion of the European Banking Authority on the First Part of the Call for Advice on Investment Firms, EBA-Op-2016-16, Recommendation 2, p. 3.

	immediately if one of the categorisation thresholds is exceeded, except for the K-AUM and K-COH where firms should be allowed three months from the date they exceed the categorisation thresholds before being reclassified to Class 2; however, a Class 2 firm should meet the criteria for being in Class 3 for at least six months before being re-categorised in Class 3.

3. Consolidated supervision

3.1 Introduction

53. Consolidated supervision serves as a supplementary regulatory tool to individual supervision, providing a view on the wider risks that an individual firm may be exposed to by virtue of its membership in a group. It mainly aims to (i) identify group financial risks; (ii) detect excessive group leverage; and (iii) safeguard against situations of multiple gearing.

54. Currently, the level of application of prudential requirements for investment firms is set out in the CRR. Specifically, Article 6 requires all investment firms to comply with the CRR capital requirements on an individual basis and Article 11 requires the parent undertaking to comply with the capital requirements on a consolidated basis. However, Article 7 envisages an optional derogation from the application of prudential requirements on an individual basis for investment firms that are subject to consolidated supervision. In addition, Articles 15 and 17 allow competent authorities to waive the application of the prudential requirements on a consolidated basis for groups of certain types of investment firms. Both derogations contain a set of specific conditions that have to be met, in order to ensure that capital is distributed adequately among the parent and the subsidiaries and that investment firms are not overexposed to group risks.

55. The EBA Report acknowledged the relevance of group risk to investment firms and the potential for creating risk to its customers and to the firm itself. Accordingly, the Discussion Paper proposed to use the group capital test set out in Articles 15 and 17 of the CRR as a common minimum approach to address group risk in investment-firm-only groups, as an alternative to consolidated supervision. For investment firms that are part of a banking group, the Discussion Paper noted that group risk can still be addressed through the consolidated supervision of the parent institution as prescribed by the CRR.

56. Industry feedback on the Discussion Paper showed general support for the proposed approach for addressing group risk in investment-firm-only groups, while also recognising the need for consolidated supervision in the case of systematically important groups. Some respondents suggested capping the requirements for the group to the sum of the requirements for the individual firms in the group. Only a few respondents expressed a preference for keeping the current CRR approach (including the existing waivers) with potential for further simplification.

57. As regards the consolidation of investment firms that are part of a banking group, respondents were generally concerned that a duplication of rules would create excessive complexity against the initial objective of simplicity and can pose a level playing field issue for investment firms that are subsidiaries of banking groups. Some respondents suggested

exempting these investment firms from the new regime if they comply with CRD/CRR requirements on a consolidated basis. In this case, consideration should be given to the fact that CRD/CRR requirements could put firms that are member of a group in a less or more advantageous situation than their stand-alone competitors, depending on the final design of the new approach. Some respondents suggested applying the new regime on a solo basis to asset managers that are part of a banking group, while carving them out from the regulatory consolidation. Finally, a few respondents suggested applying the new requirements on a solo basis on top of the current requirements on a consolidated basis, even though it would impose additional costs, in order not to offer them an unfair advantage or disadvantage over competitors.

3.2 Consolidated supervision of investment-firm-only groups

3.2.1 General principles

58. An investment-firm-only group may be said to exist where (i) there is an investment firm which is either a parent entity or owned by a financial holding company and (ii) there is no credit institution or Class 1 firm in the group. The composition of entities that should then be included within the scope of the group capital test should cover all investment firms, financial institutions and any other prudentially regulated entities within the group, including tied agents where they are owned by the investment firm.

It is the EBA's opinion that all entities within the group should be subject to the prudential requirements at a solo level. However, the prudential consolidation method prescribed in the CRR can be less relevant to investment-firm-only groups under the new regime based on K-factors and can potentially have a limited scope of application. Nonetheless, there is still the need to address group risk, excessive leverage and multiple gearing, as was previously acknowledged in Section 3.3.6 of the EBA Report and the Discussion Paper. The Discussion Paper proposed a simple approach to address this based on Articles 15 and 17 of the CRR. This approach currently operates as a 'derogation' from consolidated supervision, but, given that it contains a set of conditions and an element of supervisory judgement, it can be adapted to become a common minimum approach to addressing excessive leverage and multiple gearing. Hence the new framework should require that the parent company is subject to a group capital test that guards against:

a) Situations where a parent entity issues debt and either downstreams the proceeds in the form of equity or uses it to fund acquisitions (which may create large amounts of goodwill at parent or holding company level), which can result in excessive group leverage;
b) Situations of double or multiple gearing, where the same capital is used simultaneously as a buffer against risk in two or more legal entities.

59. The aim of the test is for an investment firm group to be required to hold sufficient eligible capital raised externally to be at least equal to the sum of eligible capital instruments raised internally to the group for each entity of the group combined. Here, 'raised externally'

should be understood as not provided by another entity part of the same group, whereas 'raised internally' means provided by other entities within the consolidation group. This would not discourage regulated firms from retaining capital raised externally (e.g. retained profits or minority interests) at solo level, while also ensuring that there is no undue benefit to be gained by the rest of the group providing capital that is not supported by capital raised externally (i.e. to avoid multiple gearing).

60. The parent company in a Member State should be responsible for monitoring the compliance with all the prudential requirements of the group. In particular, it should have in place systems to monitor and control the sources of capital and funding of all regulated entities within the group; this should include compliance with the liquidity requirements.

61. Under specific conditions, competent authorities should also have the power to require the application of K-factors on a consolidated basis to an investment-firm-only group. These conditions should include cases where:

   a) An investment-firm-only group has deliberately structured itself into separate entities so that each individual investment firm in the group would fall below the categorisation thresholds and so avoid the application of the new risk-sensitive capital requirements (K-factors) on a solo basis;
   b) The individual investment firms are interconnected in their operations and would otherwise be subject to the capital requirements under the K-factor formula in a very material way if the relevant metrics are measured on an aggregated basis – consolidation in such circumstances may be justified on the grounds that collectively the group of interconnected investment firms poses very material risk to customers and/or to markets;
   c) The group consists of multiple investment firms that deal or execute in their own name, and are so interconnected in terms of their risk management that it is more appropriate to consider the application of the K-factors for risk to firm on a consolidated basis to avoid double counting.

3.3 Consolidated supervision of investment firms that are part of a banking group

3.3.1 Introduction

62. The approach described in Section 3.2 to address group risk would apply only to investment-firm-only groups. Where an investment firm is part of a banking group, the credit institution in the group may already be required to apply consolidated supervision under the CRR, which should include the investment firm if it is within the scope of the relevant consolidation group.

63. The Commission's CfA includes a specific request to the EBA to gather information on the total number of investment firms that are part of a wider banking group. Table 1 shows

that, out of the around 6 000 EEA MiFID investment firms, 279 are part of a wider banking group.[10]

Table 1: Number of MiFID firms part of a banking group by Member State

	Number of investment firms part of banking group		Number of investment firms part of banking group
Austria	5	Latvia	2
Belgium	4	Liechtenstein	4
Bulgaria	N/A	Lithuania	1
Croatia	0	Luxembourg	15
Cyprus	N/A	Malta	1
Czech Republic	2	Netherlands	15
Denmark	1	Norway	5
Estonia	1	Poland	11
Finland	4	Portugal	1
France	43	Romania	2
Germany	27	Slovakia	1
Greece	5	Slovenia	0
Hungary	1	Spain	13
Iceland	N/A	Sweden	2
Ireland	7	United Kingdom	100
Italy	6		
		Total	**279**

3.3.2 New prudential framework for investment firms and issues interacting with consolidated supervision

64. Under the new prudential framework for investment firms, Class 2 and Class 3 firms would no longer be subject to the provisions of the CRR on an individual basis. However, the CRR would still need to be applied to the banking group on a consolidated level, for groups comprising one or more Class 2 and Class 3 investment firms. Given this, the new prudential regime would create a situation where different prudential rules would be applied to Class 2 and Class 3 investment firms that are part of a banking group, depending on the level of application.

[10] The data were collected from NCAs as part of the 2015 EBA Investment Firms Report and are described in more detail in Section 12. In addition, the same information was also collected as part of the data collection exercise launched by the EBA on 15 July 2017. Out of 1 033 investment firms for which data were received, 79 identified themselves as part of a banking group.

65. Consequently, it was deemed necessary to re-examine if and how the prudential requirements would be applied on an individual and consolidated basis for these investment firms, including whether or not the waiver under Article 7 of the CRR would be still needed.

3.3.3 Considered policy options

66. Following the feedback from the public consultation, the EBA has considered four options for the level of application of requirements for investment firms that are part of a banking group. Each option is assessed against the objectives of financial stability, simplicity, level playing field and current supervision practices. The options considered were the following:

    a) Investment firms are subject to the new capital requirements on an individual basis, while the banking group shall comply with the CRR capital requirements on a consolidated basis;
    b) Investment firms are exempted from the new capital requirements on an individual basis provided they are consolidated within the banking group;
    c) Investment firms are subject to the new capital requirements on an individual basis but are exempt from the scope of consolidation of the banking group;
    d) Investment firms are subject to the new capital requirements on an individual basis and a different method for prudential consolidation from the one prescribed in the CRR is used.

67. The first option would result in a duplication of rules, which goes against the objective of simplicity, although the application of the new rules cannot be considered a major increase in complexity. It also entails that investment firms that are part of a banking group may be subject to higher requirements, but this can be justified by a lower regulatory tolerance on the risk imposed by these investment firms on the entire banking group.

68. The second option would solve the issue of duplication of rules but would raise two new concerns. First, investment firms which are subsidiaries of a banking group would be subject to different requirements from their 'solo' competitors, which could be either more or less prudent depending on the final design of the new regime, creating an uneven playing field. Second, some competent authorities may prefer to supervise their firms on an individual basis in addition to the consolidated supervision, resulting in a supervisory issue. A possible solution for this issue could be leaving the exemption to the discretion of the competent authority as in Article 7 of the CRR.

69. The third option could solve both the complexity and level playing field issues, but would create a financial stability issue on top of the remaining supervision issue. Indeed, one of the main arguments for simplifying the requirements for investment firms was that these firms should be able to fail because they pose less risk to financial stability, above all because they do not hold deposits. In the case of a subsidiary of a banking group, this rationale does not hold true anymore as the failure of the firm could affect the overall stability of the banking group, which holds deposits.

70. Under the fourth option, the capital requirements at the consolidated level would be calculated on the basis of an alternative calculation method to the one prescribed in the CRR (full consolidation). A possible treatment of consolidation would be the deduction of the parent's participation in the subsidiary from the parent's own funds. Another form of consolidation would be to apply the new prudential requirements to investment firm on an individual basis, the CRR to the banking group after carving out the investment firm, and calculate the consolidated capital requirements based on the aggregate of the two.[11] This option could solve the level playing field issue, and, to some extent the complexity issue, but, depending on the exact consolidation method, it could still create a financial stability issue on top of the remaining supervision issue. In practice, the bank could arbitrage where to locate its investment activities depending on the level of own funds requirements associated with the activities, reducing the overall level of capital within a group for the exact same activities, and as a result the overall level of capital within the banking sector.

3.4 Conclusion and recommendations

71. Group risk within investment-firm-only group should be addressed using a group capital test in line with Articles 15 and 17 of the CRR instead of the application of capital requirements on a consolidated basis. This would reduce the regulatory burden for such groups while maintaining an adequate level of prudency. To ensure its effectiveness, the test should use the same definition and quality of capital for the parent financial company (or parent investment firm) and the subsidiaries that would otherwise be consolidated. In addition, the supervision of these investment-firm-only groups should be subject to the provisions of Article 17 of the CRR.

72. Competent authorities should also have the power to require the application of capital requirements on a consolidated basis to an investment-firm-only group, on a case-by-case basis, to prevent the avoidance of relevant K-factors at individual firm level that would be caught if applied in aggregate and where the individual investment firms are interconnected in their operations.

73. Regarding the prudential requirements of investment firms that are part of a banking group, the EBA proposes the most prudentially safe approach, which entails that the new framework be applied to all investment firms on an individual basis, in addition to the CRR on a consolidated basis. Although there seems to be a duplication of rules under this option, both the new and the CRR prudential requirements in fact serve tailored purposes and take into account quite specific risks, so the proposed framework remains proportionate and is balanced. The revised framework for solo investment firms aims to address the risk that investment firms pose to customers and markets that is not sufficiently captured under the CRR. On the other hand, consolidated supervision under the CRR aims to address group risk, eliminate multiple gearing or intra-group creation of own

[11] This option stems from the technical calculation methods prescribed under Directive 2002/87/EC on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate.

funds and ensure the transferability and availability of own funds between the parent and the subsidiaries.

74. This approach ensures a level playing field across investment firms, irrespective of whether they are part of a banking group or not, as they will all have to apply the same prudential requirements on an individual basis. At the same time, it addresses any concerns that the banking group's supervisors may have. Finally, it is aligned with the treatment of other entities that are subject to specific regulations, such as the UCITS Directive and AIFMD. However, taking into account the initial objective of simplicity and to avoid unnecessary supervisory burden, the EBA proposes to provide for an optional waiver for Class 3 investment firms equivalent to that currently available to institutions under Article 7 of the CRR.

Recommendations on consolidated supervision:

Recommendation 8. **For the consolidated supervision of investment firm-only groups the following should be considered:**

a) A group should be considered an investment firm-only group if it does not include any credit institutions or Class 1 investment firms.

b) The composition of entities that should be included within the scope of consolidated supervision of such a group should include all investment firms, financial institutions and any other prudentially regulated entity and should also include tied agents where they are owned by the investment firm.

c) The parent company should always be subject to a group capital test to address situations of excessive leveraging risks and multiple gearing of capital. Such test should be developed based on the conditions required under Article 15 and 17 of the CRR where this test is foreseen in form of derogation from consolidated supervision.

d) The ultimate parent company in a Member State should be responsible for all the prudential requirements of the group at the consolidated level. In particular, it should have in place systems to monitor and control the sources of capital and funding of all regulated entities within the group; this should include the compliance with the liquidity requirements.

Recommendation 9. **Competent authorities should be granted the power to require the application of capital requirements on a consolidated basis to an investment firm-only group under certain conditions such as:**

a) An investment firm-only group has deliberately structured itself into separate entities so that each individual investment firm in the group would fall underneath the categorisation thresholds and so avoid the application of the capital requirements based

	on K-factors on a solo basis; **b) The individual investment firms are inter-connected in their operations and would otherwise be subject to the capital requirements under the K-factor formula in a very material way if the relevant metrics are measured on an aggregated basis;** **c) The group consists of multiple investment firms that deal on own account or execute customers' orders on their own name, which are so inter-connected in terms of their risk management that it is more appropriate to consider the application of the K-factors on a consolidated basis.**
Recommendation 10.	**All investment firms part of a group containing a credit institution and/or a Class 1 investment firm should be subject to all of the following requirements:** **a) If they are Class 2 or Class 3 firms, they should be subject to the new prudential regime for investment firms on a solo basis unless waived in accordance with a provision equivalent to Article 7 of the CRR; and** **b) all the CRR requirements on a consolidated basis, as part of any obligations for consolidated supervision that fall upon institutions subject to the CRR;** **c) the waiver referred to in point a) should only be applicable to Class 3 firms.**
Recommendation 11.	**Subject to the existence of centralised liquidity management functions, competent authorities may waive individual entities from liquidity requirements as long as the liquidity requirements are met at consolidated or sub-consolidated level. Concentration limits should apply at solo level.**

4. Capital definition and composition

4.1 Definition of capital and composition

75. The new prudential framework should require an investment firm to maintain minimum levels of capital available to absorb losses. Since the definition of capital for such prudential purposes does not change from one entity type to another, the capital definition for investment firms will need to be exactly the same as for credit institutions, except for the application of deductions.

76. Therefore, the new prudential framework for investment firms should recognise two layers of capital: Tier 1 (T1) and Tier 2 (T2), with T1 further divided into Common Equity Tier 1 (CET1) and Additional Tier 1 (AT1), where CET1 consists of the highest quality capital.

77. It is therefore suggested that the capital composition for a new prudential regime for investment firms be based on the following general principles:

    a) The principles of permanence, flexibility of distributions and subordination should be preserved;
    b) Capital composition may be simplified if deemed too complex or burdensome for smaller investment firms;
    c) The composition of capital should include T1 and T2 instruments as per definition in Articles 25 to 71 of the CRR;
    d) CET1 should be at least a fraction of capital requirements. AT1 and T2 capital should be limited to a fraction of capital requirements;
    e) The rules on the capital deductions should be simplified.

Deductions from capital

78. Under the CRR, a number of deductions are applied in calculating the level of regulatory capital. In most cases, these deductions are applied in the calculation of total CET1 and consist of the following items:

    a) Goodwill and other intangibles (excluding mortgage-servicing rights);
    b) Deferred tax assets that rely on future profitability of the bank to be realised;
    c) The amount of the cash flow hedge reserve that relates to the hedging of items that are not fair valued on the balance sheet;
    d) A shortfall of the stock of provisions to expected losses;
    e) Gains on sales related to securitisation transactions;
    f) Cumulative gains and losses due to changes in own credit risk on fair-valued financial liabilities;
    g) Defined benefit pension fund liabilities;

h) Investments in own shares (treasury stock); and

i) Certain investments in other financial sector entities.

79. It is suggested that deductions be mandatory and applied in full (without the application of any of the thresholds currently applicable to credit institutions). This would lead to a conservative approach (with respect to the requirements for credit institutions) but to a substantial simplification of the framework.

80. However, in order to attend to operational issues of market-making firms, such as the example described in the 2015 Investment Firms Report (pp. 63 to 65 ff.), it is recommended that no deduction of non-significant holdings of capital instruments of financial sector entities has to be made, provided any such positions are part of the investment firm’s trading activity, which means they are not intended to be held longer than a short term. This would be more proportionate and not act as a disincentive to investment firms to provide liquidity in the markets for capital instruments of financial sector entities. It should be noted that this would lead to a different treatment from the credit institutions, for which the applicable amount of non-significant holdings in capital instruments of financial sector entities is deducted from capital. These positions should nonetheless be subject to the capital requirements under the K-factor formula. Significant holdings of capital instruments in financial sector entities should always be deducted. In line with Article 49 of the CRR, holdings of capital instruments in financial sector entities should not be deducted if those entities are included in the scope of the group capital test or of consolidated supervision.

Prudential filters

81. The term ‘prudential filters’ refers to the possibility of removing unrealised gains or losses from regulatory capital recognised on the balance sheet as ‘other comprehensive income’. The main objective of these adjustments was to reduce a source of volatility and uncertainty, arising from the changes in the fair value of securities portfolio. The EBA has released an Opinion on the treatment of prudential filters.[12] Since there is no change in substance for one entity type compared with the others, the recommendation is to maintain a strict alignment with the aforementioned EBA Opinion.

Partnerships

82. Some investment firms operate in other legal forms, such as partnerships or limited liability partnerships (LLPs), or even as a single natural person. Some of these forms can include unlimited personal liability of the owners or the requirement that pay-outs can be reclaimed by creditors of the firm; subject to affordability, this can lead owners to be more distinctly willing to supply additional funding to avoid a default situation (and protect their livelihood), a stabilising feature not inherent in shares of joint-stock companies. Difficulties

[12] https://www.eba.europa.eu/-/eba-advises-on-the-prudential-filter-for-gains-and-losses-from-own-credit-risk-related-to-derivatives

may occur when trying to apply the concept of permanence to partners that have a civil right to leave the firm and take a pay-out of the value of their participation, whereas sole traders have the right to liquidate their businesses at any time.

83. Similar concerns could arise from proprietors' or participants' civil rights to withdraw certain parts of the funds in order to secure their costs of living or to receive pay-outs of profit within the year. The EBA list[13] of CET1 instruments issued under Article 26 (3) of the CRR includes some form of partnership capital as an eligible form of capital.

84. Since there are many and varied forms of non-joint stock companies across the EU, a similar mechanism should be included in the new prudential regime for investment firms, requiring competent authorities to assess certain capital instruments as CET1. The introduction of this mechanism should be based on the same criteria laid down in the CRR and in particular should ensure that the principles of permanence and loss absorbency are met at all times.

85. In this context, partners' ability or civil rights to withdraw their capital is a disqualifying feature and requires special consideration.

Recommendations on capital definition and composition:

Recommendation 12. **The new prudential regime should identify only one single definition and composition of regulatory capital for all types of investment firms. The definition of the regulatory capital in the new prudential framework should be aligned to the one in the CRR for credit institutions including CET1, Additional Tier 1 and Tier 2 instruments as defined in Articles 25 to 71 of the CRR, while the composition should be adapted to the new framework.**

Recommendation 13. **The following composition of capital should be eligible for meeting the capital requirements:**

a) CET 1 should constitute at least 56% of capital requirements;

b) Additional Tier 1 is eligible up to 44% of capital requirements;

c) Tier 2 capital is eligible up to 25% of capital requirements.

Recommendation 14. **The use of prudential filters should be aligned to the treatment suggested in the EBA Opinion EBA/Op/2014/05 where it is recommended not to deviate from the prudential treatment which is currently applied at the international level for credit institutions and under the CRR and which consists in deducting from regulatory capital fair value gains and losses arising from the institution's own credit risk related to derivative liabilities.**

Recommendation 15. **Investment firms should always be required to deduct the items referred to in Articles 37 to 47 of the CRR, in particular intangible**

[13] www.eba.europa.eu/-/eba-updates-on-monitoring-of-cet1-instruments

	assets and deferred tax assets, from regulatory capital. Such deductions should always be applied in full and should not be subject to any of the thresholds currently applied in the CRR. Non-significant holdings of capital instruments in financial sector entities should be exempted from such deductions if held for trading purposes; significant holdings of capital instruments in financial sector entities should always be deducted. Holdings of capital instruments in financial sector entities should not be deducted if those entities are included in the scope of the group capital test or of consolidated supervision.
Recommendation 16.	**Taking into account that the legal form of MiFID investment firms is not prescribed under Union law, the new prudential regime should include a mechanism to recognise less common legal forms of investment firms, such as limited liability partnerships (LLPs), partnerships and sole-traders. It is recommended that such mechanism is designed in a similar way to the one included in the CRR for the approval of CET1 instruments. This mechanism should ensure that the forms of capital available to such non-joint stock companies meet the principles of permanence and loss absorbency.**

5. Capital requirements

5.1 Introduction

86. The new prudential regime aims to (i) avoid the failure of investment firms resulting in a material impact on the stability of the financial system, (ii) prevent damage to investors' rights and assets, (iii) deal with the impact of failure and/or (iv) ensure there is enough time to wind down a firm in an orderly fashion.

87. The level and the methodology to calculate capital requirements are directly linked with the categorisation. Class 3 firms will be subject to a very simple regime, while Class 2 will be subject to more restrictive capital requirements. This embeds a degree of proportionality in the framework based on the impact an investment firm can have on customers and markets.

88. The regime sets minimum standards for all investment firms to ensure that they hold enough capital to support an orderly wind-down, consistent with a 'gone-concern' regulatory approach. These include the higher of a three-month FOR and a PMC requirement, which is the minimum level of capital that an investment firm should have to keep its authorisation. For Class 3 firms, such requirements are considered sufficient, because these firms tend to have limited potential impact on the markets and customers if they were to fail.

89. For Class 2 firms, a going-concern perspective has been considered, whereby capital requirements should ensure that the solidity of the firm is preserved on an on-going basis, and the impact on the customers and market is well contained should they fail. Thus, the capital requirements are designed to address in particular the operational risk of these firms, and where relevant the market and counterparty credit risk.

90. A significant innovation of the new regime is the methodology to calculate capital requirements for Class 2 firms based on risk factors (K-factors), namely the K-factor formula. Such K-factors aim to capture the risk an investment firm can pose to customers, to market access or liquidity and to the firm itself. The K-factors are therefore chosen to reflect to the actual activities of investment firms and the associated risks. The capital requirements are then calculated by multiplying each K-factor by an associated coefficient. This should be a significant simplification in the way investment firms have to calculate capital requirements, reducing the compliance burden while at the same time providing for a more risk-sensitive approach. It also builds proportionality in so that firms should calculate capital charges for only the K-factors which are relevant to them; effectively only part of the K-factor formula is likely to apply in practice to any investment firm depending on its combination of activities.

91. The overall calibration of the framework is also an aspect that has been given significant consideration. The EBA data collection has provided an overview of existing Pillar 1 and Pillar 2 requirements, just as it has made the magnitude of different business models within the investment firm universe clearer. While some elements of the framework should be adjusted upwards, most notably the IC requirement, which have not been adjusted since 1993, the overall intention has been not to increase capital requirements significantly on an aggregate basis.

5.2 Initial and permanent minimum capital

92. During the development of the new framework, the EBA has balanced the conflicting objectives of developing a regime tailored to the specificities of investment firms with the natural intention of building on existing practices. While some elements of the current CRR/CRD framework can be easily extended to all investment firms, others are less relevant, since they were developed for internationally active banks, based on the Basel II accord.

93. However, it must be recognised that the framework for determining capital requirements in the existing CRR/CRD already includes alternative methods for determining capital requirements, in particular the IC and FOR. The introduction of IC requirements in Articles 28 to 31 of the CRD and Article 93 of CRR specify the minimum amount of capital needed to be held by an investment firm. For some types of investment firms, the CRR does not require any additional capital requirements.

94. At the same time, recognising that some firms are inherently less risky than others also indicates the need to focus more on the winding-down or liquidation aspects of such firms rather than going-concern requirements. The use of initial-capital-type measures are in their nature not particularly risk sensitive, as they consider not the size of the firm, but only the type of activity that the firm is engaging in. The FOR, which is also a part of the existing framework, is a way to address this.

5.2.1 Initial and permanent as prudential minimum

95. Article 28 of the CRD contains the separate concept of IC, which represents one of the conditions for authorisation of an investment firm under MiFID. Article 93 of the CRR then states that the own funds of an institution may not fall below the amount of IC required at the time of authorisation. The purpose of IC under the current regime is to require an investment firm to hold a minimum level of capital permanently to cover at least the minimum of risks that the investment firm may produce.

96. Under the new K-factor regime, this on-going obligation is retained and clarified as such, so that a PMC acts as a 'floor' for all levels of capital required under the new regime and an investment firm must continue to hold it in order to keep its authorisation to conduct MiFID investment services.

97. However, the IC should be based on the MiFID services that an investment firm is authorised or plans to offer. In order to avoid complexity, no distinction should be made between IC (required in the authorisation phase) and PMC (required on an on-going basis). The corresponding levels of the minimum requirements, however, have the same aim of distinguishing the complexity and risks of investment firms' activities.

5.2.2 Levels of IC

98. Initial capital is the requirement that firms must have available at the time of authorisation.

99. The level of IC should be based on the MiFID services that an investment firm is authorised or plans to offer. This could be done by setting the levels of IC for the authorisation of an investment firms at:

    a) EUR 750 000 for firms that are authorised to provide one or more of MiFID II services A3, A6, A8 and A9;
    b) EUR 75 000 for firms that (i) are not permitted to hold money or securities belonging to their clients and (ii) are authorised to provide one or more of MiFID II services A1, A2, A4, A5 and A7;
    c) EUR 150 000 for all the other investment firms.

100. On the one hand, the EBA believes that clarity should be provided on how to set these levels, as allowing discretion at the stage of authorisation could lead to diverging approaches. On the other hand, it should also be recognised that the interaction between MIFID authorisation requirements and determination of IC requirements may become overly complex. Given that the interaction with MIFID is crucial in this regard; linking the MIFID services categories as suggested would ensure that consistency.

101. On the calibration of the requirements, considering that the current system of IC as well as the individual amounts of IC have remained unchanged for over 20 years, under the new K-factor regime both the system and the individual amounts of IC should, therefore, have been revised slightly upwards. It should also be considered that the scope of application of any different amounts of IC to different types of investment firms need to be updated, to reflect the new classification system proposed under this review.

102. The analysis from data collection indicates that the current levels of IC may be different across Member States. Currently, CRD IV sets the level of IC for investment firms as EUR 730 000, EUR 125 000 or EUR 50 000, the last of which is at the discretion of the national authority and has not been implemented by all Member States; EUR 125 000 is applied instead. Therefore, some investment firms authorised for the same investment business are currently operating in the EU on the basis of different levels of IC. Besides that, some Member States require even more IC than requested by the Directive. To avoid this, the same harmonised amounts of initial capital must be used and it is suggested that they be aligned with the requirements for PMC.

5.2.3 Initial capital as permanent minimum capital

103. The function of PMC is to acts as a minimum buffer, particularly for smaller firms, against any gaps that might occur in the K-factor system and where it is greater than the FOR. It therefore also provides for a minimum winding-down period. The new system of PMC has to be in line with and conform to the new system of three classes of investment firms.

104. Alongside this it is recommended that, in the interests of simplification (for both firms and supervisors), the definition of capital used for the purpose of meeting the minimum level(s) required as a condition for on-going authorisation of an investment firm under MiFID (i.e. PMC) should also be aligned with whatever definition of capital is decided to be used for the purpose of meeting the capital adequacy requirements of investment firms.

105. It is therefore recommended that the PMC be equal to the IC for all Class 2 and Class 3 investment firms. For Class 1 investment firms, the PMC should be set at EUR 5 million, in line with CRD requirements.

5.2.1 Transitional period

106. Because CRD IV has given the national authorities different possibilities of discretion about IC, a well-designed transitional period and transitional system have to be developed for Class 2 and Class 3 investment firms.

107. For example, very small investment firms that today are required to hold capital only equal to the IC may find the transition very challenging. Authorised investment firms which were in existence before the new capital regime is enacted, and whose capital does not reach the amount of PMC required, may continue to carry out their activities. Those firms have a transitional period of five years, during which the required amount will increase by around increase by around EUR 5 000 each year, to comply with the requirements of PMC. If a higher level of PMC is demanded, the transitional period will have to be extended in an equivalent manner.

5.2.2 Other considerations: use of professional indemnity insurance

108. Point (b) of Article 31(1) of the CRD currently offers the possibility (for the relevant investment firms that fall under this article) to replace the IC requirement with a given amount of professional indemnity insurance (or some combination of both). First, given that insurance relies on a third party that is incentivised to try to reduce the circumstances in which it will pay out, or only after delay, it is suggested that such insurance (being more suitable as a risk mitigant that a firm may choose to hold itself) should not be regarded as a substitute for regulatory capital.

109. Second, given that PMC not only acts as a floor for the risks but also, if it is greater than the FOR, has to serve in the wind-down period, it cannot be replaced by insurance, because the

insurance does not cover winding-down costs. Accordingly, the use of insurance as a substitute for PMC should not be allowed.

110. Finally, it has been noted during the consultation that, according to point (a) of Article 31 (2) of the CRD, investment firms that are also insurance intermediaries are currently required to have only EUR 25 000 as IC. According to Article 4 of Directive 2002/92/EC (the IMD), the insurance intermediary does not need any IC but needs only an insurance policy with respect to the insurance business against liability arising from professional negligence. Since IC and the insurance required by the IMD are two different tools and are intended to cover different things, the insurance required by the IMD is no reason for a reduced PMC requirement.

5.3 Minimum requirements based on fixed overheads

111. In addition to the IC, the Discussion Paper envisaged the FOR as another key point of the new framework. The role of FOR would serve as a second floor in the new K-factor approach.

112. The FOR is a requirement specific to investment firms (more precisely to certain investment firms according to Articles 95 and 96 of the CRR) that is not applicable to banks, although it can be argued that the minimum requirements for own funds and eligible liabilities (MREL) play a similar role for banks. It requires them to hold eligible capital (point 71 of Article 4 (1) of the CRR) of at least one quarter of the fixed overheads of the preceding year. It aims to ensure that investment firms hold capital to help them fail in a more orderly manner, providing adequate financial resources to support winding-down of the firm.

113. Such a requirement was already provided for in the Capital Requirements Directive (2006/49/EC) and currently is provided for in the CRR and Commission Delegated Act (DA) 2015/488. This DA has introduced – for the first time – a harmonised methodology for calculating fixed overheads and a list of items that would be included in the calculations.

114. The Discussion Paper (paragraphs 74-76) identified as relevant aspects for further analysis the following points:

a) Whether or not the current regime needs revising in any way, particularly given that one of the possible approaches to setting minimum liquidity requirements has the potential to use (a percentage of) FOR as a reference point;
b) A possible review to cater for the diverse profit and loss structures of trading firms;
c) Addressing a winding-down period longer than three months;
d) Fresh consideration of the treatment of tied agents.

115. The feedback from public consultation confirms that the FOR should be kept in a new prudential regime for investment firms and that the FOR should indeed serve as a floor in the capital requirements. However, some argued that the FOR might be too harsh for smaller firms, but too lenient for larger firms (e.g. large asset managers or trading firms). In

the light of the design of the new framework, the design of the FOR should be reconsidered. Maintaining the current EBA mandate in the new prudential framework would be the optimal way to ensure that this aspect is properly harmonised.

116. It is therefore recommended to keep the FOR in the new framework as a minimum requirement and a floor to the K-factor formula to ensure that all investment firms have enough resources for an orderly wind-down. The FOR should be set at least one quarter of the fixed overhead of the previous year, calculated using the methodology in Delegated Regulation 488/2015. In the light of the new regime, the current methodology should be reviewed to ensure its consistency with the overall framework.

Recommendations on capital requirements:

Recommendation 17. **It is recommended that the definition of capital used for the purposes of meeting the minimum levels required as a condition for initial authorisation of an investment firm under MiFID should be aligned with the definition of capital for the purposes of meeting the on-going capital adequacy requirements of investment firms (i.e., Permanent Minimum Capital, fixed overheads requirements and, where applicable, capital requirements under the K-factor formula).**

Recommendation 18. **The new prudential regime for Class 2 and Class 3 investments firms should include provisions for the application of an Initial Capital Requirement (IC) for the authorisation phase; IC may be defined via Level 2 legislation and rely on MIFID list of investment services and activities in Annex 1 of MiFID.**

Recommendation 19. **It is also recommended requiring that investment firms meet the Permanent Minimum Capital (PMC) requirements and the minimum level of Fixed Overheads Requirement (FOR) on an ongoing basis. PMC and FOR should be set as a minimum to the capital requirements for all investment firms.**

Recommendation 20. **It is recommended setting the levels of IC for the authorisation of an investment firm to:**

- **a) EUR 750 000 for firms that are authorised to provide one or more of the investment services and activities listed in points (3), (6), (8) and (9) of Section A of Annex I to Directive 2014/65/EU;**
- **b) EUR 75 000 for firms that are not permitted to hold money or securities belonging to their clients and are authorised to provide one or more of the investment services and activities listed in points (1), (2), (4), (5) and (7) of Section A of Annex I to Directive 2014/65/EU;**
- **c) EUR 150 000 for all the other investment firms.**

Recommendation 21.	**It is recommended setting the levels of PMC differentiating between classes:** **a) EUR 5 million for Class 1 investment firms;** **b) Equal to IC for all other investment firms.**
Recommendation 22.	**A transitional period should be envisaged to allow investment firms for which the IC is currently the binding capital requirement and are in Class 3 under the new regime to afford the new level of PMC and the FOR requirements, whichever will be applicable to them. Those investment firms should be required to comply with the capital requirements only after a transitional period of five years, in which the required level of capital increases by a fixed amount each year.**
Recommendation 23.	**The FOR requirement should be set to at least at 25% of the fixed overheads of the previous year, calculated using the methodology in Delegated Regulation 488/2015. The consistency of the current methodology for the calculation of FOR should be reviewed in light of the new prudential regime.**

5.4 K-factors methodology for the calculation of capital requirements

5.4.1 The K-factor formula

117. There is a clear need to develop a single, harmonised set of requirements that are reasonably simple, proportionate and more relevant to the nature of investment business than the existing requirements, to cover the broad range of all types of investment firms. The focus is therefore on designing on-going capital requirements that help to address the potential for impact that an investment firm can have on others: customers and markets.

118. Overall, the harm an investment firm might cause to others may, in general, be expected to arise from some combination of the size, internal organisation, nature, scope and complexity of its business. To capture this on an on-going basis requires both the identification of a set of observable proxies or factors to represent those risks and a set of scalars or percentages to reflect size and so to turn each individual factor into an actual amount of capital required. The extent which such risks are then amplified by the risk to the firm itself is dealt with by a set of additional specific factors to represent the potential risk of subsequent (or indirect) impact upon others.

119. Such capital proxies or factors (K-factors) as may be identified can be attributed to one of three broad types: as risk to customers (RtC), risk to market access or liquidity (RtM) and risk to the firm itself (RtF). This concept may be illustrated simply thus:

$$\textbf{Capital requirement} = \boldsymbol{a} \times \textbf{K1} + \boldsymbol{b} \times \textbf{K2} + \boldsymbol{c} \times \textbf{K3} + \ldots + \boldsymbol{n} \times \textbf{K}\boldsymbol{N}$$

where:
a, *b*, *c*, …, *n* are constants, scalars or percentages; and
K1, K2, K3, …, K*N* are the K-factors or proxies for risk.

120. The K-factors need to be based upon readily observable metrics, preferably the sort of information a firm might generally wish to know and hold about its business (rather than capture something that has a meaning only for the purpose of calculating its regulatory capital requirements). Furthermore, the scalars do not necessarily have to be measured in a linear way, but can be tailored according to the profile of an individual K-factor, as appropriate.

Risk to customers (RtC)

121. The K-factor approach is risk-based and will capture the on-going impact that an investment firm can have on others. For the vast majority of investment firms, especially those which operate on an agent basis, the most important element of risk will be the potential for harm they may pose to their customers (e.g. where they do not carry out the relevant investment services correctly). Therefore, a range of observable K-factors for the RtC are required, taking into account the need for full coverage of the wide range of investment firms and different ways in which they can service, and act for or on behalf of, customers.

Risk to market (RtM)

122. The second element of risk to consider is the impact that an investment firm can have on the markets in which it operates. For example, should the firm fail or otherwise need to exit that market, particularly if this occurs suddenly, a temporary dislocation in market access or market liquidity may be observed and market confidence could be questioned. This can be addressed through specific K-factors that address such potential risks to the market.

Risk to firm (RtF)

123. The third element to consider in the design of any new overall capital requirements regime for investment firms is how to deal with any RtF, for example from its balance sheet assets and off-balance-sheet exposures (where this is not already captured by an RtC or RtM K-factor, to minimise any possible double counting). These are the sorts of exposure risks that might give rise to a firm suffering the potential for loss arising from market price movements, counterparty defaults and credit deterioration, and are of particular relevance to investment firms that trade in their own name. While such risks may not necessarily have a direct impact on others (beyond shareholders/proprietors, who in any event should have an interest in good risk management to protect their own franchise), there could, nevertheless, be an indirect impact on customers and/or markets. This is because (as acknowledged in the 2015 EBA Investment Firms Report), a firm that is financially weak or in trouble itself can be more susceptible to poor behaviour, weaker controls and greater risk-taking as it seeks to correct its fortunes. This in turn suggests that any RtF could

increase the probability that RtC or RtM occurs, and/or amplify its impact if it does occur, and so should not be overlooked.

5.4.2 Proposed formula and K-factors

124. The K-factor formula including all the components is then based on the following K-factors (Table 2):

Table 2: K-factors for determining capital requirements for investment firms

Risk type	K-factors	Description
Risk to customers (RtC)	**K-AUM**	Assets under management – under both discretionary portfolio management and non-discretionary (advisory) arrangements
	K-CMH	Client money held
	K-ASA	Assets safeguarded and administered
	K-COH	Customer orders handled – execution-only in name of customer and reception and transmission of orders
Risk to market (RtM)	**K-NPR**	Net position risk – based on the market risk requirements of the CRR II proposal and made appropriate for investment firms (only applicable to trading book positions)
Risk to firm (RtF)	**K-DTF**	Daily trading flow – value of transactions where the firm is trading on own name (only applicable to trading book positions)
	K-TCD	Trading counterparty default – based on the BCBS proposals for counterparty credit risk and simplified for investment firms (only applicable to trading book positions)
	K-CON	Concentration – taking inspiration from the CRR large exposures regime for trading book and simplified for investment firms (only applicable to trading book positions)

125. The overall capital requirement from applying K-factors, where relevant, is the sum of the following:

Capital requirement = RtC + RtM + RtF =

a **× K-AUM +** ***b*** **× K-CMH +** ***c*** **× K-ASA +** ***d*** **× K-COH + K-NPR +** ***e*** **× K-DTF + K-TCD + K-CON**

where a, …, e are coefficients currently being analysed and calibrated starting with data collected, and where the amount of a K-factor is simply zero if a firm does not undertake the relevant activity.

126. The following subsections explain the rationale behind the choice of the K-factors for each risk category. Each subsection also elaborates in detail on how the relevant amounts should be calculated and how to avoid double counting. The same K-factors and definitions should apply to the criteria for the categorisation of investment firms in Classes 2 and 3.

5.5 K-factors for the risk to customers (RtC), principles and specifications

127. The factors for the RtC are the following (Table 3):

Table 3: K-factors for RtC

Risk type	K-factors	Description
Risk to customers (RtC)	**K-AUM**	Assets under management – under both discretionary portfolio management and non-discretionary (advisory) arrangements
	K-CMH	Client money held
	K-ASA	Assets safeguarded and administered
	K-COH	Customer orders handled – execution-only in name of client and reception and transmission of orders

Assets under management – K-AUM

128. First, this K-factor recognises the potential risk of customer harm from incorrect discretionary management of customer portfolios, or poor execution, as well as from any disruption in continuity of service. A well-capitalised firm (in line with size of activities) should be able to install systems to prevent inappropriate behaviour or to rectify any mistakes that have appeared. In addition, it helps mitigate the impact should the firm’s failure come suddenly and leave the clients with their assets not being managed.

129. Second, the Discussion Paper also recognised the potential for unsuitable advice to be given, as well as for advice not being available when the customer expects to receive it, where that investment advice is provided on an on-going basis. For example, where a firm has contracted to periodically review and advise on a customer’s investment portfolio – excluding cases where the customer has taken one-off advice on a transaction. For many consumers, such advice being given will simply be accepted, without question, which therefore is similar to if the firm had discretionary power even though it amounts to

management on a non-discretionary basis. The Discussion Paper identified a separate K-factor metric for this, namely assets under advice (K-AUA); however, for simplicity and in the light of how firms had reported both discretionary and non-discretionary assets under management in the data collection exercise, K-AUA can now be folded into K-AUM. This means that 'assets under management' will include the total customer assets managed under both discretionary portfolio management and non-discretionary advisory arrangements.

130. Therefore, the K-AUM metric will be the amount of customer assets under management relating to all investment management customers, managed on both a discretionary and a non-discretionary basis. The metric includes assets under management that the firm in question has formally delegated to another firm, but at the same time excludes assets under management that another firm has formally delegated to it – irrespective of whether the firm delegating the management of the assets or fund portfolio is a management company/manager submitted to the UCITS and AIFM Directive or an investment firm. The same principle should apply to investment firms that provide advice to support the performance of the portfolio management service – regardless of whether the portfolio management is carried by an AIFM, a UCITS firm or an investment firm – where the investment firm providing the advice would not be charged by K-AUM. The objective is for the firm that holds the responsibility to the customer to hold the adequate level of capital related to this activity under either AIMD/UCITS or the new prudential regime.

131. The EBA discussed if other forms of investment advice activities not already covered under K-AUM (previously K-AUA) should also be captured. As advice as such is not measurable, and there are cases in which the firm giving advice is not aware of the precise amount of assets to be invested, an additional income-based metric was considered. This, however, would create problems in allotting income to giving advice, in order not to charge activities outside the scope of MiFID, as well as to avoid double counting with other K-factors Monitoring processes would need to start on the level of billing (while the person being billed is not necessarily the customer), identifying the underlying services and making necessary distinctions between the performance of investment advice and related activities within the meaning of MIFID and other investment services. This would significantly increase compliance costs for firms. Consequently, the idea of creating an additional K-factor was abandoned.

Customer orders handled – K-COH

132. The Discussion Paper identified customer orders handled (K-COH) as one of the K-factors for RtC. This was to recognise that whenever a firm is part of the chain or process for a customer order – reception and transmission, execution and/or dealing (in the name of the customer) in order to give effect to the customer order – there is a risk that any faults of the firm leave its customers at a loss. The firm should therefore have capital resources to be able to afford to compensate the customer adequately. Furthermore, a well-capitalised firm (in line with size of activities) should be better able to install systems and controls to

prevent any mistakes being made (e.g. insufficient IT capacities to manage large order flows, especially under certain market conditions). The metric then identified was the number (or similar measure of frequency) of customer orders handled (K-COH).

133. The need to capture the service of reception and transmission of orders as opposed to execution of orders on behalf of clients is disputable. However, it seems preferable to treat both activities in the same way and to continue using the term 'handled' as a concept which comprises execution as well as transmission. First, there seems not to be an unambiguous definition that distinguishes between the two services. Second, it is not justified to say that execution of orders (in the client's name) generally has a higher potential for a firm to make mistakes. In this context, it has to be considered that behind the transmission may or may not be advice given by the firm. As long as this activity does not already trigger capital charges under K-AUM (previously K-AUA), it can be considered adequate to do so indirectly under K-COH.

134. In the Discussion Paper, a potential metric identified was the number (or similar measure of frequency) of customer orders handled. However, counting orders may not be as telling as measuring the volume of orders as regards the concept discussed above. As the scope of transaction reporting has been widened significantly under Article 26 of the MiFIR, most of the data needed for calculating capital charges will have to be processed anyway under the reporting requirements, thus reducing some of the administrative costs relating to the calculation of this K-factor.

135. As regards the question how to treat underwriting or placement services, it has to be taken into account that the issuing sell-side probably does not need much prudential protection, if the term 'customer' applies at all. Therefore, the activities should be captured only if the firm provides services to investors by selling financial instruments to them. In contrast, passing instruments to other placement agents will not trigger K-COH. As far as underwriting is concerned, any instrument remaining in the trading book of the firm will trigger K-NPR.

136. For clarity, K-COH does not apply to the service of executing orders in the firm's name. This activity will be dealt with under K-DTF instead. While executing orders in the firm's name creates RtC – in principle even more than executing in the client's name, where the firm is not personally liable for settlement – it seems to be preferable to charge the activity only once for prudential purposes. This will be K-DTF because executing in the firm's name (also) poses risks to the firm itself. At the same time this design avoids running into problems in defining when trading is an execution in the firm's name and when not.

137. Technically K-COH will count the value of the transaction once, whereas K-DTF when applied to executing client orders will count it twice: first the order as the 'client leg' and second the execution of the order on the market as the 'market leg'. If two client orders can be matched, the two orders will count. Basically, there may not be a market leg in such a case. However, K-DTF will apply. The advantage of this simplification is that it will not be

necessary to assess whether the clients could be classified as participants of the market themselves or not. Further detail in respect of the measurement of K-COH can be found under Section 5.7.3 'Daily trading flow – K-DTF'. This is because, notwithstanding that the former is an RtC and the latter an RtF, the methodology and measurement are very similar and are therefore best described together.

138. It should be noted that the operations of an MTF or OTF should not be counted as K-COH by the MTF/OTF operator. However, where these investment firms also engage in reception and transmission of orders or execution of orders on behalf of clients they should be subject to K-COH.

Client money held – K-CMH

139. This recognises the risk of potential for harm where an investment firm holds the money of its customers. The Discussion Paper identified the holding of client money as an area of risk requiring particular attention and where it was desirable to seek to somehow cover this risk with (specific) prudential requirements, in addition to the organisation rules applicable under MiFID I and MiFID II or any segregation rules applicable under national law.[14] Setting the holding of client money as a specific K-factor recognises the importance of this service, in terms of ensuring that the investment firm holds some capital, in direct proportion to such balances, for additional protection. Furthermore, it does so in a way that achieves equal treatment across jurisdictions and firms. This is because it no longer matters whether the investment firm treats client money as its own liability on the balance sheet or as completely separate from the accounts of the firm itself, or how asset segregation may work in practice at national or individual firm level, as the K-CMH would treat all situations the same.

140. The metric would be the amount of client money held. It should be noted that the metric should not cover securities belonging to clients, as those will be dealt separately by K-ASA, described below.

Assets under safekeeping and administration – K-ASA

141. This recognises the risk of safeguarding and administering financial instruments belonging to clients. K-ASA is kept separated from K-CMH, as the figures and quantum of risks are not the same and it is therefore sensible to have a dedicated factor. Like K-CMH, having K-ASA as a specific K-factor recognises the need to cover for this risk with prudential requirements, in addition to MiFID I and MIFID II organisation rules that require the investment firm to make adequate arrangements to safeguard clients' ownership rights and to prevent the use of a client's instruments on the firm's own account except with the client's express consent.

[14] Article 13 (7) and (8) of MiFID I, Article 16 (8), (9), (10) and (11) of MIFID II.

142. The metric would be the amount of customer assets being safeguarded and administered. This should include any client assets held by the investment firm. The metric would include assets under safekeeping and administration even if these have been formally delegated to another firm, and at the same time assets under safekeeping and administration that have been formally delegated to the firm. The objective is for both the firm that holds the responsibility to the customer as well as the firm that actually performs the activity to hold adequate levels of capital related to this activity.

Interaction between K-factors

143. In order to avoid double counting, it should be clarified which K-factors should apply in the case of interrelated activities. Where a firm is already charged under K-AUM, it will not be obliged to calculate K-COH if it transmits or executes orders on which it has given advice or it puts his discretionary decisions into effect (in the name of the customer), provided that this activity relates to assets under management or advice. As regards the delegation of asset management services, if a firm – regardless of whether it is an AIFM or a UCITS firm or an investment firm – which carries out services leading to K-AUM-related capital requirements mandates another investment firm, to advise it on how to manage the portfolio (on a case-by-case basis) or how to advise the client, then this second firm will not be charged by K-COH.

144. The remaining factors are expected to capture different types of risks and should therefore not overlap each other. Instead, they should be charged separately for the calculation of the capital requirements, and the calibration coefficients take into account any interrelations that may exist between the K-factors.

5.5.1 Other factors considered in the design phase and no longer recommended

Liability towards customers – K-LTC

145. K-LTC was suggested as a possible risk factor in the Discussion Paper. This factor was introduced recognising the risk that a firm can have particular liabilities to customers that it may need to cover if something goes wrong. For instance, a firm may give a guarantee or indemnity to a customer, when the customer’s asset is used for security-lending purposes. Another is where the customer may hold an ‘in the money’ contract written by the firm, such as a contract for difference. Even though the firm itself may have made a provision for, or may hold a hedge against, a (mark-to-market) loss, there is still the risk that the firm may not have the funds to pay out to the customer. The metric suggested was the amount of relevant liabilities to customers. It was not, however, intended to include cash trades that are settled according to common market practices.

146. However, it is suggested that this factor be dropped because the situations described above are equalised by the exchange of variation margin, turning K-LTC into something that could be defined as K-CMH. The use of K-NPR (described below) would also capture where the firm is using its own name to conduct trading on behalf of customers.

5.6 K-factors for risk to market (RtM), principles and specifications

147. The Discussion Paper suggested a single initial K-factor for capturing RtM, labelled 'proprietary trading activity' or K-PTA. However, subsequent work exploring when an investment firm might be conducting proprietary trading, compared with when it might be trading on behalf of customers, led to the conclusion that this was not the most appropriate descriptor. Instead, an alternative K-factor that applies to all investment firms that deal on their own account and/or trade in their own name when executing client orders is needed. This would apply equally to those who trade in their own name when executing client orders, as well as proprietary traders with no external clients, as both are 'on risk'. Therefore, a revised approach for capturing RtM is outlined below.

5.6.1 Design aspects

148. To address the RtM posed by investment firms that deal on their own account and/or trade in their own name when executing client orders, the capital requirements need to be material, but proportionate. Many trading investment firms are relatively small, so the impact is likely to be limited if they close or fail. The K-factors need to cover both derivative and cash trading. They should also be able to be derived, and reported, in a fairly simple manner.

149. The RtM K-factors should be intended to act as a proxy for the 'market footprint' that the investment firm might have. Market risk is the CRR concept that most closely resembles the idea of 'market footprint', as it represents the positions that an investment firm takes in the market. Other exposure risk concepts are less relevant to RtM.

5.6.2 Proposal for position risk

150. All firms that deal on own account and/or trade in their own name when executing client orders and hence are 'on risk' (even if on behalf of a client trade) create RtM and so should be subject to any redesigned K-factor.

151. Hence, the K-PTA should be replaced by the new metrics K-NPR (net position risk) or K-CMG (clearing member guaranteed) to reflect the contribution to market footprint of 'position risk' as explained below. The metrics should apply to all positions in the trading book, irrespective of whether they arose as a result of the investment firm dealing in its own account or trading in its own name when executing clients' orders. The trading book definition should be aligned with the definition prescribed in the CRR II proposal[15].

[15] European Commission, Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements and amending Regulation (EU) No 648/2012, 23.11.2016, COM(2016)

152. To capture the RtM posed by the investment firm, the capital requirement would be a market risk requirement for K-NPR calculated on (net open) positions measured on the basis of a set of (net open) position risk requirements (drawn from the CRR II proposal);

Further, an additional measure for RtM would be K-CMG, subject to a prior decision by the relevant competent authority and a number of conditions. The overall capital requirement for RtM would then be the higher of K-NPR and K-CMG. For more details see section 5.6.5]

Underwriting of financial instruments and/or placing of financial instruments on a firm commitment basis

153. The K-NPR should also capture any 'position risk' the firm has taken as a result of its underwriting commitments. The metric should therefore apply to the firm's underwriting positions held in the trading book and subject to similar requirements as set out in Article 345 CRR.

5.6.3 Net position risk (K-NPR) under the CRR II proposal methodology and possible simplifications

154. To capture market risk as a measure of K-NPR for investment firms, there is the natural intention of building on existing practice. However, there is the question of whether to base this on the current CRR requirements, or to look to the CRR II proposal, which will reflect the new BCBS methodology for the Fundamental Review of the Trading Book (FRTB).[16] In fact, both are possible. This is because the CRR II proposal proposes keeping the existing CRR standardised rules (for firms below a certain threshold), renaming the method as the simplified standardised approach (SSA). The next subsections summarise the different approaches available in the CRR II proposal to compute market risk requirements and analyse all the aspects where there is room for simplification with respect to credit institutions, focusing on:

a) The SSA, including:
   i) Amendments on thresholds for permanently using the SSA;
b) Revised standardised approach, including:
   i) Sensitivities-based method;
   ii) Standardised default risk charge;
   iii) Residual risk add-on;
c) Use of internal models;
d) Simplifications on netting;
e) Calibration.

[16] www.bis.org/publ/bcbs265.pdf

Simplified standardised approach (SSA)

155. The existing rules of the current market risk framework in the CRR are kept unchanged and are simply renamed as SSA in the CRR II proposal. The SSA would be available for all firms for a transition period, and permanently for firms fulfilling certain eligibility criteria. These criteria are intended to allow institutions with medium-sized trading book business to use the simplified rules. They include a relative and an absolute threshold for the size of the institution's on- and off-balance-sheet business subject to market risks of 10% of the institution's total assets and EUR 300 million, respectively.

156. In the light of the proposal to apply the CRR II proposal for measuring K-NPR, certain simplifications could be provided to account for the specificities of investment firms. For instance, in order to account for the more focused activity of an investment firm, the relative threshold in terms of the firm's total assets for using the SSA should be abandoned, with the absolute figures remaining as the only threshold to be eligible for such simplified approaches for investment firms. This would make the SSA available to a wider range of investment firms, reducing some of the administrative burden of having to use more advanced techniques.

Revised standardised approach

157. The standardised approach for market risk has been revised so that it remains suitable for firms with limited trading activity while also sufficiently risk sensitive. Although the problems highlighted by the crisis were largely with the internal model approach, a number of important shortcomings have also been found in the current standardised approach. These include a lack of risk-sensitivity, limited recognition of hedging and diversification benefits, and an inability to sufficiently capture risks associated with more complex instruments.

a. Sensitivities-based method

158. The most substantive component of the revised standardised approach is the sensitivities-based method for capturing sensitivity to three risks, namely 'delta', 'vega' and 'curvature' risks. The revised methodology builds on these existing features of the current standardised approach, which allows its use in the treatment of some risk asset classes (e.g. the duration method for interest rate risk) and of certain instruments, and extends the use of sensitivities to a much broader set of risk factors:

    a) Instruments are first mapped to a set of risk factors prescribed in regulations, to which shocks are applied to calculate a capital charge for the individual risk factors. The bank would use sensitivities derived from its pricing models to determine the size of its risk positions with respect to each risk factor.
    b) The risk-weighted sensitivities are aggregated within each bucket, using regulator-prescribed correlations applied within a regulatory-prescribed aggregation formula.

c) The resulting 'bucket-level' capital charges are then aggregated using identical techniques to the previous step to determine the 'risk-class-level' capital charge.

d) The aggregate capital charge under the sensitivities-based method is the simple sum of each risk-class-level capital charge.

b. Standardised default risk charge (DRC)

159. The standardised DRC as a whole is calibrated to the credit risk treatment in the banking book to reduce the potential discrepancy in capital requirements for similar risk exposures across the banking book and trading book. The framework for default risk requires that positions be first allocated to default risk bucket categories (e.g. corporates, sovereigns, local governments/municipalities for non-securitisation exposures). The standardised DRC allows some limited hedging recognition within each bucket category, but not across different bucket categories.

c. Residual risk add-on

160. This captures any other risks beyond the main risk factors already captured in the sensitivities-based method or standardised DRC. It provides for a simple and conservative capital treatment for the more sophisticated/complex instruments that would otherwise not be captured in a practical manner under the other two components of the revised standardised approach. The residual risk add-on is the simple sum of gross notional amounts of the instruments bearing residual risks, multiplied by a risk weight of 1.0% for instruments with an exotic underlying and a risk weight of 0.1% for instruments bearing other residual risks.

Using internal models

161. While the internal model approach is of only limited relevance in the current situation, where internal models are of limited use among investment firms, it could become relevant in the future if more investment firms start developing their own model. Therefore, this approach should remain available to investment firms that wish to use it, subject to the same requirements and approval process as prescribed for credit institutions. This would ensure consistency across jurisdictions and a level playing field among investment firms and credit institutions.

Simplifications on netting

162. While the revised standardised approach embeds new features that would largely benefit investment firms, such as better recognition of hedging and diversification benefits, or more granularity in terms of types of commodities, the EBA has assessed whether or not allowing for more netting would be appropriate. However, it was decided that the new framework allows for sufficient netting and therefore it is not recommended to introduce different netting possibilities.

Calibration

163. Unlike the FRTB methodology, the CRR II proposal sets a 65% scaling factor for the market risk requirements calculated under the revised standardised approach or the internal model approach during a transitional period. This transitional scaling factor should be kept for investment firms.

Conclusions on the use of the market risk framework under the CRR II proposal

164. It would be possible to use all the approaches for measuring market risk prescribed in the CRR II proposal for capturing K-NPR, but provided that adjustments are allowed. Such adjustments should include removing the relative thresholds for using the SSA as proposed in the CRR II proposal, while keeping the absolute threshold at similar levels. All the other elements should be applied as prescribed in the CRR II proposal, such as the recognition of netting and the approval process for the use of internal models. It should be highlighted that the factor (65%) proposed in the CRR II proposal to scale down the market risk requirements calculated using the revised standardised approach or the internal model approach should be maintained in the new framework.

5.6.4 Summary

165. The K-factor for investment firms dealing on their own account and/or trading in their own name when executing clients' orders, in addition to the ones for the RtC where applicable, would then be the following (Table 4):

Table 4: K-factors for RtM

Risk type	K-factors	Description
Risk to market (RtM)	**K-NPR**	Net position risk – based on the market risk requirements of the CRR II proposal and made appropriate for investment firms (only applicable to trading book positions)

166. The capital requirement from applying K-factors, where relevant, is the sum of the following:

(Risk to market) RtM = K-NPR

Capital requirement = a × K-AUM + b × K-CMH + c × K-ASA + d × K-COH + **K-NPR** + e × K-DTF + K-TCD + K-CON

where a, b, …, e are coefficients and where the amount of a K-factor is simply zero if a firm does not undertake the relevant activity.

5.6.5 Alternative approach to risk to market (RtM) for investment firms with positions guaranteed by a clearing member (approach based on margins)

167. As is noted in the December 2015 Report (pages 34-35) and the November 2016 Discussion Paper (points 79-80 at page 32), an alternative approach for determining position risk as a proxy for RtM can be developed around margin requirements set by a (general) clearing member. This is relevant to trading firms that deal on their own account under the responsibility of a (general) clearing member and where transactions are either guaranteed by that clearing member or otherwise settled on a delivery-versus-payment basis.

168. It is proposed that competent authorities may decide that investment firms that deal on own account should calculate their capital requirements for RtM on the basis of the margin requirements set by the (general) clearing member under whose responsibility and guarantee they trade. In this approach, which is subject to a number of conditions, the metric K-CMG (for clearing member guaranteed) serves as an additional proxy for the calculation of the capital requirements for RtM.

169. This alternative approach based on K-CMG builds upon the approach in Annex I to the Capital Adequacy Directive of 2006 (CAD – Directive 2006/49/EC). Annex I to the CAD provided, in short, that a competent authority may allow the capital requirement for position risk to be calculated on the basis of the margin required by the exchange or the clearing member, if the competent authority is fully satisfied that this margin provides an accurate measure of the risk associated with the financial instrument concerned. In addition, Annex V to the CAD allowed the use of an internal model method for the calculation of capital requirements, subject to supervisory approval.

170. From the perspective of the trading firm, the total amount of margin posted with the clearing member is the maximum loss the trading firm can suffer in case of adverse or stressed market conditions. The calculation of the total daily margin is based on an approved internal model, used for regulatory capital calculation of this (general) clearing member, which is itself subject to full CRR. Furthermore, intra-day positions of the trading firm are taken into account in the calculation of the total daily margin requirements set by the (general) clearing member. Thus, the margin requirements provide an appropriate single proxy for the 'market footprint' of that trading firm for addressing RtM.

171. The metric for K-CMG would be based on the total daily margin posted with the clearing member, and measured as the highest reached in a previous period (e.g. the preceding three months).

172. The application of K-CMG as a proxy to determine RtM should be subject to the relevant competent authority's decision and the following conditions:

    a) The execution and settlement transactions of the trading firm take place under the responsibility of a (general) clearing member and are either guaranteed by that clearing member or otherwise settled on a delivery-versus-payment basis;

b) The investment firm is outside the scope of prudential consolidation of a banking group (i.e. the trading firm is not part of a banking group);

c) The calculation of the margin posted by the trading firm with the (general) clearing member is based on an approved internal model, which is used for regulatory capital calculations of this (general) clearing member; and

d) The (general) clearing member is subject to full CRD and CRR (or – if relevant – supervisory and regulatory arrangements of a third country that are at least equivalent).

173. With regard to the third and fourth conditions for the use of K-CMG, it should be recognised that the (general) clearing member and the trading firm have opposite interests: if the clearing member allows for a margin model that is not conservative enough, this may result in defaults of clients and in subsequent losses for the clearing member. The fact that the clearing member must itself be subject to full CRD and CRR adds another important safeguard for the clearing member to have sufficient 'skin in the game' to absorb exactly these kinds of losses. (General) clearing members apply strict risk models and calculate margin requirements on the basis of protecting themselves against the risk exposure to their clients (i.e. the exposure to the trading firms whose trades the clearing member guarantees). The (general) clearing member must ensure that its margin model is conservative enough to continuously meet the eligibility criteria for supervisory approval of its own internal model, for instance with regard to the (daily) back-testing of such internal model. Credit institutions and (general) clearing members typically have three 'lines of defence' in their governance arrangements, including an independent model validation process to review the model on a regular (at least annual) basis.

5.6.6 Summary

174. The overall capital requirement for RtM would be K-NPR (calculated on net positions at the end of each business day). Alternatively, where a set of conditions is met, the relevant competent authority, may decide that the capital requirement for RtM should be the higher of K-NPR and K-CMG (measured as the highest total intra-day margin posted with the clearing member as reached in a previous period, e.g. the preceding three months). The K-factors for RtM would therefore be the following (Table 5):

Table 5: Alternative K-factors for RtM

Risk type	K-factors	Description
Risk to market (RtM)	**K-NPR**	Net position risk – based on the market risk requirements of the CRR II proposal and made appropriate for investment firms (only applicable to trading book positions)
	K-CMG	Total amount of margins posted with the clearing member measured as the highest in the preceding three months (only applicable to trading book positions)

175. The overall capital requirement from applying these K-factors, where relevant, would then be the following:

(Risk to market) RtM = max(K-NPR, K-CMG)

and therefore

Capital requirement = a × K-AUM + b × K-CMH + c × K-ASA + d × K-COH + **max(K-NPR, K-CMG)** + e × K-DTF + K-TCD + K-CON

where a, b, … are the same coefficients as in the general case.

5.7 Risk to firm (RtF), principles and specifications

5.7.1 Introduction

176. The Discussion Paper proposed to address RtF as an 'uplift' factor to the total capital requirements derived from RtC and RtM, to represent the relatively higher risk an investment firm could now pose (indirectly or subsequently) to its customers or to markets, by virtue of its balance sheet assets and off-balance-sheet exposures. One way to achieve this was to consider the leverage of the firm as a simple proxy for risk arising from balance sheet and off-balance-sheet exposures of the firm and use the leverage ratio for calculating the uplift factor.

177. In their responses to the Discussion Paper, stakeholders were, in general, against both the general idea of capturing any RtF and also the use of a leverage-based uplift (to RtC and RtM). Most respondents believed that the uplift factor would add complexity to the new regime and might lead to double counting of risks already covered by the RtC and RtM K-factors. If RtF were to be kept in the new regime, a significant number of respondents believed that an add-on factor should be preferred rather than a multiplier.

178. However, the EBA still believes that counterparty credit risk and single name concentration remain important exposure risks for firms that deal on their own account or trade in their own name when executing clients' orders and should, therefore, be addressed within the overall framework as RtF. Moreover, RtF should also address the operational risks that stem from the activity of dealing on one's own account or trading in one's own name when executing clients' orders. Hence, it is proposed to introduce three new K-factors for RtF called K-DTF (daily trading flow), K-TCD (trading counterparty default) and K-CON (concentration risk), which would be added to RtC and RtM to arrive at total capital requirements under the K-factor approach. These factors would cover only (trading) positions or exposures that arise when the investment firm is dealing on its own account or trading in its own name when executing client orders. The K-TCD and K-DTF are discussed in this section and K-CON is discussed in Section 7.

179. Therefore, the RtF K-factors for investment firms that deal on their own account or trade in their own name when executing clients' orders, in addition to the ones for the RtC and RtM where applicable, would be the following (Table 6):

Table 6: K-factors for RtF

Risk type	K-factors	Description
Risk to firm (RtF)	**K-TCD**	Trading counterparty default – based on the BCBS proposals for counterparty credit risk and simplified for investment firms;
	K-DTF	Daily trading flow – value of transactions where the firm is trading on own name (only applicable to trading book positions)
	K-CON	Concentration – taking inspiration from the CRR large exposures regime for trading book and simplified for investment firms (only applicable to trading book positions)

5.7.2 Trading counterparty default – K-TCD

180. In the overall framework, counterparty credit risk should be addressed as RtF, and not RtM. A new K-factor, K-TCD (trading counterparty default), is proposed as part of the overall new capital requirements regime for investment firms, in order to address any RtF arising from its trading activity when it deals on its own account for its own interest or trades in its own name when executing client orders. This factor acts as a proxy to cover the sorts of exposure risks that might give rise to a firm suffering the potential for loss arising from counterparty defaults and market price movements on collateral received or posted. It should cover only positions in the trading book.

181. The way in which K-TCD is derived takes as its inspiration the new standardised counterparty credit risk (SA-CCR) rules for banks with trading books, but aims to provide material simplification in the calculations and so provide greater proportionality for investment firms. This is partly justified on the grounds that the collateral framework under EMIR significantly reduces counterparty credit risk, and partly that there is less need for overall assurance for investment firms than for the banking framework.

182. The K-TCD captures the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. The following types of transactions are captured in the K-TCD:

a) OTC derivatives;
b) Long settlement transactions;
c) Repurchase transactions (repurchase and reverse repurchase agreements); and
d) Securities or commodities lending or borrowing transactions.

183. The following types of transactions are excluded from the calculation of K-TCD:

a) OTC derivatives with central governments and central banks;
b) OTC derivatives cleared through a central clearing (CCP);
c) Exchange-traded derivatives;
d) Derivatives held for hedging a position of the firm resulting from a non-trading-(book) activity (excluding the execution of orders as such).

Capital requirement calculation

184. The capital requirements for K-TCD are calculated by:

Capital requirement = Exposure × risk factor (RF)

185. The risk factors are derived from a simple calculation of capital requirements, within the context of CRR, with a 20% and 100% risk weight for credit institutions and investment firms (20%×8%=1.6%) and other counterparties (100%×8%=8%), respectively. Risk factors applied by type of counterparty are summarised in Table 7.

Table 7: Risk factors

Counterparty type	Risk factor (%)
Credit institutions and investment firms	1.6
Other counterparties	8

Notes: The risk factors are derived from a simple calculation of capital requirements, within the context of CRR, with a 20% and 100% risk weight for credit institutions and investment firms (20%×8% = 1.6%) and other counterparties (100%×8% = 8%), respectively.

186. When the counterparty is a clearing member, the investment firm can apply a risk factor of 0.16% for its trade exposures for CPP-related transactions with that clearing member if the following conditions are met:

a) The positions and assets of the investment firm related to those transactions are distinguished and segregated, at the levels of both the clearing member and the CCP, from the positions and assets of both the clearing member and the other clients of that clearing member and as a result of that distinction and segregation those positions and assets are bankruptcy remote in the event of the default or insolvency of the clearing member or one or more of its other clients.
b) Laws, regulations, rules and contractual arrangements applicable to or binding that clearing member or the CCP facilitate the transfer of the client's positions – in this case the investment firm – relating to those contracts and transactions and of the corresponding collateral to another clearing member within the applicable margin period of risk in the event of default or insolvency of the original clearing member. In such circumstances, the client's positions and the collateral shall be transferred at market value unless the customer requests to close out the position at market value.
c) The investment firm has available an independent, written and reasoned legal opinion that concludes that, in the event of legal challenge, the relevant courts and administrative authorities would find that the client would bear no losses on account

of the insolvency of its clearing member or of any of its clearing member's clients under the laws of the jurisdiction of the institution, its clearing member and the CCP, the law governing the transactions and contracts the institution clears through the CCP, the law governing the collateral, and the law governing any contract or agreement necessary to meet the condition in point (b).

d) The CCP is a qualifying CCP.

187. When the investment firm is not protected from losses in the case that the clearing member and another client of the clearing member jointly default, but all the other conditions set out in paragraph 186 are met, the investment firm should calculate the capital requirements for its trade exposures for CCP-related transactions with its clearing member using a risk factor of 0.32%.

Exposure calculation

188. The exposure calculation for the RtF consists of three components: replacement cost (RC), potential future exposure (PFE) and collateral (C):

$$\textbf{Exposure} = \max(0; RC + PFE - C)$$

189. The RC and C apply to all types of transactions, while the PFE applies only to derivative contracts and long settlement transactions. The RC intends to capture the loss that would occur if a counterparty were to default at the present or at a future time, assuming that the closeout and replacement of transactions occur instantaneously. The PFE add-on represents a potential increase in the value of the trades over a one-year horizon from the present date (i.e. calculation date), for unmargined trades, and for margined trades the period between the last exchange of collateral before default and replacement of trades in the market.

Netting

190. Perfectly matching contracts included in the netting agreement can be treated as if they were a single contract with a notional principal equivalent to the net receipts.

191. In addition, investment firms may net transactions (e.g. when determining the RC component of a netting set) subject to novation under which any obligation between the firm and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations. Investment firms may also net transactions subject to any legally valid form of bilateral netting not covered in the preceding sentence, including other forms of novation. In every such case where netting is applied, the investment firm must satisfy its national supervisor that it has:

a) A netting contract with the counterparty or other agreement which creates a single legal obligation, covering all included transactions, such that the investment firm would have either a claim to receive or obligation to pay only the net sum of the

positive and negative mark-to-market values of included individual transactions in the event that a counterparty fails to perform because of any of the following: default, bankruptcy, liquidation or similar circumstances.

b) The netting contract must not contain any clause which, in the event of default of a counterparty, permits a non-defaulting counterparty to make limited payments only, or no payments at all, to the estate of the defaulting party, even if the defaulting party is a net creditor.

c) Written and reasoned legal reviews that, in the event of a legal challenge, the relevant courts and administrative authorities would find the investment firm's exposure to be such a net amount under:

   i) The law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located;

   ii) The law that governs the individual transactions; and

   iii) The law that governs any contract or agreement necessary to affect the netting.

Replacement cost (RC)

192. The RC is the measure of current exposure, meaning that when the investment firm owes the counterparty money it has a negative exposure to the counterparty. Such a negative exposure can be deducted from the PFE. For each netting set, RC is defines as:

    a) Current market value for derivative contracts;

    b) Settlement amount for long settlement transactions;

    c) Net amount of cash borrowed and received (negative amount) for repurchase transactions and securities or commodities lending or borrowing transactions.

193. The designation of a derivative transaction to an asset class is made on the basis of its primary risk driver. Most derivative transactions have one primary risk driver, defined by its reference underlying instrument (e.g. an interest rate curve for an interest rate swap, a reference entity for a credit default swap, a foreign exchange rate for an FX call option, etc.). When this primary risk driver is clearly identifiable, the transaction will fall into one of the following asset classes.

    a) **Interest rate derivatives:** A hedging set consists of all derivatives that reference interest rates of the same currency such as US dollars, euros, yen, etc. Hedging sets are further divided into maturity categories. Long and short positions in the same hedging set are permitted to fully offset each other within maturity categories; across maturity categories, partial offset is recognised.

    b) **Foreign exchange derivatives:** A hedging set consists of derivatives that reference the same foreign exchange currency pair such as US dollars/yen, euros/yen or US dollars/euros. Long and short positions in the same currency pair are permitted to perfectly offset, but no offset may be recognised across currency pairs.

c) **Credit derivatives and equity derivatives:** A single hedging set is employed for each asset class. Full offset is recognised for derivatives referencing the same entity (name or index), while partial offset is recognised between derivatives referencing different entities.

d) **Commodity derivatives:** Four hedging sets are employed for different classes of commodities (one for each of energy, metals, agricultural commodities and other commodities). Within the same hedging set, full offset is recognised between derivatives referencing the same commodity and partial offset is recognised between derivatives referencing different commodities. No offset is recognised between different hedging sets.

Potential future exposure (PFE)

194. The PFE add-on represents a potential increase in the value of the trades, either over a one-year horizon or the period between the last exchange of collateral before default and replacement of trades in the market. This is calculated for each transaction as:

PFE = effective notional (EN) × supervisory factor (SF) × maturity factor (MF)

195. Effective notional (EN) is the notional amount adjusted for its duration (interest rate and credit contracts) and its delta (option contracts):

EN = notional amount × supervisory duration (SD) × delta

196. In many cases, the trade notional amount is stated clearly and fixed until maturity. When this is not the case, investment firms must use the following rules to determine the trade notional amount.

a) For foreign exchange derivatives, the notional amount is defined as the notional amount of the foreign currency leg of the contract, converted to the domestic currency. If both legs of a foreign exchange derivative are denominated in currencies other than the domestic currency, the notional amount of each leg is converted to the domestic currency and the leg with the larger domestic currency value is the notional amount.

b) For equity and commodity derivatives, the notional amount is defined as the product of the current (future) price of one unit of the stock or commodity (e.g. a share of equity or barrel of oil) and the number of units referenced by the trade.

c) For transactions with multiple payoffs that are state contingent, such as digital options or target redemption forwards, an investment firm must calculate the trade notional amount for each state and use the largest resulting.

d) Where the notional amount is a formula of market values, the investment firm must enter the current market values to determine the trade notional amount.

e) For variable notional swaps such as amortising and accreting swaps, investment firms must use the average notional amount over the remaining life of the swap as the trade notional amount.

f) Leveraged swaps must be converted to the notional amount of the equivalent unleveraged swap, that is, where all rates in a swap are multiplied by a factor, the stated notional amount must be multiplied by the factor on the interest rates to determine the trade notional amount.

g) For a derivative contract with multiple exchanges of principal, the notional amount is multiplied by the number of exchanges of principal in the derivative contract to determine the trade notional amount.

h) For a derivative contract that is structured such that on specified dates any outstanding exposure is settled and the terms are reset so that the fair value of the contract is zero, the remaining maturity equals the time until the next reset date.

197. The supervisory duration (SD) adjusts the notional amount of interest rate and credit derivatives for the time to maturity (in years) of these contracts, based on the following formula:

$$\textbf{Supervisory duration} = (1 - \exp(-0.05 \times \text{time to maturity}))/0.05$$

198. The maturity of a contract is the latest date when the contract may still be active. If the derivative references the value of another interest rate or credit instrument (e.g. swaption or bond option), the time period must be determined on the basis of the underlying instrument. For options, the maturity is the latest contractual exercise date as referenced by the contract.

199. Delta calculation applies only to options and swaptions. For transactions other than options and swaptions, the delta is 1 for long positions and -1 for short positions. The investment firm may calculate delta itself using an appropriate model. The model must appropriately estimate the rate of change of the option's value with respect to small changes in the market value of the underlying.

200. Supervisory factors (SFs) will be assigned for the separate hedging sets, based on the aggregation of these according to the relevant asset class. Cross-product netting and aggregation can be applied, subject to approval by the relevant competent authority.

201. Table 8 includes the SF for each asset class. SF are based on the Basel standard on the new standardised approach for measuring counterparty credit risk, with the same percentages or simplified with fewer granularities.

Table 8: Supervisory factor for each asset class

Asset class	Supervisory factor (%)
Interest rate	0.5
Foreign exchange (FX)	4
Credit	1
Equity, Single name	32
Equity, Index	20

Asset class	Supervisory factor (%)
Commodity	18

Notes: SFs are based on the Basel standard on the new standardised approach for measuring counterparty credit risk, with the same percentages or simplified with fewer granularities.

202. Maturity factor (MF) reflects the time horizon appropriate for the type of transaction and is calculated at the trade level. The maturity factor scales down the potential future exposure.

$$\mathbf{MF = (min(M;1\ year)/1\ year)^{0.5}}$$

a) For unmargined trades, maturity (M) is the lesser of one year and remaining maturity of the derivative contract (remaining maturity of a contract is as defined above), floored to 10 business days.

b) For margined trades, maturity (M) is the margin period of risk. The minimum margin period of risk is determined as follows:

i) At least 10 business days for non-centrally cleared derivative transactions subject to daily margin agreements;

ii) Five business days for centrally cleared derivative transactions subject to daily margin agreements.

Collateral (C)

203. Collateral captures both the collateral posted and received for margined and unmargined transactions, as well as bilateral and cleared. These should include only financial collateral as those are summarised in Table 9, where the credit quality of the obligor and the value of the collateral shall not have a material positive correlation. The haircuts applicable to non-cash collateral represent the potential change in value of the collateral during the appropriate time period (one year for unmargined trades and the margin period of risk for margined trades). For this purpose, the value of non-cash collateral posted by the investment firm to its counterparty is increased and the value of the non-cash collateral received by the investment firm from its counterparty is decreased using the following haircuts.

Table 9: Collateral haircuts

Asset class		Haircut repurchase transactions (%)	Haircut other transactions (%)
Debt securities issued by central government or central banks	≤ 1 year	0.707	1
	> 1 ≤ 5 years	2.121	3
	> 5 years	4.243	6
Debt securities issued by other entities	≤ 1 year	1.414	2
	> 1 ≤ 5 years	4.243	6
	> 5 years	8.485	12
Securitisation positions	≤ 1 year	2.828	4
	> 1 ≤ 5 years	8.485	12
	> 5 years	16.970	24

Asset class	Haircut repurchase transactions (%)	Haircut other transactions (%)
Listed equities and convertibles	14.143	20
Gold	10.607	15
Cash	0	0

Notes: The haircuts are based on Article 224 of the CRR, simplified for the 10-day liquidation period and considering the mid-point of the credit quality step. Resecuritisation positions are not eligible as collateral.

204. Where there is a currency mismatch between the transaction and the collateral received or posted, an additional currency mismatch haircut of 8% shall apply.

205. Some investment firms, particularly the ones that are part of a banking group, may already use the methodologies prescribed in the CRR for calculating counterparty credit risk. To reduce compliance costs, the framework shall allow firms to opt for the revised Original Exposure Method (OEM), simplified SA-CCR or SA-CCR methodology for calculating K-TCD as prescribed in the CRR II proposal. In that case, investment firms should also apply the CRR II proposal credit risk framework.

5.7.3 Daily trading flow – K-DTF

206. One of the risks to the firm itself is the risk of direct or indirect loss when the firm deals on its own account and/or trades in its own name when executing clients' orders, resulting from inadequate or failed internal processes, people and systems or from external events. Therefore, there is a need to have a dedicated K-factor to capture RtF to compensate for this. An investment firm that trade high volumes of financial instruments on a daily basis (i.e. an investment firm that has a large daily trading flow) has significant operational risk that needs to be factored in.

207. Therefore, a new K-factor, K-DTF (daily trading flow) is proposed, to capture those investment firms whose trading activity can create operational risk, measured on the basis of a percentage of the (gross) notional value of (daily) trades (drawn from transaction reporting). The factor is intended to reflect the size of an investment firm's activity in dealing on its own account or trading in its own name when executing clients' orders.

208. A simple way to capture the potential for this risk is to measure it based on the total volume of trades, considering this a rough proxy for the amount of operational risk stemming from this activity. The K-DTF should capture all trades for positions in the trading book for which the investment firm acts as a principal. This should include trade volumes for dealing on its own account where the firm acts in its own interest, 'matched principal trading' and trading in its own name when executing client orders, which should be regarded as the firm acting as principal and is subject to the provisions of MiFID covering both the execution of orders on behalf of clients and dealing on its own account. An argument can be made for the inclusion of the latter in the K-COH or for the exclusion of the 'customer leg' from the K-DTF, but, since these can also affect the firm itself, and for the purpose of simplification, including both legs in K-DTF, with appropriate consideration of the calibration, has been considered the best approach.

209. The K-DTF factor would also be relevant to those trading investment firms where the CRR may not lead to meaningful market risk requirements. This is especially true in the case where the investment firm aims to hedge, net, or close out trading positions by the end of the trading day, as the resulting net positions may be relatively small. For example, some investment firms deal in their own name on a matched or back-to-back basis or otherwise seek to close out their end-of-day positions. This leads to negligible market risk. However, intra-day they can handle billions of euros' worth of trades. Therefore, K-DTF can capture the operational risks faced by these firms.

Current transaction-reporting framework and proposed metric

210. Under the MiFID II reporting requirements, investment firms should submit transaction reports when executing transactions in financial instruments. This includes all transactions in financial instruments where the financial instrument is admitted to trading or traded on an EEA trading venue, the underlying is traded on an EEA trading venue, or the underlying is an index or a basket composed of financial instruments traded on an EEA trading venue. EMIR reporting covers reporting by both counterparties of any derivative contract (OTC or exchange traded) that they have concluded, as well as modified or terminated. Both EMIR and MiFID are flow-reporting tools, so they will capture all trades even if the position is opened, modified and/or closed on the same day.

211. There is an overlap regarding the scope of derivative contracts, where all contracts that will be reported under MiFID II will also be reported under EMIR, but the opposite does not stand. Given this, transactions reported under EMIR should suffice for the purpose of developing a metric for derivative contracts. However, given that the scope of application of MiFID II does not include reporting requirements for transactions in financial instruments admitted to trading outside the EEA, the MiFID II data are incomplete with regard to the total amount of transactions executed. In order to get complete data on all trades, this can be addressed in the future reporting requirement, for the purpose of calculating capital requirements, where firms report the underlying aggregated data that support the calculation of the proposed metric.

212. Leveraging on this reporting requirement, the proposed metric for both K-DTF and K-COH is based on the total volume of daily trades, namely the daily trade volume. Daily trade volume means the total amount of the trades executed during a one-day period. The amount of trades is calculated by adding the absolute amount of buys and sells, for both cash trades and derivatives. As an example, if an investment firm buys a security for EUR 100 and sells a security (the same or another) for EUR 100, the total amount for the purpose of the K-factor is EUR 200. For derivatives the value of the trade is the notional amount (value of the contract), and for cash trades the value is the amount paid or received on each trade. The existing EMIR and MiFID II reporting requirements should alleviate some of the compliance costs for investment firms when calculating this metric.

a. Daily trade volume for K-DTF

213. For the purpose of the K-DTF, all trades where the firm acts as a principal should be captured in the daily trade volume, either when dealing on its own account, where the firm acts in its own interest, or when executing clients' orders. In addition, this K-factor may also be applied when firms provide 'direct electronic access' to their customers, whereby a member, participant or client of a trading venue permits a person to use its trading code so that the person can electronically transmit orders relating to a financial instrument directly to the trading venue. Firms are expected to maintain these systems, in a way that does not cause harm to customers and provides them with continuous access.

214. The objective is to capture the full daily trade volume, both the client leg and the market leg, and adjust the calibration appropriately. The metric should be calculated by investment firms that deal on their own account or trade in their own name when executing client orders and should cover only transactions related to trading book positions.

b. Daily trade volume for K-COH

215. As already noted in the section under K-COH as an RtC, when a firm is part of a chain or process for a customer order, this raises a risk that the customer can lose out. The firm should therefore have capital resources to be able to afford to put the customer in the position that he or she should have been in had the potential harm not occurred. Investment firms have an obligation to ensure that they execute client orders on terms that are most favourable to the client.

216. For the purpose of K-COH, all trades where the investment firm acts as agent – that is, does not trade in its own name – for the account of and on behalf of a client should be captured, in line with the information already reported to the trade repositories under EMIR and MiFID. Hence, the main difference between K-DTF and K-COH is the scope of the trades to be included in the metric – depending on whether the firm acts as an agent or principal – rather than the metric itself.

5.8 Smoothing of the K-factors

217. To aid capital planning by firms and monitoring by supervisors, undue swings in the K-factors should be avoided, especially for those K-factors that are not within the direct control of the investment firm. For example, while the K-AUM factor can grow organically by the firm increasing the assets under management when taking on new clients, it may also increase or decrease due to market movements and currency fluctuations. Therefore in order to avoid a high volatility in capital requirements the calculations of the K-factors should be based on a rolling average. Furthermore, investment firms should be given some time to adjust their capital to the new capital requirements due to changes in the underlying K-factors. However, the extent of such smoothing and time lagging may vary by individual K-factor, according to the relative extent of volatility in the underlying metric and

the relative degree of risk posed to customers or to markets. A variability analysis for each K-factor separately can be found in Section 13.5.

218. The techniques of averaging and time-lagging may be justified in general by the fact that (other than for the exposure-based measures for RtF and RtM) the K-factors represent broad proxies for operational risk that could in turn give risk to RtC or to RtF, and therefore are not claiming to be calibrated as definitive measures that require daily or 'point in time' accuracy (unlike say market risk for a trading firm). Accordingly there should be less potential for adverse consequences. Indeed the specific parallel for this is already well established, whereby for operational risk under both the Basic Indicator and the Standardised Approaches for operational risk in Articles 315 and 316 of the CRR, institutions calculate the average over three years of the relevant indicator(s), at the end of the financial year to be used for the year ahead. Furthermore, the CRR currently employs such smoothing and lagging specifically for investment firms, when calculating the FOR as one quarter of the fixed overheads of the preceding year, the FOR being partially viewed as an existing proxy for operational risk especially for smaller investment firms (Article 97 of CRR). Another example of the CRR employing averaging can be found in the leverage ratio , with a simple arithmetical mean of the monthly ratio over a quarter.

219. The use of smoothing and lagging techniques can also be considered from an overall stability point of view. Although it might initially be thought to present a risk if the level of an investment firm's capital requirement does not reflect the 'up to date' level of their relevant business metrics (e.g. the current market value of customer AUM), it should be remembered that the K-factors in question are only seeking to address the risk of harm to others that might arise from operational risk events, and although the potential for which might increase as business levels increase any correlation is not necessarily so instant. The K-factors would also be underpinned by the FOR to aid a more orderly wind-down or cessation of an investment firm's regulated investment activity.

220. It should also be remembered that smoothing and lagging techniques would continue to operate when a firm's business is declining, and not just when it is increasing. In this respect applying such techniques to the K-factors for RtC and RtF might even be said to provide an element of protection against any undue market cyclicality. This is because the investment firm would continue to build up an increasing minimum capital requirement as business increases, - whilst providing time to meet this from retained earnings, which is important given that many investment firms are relatively small and so do not have ready access to raising fresh capital from the markets; and furthermore, this higher level of minimum capital requirements would then continue be maintained even once a downturn begins to occur, providing the investment firm with the resources to meet any claims against it or to put right any operational risk events at a time when its income may be declining. Therefore the use of smoothing and lagging for K-factors might be said to be not dissimilar to taking more of a 'thorough the cycle' than a 'point in time' approach, which the CRR uses more intensely when, for example, it comes to using long run averages for the purposes of PD and LGD for credit risk.

221. As noted above, the extent to which smoothing and lagging techniques could be justified in practice may vary by individual K-factor, according to the relative extent of volatility in the underlying metric and the relative degree of risk posed to customers or to markets. For example, customer assets under management (K-AUM) and customer assets safeguarded and administered (K-ASA) are the most obvious metrics to be affected by volatility in market values (but where investors themselves will normally take a long term view) and so these K-factors for RtC should receive a greater degree of 'smoothing' and 'lagging'. Customer orders handled (K-COH) and daily trading flow (K-DTF), as an RtC and RtF respectively, are also well suited to using the average of daily values over a period to avoid any unusual 'spikes' (for example, that might occur when there is an election). Whereas client money held (K-CMH) represents actual cash balances held by the firm on behalf of customers and so is felt to pose a greater potential for RtC. These considerations are reflected in the following specific proposals for each relevant K-factor. For K-CON, K-TCD and K-NPR, no averaging should be applied and the metric used for the calculation of the capital requirements should be the end-of-day values. These measures are treated differently from other K-factors, as the firm has direct control over these quantities.

222. Table 10 summarises the calculation methodology for all K-factors. "Deferral" should be understood as the timespan between the date of the calculation of capital requirements and the date of the application of the capital requirements.

Table 10: Smoothing of the K-factors

K-factor	Deferral	Averaging	Point in time	Number of observations
K-AUM	3 months	12-month average using monthly observations	Value recorded on the last day of the month	12
K-ASA	3 months	3-month average using daily observations	End of day	Number of working days in the relevant months
K-COH	3 months	3-month average using daily observations	Daily trading flow	Number of working days in the relevant months
K-DTF	3 months	3-month average using daily observations	Daily trading flow	Number of working days in the relevant months
K-CMH	No lagging	3-month average using daily observations	End of day	Number of working days in the relevant months
K-CON, K-TCD, K-NPR	No lagging	No averaging	End of day	N/A

5.9 Calibration of the K-factor formula

223. The EBA has conducted a calibration of the K-factor approach and a quantitative impact study to assess the impact of the new prudential regime for investment firms. Detailed results of the calibration methodology and the impact study are presented in Section 10 of this report.

224. The key criterion of the calibration is to have a level of capital requirements on an aggregate level under the new framework that does not diverge significantly from the current aggregated level. However, it is recognised that some firms are expected to experience some increase in their capital requirements. This is driven by the other criterion used for the calibration, which consist of targeting the larger firms (i.e. increasing the capital requirements), especially large asset managers, consistently with the proposed categorisation. This implies that the calibration coefficients should be set at a level where the K-factor requirements become the binding requirement and exceed the FOR requirements. This should be the case for all major investment firms in Class 2.

225. However, these two criteria lead to conflicting calibration levels. On the one hand, the calibration coefficients should be set at a higher level to ensure that all large firms are bounded by the K-factor instead of the FOR, but, on the other hand, this would increase the overall capital requirements also for other firms, increasing the gap between the current and the new aggregate capital requirements.

226. Thus, the following approach was taken for the calibration where a) the distribution of the ratio of the K-factor with respect to each K-factor was analysed; b) a set of coherent cut-off level common to all K-factors were selected corresponding to different percentiles; c) a calibration coefficient was retrieved based on the aforementioned cut-off points; d) the impact was assessed so that the chosen percentile does not lead to significant increase in overall capital requirements.

227. Although there is no optimal solution for the choice of the cut-off level, the 90th percentile produces a level for the new capital requirements that is consistent with the current level of requirements in the system. Table 11 summaries the calibration coefficients for the K-factors based on the 90th percentile.

Table 11: Summary of the calibration results

K-Factors		**Coefficients (90th percentile)**
Assets under management – under both discretionary portfolio management and non-discretionary (advisory) arrangements	K-AUM	0.02%
Client money held	K-CMH	0.45%
Assets under safekeeping and administration	K-ASA	0.04%
Clients order handled	K-COH cash trades	Same as K-DTF
	K-COH derivatives	
Daily trading flow	K-DTF cash trades	0.1%
	K-DTF derivative	0.01%

Recommendations on K-factors methodology for the calculation of capital requirements:

Recommendation 24. **Investment firms in Class 2 should be subject to a minimum capital requirement equal to the higher of:**

- **a) the Permanent Minimum Capital (PMC) requirement;**
- **b) the Fixed Overheads Requirement (FOR);**
- **c) the requirements based on the K-factor formula;**

Recommendation 25. **Class 3 investment firms should be subject to a minimum capital requirement equal to the higher of:**

- **a) the Permanent Minimum Capital (PMC) requirement;**
- **b) the Fixed Overheads Requirement (FOR).**

Recommendation 26. **The total capital requirements for Class 2 investment firms should be based on the following elements:**

- **a) They should consider the potential risk that individual investment firms can pose to their customers (RtC);**
- **b) They should consider the potential impact an investment firm can have on the markets in which it operates, should the firm fail or otherwise need to exit that market, in particular where a failure or exit leads to a sudden and/or a temporary dislocation in market access or market liquidity or a loss of market confidence (RtM);**
- **c) Any risk to the firm itself (RtF).**

Recommendation 27. **The new prudential regime should include all the following elements:**

- **a) Specific capital requirements for the Risk to Customers (RtC), Risk to Market (RtM) and Risk to Firm (RtF), based on appropriate proxies (K-factors);**
- **b) The formula for the calculation of the capital requirements that takes into consideration all those elements.**
- **c) The following formula is recommended:**

i) K-factors Capital Requirements = RtC + RtM + RtF.

Recommendation 28. **The factors that are relevant to capture the risk to customers (K-factors for RtC) and their respective metrics are the following:**

- **a) K-AUM: amount of assets under management – under both discretionary portfolio management and non-discretionary (advisory) arrangements;**
- **b) K-CMH: amount of client money held;**
- **c) K-ASA: amount of assets safeguarded and administered;**
- **d) K-COH: volume of customer orders handled (value of transactions of execution-only in name of client and reception and transmission of orders). The MTF/OTF operator should not count the operations of an MTF/OTF as K-COH. For cash trades**

	value means the absolute gross settlement and for derivatives value means notional amount of trades executed.
Recommendation 29.	**For K-CMH (client money held) it is recommended that a harmonised definition is provided making unequivocally clear that the K-CMH factor applies to investment firms that have control of money belonging to clients, regardless of the legal arrangements on asset segregation and irrespective of the accounting treatment under national law of client money held by an investment firm.**
Recommendation 30.	**For the calculation of the capital requirements for RtM, the new prudential regime should specify all the relevant factors and their calculation. It is recommended to calculate RtM as follows:** **a) K-NPR: an RtM requirement for net position risk for investment firms, calculated on (net open) positions end-of-day, measured on the basis of the methodology for market risk under the European Commission's proposal for amending the CRR ('CRR II proposal')[17];** **b) The K-NPR factor should be applied only to the trading book positions and the trading book definition should be aligned with the CRR II proposal;** **c) The K-NPR factor should apply to underwriting positions held in the trading book and should be subject to similar requirements as set out in Article 345 of the CRR.**
Recommendation 31.	**For the calculation of the capital requirements for RtF, the new prudential regime should specify all the relevant factors and their calculation. The factors that are relevant to capture the risk to firm (K-factors for RtF) and their respective metrics are the following:** **a) K-TCD: a trading counterparty default requirement in order to capture the counterparty credit risk for investment firms that trade in their own name, calculated based on the simplified approach described in Section 5.7.2 of the Annex to this Opinion.** **b) K-DTF: a daily trading flow (value of transactions where the firm is trading in their own name) requirement in order to capture the operational risk for investment firms with any trading activity, measured on the basis of the same methodology and calibration used for the RtC of K-COH. For cash trades 'value' means the absolute gross settlement and for derivatives 'value' means notional amount of trades either averaged or the highest reached over a period of time.**

[17] European Commission, Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements and amending Regulation (EU) No 648/2012, 23.11.2016, COM(2016) 850 final

c) **K-CON: a concentration risk requirement in order to capture single name concentration for investment firms that trade in their own name, measured according to Recommendation 48.**

Recommendation 32. **Specific characteristics of investment firms may justify the introduction of some adjustment in the calculation of K-NPR, such as removing the relative thresholds for using the Simplified Standardised Approach.**

Recommendation 33. **A reduced sensitivities-based method is currently under consultation at BCBS[18] and its appropriateness for investment firms should be reviewed after that proposal is finalised.**

Recommendation 34. **It is recommended calculating the K-factors capital requirements using the following formula:**

i) **K-factors capital requirements = Sum a_i * K_i**

where K_i are the K-factors and the coefficients a_i are specified in the following table:

K-Factor		Coefficient
Assets under management– under both discretionary portfolio management and non-discretionary (advisory) arrangements	K-AUM	0.02%
Client money held	K-CMH	0.45%
Assets under safekeeping and administration	K-ASA	0.04%
Client orders handled	K-COH cash trades	0.1%
	K-COH derivatives	0.01%
Daily trading flow	K-DTF cash trades	0.1%
	K-DTF derivatives	0.01%

Recommendation 35. **Subject to the decision of the competent authority and provided that a number of conditions are met, RtM can (alternatively to Recommendation 30) be set as max(K-NPR, K-CMG). The metric for K-CMG (for clearing member guaranteed) would be the highest total intra-day margin posted by the trading firm with the (general) clearing member in a previous period (e.g. the preceding three months). K-CMG could be used under the following conditions:**

a) **The execution and settlement transactions of the trading firm take place under the responsibility of a (general) clearing member and are either guaranteed by that clearing member or are otherwise settled on a delivery-versus-payment basis;**

b) **The trading firm is outside the scope of prudential consolidation of a banking group (i.e. the trading firm is not part of a banking group);**

c) **The calculation of the margin posted by the trading firm with the**

[18] Consultative Document Simplified alternative to the standardised approach to market risk capital requirements, BCBS, June 2017

	(general) clearing member is based on an approved internal model, which is used for the regulatory capital calculations of this (general) clearing member; and **d) The (general) clearing member is subject to full CRD and CRR (or – if relevant – supervisory and regulatory arrangements of a third country that are at least equivalent).**
Recommendation 36.	**The new prudential regime should specify a 'smoothing mechanism' for the calculation of K-factors, in order to aid capital planning and avoid cliff effects. Such smoothing should be based on rolling averages and a deferral period between the date of calculation of capital requirements and the date of their application. The extent of such smoothing may vary by individual K-factor, according to the relative extent of volatility in the underlying metric and the relative degree of risk posed to customers or markets or to the firm itself.**

6. Liquidity requirements

6.1 Introduction

228. Article 508(2) of the CRR requires the Commission to report whether or not and how the Liquidity Coverage Requirement (LCR) as laid down in Part Six 6 of the CRR should apply to investment firms. Consequently, the Commission's CfA to the EBA includes a particular request to address liquidity. The EBA Report of December 2015 indicated that the Delegated Regulation on the LCR would not be an appropriate liquidity standard for the vast majority of investment firms, a point reinforced in the Discussion Paper of November 2016.

229. Where for Class 1 investment firms the LCR framework can still be considered appropriate, the same cannot be concluded of the Net Stable Funding Ratio (NSFR) framework, because this is still under design.

230. Even though the detail of the LCR for the determination of the level of required liquidity resources may not be appropriate for all investment firms, it can still be drawn upon for inspiration for designing what would be an appropriate, and relatively easy to operate, regime for investment firms.

6.2 Investment firm liquidity needs

231. As illustrated in Table 12, which reflects the MiFID investment services and activities, the main common outflows – and hence normal liquidity needs – for most investment firms arise from their operational expenses. Other aspects, including for investment firms that deal on their own account, are more firm-specific and may be better suited to being assessed on an individual basis.

Table 12: Liquidity needs by MiFID service or activity

Service or activity (MiFID – Section A of Annex I)		Immediate planned liquidity need	Comment/additional needs
(1)	Reception and transmission	Payment of operating expenses	Arising from operational events or claims against firm
(2)	Execution of orders	Payment of operating expenses	Arising from operational events, claims and failed trades
(3)	Dealing on own account	Funding of margins and collateral needs; and payment of operating expenses	Management of secured funding, repos and any unsecured funding lines. Other needs arising from operational events, claims, failed trades, defaults, etc.

Service or activity (MiFID – Section A of Annex I)		Immediate planned liquidity need	Comment/additional needs
(4)	Portfolio management	Payment of operating expenses	Arising from operational events and claims
(5)	Investment advice	Payment of operating expenses	Arising from operational events or claims
(6)	Underwriting/placing on firm commitment	Payment of operating expenses; and funding of any underwriting 'stick' or position retained	Arising from operational events or claims
(7)	Placing without commitment	Payment of operating expenses	Arising from operational events or claims
(8)	Operation of an MTF	Payment of operating expenses	Arising from operational events or claims
(9)	Operation of an OTF	Payment of operating expenses; and funding of any limited positions	Arising from operational events or claims

232. In addition, there may be a need to fund debt repayments (and any other relevant liabilities not captured by operating expenses) as they fall due, and expectations upon investment firms to make distributions (whether from profit or surplus capital).

6.2.1 Feedback on alternative approaches for a liquidity regime as set out in Discussion Paper

233. The Discussion Paper set out three possible approaches for a minimum liquidity regime that could be applied to all investment firms, which were labelled as (i) Counterbalancing capacity; (ii) Liquidity buffer; and (iii) Regulatory requirement obligations.

234. Industry feedback to the Discussion Paper showed little appetite for the second approach, given the complexity required. There was support for the first approach, while also recognising that this would reflect the way that most businesses, including non-financial entities, would manage their day-to-day cash flow. As the Discussion Paper notes, it is therefore debateable whether or not making counterbalancing prudentially binding would achieve much in terms of firms' liquidity risk management.

235. There was also support for the third approach, which is to help ensure that an investment firm has sufficient liquidity to keep going for a limited period, and so pay out on underlying obligations should they crystallise, or make preparations to cease authorisation or otherwise dispose of the regulated business. Such obligations will be reflected by the investment firm's regulatory capital requirements. Therefore, to achieve this, an amount equivalent to a proportion of regulatory capital requirements should be kept invested in liquid assets (so that they can be readily realised and used to make payments if needed). In effect, the third approach is basically a simple way to help ensure that an investment firm can maintain a counterbalancing capacity, under a single, common stress (i.e. coverage of fixed costs without operational inflows).

6.2.2 Design considerations

236. As recognised by the BCBS, the LCR was developed to promote the short-term resilience of the liquidity risk profile of banks by ensuring that they have sufficient high-quality liquid assets to survive a significant stress scenario lasting 30 calendar days, measured by reference to total net cash outflows – such as withdrawal of deposits – over this period.

237. For investment firms, the need is somewhat different. Unlike for banks, there should be no need generally to worry about setting liquidity to protect against increased outflows of (deposits) and reduced inflows (on loan repayments and other funding sources). Nor is it necessary to have the same degree of assurance that the requirement is robust enough to cope with rigorous stress conditions, whether at individual firm or systemic level.

238. Instead, with a general presumption that investment firms can wind down or otherwise look to cease authorised investment business in a more orderly manner, and that the impact of their cessation should not be very great, then a more flexible, proportionate approach can be taken to setting minimum liquidity requirements under the third ('regulatory requirements obligations') approach set out in the Discussion Paper. Notwithstanding this and taking into account the potential impact on customers and markets in case of failure, Class 1 firms should be able to withstand severe stress on a short-term basis. It is therefore suggested that Class 1 firms be subject to the LCR requirements.

239. There are several key elements that it is equally relevant to consider, when designing a minimum liquidity regime which is appropriate for investment firms, even if the resulting details on any of these are different. Those elements are:

    a) The amount of liquidity required;
    b) The items that may count as a liquid asset;
    c) The haircuts that are applied to the (market) value of liquid assets; and
    d) The extent to which various assets (after haircuts) may be limited in meeting the overall total requirement.

240. These elements are inextricably linked. Therefore, each of these elements should be considered together, when determining what is an appropriate outcome overall. In effect, all of the above ultimately reflect the degree of stress or comfort that the regime is designed to provide for.

241. The above may also have a bearing on the exact extent and frequency of regulatory reporting that is desirable to allow supervisory monitoring.

6.3 Amount of liquidity to be held

242. In the light of the above, with the common type of obligation for investment firms being to meet their operating expenses, it is suggested that a minimum liquidity requirement for

investment firms could be based on a proportion of the amount of the investment firm's FOR. In effect, this would serve to 'ring-fence' a minimum level of capital in order to help achieve a smoother exit of an investment firm from the market.

243. This minimum proportion could be set at one third of the FOR requirements, which would effectively mean that an investment firm has to hold a 'buffer' of liquid assets equivalent to one month's worth of regular expenditure, thereby providing breathing space to make arrangements to fund further expenditure should the firm require more time to recover, cease to require authorisation for investment business or exit the market. For the sake of clarity, the minimum FOR as such does not include any implied stress, and there is no assumption of the P&L of the investment firm being different from under 'business as usual'. This should not prove a problem given the powers of competent authorities to intervene in case of a material change in the business according to Article 97 (2) of the CRR.

244. It should be noted that this amount is only a common minimum requirement, and ultimately competent authorities should also have the ability to assess the full needs of investment firms, on an individual basis (i.e. a 'Pillar 2'), as required. This reflects the important, firm-specific nature of liquidity management given the large diversity of investment firms, and at the same time allows the minimum to be kept fairly simple. Investment firm-specific guidelines for individual assessment purposes could be developed subsequently by EBA (e.g. this might include the identification of key liquidity risks to be addressed and a homogeneous stress scenario based on the type of investment firm).

6.3.1 Identifying liquid assets and any limitations on their usage

245. In a liquidity regime that requires investment firms to hold a minimum amount of liquid assets, there is a need to define what assets should be eligible for inclusion, whether in full or in part (i.e. what haircuts should be applied to assets for the purposes of liquidity requirements) and any limitations on their usage. These elements need to be considered as a package.

246. The list of assets eligible to meet the liquidity requirements under the new prudential regime for investment firms should be in line with the list proposed for credit institutions under the Delegated Act on LCR.[19]

247. The list should be supplemented with cash.[20] For the avoidance of doubt, neither custody assets nor client cash – even if the cash received from the client is non-segregated – should ever be available for meeting an investment firm's own liquidity requirement.

[19] EU Delegated Act on LCR, Articles 10 to 16, available here: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0061&from=EN.

[20] Cash is on demand or short term, or term can be broken (subject to modest interest penalty/charge) within the required time frame, and under sole control and ownership of the IF.

248. External sources of finance, such as (undrawn) standby lines of credit, should not count as liquid assets for meeting the minimum regulatory requirement. Investment firms can use borrowings to fund whatever assets they wish, but only good-quality assets that meet the definition for eligibility can count for liquidity purposes.

249. However, investment firms might nevertheless be overly constrained by the current design of the LCR, as their business model may not, for instance, put them in a situation to hold government bonds (in contrast to banks, they do not have access to central bank refinancing and have no specific interest in holding this type of asset). As a result, there is a need to adapt the composition of liquid assets currently set out in the LCR. The new liquidity regime should envisage adding some flexibility on the extent to which liquid assets (after haircuts) may be limited in meeting the minimum liquidity requirement. This would help investment firms cover their liquidity requirement without unnecessarily expanding their balance sheet or taking risks with which they are not familiar, by forcing them to hold financial instruments that they would otherwise not hold in the course of their business.

250. Investment firms should be allowed to use the liquidity buffer only in exceptional and unexpected circumstances. As liquidity may be required in a very short term, the use of the liquidity resources may be allowed prior to supervisory approval; however, this should always be immediately accompanied by notification to the competent authority.

251. Considering the role that the liquidity buffer might have in the wind-down of the investment firm, the investment firm should rebuild the buffer as soon as possible and no later than within 30 calendar days. This is a reasonable time horizon to convert less-liquid resources to eligible liquid assets. Therefore, all the investment firms should perform and maintain an internal assessment of the liquidity needs, both expected and unexpected, and have procedures to cope with both expected and potentially unexpected outflows.

6.3.2 Haircuts

252. The current list of liquid assets under the Delegated Act on LCR is complemented with a set of minimum haircuts to be applied to the market value of these assets. Haircuts reflect the ability to monetise these assets within a defined time frame and under a stress scenario designed for banks. It may be therefore argued that they are rather severe and less appropriate for the purpose of an orderly wind-down of an investment firm. Nonetheless, LCR haircuts embed some element of risk-sensitivity and an intrinsic liquidity hierarchy, which is less associated with the stress scenario per se. Thus, even if the level of the haircuts may be considered too high for investment firms, they should still be informative for the purpose of the new liquidity regime.

253. As was mentioned above, the various elements of the new liquidity regime should be considered in conjunction. If the LCR haircuts were to be used and are considered relatively strict, then another element of the regime could be loosened to counterbalance the impact on the liquidity requirements. Consequently, any concerns about the high haircuts in the LCR framework can be to some extent balanced by the fact that the liquidity requirements

are set at an overall low level (one month of FOR). It is therefore suggested to align the haircuts with the ones prescribed under the Delegated Act on LCR.

6.3.3 Other elements

254. There is also the question of whether or not to provide for any off-balance-sheet liabilities, such as guarantees provided to customers that could give rise to additional outflows if crystallised. If so, then one treatment could be to deduct, from the total amount of available liquid assets, a minimum amount equivalent to at least 1.6% of the total of such liabilities. This would be equivalent to the capital requirement that would currently apply to 'medium-/low-risk' items listed in Annex I of the CRR (i.e. 20% exposure value × 8%). Additional granularity could be provided by using the full set of items in Annex I of the CRR, but most of these seem not to be relevant in the context of most investment firms.

255. Consideration should also to be given to the particular needs of some relatively small investment firms, where trade debtors and fees/commissions receivable within 30 days (from retail as well as financial clients) can be an important asset. Investment firms tend to run out of liquidity sources towards the end of the period, for which they receive payments from their clients.

256. Hence, although potentially of more variable quality, it is suggested that, exceptionally, these assets could be allowed for Class 3 investment firms only, but, if so, then limited to meeting a proportion of the minimum liquidity requirements. Any investment firm subject to higher liquidity requirements than the 1-month of FOR requested on a firm-specific basis (Pillar 2) cannot use this asset towards meeting the additional liquidity requirement. This asset should also be discounted by a haircut sufficient to reflect an appropriate factoring rate that would allow such future receivables to be turned into cash. By way of comparison, the LCR allows banks to count certain liquidity inflows in order to arrive at the net liquidity outflow figure; such inflows include monies due from certain non-financial customers reduced by 50% of their value.

Recommendations on liquidity requirements:

Recommendation 37. **The application of the liquidity coverage requirements set out in Commission Delegated Regulation (EU) 2015/61 on LCR should be extended to all Class 1 investment firms. This recommendation should not be intended as applying also to the NSFR, because the design of the NSFR is still under development and, at this juncture, it is not possible to conclude whether its application is suitable for Class 1 investment firms or not.**

Recommendation 38. **Class 2 and Class 3 investment firms should have internal rules and procedures that allow them to monitor, measure and manage exposures and liquidity needs to ensure the adequacy of liquidity resources.**

Recommendation 39.	**Class 2 and Class 3 investment firms should be required to hold an amount of liquid assets equal to one third of the FOR requirements.**
Recommendation 40.	**The liquid assets eligible to meet the liquidity requirements under the new prudential regime for investment firms should be aligned with the list of high quality liquid assets (HQLAs) of Level 1, 2A and 2B assets as set out in the Delegated Regulation on the Commission Delegated Regulation 2015/61 with regard to liquidity coverage requirement for Credit Institutions ('LCR Delegated Regulation'),[21] supplemented by unencumbered cash resources of the firm (which cannot include any client money). There should be no limit regarding the composition of liquid assets to be held to meet the minimum liquidity requirements.**
Recommendation 41.	**Haircuts should be applied to the market value of assets held by investment firms for the purposes of meeting the minimum liquidity requirements. The level of haircuts should be aligned with the one prescribed in the LCR Delegated Regulation. Unencumbered own cash of the firm should receive a 0% haircut.**
Recommendation 42.	**The level of liquidity requirements should be adjusted by deducting from the amount of liquid assets held 1.6 percent of the total amount of guarantees provided to customers.**
Recommendation 43.	**For Class 3 firms, trade debtors and fees or commissions receivable within 30 days should be allowed to meet the minimum liquidity requirements, subject to the following conditions:** **a) They may account up to one third of the minimum liquidity requirements;** **b) They should not be allowed to meet any of the liquidity requirements above the level set at one third of FOR, such as additional liquidity requirements requested on a firm-specific basis (Pillar 2);** **c) They should be subject to a haircut of 50%.**
Recommendation 44.	**During exceptional and unexpected circumstances, investment firms may monetarise their liquid assets to cover liquidity needs, even if such a use of liquid assets may result in the amount of liquid assets held falling below the minimum liquidity requirements. In such cases, investment firms should notify their competent authority immediately.**

[21] Commission Delegated Regulation (EU) 2015/61 of 10 October 2014 to supplement Regulation (EU) No 575/2013 with regard to liquidity coverage requirement for Credit Institutions, Articles 10 to 16.

7. Concentration risk

7.1 Public consultation and industry stakeholders' feedback

257. Section 4.4.1 of the Discussion Paper envisaged the possibility to apply different concentration limits for different types of firms. In particular, it was acknowledged that there could still be some significant proprietary trading firms that, although not systemic, merit stricter rules concerning concentration risk. There was no consensus among the feedback received from the industry: some respondents thought that a reporting regime would be beneficial, while others thought that it would be unduly burdensome. This lack of agreement included the extension of a reporting regime to Class 3 firms. About a third of those who answered this question thought that there should be some form of limited reporting regime; some suggested that reports should be submitted only at the request of the competent authorities.

7.2 Concentration risk regime for investment firms

7.2.1 General design considerations

258. The framework for concentration risks for investment firms should include the following specifications: (i) scope of application; (ii) definition and calculation of exposures; (iii) limits and application of additional capital requirements (K-CON) if limits are exceeded; and (iv) exemptions.

7.2.2 General principles and scope of application

259. The design of a concentration risk regime for investment firms should be based on the following principles:

    a) The concentration risk regime should not be more restrictive than the large exposure regime applicable to banks under the CRR;
    b) All investment firms shall have the capacity to identify, manage and monitor their concentration risk;
    c) Class 2 investment firms shall report information about their concentration risk to the competent authorities; Class 3 investment firms may be exempted from reporting requirements on concentration risk;
    d) Class 2 firms dealing on their own account or trading in their own name when executing client orders shall be subject to concentration limits and additional capital requirements when trading exposures exceed the prescribed limit;
    e) Pillar 2 requirements should allow competent authorities to intervene in firm-specific cases should concentration risks be identified.

260. Therefore, although all investment firms are required to identify, manage and monitor their concentration risk, only Class 2 firms dealing on their own account or trading in their own name when executing client orders should be subject to concentration risk limits described in this section; the remaining Class 2 firms will be subject only to reporting requirements.

7.2.3 Scope of application for concentration risk limits

261. The concentration risk limits should apply only to Class 2 firms to which the RtM or RtF K-factors apply. This covers all Class 2 firms that deal on their own account and/or trade in their own name when executing client orders.

262. All remaining Class 2 firms should be exempted from any concentration limits. Instead, they should be subject to reporting requirements in relation to their concentration risk.

7.2.4 Definition of exposure and calculation of the exposure value subject to concentration risk limits

263. An exposure for the purposes of the concentration risk regime is a position or exposure that arises when the investment firm is dealing on its own account or trading in its own name when executing client orders. Such an exposure should be calculated in accordance with the methodologies prescribed for the calculation of capital requirements. Specifically, the same methodologies for calculating the net positions in K-NPR and the exposures in K-TCD should be applied, and the total exposure to an individual client should be the sum of the net positions over all financial instruments issued by that client together with any trading counterparty default exposure to that client.

264. Exposures to a group of connected clients shall be calculated by adding together all the exposures to the individual clients within the group. The term 'group of connected clients', should capture counterparties under common control that are so interconnected that, if one were to experience financial problems, the other would also encounter financial difficulties. The rules should provide that groups of connected counterparties are treated as a single exposure.

265. In calculating the overall exposure to a client or a group of connected clients, investment firms should apply a look-through approach for transactions where there is an exposure to underlying assets and take all reasonable steps to identify the counterparty of the underlying exposures.

7.2.5 Limits to concentration risk

266. An investment firm shall not incur an exposure to a client or a group of connected clients the value of which exceeds 25% of its capital, unless it meets the additional capital requirements set out in Section 7.2.6. However, in order to avoid requiring an unnecessarily burdensome amount of diversification for investment firms, an alternative threshold limit of EUR 150 million (if that is higher than 25% of capital) could be introduced (as in the CRR),

where the exposure is to a credit institution or to an investment firm or to a group of connected counterparties that includes a credit institution or an investment firm. This is if the sum of exposure values to all connected clients that are neither credit institutions nor investment firms does not exceed 25% of regulatory capital. If the amount of EUR 150 million is higher than 25% of the capital, the limit shall not exceed 100% of the investment firm's capital.

267. For the purpose of the concentration risk regime, the terms 'credit institution' and 'investment firm' shall include a private or public undertaking, including its branches, that, were it established in the Union, would fulfil the definition of the term 'credit institution' or 'investment firm' and has been authorised in a third country that applies prudential supervisory and regulatory requirements at least equivalent to those applied in the Union. Therefore, assets constituting claims on and other exposures to recognised third-country investment firms may be subject to the same limits as exposures to credit institutions and investment firms.

7.2.6 Calculation of capital requirement add-ons for exposures in excess of concentration risk limits (K-CON)

268. The framework should envisage the calculation of additional capital requirements (K-CON) where a trading exposure exceeds the limits laid down in Section 7.2.5, calculated as a multiple of the amount of any K-NPR and K-TCD attributed to the relevant exposure and according to the relative size of the excess.

7.2.7 Exemptions

269. For the avoidance of doubt, any item that is excluded within the methodologies prescribed for the calculation of capital requirements (i.e. for K-NPR and K-TCD) is not an exposure for the purposes of the concentration risk limit regime.

270. The following exposures should be exempted for the purposes of the concentration risk limits:

    a) Exposures which are entirely deducted from a firm's capital;
    b) As far as it is relevant under the scope defined above, exposures incurred for up to five working days in the ordinary course of settlement of payment services, foreign currency, securities transactions and provision of money transmission;
    c) Liquidity requirements held in government securities (where at the discretion of the competent authority this exemption may be limited to investment-grade governments only).

271. The following exemptions apply to exposures to central governments or central banks:

    a) Exposures to central governments, central banks, public sector entities, international organisations or multilateral development banks (MDBs) which would receive a 0%

risk weight under the standardised approach if the CRR had been applied, and exposures guaranteed by or attributable to such entities;

b) Exposures to central governments or central banks (other than those above) which are denominated and (where applicable) funded in the national currency of the borrower;

c) Exposures to or guaranteed by EEA states' regional governments and local authorities, where they would receive a 0% risk weight under the standardised approach if the CRR had been applied.

272. The following exemption apply to exposures to private sector entities with specific roles:

a) Trade exposures arising from financial instruments centrally cleared.

273. Certain other classes of exposures may be fully or partially exempt at the discretion of the competent authorities. These include:

a) Covered bonds;
b) Exposures to or guaranteed by EEA states' regional governments and local authorities, where they would receive a 20% risk weight under the standardised approach if the CRR had been applied;
c) Exposures to recognised exchanges.

7.2.8 Reporting requirements on concentration risk

274. It is worth noting that for the purpose of reporting requirements the scope and definition of exposure would be different. Specifically, all Class 2 firms should be required to report information on their concentration risks, irrespectively of whether they deal on their own account or trade in their own name when executing clients' orders. Accordingly, exposures should not be limited to those in the trading book but rather should cover any asset or off-balance-sheet item. In addition, reporting should cover concentration risks in respect of client assets which arise because of the actions of the investment firm. Class 3 firms should be exempted from reporting requirements relating to concentration risks, with the goal of avoiding unwarranted compliance costs for this type of investment firms.

275. As a minimum, investment firms should be required to report information on concentration risks from trading book exposures, client money held, client securities deposited, own cash at bank and earnings (including, where relevant, accrued client fees).

276. In the design of the concentration risk limit regime for investment firms, some concerns were raised regarding segregated accounts. One the one hand, it was considered desirable to limit the concentration risk with respect to segregated accounts, so that in the event of the failure of the counterparty the impact on the investment firm is constrained. This can be particularly relevant in cases where the national law or the terms of agreement between the investment firm and the customer oblige the firm to make good on any loss to the client. On the other hand, such concentration limits were considered particularly burdensome for small and middle-sized firms, which often have limited capacity to diversify

their counterparts and often concentration risks arise inevitably as part of their business rather than the conscious taking of a risk exposure.

277. As a potential compromise, the possibility was considered of introducing an alternative concentration limit, which is based on the total amount of segregated accounts rather than the total regulatory capital (as is the case now in the concentration risk framework). Such a limit, based on total segregated accounts, is already introduced in the MiFID II Delegated Directive Article 4 (3) for intra-group exposures but could have been expanded to all segregated accounts. Under this approach, investment firms would be required to limit the amount of client funds they deposit with a certain credit institution, bank or money market fund, so that this amount does not exceed a certain percentage of all such funds deposited across all counterparties. However, such limits were judged too burdensome for most investment firms and should therefore not be introduced as common minimum prudential requirements. This element, however, should be subject to scrutiny on a specific firm basis (Pillar 2), and the competent authority should have the power to set concentration limits if necessary.

Recommendations on Concentration risk:

Recommendation 45. **The new prudential framework for investment firms should require all investment firms to identify, manage and monitor any concentration risk, including in respect of RtC.**

Recommendation 46. **It is recommended that Class 2 investment firms report to competent authorities concentration risk, and in particular (where applicable) :**

a) concentration risk associated with the default of counterparties for trading exposures, both on an individual counterparty and aggregate basis;
b) concentration risk towards institutions where client money is held;
c) concentration risk towards institutions where client securities are deposited;
d) concentration risk towards institutions where the investment firm's own cash is deposited ; and
e) concentration risk from earnings.

Recommendation 47. **Class 3 firms should not be subject to reporting requirements on concentration risk.**

Recommendation 48. **Class 2 firms with a trading book position or exposure that arises when the investment firm is dealing on its own account or trading in its own name when executing client orders should be subject to the following concentration risk requirements:**

a) The maximum exposure should be set to a limit equal to 25 percent of capital;
b) Where the exposure is to a credit institution, an investment firm

	or a group including one or more credit institutions or investment firms the maximum exposure should not exceed 25 percent of capital or EUR 150 million, whichever is the higher, provided that the sum of exposure values to all connected clients that are not credit institutions or investment firms does not exceed 25 percent of capital. When the EUR 150 million limit is higher than 25 percent of capital the limit shall not exceed 100 percent of capital.
c)	**The limits laid down in (a) and (b) may be exceeded if the additional capital requirements K-CON are met, which is calculated as a multiple of the amount of any K-NPR and K-TCD attributed to the relevant exposure and according to the relative size of the excess.**

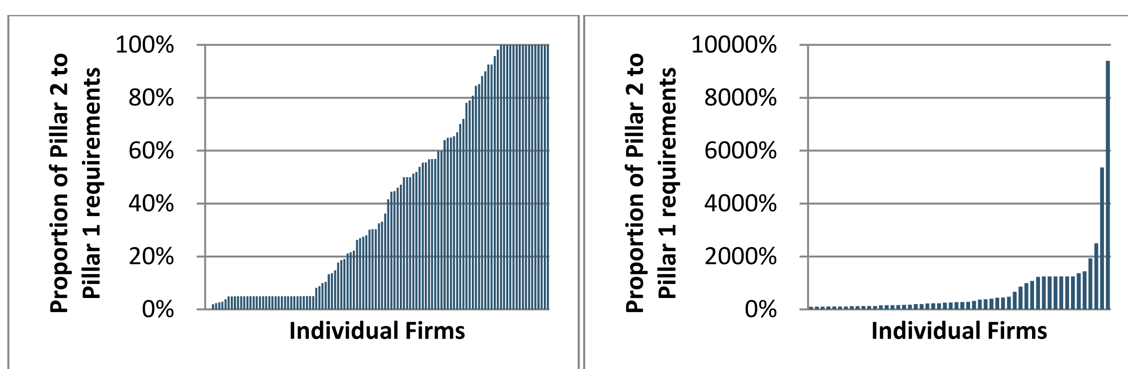
8. Additional requirements on an individual firm basis (Pillar 2)

8.1 Background

278. The purpose of Pillar 2 is to ensure that firms have adequate risk management systems and processes as well as capital and liquidity to cover their prudential risks. Currently, many competent authorities rely on Pillar 2 to compensate for the unsuitability of the CRR framework to capture key risks for investment firms on top of other idiosyncratic risks. This is particularly evident in the case of operational risk, for which the current regime fails to provide appropriate capital requirements under Pillar 1.

279. Figure 1 shows the Pillar 2 requirements as a percentage of the total capital requirements for 146 firms that reported information on Pillar 2 requirements. The firms are split into two groups: (a) 116 firms with a ratio up to 100%; (b) 47 firms with a ratio above 100%. In fact, the ratio ranges from 0% to more than 8 000% across investment firms in the EU. These particularly high figures reflect the weakness of the current regime to capture the relevant risks for investment firms under Pillar 1 and the need to set significant additional requirements under Pillar 2.

Figure 1: Pillar 2 as percentage of total capital requirements (left: up to 100%, 110 firms; right: over 100%, 52 firms)



8.2 Proposed framework

280. Given the design of a new prudential regime tailored for investment firms, Pillar 1 capital requirements would better capture the main risks the investment firms pose to their customers and the market. As a result, the need to apply large adjustments to the regulatory capital under Pillar 2 is expected to be reduced. Nonetheless, Pillar 2 remains a

useful regulatory tool for a number of reasons. First, it can be used to assess more qualitative elements such as internal governance and controls, and risk management processes and procedures. Second, it can be used for setting additional requirements, including capital and liquidity requirements, related to firm-specific requirements not covered by Pillar 1. Finally, it can be used to complement Pillar 1 requirements, in cases where these may underestimate the risks for individual firms (e.g. liquidity requirements and concentration risk).

281. Elements that would be naturally considered under a Pillar 2 framework include:

a) The use of tied agents, which can lead to an increased operational risk for investment firms and should be assessed by the supervisor on a case-by-case basis;
b) Additional liquidity risks specific to the nature of the investment firm's business;
c) Concentration risks associated with client money held;
d) Adjustments in the FOR where there is a change in the business of an investment firm that the competent authority considers to be material.

282. Notwithstanding the importance of Pillar 2, EBA is of the opinion that additional harmonisation and proportionality should be embedded in the Pillar 2 process for investment firms via Level 2 instruments addressed to competent authorities.

Recommendations on additional requirements on an individual firm basis (Pillar 2):	
Recommendation 49.	**It is recommended to set out a requirement for investment firms to be also responsible for assessing the adequacy of the new minimum requirements to their own risk situation and for competent authorities to undertake individual firm-specific assessments (i.e. a proportionate Pillar 2 tool for investment firms). It is also recommended to provide competent authorities with appropriate supervisory powers and the possibility to take actions, notably the possibility to increase capital and liquidity requirements and limit concentration risk.**
Recommendation 50.	**It is recommended to pursue harmonization via Level 2 legal instruments addressed to competent authorities for the individual assessment of investment firms, including concentration risk, which are sufficiently flexible and proportionate and take into account the proposed categorisation for investment firms.**

9. Reporting

9.1 Background and proposed framework

283. The 2015 Investment Firms Report concluded that the CRD IV framework raises various issues regarding the reporting regime for investment firms, and the current reporting requirements are excessively burdensome, particularly for small firms.

284. Consequently, and in the context of a new prudential regime for investment firms, EBA advocates a new, simple and proportionate reporting scheme, with the aim of facilitating supervision under this regime while at the same time reducing the costs incurred by the firms.

285. The new reporting regime should achieve uniform, consistent and comparable reporting across investment firms and Member States, covering the key elements of the new prudential regime described in this advice. Accordingly, the new reporting framework should deviate significantly from the current reporting requirements under CRR/CRD for Class 2 and Class 3. Instead, it should focus on all the parameters needed for the categorisation, level of capital, capital requirements and K-factors. Proportionality should be embedded in the reporting according to the size and complexity of the firm, with Class 2 firms required to report more granular information than Class 3, including level of capital and capital requirements, capital composition, capital requirement calculations, liquidity requirements, concentration risk, and additional requirements for specific business models where relevant.

286. Further simplifications should also be considered in the Pillar 3 disclosure requirements. It is proposed to reduce public disclosure for prudential purposes to a minimum, with Class 3 firms having no disclosure requirements and Class 2 being subject to only limited disclosure requirements, such as the level of capital and capital requirements.

287. Since detailed reporting requirements, instructions and definitions for investment firms are out of the scope of this report, it is recommended that harmonised and comparable reporting and disclosure requirements be ensured by means of Level 2 regulation.

Recommendations on reporting requirements:

Recommendation 51. **The new prudential framework for investment firms should include a simplified reporting framework for Class 2 and Class 3 investment firms. Class 1 investment firms should be subject to the same reporting requirements of credit institutions.**

Recommendation 52. **The new reporting framework for Class 2 and Class 3 investment firms should be based on the following elements:**

a) It should be addressed to all investment firms without any exemptions for any types of firm or business model;

b) All investment firms should report the key metrics highlighted in this Opinion, including the level of capital, the level of capital requirements and K-factors, and all the parameters needed for the firm's categorisation;

c) The reporting requirements should be proportional to the size and complexity of the firm;

d) Class 2 firms should be required to report granular information including all the following metrics:

i) Capital composition;

ii) Capital requirement calculations;

iii) Liquidity requirements;

iv) Concentration risk;

v) Additional requirements for specific business models.

Recommendation 53. **It is recommended reducing public disclosure requirements (Pillar III) to the minimum; in particular:**

a) Class 3 firms should have no disclosure requirements;

b) Class 2 firms should have disclosure requirements limited to the level of capital and capital requirements.

10. Commodity derivatives investment firms

10.1 Background

288. Currently, commodity derivatives investment firms largely benefit from exemptions under MiFID I and hence are not subject to the CRD IV framework. Even the ones that are currently caught by MiFID I, to which therefore CRD IV applies, are then exempted from large requirements and from own fund requirements under Articles 493 and 498 of the CRR, respectively. These exemptions were originally intended to provide time for the development of an appropriate prudential regime for this specialised population of firms and have already been extended until 31 December 2020.[22]

289. However, MiFID II removes or narrows the exemptions available to firms dealing in commodity derivatives and broadens the scope of financial instruments to include a wider range of commodity derivatives, emission allowances and derivatives thereof. This means that different commodity derivatives investment firms will now be brought into the scope of MiFID and, as a consequence, will also fall into the regulatory scope of the CRD/CRR or the new prudential regime for investment firms.

290. In particular, MiFID II limits the exemption to firms trading in commodity derivatives, emission allowances or derivatives thereof or providing investment services in commodity derivatives, emission allowances or derivatives thereof to the customers or suppliers of their main business, provided that this activity is ancillary to their main business on a group basis.

291. The Delegated Regulation 2017/592[23] sets the criteria to establish whether or not the trading activity of a person within a group can be considered as ancillary to the main business of the group. The assessment of 'ancillarity' should be performed in the form of two tests: (i) the first test determines whether the person within the group is a large participant relative to the size of the financial market on an asset class basis and as a consequence justifies authorisation as an investment firm under MiFID II; (ii) the second test assesses whether or not the person's trading activity in commodity derivatives constitutes a minority of the activities at group level and therefore do not require to obtain authorisation as investment firms. The second test provides two methods for determining

[22] European Commission Proposal of 16 December 2015 for a Regulation amending Regulation (EU) No 575/2013 as regards exemptions for commodity dealers, COM(2015) 648 final (2015/0295 (COD)

[23] Commission Delegated Regulation (EU) 2017/592 supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards for the criteria to establish when an activity is considered to be ancillary to the main business

the size of the trading activity (trading test and capital test) in order to better reflect the main business activities of the very heterogeneous groups intending to use the exemption while minimising the regulatory burden and complexity of implementing the test. In addition, it includes a backstop mechanism to ensure that very small groups with negligible overall footprints in the relevant commodity derivative trading are not caught by the test.

292. The rationale of the ancillarity tests is to exempt firms that engage only in hedging in commodity derivatives markets, or have a trading activity purely as an ancillary to their main business. At this juncture, it is uncertain which and how many firms will be exempted under the ancillary activity tests and hence exempted from the scope of the CRD/CRR or the new prudential regime for investment firms.

10.2 Feedback from the public consultation

293. In general, most respondents expressed concern about the appropriateness of the proposed regime for commodity derivatives investment firms. They felt that commodity derivatives investment firms are different from banks and most investment firms, and the introduction of prudential requirements should be based on an evidenced-based approach. Nonetheless, to facilitate discussion, the respondents provided their views on the proposed framework.

294. Regarding the categorisation, they proposed four categories: Class 1 to include systemic and bank-like firms (O-SIIs/G-SIIs); Class 2 to include other systemic but not bank-like firms; Class 3 to include non-systemic firms, including commodity derivatives investment firms; and Class 4 to include small, not interconnected firms. They then suggested that Classes 3 and 4 should be subject to only the FOR.

295. Furthermore, some respondents maintained their reservations about how the K-factor approach could be made appropriate to commodity derivatives investment firms. They suggested that RtM could be based on the net liquidation value of a firm's portfolio and RtF could feature as an NCA discretionary add-on for bigger firms, but additional criteria may be needed to make the K-factors work for commodity derivatives investment firms.

296. Some respondents felt that the current requirements do not take into account the risk profile of commodity derivatives investment firms and the characteristics of commodities markets, such as price volatility and liquidity. Commodity derivatives investment firms employ significantly less leverage than other market participants and they are also subject to lower credit risk. On the other hand, under the current regime such firms' exposures to corporates result in substantially higher risk weighting. In addition, other sustainable capital instruments held by commodity derivatives investment firms should be recognised for the solvability ratio calculation, allowing the commodity derivatives investment firms to exclude physical assets (e.g. power plants and transportation and storage infrastructure) and commodity assets (e.g. gas and/or coal stored and CO_2 certificates) from the calculation.

297. Commodity derivatives investment firms also suggested that regulatory capital should be extended to take certain physical assets and EU emission allowances (EUAs) into account. Some respondents felt that the standardised approach to counterparty credit risk requirements is too conservative (e.g. not differentiating between margined and unmargined transactions). They noted that the use of the Current Exposure Method (CEM) is not sufficiently risk sensitive and oversimplifies the net-to-gross ratio and cannot calculate adequately the credit risk exposure to counterparties for commodity derivatives investment firms, as it often leads to an overestimation of the risk, which, considering the nature of commodities markets, may disadvantage commodity derivatives investment firms. They also felt that the SA-CCR methodology as proposed in the CRR II proposal would be overly complex.

298. Respondents also noted that the standardised methods for market risk (both the simplified approach and the maturity ladder approach) are not appropriate for commodity derivatives investment firms that have very large positions in physical commodities.

299. With respect to liquidity requirements, most respondents felt that both NSFR and LCR are not appropriate for commodity derivatives investment firms as such firms do not normally fund their activities through short-term deposit-like instruments. They also proposed considering certain physical assets as liquid assets for the purposes of meeting liquidity requirements, as well as cash held at regular bank accounts by the firm and cash pooled at group level upon which the investment firm can call unconditionally.

300. In addition, they disagree with imposing large exposure limits to commodity derivatives investment firms, as they do not take into account typical business arrangements adopted by these firms, which include significant intra-group transactions. Usually, the main purpose of the authorised entity within an industrial group is to act as a window to the market for group (hedging) transactions on behalf of non-authorised entities of the group. They therefore propose to exempt intra-group trades and exposures held to CCPs and recognised exchanges from concentration limits.

10.3 Proposed framework and suitability for commodity derivatives investment firms

301. The new framework has been developed to limit the impact on customers and markets for investment firms. When assessing its suitability with regards to specialised commodity derivatives investment firms, it should be recognised that there is a broad spectrum of investment firms in energy and commodities markets, which may have very different business models and group structures. They can be divided into two broad categories: (i) firms that exclusively trade in commodity derivative contracts for speculative purposes; and (ii) firms that are part of a larger non-financial group and trade commodity derivatives for commercial purposes and as a complementary activity to commodity production.

302. The outcome of the data collection concerning specifically commodity derivatives investment firms was inconclusive. Data were reported by investment firms that are part of oil groups, an energy group and metal traders. Only six firms reported data, of which two declined to disclose data on derivative positions and another two are part of the same group. Therefore, when shaping its opinion, the EBA has benefited from national experience and the expertise of the local supervisors with respect to the prudential supervision of commodity derivatives investment firms.

303. The first category of commodity derivative investment firms resembles other types of investment firms in terms of functions and risks to customers and markets, and it seems reasonable to treat them like other firms, including trading on their own account or in their own name when executing clients orders. It is therefore recommended to apply similar prudential requirements to those for investment firms, including trading on their own account or in their own name when executing clients' orders.

304. The second category should include only those firms that are not already exempted under the ancillary tests of MiFID II. However, part of their business may still be to perform MiFID services that are complementary to the main business of the non-financial group they belong to. Moreover, some of the instruments that are currently traded by these firms via recognised trading venues may be easily moved outside the regulated trading area towards unregulated markets; this is particularly obvious in the energy sector, where traded instruments can be swiftly converted into bilateral agreements. From this point of view, the introduction of capital requirements may lead to the undesirable consequence of pushing some business further away from the regulated area.

305. Against this background, certain adjustments to the proposed framework may be justified to take into account the specificities of commodity derivatives investment firms. In particular, some commodity derivatives investment firms, at least under the current structure, may have the underlying commodities on their balance sheet. This would affect the calculation of the FOR, as the relevant regulation[24] determines the items for the calculation of the FOR by excluding certain items; since these firms were not considered in the development of that regulation, it is necessary to review the calculation of FOR for the purposes of the new prudential framework for investment firms, including specific consideration of commodity derivatives investment firms.

306. In addition, commodity derivatives investment firms can hold large, and potentially highly concentrated, exposures to the non-financial group they belong. Hence, it can be justifiable to exempt these intra-group exposures from concentration limits and counterparty credit risk requirements as long as they serve group-wide liquidity or risk management purposes (as referred to in Article 3 of Regulation (EU) No 648/2012) or are objectively measureable as reducing risks directly relating to the commercial activity or treasury-financing activity.

[24] Commission Delegated Regulation (EU) 2015/488 of 4 September 2014 amending Delegated Regulation (EU) No 241/2014 as regards own funds requirements for firms based on fixed overheads

307. Furthermore, some markets have few, very specialised participants; these then tend to be highly concentrated in that market and towards a limited set of counterparties. Therefore, also for non-intra-group transactions, it might be necessary to tailor the concentration limits for commodity derivatives investment firms that would otherwise be applicable to other trading firms.

Recommendations commodity derivatives investment firms:

Recommendation 54. **Commodity derivatives investment firms in the scope of MiFID II should be subject to the prudential requirements of the new framework.**

Recommendation 55. **The new prudential framework should be tailored to some of the specificities of commodity derivatives investment firms trading in specific markets or to specific aspects of their accounting practices.**

Recommendation 56. **A transitional regime or phase-in period for the introduction of the new prudential regime should be envisaged considering that the scope of the commodity derivatives investment firms under MiFID II is still unclear and that a number of firms are currently completely exempted from prudential requirements.**

Recommendation 57. **The new prudential regime may include criteria that would allow the exemption from certain prudential requirements of positions that are objectively measurable as reducing risks directly related to commercial activities.**

11. Remuneration and governance

308. This section includes information on the recommended application of the governance and remuneration provisions to investment firms and the additional information regarding the possible impact on waivers in the area of remuneration on investment firms and supplements the EBA's response of 21 November 2016 to the letter from the European Commission (the Commission), dated 21 April 2016, requesting further information about the EBA's Opinion on the application of the principle of proportionality to the remuneration provisions in Directive 2013/36/EU (EBA/OP/2015/25).

11.1 Background

309. On 21 December 2015, the EBA published its Opinion on the application of the principle of proportionality to the remuneration provisions in Directive 2013/36/EU (EBA/OP/2015/25) recommending that possible exemptions be introduced from some of the remuneration principles set out in Article 94 of Directive 2013/36/EU (CRD).

310. In its Opinion, the EBA stressed the need to ensure a harmonised and consistent approach across the EU regarding the proportionate application of remuneration requirements, taking into account the compliance costs. It is recommended that the CRD be amended to allow for exemptions regarding (i) the application of deferral arrangements, (ii) the pay-out in instruments for small and non-complex institutions and (iii) identified staff who receive only a low amount of variable remuneration when specific criteria are met. No waivers should be applied to the limitation of the variable remuneration to 100% of the fixed remuneration (200% with shareholders' approval).

311. To follow up on the application of the principle of proportionality with regard to the remuneration provisions contained in the CRD, on 21 April 2016 the Commission sent a letter to the EBA requesting further clarification and additional information with regard to the application of the principle of proportionality to the remuneration provisions in the CRD. The Commission letter invites the EBA to provide, among other things, an estimate of the number of institutions; an estimate of their market share in terms of their balance sheet total compared with the balance sheet total of all credit institutions; an estimate of the number of identified staff in those institutions compared with the total number of identified staff; and an estimate of the number of identified staff who benefit from waivers from the indicated CRD IV provisions on the basis of the level of their individual variable remuneration. Such estimates should be provided for the current situation and for at least three different thresholds based on balance sheet total that could be used as a basis for potential future waivers.

312. The EBA already provided its answer regarding credit institutions on 21 November 2016 and now provides the information requested for investment firms as part of its response to the CfA issued on 13 June 2016 by the European Commission. The specific information requested under point I (a-d) on the effect of current waivers is not available for investment firms; the EBA has already provided information on the national implementation of Directive 2013/EU/36 regarding waivers applicable to remuneration provisions. The EBA does not have available data on the remuneration of staff within investment firms and therefore has limited its analysis regarding the effect of potential future waivers to points III (i), (j) and (k).

313. With respect to investment firms that would no longer fall within the scope of Directive 2013/36/EU, it should be considered whether the requirements included in Directive 2014/65/EU (MiFID II) would form an appropriate framework or if additional requirements would need to be introduced and, if so, to which investment firms they should apply.

11.2 Governance and remuneration requirements and group context

314. Directive 2013/36/EU (CRD) sets out requirements on governance and remuneration within section II of Chapter 2 of Title VII. Article 74 of that Directive requires all institutions to have robust governance arrangements; Article 75 to 95 set out more detailed criteria, including requirements on the remuneration of staff who have a material impact on the institutions risk profile (Articles 92 to 95), the composition of management bodies, their responsibilities and the suitability of their members (Articles 88 and 91), to further determine the general requirements within Article 74.

315. For both governance and remuneration requirements, Article 109 of the CRD on the application of the requirements on a consolidated basis is applicable. As further discussed herein, Class 2 and Class 3 investment firms would no longer be subject to the CRD. Nevertheless, these investment firms when belonging to a banking group would be considered ‘financial institutions’ and be subject to the application of the CRD requirements on a consolidated basis. Consequently, the consolidating institution would be responsible to ensure that robust governance is implemented throughout the group and that the remuneration requirements of the CRD apply on a consolidated basis to all identified staff whose professional activities have a material impact on the risk profile of the group. For staff in such Class 2 and Class 3 firms who would not have a material impact on the group’s risk profile, the CRD requirements would no longer apply.

316. The application of the provisions in a group context is appropriate, as otherwise it would become difficult to ensure that the consolidating institution has a holistic view on all risks and sound remuneration practices that have no adverse effect on the group risk profile.

11.3 Governance

317. The regulatory framework should ensure a level playing field between Class 1 investment firms and credit institutions. A differentiation of governance rules on the individual level would lead to an uneven playing field between investment firm subsidiaries of credit institutions and Class 1 investment firms that are not part of a banking group. Class 1 investment firms should have sufficient resources or access to resources on a consolidated basis to deal with all risk management, reporting and disclosure requirements set out in the CRD. For smaller investment firms (Class 2 and Class 3), a lighter framework could be applied as discussed below.

11.3.1 Requirements to have a robust governance framework – Article 74 of the CRD

318. MIFID II governance requirements apply to all investment firms. Consequently, investment firms that would no longer be subject to the CRD (i.e. Class 2 and Class 3) would in any case be submitted to MiFID II requirements.

319. Article 9 of MiFID II requires that 'Competent authorities granting the authorisation in accordance with Article 5 shall ensure that investment firms and their management bodies comply with Article 88 and Article 91 CRD.' Article 9 (3) of MiFID II contains requirements that have similarities to the requirements under Article 74 of the CRD; in particular, according to Article 9 (3), investment firms are required to implement governance arrangements that ensure effective and prudent management of the investment firm. Point (c) of Article 9 (3) requires that the management body define, approve and oversee a remuneration policy applicable to persons involved in the provision of services to clients and aiming to encourage responsible business conduct and fair treatment of clients as well as avoiding conflict of interest in relationships with clients. In addition, Article 23 of MiFID II sets requirements whereby investment firms must take appropriate steps to identify and to prevent or manage conflicts of interest between themselves (including their managers, employees and tied agents, or any person directly or indirectly linked to them by control) and their clients or between one client and another that arise in the course of providing investment services. Article 23 specifically refers to conflict of interest that may be caused by the investment firm's own remuneration and other incentive structures. Article 24 (10) of MiFID II sets out remuneration requirements that intend to ensure that firms do not remunerate their staff in a way that could conflict with the best interest of clients and in particular that no remuneration incentives could lead staff to recommend a particular financial instrument over another that could be offered by the investment firm and would better meet the needs of the client.

320. Based on the above, it appears that the governance requirements contained in Articles 16, 23 and 24 of MiFID II offer guarantees comparable to the ones contained in Article 74 of the CRD and can be considered sufficient for Class 2 and Class 3 firms.

11.3.2 Specific governance requirements – Articles 76 to 91 of the CRD

321. It should be considered whether or not the specific requirements set out in Articles 76 to 91 of Directive 2013/36/EU should also be applied to Class 2 and Class 3 investment firms. Such criteria are specifications of the general requirement to have robust governance arrangements. MiFID does not include provisions comparable to Articles 76 to 91, but Article 9 of MiFID II provides that investment firms (and their management bodies) shall comply with Articles 88 and 91 of the CRD.

322. Article 76 of the CRD sets out requirements on the treatment of risks and the involvement of the management bodies in this context, with the obligation for significant institutions to set up a risk committee.

323. The CRD requires that significant institutions have a risk, nomination and remuneration committee. The requirement to set up audit committees is set out within the Audit Directive. Significant institutions are G-SIIs, O-SIIs and other institutions determined by competent authorities or national law. Class 1 investment firms are significant and need to establish committees under the CRD requirement. The need to establish committees (risk, nomination, remuneration, audit) for Class 2 investment firms depends in particular on the size of the firm. Class 3 investment firms should not be required to have committees. Only where Class 2 firms have a large enough board anyway is the creation of committees feasible. This depends to some extent on the national company law, which differs between Member States. Board sizes also depend on the required governance structures (one-tier, two-tier, other structures) or employee representation. It should be left to the competent authorities or national legislators to determine if Class 2 investment firms are required to set up committees; such a requirement should be applied only to significant Class 2 investment firms.

324. The second sub-paragraph of Article 16 (5) of MiFID II requires in particular that 'An investment firm shall have sound administrative and accounting procedures, internal control mechanisms, effective procedures for risk assessment, and effective control and safeguard arrangements for information processing systems.' In addition, MiFID II includes several provisions that aim to manage risks related to specific investment-firm activities. Those measures aim mainly to ensure the good functioning of the firm from a conduct and investor protection stand-point. In cases where investment firms are allowed to hold client assets, one could consider applying additional risk management requirements such as those developed in Article 76 of the CRD. Hence, the application of additional requirements comparable to the ones contained in Article 76 could be laid down for Class 2 firms, in particular if they hold client assets, but not for Class 3 firms. Indeed, it seems that in relation to Class 3 firms the additional burden would be disproportionate to the expected prudential benefit.

325. Applying requirements similar to the ones contained in Article 76 (1) of the CRD would ensure the existence of an appropriate risk management framework. The requirement

within Article 76 (2) CRD that the management bodies should commit sufficient time for risk management should be retained. The application of Article 76 (3) with regard to the risk committee should be subject to Member States' discretion and should apply only to significant Class 2 firms. Applying Article 76 (4) to (5) to Class 2 or Class 3 firms would create additional burden for the smallest firms. These paragraphs aim to ensure sound risk management in institutions with a strong risk management function and close involvement of the management body and, where established, risk committee. Such arrangements are important to ensure the protection of depositors and the stability of the financial market. Class 2 and Class 3 investment firms do not hold deposits and pose no threat to the stability of the financial market; their risk profiles depend on the activities they perform, but often they do not actively take risks. It is in the interests of the firms themselves to establish appropriate risk management and control functions to manage their operational risks and other risk they assume. Article 9 of MiFID already requires that such firms have appropriate risk management. It is deemed sufficient that further details are provided within joint EBA and ESMA guidelines.

326. Article 77 to 87 set out specific requirements for the management of risks. It must be noted that, if applied to Class 2 and Class 3 firms, these requirements would come on top of the provisions of MiFID II on risk management and, potentially, those of Article 76 (1) of Directive 2013/36/EU. In line with the arguments above, additional requirements may be applied to the governance arrangements, but should in any case be limited to Class 2 firms to balance the regulatory burden and the prudential benefits. As investment firms are mostly exposed to operational risks, in particular Article 85 of the CRD should be applied to Class 2 firms and competent authorities supervising them.

327. Investment firms that deal on their own account are particularly exposed to market risks. The investment firms that deal on their own account and are at the same time allowed to hold client assets should be subject to the provisions within Article 83 of the CRD on market risks.

328. Article 89 of the CRD sets out requirements on country-by-country reporting and Article 90 of the CRD requires the public disclosure of return on assets. Similar provisions do not exist within MiFID II. A high level of transparency in general aims to provide the public with the opportunity to form a view on the activities and financial situation of the firm. Transparency in general is also an instrument to foster trust in the industry. The burden of publishing the additional information together with the annual report is low, in particular for many firms for which a country-by-country reporting is not relevant, as they are active only in a single jurisdiction. The disclosure of the return on assets is not relevant to firms that generate profits from commissions and fees.

329. Article 96 of the CRD requires that institutions that maintain a website to explain there how they comply with the requirements of Articles 88 to 95. Information on the governance arrangements would be relevant to clients and market participants. Overall, transparency of governance arrangements and remuneration policies is desirable, but such a

requirement creates a burden in particular for the smallest investment firms, even if they maintain a website. Such a requirement does not exist within MiFID II. Introducing such a requirement for Class 2 or even Class 3 firms would led to an uneven playing field with other investment firms that are not subject to the CRD and is therefore not recommended.

330. Article 435 of the CRR includes disclosure requirements on governance arrangements. Its paragraph (1) deals with risks and risk strategies, while its paragraph (2) addresses the management body. As discussed before, transparency is an important tool to create trust. If the requirements set out in Article 76 (1) of the CRD are applied, the disclosure of that information under Article 435 (1) of the CRR would be meaningful, but would create an additional burden. In addition, some of the requirements are not relevant, depending on the activities of the firm, and therefore investment firms should be able to omit some of the requirements. The application of the requirements under Article 435 (2) of the CRR would ensure that clients and market participants are informed about the firm's management. This additional disclosure may be disproportionately burdensome. In particular, paragraph (2b) implicitly requires the establishment of a recruitment policy.

331. Table 13 summarises the recommended application of governance provisions by Class.

Table 13: Summary table – recommended application of governance provisions

CRD/CRR requirements	Class 1 firms	Class 2 firms	Class 3 firms
Article 74 CRD	Remains under CRD	NO	NO
Article 76 CRD	Remains under CRD	YES (partly)	NO
Articles 77-82 CRD	Remains under CRD	NO	NO
Article 83 CRD	Remains under CRD	YES (when dealing on own account and holding client assets)	NO
Article 84 CRD	Remains under CRD	NO	NO
Article 85 CRD	Remains under CRD	YES	NO
Articles 86-87 CRD	Remains under CRD	NO	NO
Article 88 CRD	Remains under CRD	YES (Article 9 MIFID II)	YES (Article 9 MIFID II)
Article 89 CRD	Remains under CRD	YES	NO
Article 90 CRD	Remains under CRD	NO	NO
Article 91 CRD	Remains under CRD	YES (Article 9 MIFID II)	YES (Article 9 MIFID II)
Article 96 CRD	Remains under CRD	NO	NO

11.3.3 Remuneration

332. With regard to remuneration requirements, the framework differs significantly between the CRD and MiFID II.

333. The CRD requires sound remuneration policies for all staff, but sets out specific requirements for the variable remuneration of staff whose professional activities have a material impact on the institution's risk profile. Such requirements include that variable remuneration should be based on performance, that deferral and pay-out in instruments are applied to a part of the variable remuneration and that they are subject to up to 100% malus or clawback. In addition, the limitation of the variable remuneration to 100% (200% with shareholders' approval) of the fixed remuneration provides for an effective limitation of incentives for excessive risk taking.

334. MIFID II (Articles 23 and 24) focusses on remuneration aspects of staff that provide services to clients and specifically sales staff. The provisions of Article 23 require that remuneration structures should not create conflicts of interest between the interest of the institution and the interest of clients. The provisions of Article 23 apply to the entire staff of the firm. However, unlike the CRD, MiFID II does not contain requirements targeting specifically staff members who have a material impact on the institution's risk profile. Consequently, not applying such prudential requirements in addition to the requirements set in MiFID II trigger some concerns particularly with respect to investment firms that deal on their own account or are allowed to hold customers funds or instruments.

335. The specific provisions of MiFID II for sales staff and staff who provide services are more detailed than the CRD provisions. Consequently, for Class 2 and Class 3 investment firms, it would need to be decided whether or not it would be relevant to submit them to additional remuneration provisions (e.g. Articles 92 to 94 of the CRD) that ensure the long-term alignment of incentives of staff whose professional activities have a material impact on the firm's risk profile with the long-term interest of the firm. Should this option be considered relevant, the scope of application and the type of remuneration provisions to be applied need to be defined.

336. The risk profiles of investment firms are different from those of credit institutions and depend on their business activities. It includes in particular market risks and operational risks, including legal and compliance risks that may lead to losses for the investment firm. The potential impact of such risks on the financial market and its stability should also be considered and therefore the size of investment firms needs to be taken into account.

337. Class 1 investment firms should remain within the scope of CRD, ensuring that inappropriate remuneration frameworks cannot lead to a weakening of the financial stability and that a level playing field with competing credit institutions is maintained. The rules set in CRD are therefore also appropriate for Class 1 investment firms. Given their nature, size and complexity, it is necessary to implement sound remuneration policies for identified staff in order to ensure that there are no excessive incentives for risk taking. This

is achieved by limiting the variable remuneration to 100% (200% with shareholders' approval) of the fixed remuneration, and by applying deferral and pay-out in instruments, malus and clawback. There should not be a material burden for Class 1 investment firms to apply the requirements.

338. Investment firms sometimes argue that the application of the bonus cap would limit their ability to attract staff and that this would lead to an increase in their fixed cost base. While the first point remains to be proven, the second point is obviously true. However, not applying the bonus cap to Class 1 investment firms that compete with credit institutions in their field of activities is not recommended. The cap is an effective tool to limit incentives for short-term risk taking. Taking excessive risk with a short-term orientation, as observed during the financial crisis, could lead, in an adverse scenario, to the failing of the institution if those risks materialise. Given the significance of category 1 investment firms, such a change in the regulatory framework is not advised.

339. Category 2 and category 3 investment firms would no longer be subject to the CRD provisions, but, like any other investment firm, would be subject to the remuneration provisions contained in MiFID II.

340. If additional remuneration requirements (i.e. in addition to applicable requirements set in MiFID II) were set for such Class 2 or 3 investment firms, they could be similar to the requirements included within CRD or similar to the requirements set in Directive 2009/65/EU (UCITS) or Directive 2011/61/EU (AIFMD) and should apply to staff having a material impact on the firm risk profile. In this respect, it must be noted that only the CRD includes a limitation of the ratio between the variable and the fixed remuneration to 100% (200% with shareholders' approval). The principle of proportionality should be taken into account.

341. When deciding on the applicable remuneration framework in addition to the framework applicable under MiFID II, the aspects discussed below need to be considered.

342. Credit institutions and other investment firms are active in overlapping areas and some of the services they provide have similarities. Hence, material differences in the remuneration requirements could lead to an un-level playing field between different types of firms and have consequences for the ability of such firms to recruit staff. Staff might be easier to attract for firms subject to a softer remuneration framework. However, considering the low staff numbers of Class 2 and Class 3 firms, a softer remuneration framework for those firms is unlikely to have a big impact on credit institutions' and Class 1 firms' ability to recruit staff, as Class 2 and Class 3 firms would absorb only a small part of the pool of potential candidates for vacant positions.

343. A specific point of consideration would be the application of the bonus cap. Because of waivers applied by Member States, many investment firms are currently not subject to such requirements. However, the bonus cap is an effective tool to limit incentives for effective

risk, in particular where there is no requirement to pay out variable remuneration in instruments or to apply deferral. In such situations, the only tool to limit and penalise excessive risk taking would be clawback, which is, however, difficult to apply in many jurisdictions. The bonus cap would in such situations limit the incentives for short-term risk taking. However, one needs to consider also the potential impact of Class 2 and Class 3 firms on the stability of the financial sector, which is low.

344. Unlike banks, investment firms do not generate a more steady interest income. For firms, where the business activities are mainly generating fees and provisions, which are volatile over time, the application of the bonus cap could be challenging, as a relatively high fixed remuneration would need to be paid. This could increase the fixed costs of investment firms, reduce their cost flexibility and affect their ability to remain profitable in periods with lower revenues. Applying a bonus cap to firms that currently do not apply such a cap, in some jurisdictions, is likely to trigger an increase in the fixed remuneration borne by firms and hence in the firms' capital requirements calculated on the basis of the firms' fixed overheads. In an economic downturn, the absence of sufficient cost flexibility could lead to staff redundancies or in the worst case to the failing of some investment firms.

345. The European Commission should take into account all the advantages and disadvantages of a bonus cap, when proposing a remuneration framework for Class 2 firms. Under the previous regulatory regime (CRD III), the onus was on the institutions to define for themselves an appropriate ratio between variable and fixed remuneration. If no regulatory cap is set, it is recommended to require firms to set out in the remuneration policy the level of variable remuneration that can be paid.

346. Many investment firms conduct several investment activities in parallel and at different intensities. For that reason, it would not be appropriate to determine the applicable remuneration regime based on the scope of activities conducted. Such a framework and its proportionate application would be overly complex. The categorisation proposed in this report should also be applied to the remuneration framework.

347. For Class 2 firms and in particular the ones which generate risks that may materialise only in the long run (e.g. legal risks that can lead to material litigations years after the transaction), a long-term alignment of remuneration and the firm's risk profile is needed. In such cases, setting additional remuneration requirements applicable to risk takers would be relevant. Likewise, a stronger remuneration framework similar to the one existing under the CRD could also be needed to protect the interests of investors in cases where investment firms are allowed to hold the assets of their clients.

348. The use of instruments for the pay-out of remuneration leads to an implicit risk adjustment of variable remuneration and aligns the interest of staff with the interest of shareholders. The requirement to pay out variable remuneration in instruments can prove to be very burdensome at least for some Class 2 firms.

349. To reduce the regulatory burden for Class 2 firms, the provisions for the pay-out in instruments should be simplified and allow Class 2 firms to choose more freely which instruments they use for the payment of variable remuneration. Class 2 firms could be permitted to choose between shares, share-linked instruments (or equivalent instruments) and, as appropriate, other instruments within the meaning of Article 52 or 63 of Regulation (EU) No 575/2013 or other instruments that can be fully converted to Common Equity Tier 1 instruments or written down, that in each case adequately reflect the credit quality of the institution as a going concern and are appropriate to be used for the purposes of variable remuneration. It is not necessary to maintain provisions requiring that a mix of instruments be used (i.e. Class 2 firms should be allowed to pay the entirety of the pay-out of variable remuneration in one category of instruments). It needs to be discussed whether or not the balance sheet total is an appropriate indicator for the size of investment firms. Indeed, the size of investment firms can often also depend significantly on the number of transactions they perform. The balance sheet total is still one relevant figure to determine the size of an investment firm. However, it must be noted that the CRD V proposal suggests a waiver for non-complex institutions with a threshold of EUR 5 billion, based on balance sheet total. Assuming that such a waiver would also apply to investment firms deemed non-complex, a significant portion of the investment firm population would be excluded. A lower threshold would be appropriate, as the balance sheet size differs from credit institutions because of a different business model.

350. Investment firms' balance sheets are not driven by loans and deposits. Because of this structural difference, a lower threshold than for credit institutions would be justified to determine if waivers would be applicable. The balance sheet total has the advantage that it is relatively stable over time.

351. For some investment firms, the revenues or expenses may provide a better indication of the size of their activities than the balance sheet total. Some of the services performed by investment firms are better reflected in the volume of transactions than in the balance sheet. Therefore an indicator for the volume, such as revenues, net income or expenses, would be correlated to such volumes.

352. Revenues are directly linked to the turnover and the number of transactions generated, but are expected to be volatile over time. Expenses are used to measure the own funds requirements and would provide a more stable basis than revenues for determining thresholds, but would not be as closely related to the size as revenues. As used for the categorisation of firms, a net income figure could be used as basis for a waiver, but again such a figure would be more volatile than the balance sheet total.

353. The complexity of remuneration requirements that impose performance measurement against pre-defined criteria, paying out variable remuneration in instruments and deferring parts of the variable remuneration must be considered against the prudential benefit of these requirements. The burden of applying such requirements in Class 3 firms would be high without much prudential benefit. If the impact of staff on the risk profile led to a

Class 3 firm's failure, the impact on the markets and the need for publicly funded bailout measures would be low. In addition, in cases where investment firms do not hold client assets, there is no need for additional measures to protect these assets.

354. Article 450 of the CRR requires disclosure of the remuneration of identified staff. Such requirements, in line with the above, would need to be limited to firms to which such requirements would apply. In such cases, disclosure would lead to a higher level of transparency. MiFID, the AIFMD and the UCITS Directive do not include provisions that require the disclosure of remuneration figures. For Class 3 firms, no disclosure requirements should be laid down, as no requirements for staff who have a material impact on the risk profile of the firm are proposed.

355. With regard to Class 2 firms, a lighter disclosure framework should be applied to reduce the burden for such firms. However, some transparency on remuneration policies should be ensured, to allow shareholders and other stakeholders to scrutinise the remuneration policy and the variable remuneration awarded. It needs to be taken into account that the number of staff who have a material impact on the risk profile will be rather limited. Disclosure requirements could comprise some of the provisions set out in Article 450 CRR. Class 2 firms should disclose qualitative information on their remuneration policy as set out in points (b) to (f) of paragraph 1 of that article. Point (a) on the governance processes does not add much from a prudential perspective and could be omitted.

356. Given the low number of staff, investment firms may be concerned about the privacy of remuneration information, as in smaller firms it would lead to the publication of individual remuneration data. Therefore, the requirements to publish aggregate quantitative information on the remuneration of identified staff for Class 2 firms should provide for less granular reporting. In this regard, the differentiation between business areas within point (g) is not relevant, as it may often lead to the publication of individual remuneration data, and should therefore not be required from Class 2 firms. Disaggregation of figures between senior management and other staff as set out in point (h) could be laid down only for larger Class 2 institutions, as Class 2 firms have a very limited number of senior managers, who may be easy to identify. The option for Member States to require the individual reporting of figures for members of the management body and senior management within point (j) should be retained.

357. The aggregated figures to be reported within point (h) should be available to investment firms and can therefore be disclosed without the creation of any additional burden. The information on high earners within point (i) should be required and would be useful to explain changes in the population of high earners within the EBA benchmarking exercise.

358. The collection of high-earner data by competent authorities, required under Article 75 (3) of the CRD, should be required for Class 2 firms. In contrast, the benchmarking of the disclosed information by competent authorities and the EBA, set out in Article 75 (1) and (2) of the CRD, should not be required.

359. Table 14 summarises the recommendation in the area of remuneration by Class.

Table 14: Summary table – recommendations in the area of remuneration

Requirements in CRD/CRR	Category 1 firms	Category 2 firms	Category 3 firms
Article 92 CRD	Remains under CRD	YES (MiFID applies)	NO (MiFID applies)
Article 93 CRD	Remains under CRD	YES	NO
Article 94 CRD	Remains under CRD	YES (partly)	NO
Article 95 CRD	Remains under CRD	YES, for significant firms	NO
Article 450 CRR	Remains under CRD	YES (partly)	NO

11.4 Effect of potential waivers in the area of remuneration on investment firms

360. As requested in the call for advice, the EBA has calculated the effect on investment firms at four different thresholds (EUR 10 million, EUR 100 million, EUR 500 million and EUR 1 000 million), which are lower than the ones used for the calculation of potential effects on credit institutions. The balance sheet total of investment firms is in most cases relatively low compared with credit institutions, as the business model differs. For credit institutions, loans and deposits lead to a larger balance sheet, while investment firms' business is often based on frequent transactions, which do not enlarge the balance sheet of the firm, even if the transaction volumes may be material. Therefore, different thresholds for investment firms from those for credit institutions would be justified. When allowing waivers for investment firms, one also should take into account the effect of the remuneration provisions on the incentives for staff to take risks and the types of risk being taken. For the present analysis, Class 1 investment firms have been excluded from the sample.

361. A tentative mapping of firms to Class 2 and Class 3 was done, but the results of an analysis based on only Class 2 firms did not show material differences from the present analysis. This is because the aggregated balance sheet total of Class 3 firms within the sample is, at EUR 976 million, insignificant in comparison with those of Class 2 firms, at EUR 53 010 million, and Class 1 firms, at EUR 2 054 267 million.

362. In summary, at thresholds of EUR 10 million, EUR 100 million, EUR 500 million and EUR 1.0 billion, based on balance sheet total, potential waivers applicable to investment firms would lead to 3%, 14%, 37%, 51% of the aggregated market share of investment firms (measured in balance sheet total) being excluded from the remuneration provisions within Article 94 (1) points (l), (m) and the second subparagraph of point (o) of the CRD. In addition, the EBA calculated thresholds based on revenues and expenses.

363. It should also be noted that many investment firms did not report the number of identified staff. This may be because some Member States apply waivers regarding the identification of staff or do not apply the remuneration requirements to all such firms. The number of reported figures is too low to derive a reliable estimate of the total number of identified staff who would be in place when the requirements would be correctly applied. The analysis is therefore directly based on the reported figures (see Table 15). Institutions that did not report the balance sheet total or the number of staff have been excluded from the exercise. Where the number of institutions is low, the figures provided need to be considered with great care.

Table 15: Overview on the sample

Member State	Number of investment firms	Balance sheet total (EUR)	Number of staff	Number of identified staff
Austria	1	4 968 900	11	0
Belgium	14	1 446 052 086	311	7
Bulgaria	39	628 390 055	687	181
Croatia	8	13 123 432	86	0
Cyprus	2	389 923	6	0
Czech Republic	14	698 023 415	660	106
Denmark	10	164 988 123	260	38
Estonia	3	43 831 956	156	27
Finland	2	24 715 100	83	0
France	11	3 123 856 212	572	100
Germany	104	1 500 896 876	2 296	272
Greece	48	2 719 916 788	1 264	368
Hungary	1	261 011 719	146	0
Ireland	70	11 675 043 392	4 037	500
Italy	42	1 545 843 375	1 366	259
Latvia	3	8 000 327	126	110
Luxembourg	56	2 511 105 119	1 583	132
Malta	28	105 935 566	276	77
Netherlands	161	6 157 126 648	2 476	640
Norway	65	1 218 305 557	1 717	214
Poland	44	1 379 128 880	2 648	373
Portugal	5	133 430 371	75	25
Romania	18	88 230 898	410	106
Slovakia	14	15 837 000	191	40
Slovenia	2	8 956 306	64	2
Spain	89	2 235 664 112	1 480	203
United Kingdom	34	9 637 342 156	2 695	359

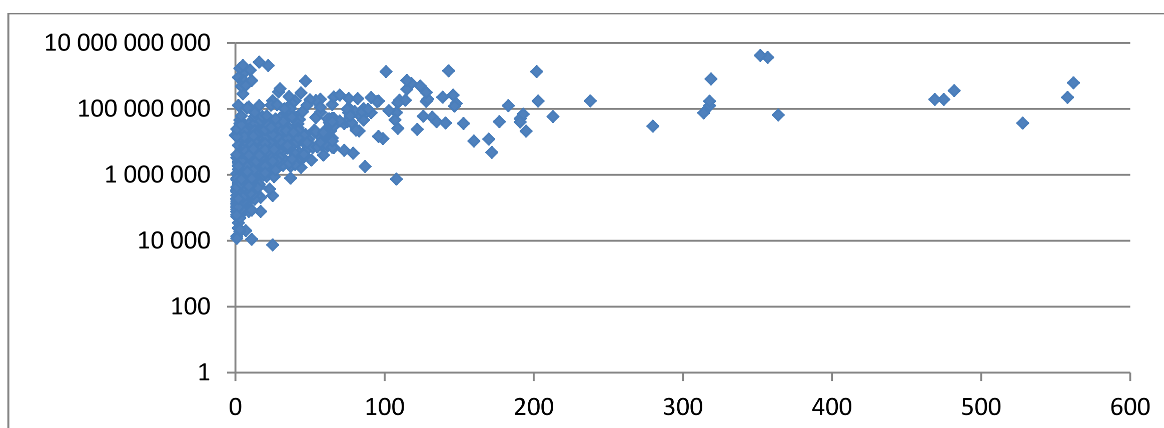
Member State	Number of investment firms	Balance sheet total (EUR)	Number of staff	Number of identified staff
Total	888	47 350 114 292	25 682	4 139

Table 16: Estimates of the balance sheet total, number of all staff and number of identified staff at different quantiles, based on the whole sample

Quantile	Balance sheet total	All staff	Identified staff
100%	4 174 485 000	562	108
99%	1 345 431 248	352	55
95%	182 323 441	115	19
90%	70 815 000	66	12
75%	11 177 495	25	6
50%	2 297 661	10	3
25%	547 190	5	1
10%	178 000	2	0
5%	98 000	2	0
1%	0	1	0
0%	0	0	0

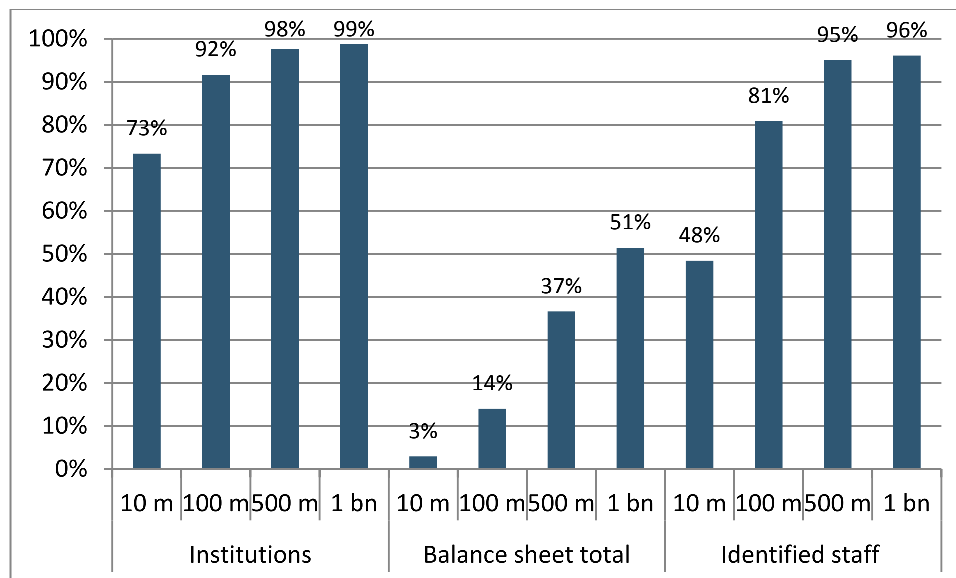
364. The EBA has calculated for different quantiles the values of balance sheet total, number of all staff and number of identified staff (Table 16). A very few large investment firms drive the sum of the balance sheet total of sample. Most investment firms have a relatively low number of staff and identified staff. If a threshold of EUR 5 billion of the balance sheet total, as proposed for credit institutions, were applied, all investment firms included in the analysed sample would be subject to waivers regarding the deferral of variable remuneration and the pay-out in instruments.

Figure 2: Balance sheet total and number of staff for all investment firms included in the sample



365. The distribution of firms by size in terms of balance sheet total and number of staff shows that there is no strong correlation between those figures (Figure 2). The reason for this is that investment firms have different business models, which have different effects on the number of staff needed and the balance sheet total.

Figure 3: Overview of effect of potential remuneration waivers on the number of investment firms



366. Figure 3 shows that already at relatively low thresholds a broad population of investment firms would be excluded from remuneration requirements if a waiver were introduced. A good number of institutions might in the future no longer be subject to Directive 2013/36/EU. If the requirements were similar, the burden of applying them would justify granting waivers. The effect of waivers on institutions which remain in the scope of the Directive merits further analysis. As such investment firms are significant, it would be difficult to justify granting such waivers, even if their balance sheet total would be below the threshold of EUR 5 billion. Table 17 provides an overview of the effect of waivers.

Table 17: Effect of potential remuneration waivers at different thresholds (%)

	EUR 10 m			EUR 100 m			EUR 500 m			EUR 1.0 bn		
Member State	**Investment firms excluded**	**Balance sheet total excluded**	**Identified staff excluded**	**Investment firms excluded**	**Balance sheet total excluded**	**Identified staff excluded**	**Investment firms excluded**	**Balance sheet total excluded**	**Identified staff excluded**	**Investment firms excluded**	**Balance sheet total excluded**	**Identified staff excluded**
Austria	100.0	100.0	.	100.0	100.0	.	100.0	100.0	.	100.0	100.0	.
Belgium	71.4	2.1	.	92.9	7.3	100.0	92.9	7.3	100.0	92.9	7.3	100.0
Bulgaria	79.5	12.9	70.2	92.3	34.6	79.0	100.0	100.0	100.0	100.0	100.0	100.0
Croatia	100.0	100.0	.	100.0	100.0	.	100.0	100.0	.	100.0	100.0	.
Cyprus	100.0	100.0	.	100.0	100.0	.	100.0	100.0	.	100.0	100.0	.
Czech Republic	42.9	3.3	29.2	78.6	24.8	89.6	100.0	100.0	100.0	100.0	100.0	100.0
Denmark	80.0	23.1	65.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Estonia	33.3	0.7	18.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Finland	.	.	.	100.0	100.0	.	100.0	100.0	.	100.0	100.0	.
France	45.5	1.0	18.0	72.7	4.7	59.0	81.8	15.1	75.0	90.9	34.1	78.0
Germany	78.8	9.1	61.0	95.2	39.3	91.2	100.0	100.0	100.0	100.0	100.0	100.0
Greece	70.8	3.9	52.7	89.6	13.8	87.0	95.8	28.5	97.0	97.9	54.1	100.0
Hungary	.	.	.	.	.	.	100.0	100.0	.	100.0	100.0	.
Ireland	50.0	0.8	17.8	84.3	6.8	65.8	92.9	19.3	83.6	95.7	32.3	84.0
Italy	59.5	7.5	33.6	88.1	29.5	59.5	100.0	100.0	100.0	100.0	100.0	100.0
Latvia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Luxembourg	85.7	5.3	90.2	96.4	13.0	100.0	98.2	18.4	100.0	98.2	18.4	100.0
Malta	92.9	41.8	94.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Netherlands	88.2	3.2	77.3	97.5	9.9	98.6	98.8	20.6	99.2	99.4	32.2	99.8
Norway	80.0	9.1	58.4	91.9	25.3	75.2	100.0	100.0	100.0	100.0	100.0	100.0
Poland	61.4	3.3	41.0	88.6	42.4	83.1	100.0	100.0	100.0	100.0	100.0	100.0

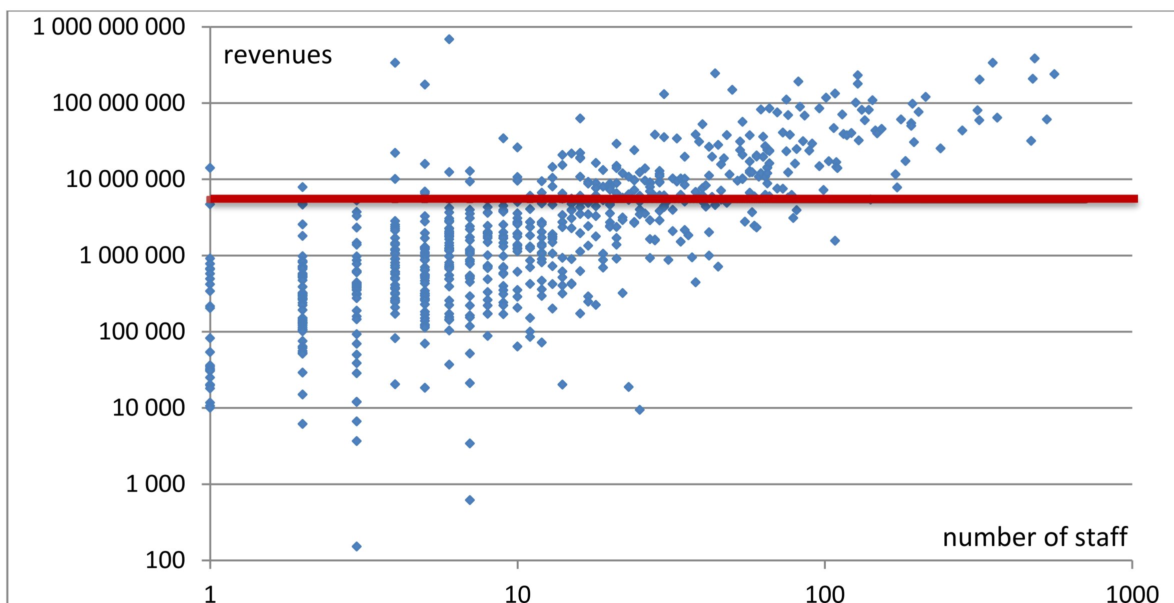
	EUR 10 m			EUR 100 m			EUR 500 m			EUR 1.0 bn		
Portugal	40.0	6.0	.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Romania	83.3	46.3	47.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Slovakia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Slovenia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Spain	77.5	4.1	45.3	93.3	26.5	90.1	98.9	67.6	100.0	100.0	100.0	100.0
United Kingdom	8.8	0.1	0.3	52.9	7.4	41.8	79.4	27.5	76.6	91.2	55.9	83.3
Total	73.3	2.9	48.4	91.6	14.0	80.9	97.6	36.6	95.0	98.8	51.4	96.1

367. In addition to the requested calculation, the EBA looked at the revenues and expenses of investment firms and calibrated a threshold based on those figures in a way that would lead to the same percentage of the market share being excluded as with a threshold at EUR 5 billion applicable to credit institutions. For credit institutions, the proposed threshold of EUR 5 billion would lead to a situation where 6.8% of the market share would not be subject to the deferral and pay-out in instruments requirements, while a wide population (87.4%) of credit institutions would be exempted.

368. Based on a sample of 700 investment firms (Class 2 and Class 3) that reported all figures necessary for the calibration, the thresholds expressed in the amount of revenues and expenses have been calculated, with the result that 6.8% of the smallest investment firms show lower revenues or expenses and would be excluded from the application of remuneration provisions. If a waiver with a threshold of EUR 5.4 million total revenues were allowed, 215 of 700 firms (30.7%) would benefit from such a waiver, while, at a threshold of EUR 9.5 million based on expenses, only 113 firms (16.1%) would benefit from such a waiver. One needs to consider that the revenues are driven by a few firms that have high revenues and sometimes very few employees, as the activities are mainly performed within a banking group. Overall expenses should be more stable in the long run.

369. However, as indicated in the figure below, it needs to be taken into account that investment firms with revenues or expenses below the threshold have on average significantly fewer staff than credit institutions with a balance sheet total of EUR 5 billion, which have on average 690 staff. If such small firms needed to employ additional staff for the administration of remuneration policies, the relative burden would be very high.

Figure 4: Revenues and numbers of staff of investment firms, logarithmic scale, red line at EUR 5.4 million, logarithmic scale



Recommendations on remuneration and governance:

Recommendation 58. **In the context of governance the following recommendations should be considered:**

- **a)** **No change to the provisions on group application as foreseen under Article 109 CRD is recommended in the context of this review, regardless of the category of investment firms involved.**
- **b)** **The governance requirements set out in CRD should fully apply to Class 1 firms, while a lighter governance framework should be applied to Class 2 and Class 3 firms.**
- **c)** **It is not considered necessary to apply Article 74 CRD to Class 2 and Class 3 investment firms, as MiFID's governance requirements are deemed to be sufficient to ensure robust governance arrangements.**
- **d)** **Additional risk management requirements as developed in Article 76 (1) CRD and the requirement to commit sufficient time for risk management within Article 76 (2) CRD should be applied to Class 2 firms that are authorised to hold clients assets.**
- **e)** **Whether or not the creation of committees (risk, nomination remuneration) would be required from Class 2 firms should be left to the discretion of Member States or competent authorities'.**
- **f)** **The investment firms that deal on own account and are at the same time allowed to hold client assets should be subject to the provisions of Article 83 CRD on market risks.**
- **g)** **Article 85 CRD should be applied to Class 2 firms and competent authorities supervising them.**
- **h)** **The application of Article 89 CRD (country by country reporting) is recommended for Class 2 firms only.**

Recommendation 59. **In the context of remuneration the following elements should be considered:**

- **a)** **Class 1 investment firms should fully remain under the remuneration framework set out by the CRD.**
- **b)** **The new remuneration framework should differentiate between Class 2 and Class 3 firms and not between different business activities.**
- **c)** **Class 3 firms should only be subject to the remuneration provisions of MiFID, no additional requirements are deemed necessary.**
- **d)** **The remuneration requirements for Class 2 firms should be similar to Articles 92 to 94 CRD and apply to the staff that has a material impact on the firms risk profile. Class 2 firms should still**

be subject to MiFID remuneration provisions for sales staff. Institutions should have the discretion to use a mix of instruments, where this is appropriate, but they should have the possibility to pay the entirety of the variable remuneration in one category of instrument. Waivers should be available for small Class 2 firms and staff that received a low level of remuneration. **e) The European Commission should carefully consider the advantages and disadvantages of a restriction of variable remuneration provided for in Article 94 (1)(g)(i) and (ii), when proposing a legal framework for Class 2 firms. In any case, Class 2 firms should specify the level of variable remuneration that can be paid within their remuneration policy.** **f) Class 2 firms should be subject to simpler and less granular disclosure requirements. A benchmarking of the disclosed information by the EBA should not be required. However, the collection of data on high earners by Member States and its publication by EBA is recommended for Class 2 firms.**

12. A macroprudential perspective for investment firms

12.1 General considerations on macroprudential policy beyond banking

370. The ESRB, in its strategy paper on macroprudential policy beyond banking,[25] emphasises the need to address macroprudential risks in the non-banking sector. It advocates a broader set of macroprudential instruments beyond those already operational in the banking sector. It notes, in particular, that 'policy strategy, data and instruments to address risks beyond the banking sector are underdeveloped. This leaves a gap in financial stability policy.'

371. The Discussion Paper highlights the importance of macroprudential elements within the new regime and sets out the main rationale for addressing financial stability risks stemming from investment firms. The Discussion Paper refers to the ESRB Recommendation on intermediate objectives of macroprudential policy[26] to contribute to the safeguarding of the stability of the financial system as a whole, including by strengthening the resilience of the financial system and decreasing the build-up of systemic risks. The ESRB identified five intermediate objectives of macroprudential policy: (i) to limit excessive credit growth and leverage; (ii) to mitigate excessive maturity mismatch and market illiquidity; (iii) to limit direct and indirect exposure concentrations; (iv) to limit the systemic impact of misaligned incentives with a view to reducing moral hazard; and (v) to strengthen the resilience of financial infrastructures.

12.2 Specific considerations for investment firms

372. The intermediate policy objectives also relate to risks to financial stability that could stem from beyond the banking system, including from investment firms. On the one hand, some of the financial stability concerns that relate to banks' role as deposit takers do not apply to non-bank investment firms, which do not take deposits. On the other hand, investment firms may be a source of systemic risk in their own right (especially if they are engaged in important functions such as market making).

373. Moreover, investment firms[27] – even if not considered Class 1 on an individual basis – may function as a shock amplifier, especially when market and systemic risks become

[25] See https://www.esrb.europa.eu/pub/pdf/reports/20160718_strategy_paper_beyond_banking.en.pdf.
[26] See http://www.esrb.europa.eu/pub/pdf/recommendations/2013/ESRB_2013_1.en.pdf.

[27] The following arguments closely follow and draw from the Discussion Paper.

intertwined. More specifically, even Class 2 investment firms could pose a risk, in particular if they are significant market participants in the markets they operate in, engage in cross-border activities and/or are connected to banks through ownership linkages. The use of (excessive) leverage, engagement in non-banking activities (e.g. securitisation of receivables or inventories) and trading in derivatives markets could be further sources of concern. Small and non-interconnected investment firms (Class 3 firms) may also have systemic effects due to herding behaviour, or because of common exposures to the same shock. This may pose a 'too many to fail' risk to financial stability. Incentives to take a certain action increase in the expectation that others will take the same action, which, in turn, may lead to a multiplier effect that could, in aggregate, amplify shocks in market prices and add to procyclicality.

374. Following from the objective of safeguarding the stability of the financial system as a whole, the new prudential regime for investment firms should take into consideration the fact that investment firms could also be a source of systemic risk collectively, even if individually they are not assessed as being in Class 1. This being said, further analysis is needed to assess the potential systemic impact of investment firms including those that are not considered to be in Class 1.

Recommendations on macro-prudential perspective for investment firms:

Recommendation 60. **The new prudential regime for investment firms should include a macroprudential perspective. In this regard, the importance of mitigating the build-up and the materialisation of systemic risks should be emphasised with a view to determining whether appropriate macroprudential tools to address those risks should be developed.**

Recommendation 61. **A detailed analysis assessing the potential systemic impact of the three classes of investment firms is needed. In this regard, it should be considered whether the macroprudential perspective ought to be tailored to the specificities of investment firms' business models.**

13. Quantitative analysis and impact assessment

13.1 Overview and key findings

375. The introduction of the new prudential framework for investment firms shows that 68% of investment firms in the sample will be classified as Class 2 and therefore subject to the K-factor formula. The analysis shows a moderate impact on capital requirements of 10%. The impact varies considerably across business models, ranging from -13% in the case of trading firms to 308% in the case of investment advisors. The total impact is driven primarily by K-TCD (41%), followed by K-NPR (27%) and K-AUM (17%). Overall, most investment firms fulfil the capital requirements under the new regime, while only a small share of investment firms in the sample (7%) will exhibit potential capital shortfalls. In terms of the liquidity requirements, the analysis indicates that 91% of investment firms in the sample already meet the minimum liquidity requirements, with many firms holding liquid assets well in excess of the 1-month FOR liquidity requirement.

Recommendations quantitative analysis and impact assessment:

Recommendation 62. **It is recommended that a legislative proposal for a new prudential framework for Class 2 and Class 3 investment firms contains a review clause, e.g. three years after the date of application of this new regime, based on a monitoring report.**

13.2 Data source and sample

13.2.1 Main data sources

376. The EBA has launched a data collection exercise in July 2016, to support the response to the CfA on the new prudential framework for investment firms. The data collection was addressed to MiFID investment firms, including those that are expected to fall under the scope of MiFID II, and management companies/managers subject to the UCITS and AIFM Directive (Undertakings for Collective Investment in Transferable Securities/Alternative Investment Fund Managers Directive) that conduct MiFID activities or services. Data were received from 1 033 MiFID investment firms and 725 UCITS and AIFMD management companies. In summer 2017, the EBA conducted a supplementary data collection to allow a complete calibration and a final impact assessment of the proposed regime. Data were collected from 724 MiFID firms. The main reference date used in the analysis is 31 December 2015, unless otherwise stated. Hereafter, the data received from all MiFID investment firms are referred to as the sample data.

377. An ad hoc data collection was also initiated, addressed to commodity derivatives investment firms, with the aim of assessing the suitability of the new regime for this type of specialised firms. Data were received from six commodity derivatives investment firms.

378. In addition, the EBA makes use of the data collected as part of the 2015 Report on Investment firms, covering the full population of MiFID investment firms in the EU and referred to as 'full population' data. Although these data lack important information for the K-factor approach, they are still useful for assessing the sample's representativeness and the overall impact of the new prudential framework. The reporting date for these data is 31 December 2014.

379. It should be noted that it has not been possible to use exactly the same sample throughout this report, as each analysis requires different data items and not all investment firms completed the full templates.

13.2.2 Coverage and sample representativeness

380. The sample consists of 1 199 MiFID investment firms from 28 EU Member States and 1 country (Norway) from the European Economic Area (EEA). Table 18 shows the coverage of the sample at the EU and jurisdiction levels, in terms of number of firms. The sample accounts for 21% of the total MiFID investment firms in the EU. However, it should be noted that the coverage varies across countries ranging from 1% to 100%.

Table 18: Sample coverage by jurisdiction

	Number of firms in full population	Number of firms in sample	Coverage of firms (%)
Austria	74	3	4%
Belgium	38	20	53%
Bulgaria	N/A	44	N/A
Croatia	8	8	100%
Cyprus	161	3	2%
Czech Republic	20	17	85%
Denmark	41	15	37%
Estonia	3	3	100%
Finland	51	2	4%
France	75	57	76%
Germany	688	122	18%
Greece	60	57	95%
Hungary	19	7	37%
Ireland	94	81	86%
Italy	66	51	77%
Latvia	5	4	80%
Lithuania	6	5	83%
Luxembourg	95	82	86%
Malta	61	48	79%

	Number of firms in full population	Number of firms in sample	Coverage of firms (%)
Netherlands	230	216	94%
Norway	156	62	40%
Poland	51	47	92%
Portugal	24	8	33%
Romania	28	25	89%
Slovakia	28	15	54%
Slovenia	5	2	40%
Spain	223	99	44%
Sweden	117	1	1%
United Kingdom	3273	95	3%
Total	**5700**	**1199**	**21%**

Investment firms part of a banking group

381. Table 19 shows the number of firms that are part of the banking group. Out of 5 700 EU MiFID investment firms, 279 are part of a banking group. In the sample data, 79 out of 1033 investment firms that reported in the first data collection are part of a banking group.

Table 19: Number of investment firms that are part of a banking group

	Number of firms in full population	Number of firms in sample*		Number of firms in full population	Number of firms in sample*
Austria	5	0	Latvia	2	2
Belgium	4	1	Liechtenstein	4	0
Bulgaria	N/A	1	Lithuania	1	0
Croatia	0	0	Luxembourg	15	8
Cyprus	N/A	0	Malta	1	1
Czech Republic	2	3	Netherlands	15	7
Denmark	1	1	Norway	5	5
Estonia	1	0	Poland	11	10
Finland	4	0	Portugal	1	0
France	43	1	Romania	2	2
Germany	27	4	Slovakia	1	0
Greece	5	5	Slovenia	0	0
Hungary	1	1	Spain	13	11
Iceland	N/A	0	Sweden	2	0
Ireland	7	11	United Kingdom	100	2
Italy	6	3	**Total**	**279**	**79**

*The sample covers investment firms that reported in the first data collection only

13.2.3 Data quality

382. The data collection exercises were completed on a voluntary and best-efforts basis and the first data collection was initiated prior to the publication of the Discussion Paper on the new prudential regime for investment firms. This fact, along with any differences in the national implementation of MiFID, may have affected the way firms have interpreted the template fields and specifically the K-factors.

383. The quality checks that have been performed on the data revealed a number of data quality issues. Wherever possible, most of the quality issues have been resolved through adjustments, but this may result in some level of approximation. For example, a number of firms are not currently subject to the FOR and as a result they did not report any data on the metric. For the purpose of the analysis, a FOR proxy based on expenses was used, in order to get a comparable FOR for all firms. However, this is likely to overestimate the actual FOR, as no deductions from discretionary expenses were considered.

384. In addition, the EBA worked closely with competent authorities to ensure the quality and completeness of the templates and the consistency with reporting instructions. However, some firms were excluded from the analysis due to data inconsistencies.

385. These caveats must be carefully kept in mind when interpreting the results of the calibration and the impact assessment.

13.3 Impact assessment

13.3.1 Categorisation

386. The categorisation follows a threshold approach, whereby a firm is precluded from being in Class 3 if any of the following conditions is fulfilled:[28]

a) K-AUM is higher than EUR 1.2 billion;

b) K-COH is at least EUR 100 million a day for cash trades and/or at least EUR 1 billion a day for derivatives;

c) K-ASA is higher than zero;

d) K-CMH is higher than zero;

e) K-NPR, K-CMG, K-DTF or K-TCD is higher than zero;

f) Balance sheet total is higher than EUR 100 million;

g) Total gross revenues are higher than EUR 30 million.

387. Table 20 shows the number of firms that would be allocated to Class 2 and Class 3 by Member State. Around 32% of the sample is allocated to Class 3 and 68% of the sample to Class 2. The number of Class 2 firms in the sample may be underestimated, as the thresholds are applied at solo level instead of the combined level. On the other hand, many small investment firms did not contribute to the data collection; therefore Class 3 is expected to be larger in the full population. In addition, the number of Class 2 firms may be overestimated as a result of the way firms reported K-TCD and K-NPR figures, which may include non-trading book positions.

Table 20: Categorisation by jurisdiction

	Number of firms in sample	Class 3 firms	Class 2 firms
Austria	3	3	0
Belgium	20	0	20
Bulgaria	44	2	42
Croatia	8	1	7
Cyprus	3	1	2
Czech Republic	17	0	17
Denmark	15	0	15
Estonia	3	0	3
Finland	2	0	2
France	57	23	34
Germany	122	83	39
Greece	57	10	47
Croatia	7	0	7

[28] For a detailed description of the calibration analysis see section 13.4.1.

	Number of firms in sample	Class 3 firms	Class 2 firms
Ireland	81	10	71
Italy	51	6	45
Latvia	4	1	3
Lithuania	5	1	4
Luxembourg	82	38	44
Malta	48	13	35
Netherlands	216	129	87
Norway	62	1	61
Poland	47	3	44
Portugal	8	1	7
Romania	25	0	25
Slovakia	15	0	15
Slovenia	2	0	2
Spain	99	56	43
Sweden	1	0	1
United Kingdom	95	2	93
Total	**1199**	**384**	**815**
% of total	**100.0**	**32.0**	**68.0**

13.3.2 Initial capital (IC)

388. IC is foreseen as one of the two floors in the new K-factor model. The EBA is of the opinion that adjustments need to be made because the current levels were set in 1993 and harmonisation is needed across the EU. The current regime sets IC as a point for authorisation under MiFID and Article 93 of the CRR states that the own funds may not fall below the level of IC required at the time of authorisation. The two standard levels of IC are EUR 125 000 and EUR 730 000. In addition, there is a national discretion of EUR 50 000, which has not been exercised in all Member States.

389. Most countries allow three standard levels. The number of firms falling under each category of IC varies a lot in the Member States (see Table 21), which means that the impact of the IC adjustments on the firms can be very different in different Member States. Malta, Germany and the Netherlands allow below EUR 50 000 as per Article 31 of the CRD. In Belgium the standard is EUR 250 000 with two exceptions: (i) EUR 125 000 for limited MiFID activity (portfolio managers, advisers and firms authorised to do reception and transmission of orders and execution of orders and MiFID ancillary services B3, B5 and B7), and (ii) EUR 730 000 for firms that perform one of the MiFID investment services A3, A6 and A8.

390. Significantly higher levels are in France and Italy – EUR 1.1 million and EUR 1 million respectively for firms trading on own account and/or underwriting of financial instruments and/or placing of financial instruments on a firm commitment basis in case the firm holds client money. Italy has higher IC levels also for firms providing advice and/or receipt and transmission (EUR 120 000) and for firms that conduct execution, portfolio management, or placing without a firm commitment (EUR 385 000). France has EUR 3.8 million for firms that

conduct clearing of financial instruments in case they are members of clearing house and also for safekeeping and administration of financial instruments.

Table 21: Levels of IC requirements by member state (no of firms as in the sample)

	EUR 50 000	EUR 125 000	EUR 730 000	N/A or other	Number of firms	National bespoke levels
Austria		100%			3	
Belgium		21%	16%	21%	19	EUR 250 000 is standard (43%); EUR 125 000 and EUR 730 000 are exceptions*
Bulgaria	5%	49%	46%		39	Only standard levels
Hungary		63%	25%	13%	8	
Cyprus	33%	33%		33%	3	
Czech Republic	14%	21%	64%		14	
Denmark	75%	0%	25%		12	Only standard levels
Estonia		33%	67%		3	Only standard levels
Finland			100%		2	
France	8%	8%	38%		13	EUR 150 000, EUR 1.1mn (23%), EUR 3.8mn (23%)*
Germany	80%	3%	12%		109	Only standard levels (EUR 25 000 subject to Art 31 of CRD)
Greece	30%	48%	22%		54	
Hungary			100%		1	
Ireland	25%	57%	13%	5%	79	Only standard levels
Italy					43	EUR 120 000 (13%), EUR 1mn (64%), EUR 385 000 (23%)*
Latvia	50%	50%			4	
Lithuania	14%	57%	29%		7	Only standard levels
Luxembourg	5%	80%	5%	3%	62	Only standard levels
Malta	14%	57%	20%		35	EUR 20 000 if registered under IMD×
Netherlands	74%	18%	8%		200	EUR 35 000 if exempted under Art 3 of MiFID*
Norway	14%	39%	45%		66	
Poland	35%	13%	48%	4%	46	
Portugal				100%	5	EUR 250 000 (40%), EUR 350 000 (20%), EUR 3.5mn (40%)*
Romania		43%	52%	5%	21	
Slovakia		100%			14	
Slovenia			100%		2	Only standard levels
Spain	64%	6%	24%	6%	99	
Sweden	2%	85%	9%		110*	Standard levels and EUR 5 mn (3.6%)
United Kingdom	30%	26%	32%	11%	77	Only standard levels

*Data from competent authorities

13.3.3 Capital requirements impact

391. Table 22 shows the overall impact of the new framework on capital requirements by business models.[29] Under the new framework, capital requirements would, on average, increase by 10% with respect to current Pillar 1 requirements. The impact can vary significantly across business models, ranging from a 13% decrease for trading firms to a 308% increase for investment advisors.

392. Execution brokers will see an increase in their capital requirement by 47%. That increase will be more noticeable for execution brokers subject to the K-factors, which currently have a lower level of Pillar 1 capital requirements. Those subject to the PMC will be less impacted with only 8% increase. It is worth nothing that 70% of the execution brokers subject to the PMC will have a 20% increase in capital requirement, driven by the adjustments in the current level of Initial Capital.

393. Investment advisors display a substantial overall increase (308%) driven by firms subject to the FOR and those subject to the K-factors. The high increase is essentially concentrated in few firms, which have a very low level of capital requirements compared to their size. Moving to an FOR or K-factor capital requirement will lead to a high increase in capital requirements, particularly for large advisory firms, and will therefore ensure their requirement to a consistent level. Given the proposed transitional requirement on a cap on the increase in capital requirements, this will furthermore not become binding with immediate effect.

394. Portfolio managers represent more than 50% of the sample of investment firms. Their capital requirement will increase by 19%. The increase is entirely driven by firms subject to the K-factors for which 31% increase is expected. The capital requirement for portfolio managers subject to the FOR will overall remain unchanged. Indeed more than 65% of them where already subject to their current level of FOR under the CRR. Those subject to the PMC will have a slight decrease (-12%) mostly driven by few firms, which currently have higher levels of initial capital due to national discretions. It is worth mentioning that more than 77% of portfolio managers under the PMC will have an increase in capital due to adjusted levels of initial capital under the new framework.

395. Trading firms are expected to have a slight decrease in capital (-13%). This is a clear trend observed within the trading firm's population. The decrease is merely driven by the differences between the operational risk charge (based on K-DTF under the new regime) and the CRR operational risk charge (based on the firm's revenue).

396. Multi-services investment firms' capital requirements will overall increase by 5%. That increase is entirely driven by those subject to the K-factors for which the capital requirement is expected to raise by 14%. Multi-services investment firms subject to both

[29] Business model classification was done on an expert judgment basis.

the FOR and the PMC are however expected to experience a decrease in their capital requirements. Nevertheless, 55% of those under the PMC will have an increase in their capital requirements due to higher levels of initial capital under the new regime.

Table 22: Impact on capital requirements

Business models	Number of firms in sample	% change with respect to current Pillar 1 requirements
Custodians	**17**	**-11%**
FOR	7	-16%
PMC	6	-63%
K-factors	4	26%
Execution brokers	**92**	**47%**
FOR	33	47%
PMC	37	8%
K-factors	22	48%
Investment advisors	**87**	**308%**
FOR	37	365%
PMC	32	-7%
K-factors	18	306%
MTF	**8**	**0%**
FOR	6	0%
PMC	1	3%
K-factors	1	0%
Firms placing financial instruments on a firm commitment basis	**12**	**29%**
FOR	3	31%
PMC	6	10%
K-factors	3	42%
Portfolio managers	**533**	**19%**
FOR	237	0%
PMC	163	-12%
K-factors	133	31%
Trading firms	**69**	**-13%**
FOR	16	29%
PMC	21	-27%
K-factors	32	-14%
Multi-service investment firms	**93**	**5%**
FOR	17	-16%
PMC	29	-38%
K-factors	47	14%
Wholesale market brokers	**9**	**8%**
FOR	6	4%
PMC	1	3%
K-factors	2	12%
Total	**920**	**10%**

Notes: Aggregate impact in the analysis have been calculated by creating a composite investment firm at the relevant sample level – i.e. the impact is implicitly weighted. For example, the aggregate impact is the difference between the sum of all investment firms' new capital requirements included in the relevant sample and the sum of all investment firms' current capital requirements in the relevant sample divided by the sum of all investment firms' current capital requirements in the relevant sample. Local firms and commodity derivatives investment firms were excluded from the impact analysis.

397. In order to understand which K-factor drives the impact on capital requirements, Table 23 shows the marginal contribution of each of the K-factors to the new capital requirements by business model. On aggregate, most of the impact is driven by the K-TCD (41%), followed

by K-NPR (27%) and K-AUM (17%). This may partly be explained by the business model coverage in the sample, for which portfolio managers represent more than 50%. In the case of K-TCD and K-NPR, the contribution may be overestimated as a result of the way firms reported these figures, which may include non-trading book positions.

Table 23: Marginal contribution of each K-factor to the capital requirements

Business models	Total	% K-AUM	%K-CMH	%K-ASA	%K-COH cash trades	%KCOH derivatives	%K-DTF cash trades	%K-DTF derivatives	%K-NPR	%K-TCD	%K-CON
Custodians	100%	0%	12%	81%	0%	0%	0%	0%	0%	7%	0%
Execution brokers	100%	2%	17%	29%	2%	7%	7%	1%	9%	26%	0%
Investment advisors	100%	52%	1%	0%	37%	0%	0%	0%	1%	9%	0%
MTF	100%	0%	0%	0%	0%	0%	0%	0%	12%	88%	0%
Firms placing financial instruments on a firm commitment basis	100%	5%	0%	1%	0%	0%	0%	0%	42%	52%	0%
Portfolio managers	100%	38%	3%	3%	4%	0%	0%	0%	25%	27%	0%
Trading firms	100%	0%	0%	1%	0%	0%	1%	1%	40%	57%	0%
Multi-service investment firms	100%	0%	4%	7%	23%	0%	0%	0%	7%	58%	0%
Wholesale market brokers	100%	0%	0%	27%	0%	0%	62%	9%	1%	1%	0%
Total	**100%**	**17%**	**3%**	**5%**	**5%**	**1%**	**2%**	**0%**	**27%**	**41%**	**0%**

Notes: The marginal contribution of each K-factor is the sum of all investment firms' K-factor metric in the relevant sample multiplied by the respective calibration coefficient and divided by the sum of all investment firms' new capital requirements in the relevant sample. Local firms and commodity derivatives investment firms were excluded from the impact analysis.

398. Table 24 shows the additional amount of capital that investment firms would need to have in order to meet the new capital requirements. In this analysis, the capital shortfall is calculated as the difference between the new capital requirements and the capital held at the firm level, and represents the capital needs assuming that the new capital requirements had to be met. A total of 61 firms (around 7% of the sample) would experience a shortfall of around EUR 300 million. Most firms with a positive shortfall are portfolio managers, followed by investment advisors and execution brokers. On average, the amount of additional capital required by these firms to cover the shortfall stands at around EUR 5 m.

Table 24: Capital shortfall by business model

Business models	Number of firms in sample	Number of firms with a shortfall	Total Capital (EUR)	Total shortfall (EUR)	Average shortfall (EUR)
Custodians	**17**	**0**	**225,973,986**	**0**	-
FOR	7	0	42,434,731	0	-
PMC	6	0	43,857,854	0	-
K-factors	4	0	139,681,401	0	-
Execution brokers	**92**	**11**	**933,277,524**	**18,640,454**	**1,694,587**
FOR	33	4	256,563,742	5,344,868	**1,336,217**
PMC	37	2	22,987,083	0	-

Business models	Number of firms in sample	Number of firms with a shortfall	Total Capital (EUR)	Total shortfall (EUR)	Average shortfall (EUR)
K-factors	22	5	653,726,699	13,295,587	**2,659,117**
Investment advisors	**87**	**11**	**436,795,004**	**83,143,620**	**7,558,511**
FOR	37	3	271,053,435	442,190	**147,397**
PMC	32	0	15,854,609	0	-
K-factors	18	8	149,886,960	82,701,430	**10,337,679**
MTF	**8**	**0**	**167,667,955**	**0**	-
FOR	6	0	46,412,310	0	-
PMC	1	0	6,022,264	0	-
K-factors	1	0	115,233,382	0	-
Firms placing financial instruments on a firm commitment basis	**12**	**0**	**17,799,804**	**0**	-
FOR	3	0	8,094,406	0	-
PMC	6	0	2,675,968	0	-
K-factors	3	0	7,029,430	0	-
Portfolio managers	**533**	**32**	**8,045,049,814**	**85,478,895**	**2,671,215**
FOR	237	6	2,705,702,166	6,124,632	**1,020,772**
PMC	163	3	199,261,410	0	-
K-factors	133	23	5,140,086,239	79,354,263	**3,450,185**
Trading firms	**69**	**3**	**5,274,118,180**	**23,548,244**	**7,849,415**
FOR	16	1	383,444,834	2,216,000	**2,216,000**
PMC	21	0	48,803,205	0	-
K-factors	32	2	4,841,870,141	21,332,244	**10,666,122**
Multi-service investment firms	**93**	**3**	**1,954,606,420**	**104,609,856**	**34,869,952**
FOR	17	0	441,686,578	0	-
PMC	29	1	142,702,251	0	-
K-factors	47	2	1,370,217,591	104,609,856	**52,304,928**
Wholesale market brokers	**9**	**1**	**173,573,659**	**2,934,351**	**2,934,351**
FOR	6	0	68,083,755	0	-
PMC	1	0	1,562,845	0	-
K-factors	2	1	103,927,058	2,934,351	**2,934,351**
Total	**920**	**61**	**17,228,862,347**	**318,355,420**	**5,218,941**

Notes: The shortfall is calculated as the difference between the new capital requirements and the capital held at the firm level. Local firms and commodity derivatives investment firms were excluded from the impact analysis.

13.3.4 Liquidity requirements impact

399. Under Article 6 of the CRR specifies that only investment firms authorised to provide MiFID investment services A3 and A6 should be subject to the provisions of Part Six on Liquidity, for which competent authorities may exempt them from compliance with these provisions pending a report from the Commission in accordance with Article 508(3). Table 25 reveals that only a 6% of the sample is currently subject to the LCR.

Table 25: Number of firms subject to the LCR

Liquidity requirement	Number of firms in the sample	% of total
Not subject to LCR	909	94%
Subject to LCR	62	6%
Total	**971**	**100%**

400. To assess the impact of the liquidity requirements, the total amount of liquid assets reported by investment firms is compared against 1-month FOR. Firms which do not hold enough liquid assets to cover 1-month FOR are recorded as having a liquidity shortfall. Table 26 shows that only 9% of the sample will experience a liquidity shortfall, with Class 3 firms slightly more affected. The impact may be underestimated as the value of liquid assets was not subject to the LCR haircuts. When only cash is considered as eligible liquid assets, 11% of the firms experience a liquidity shortfall.

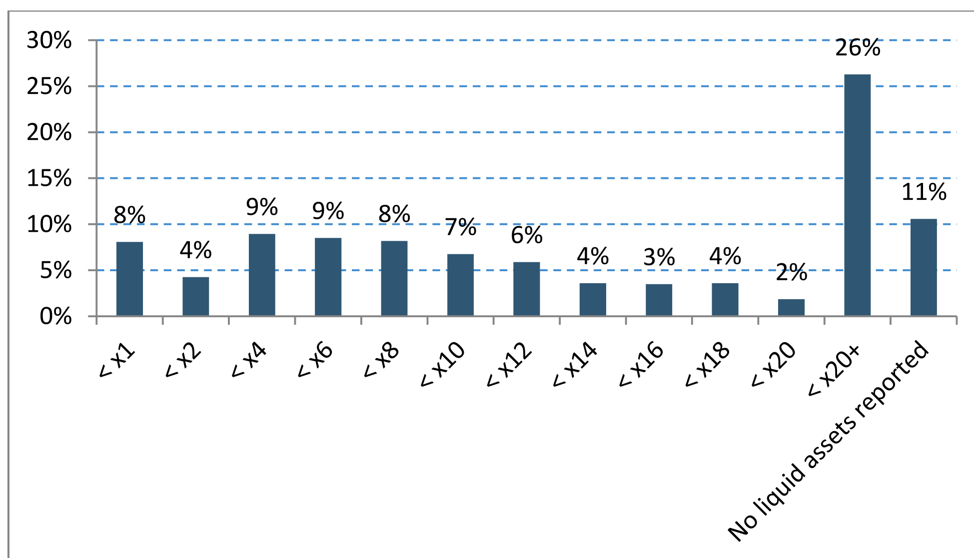
Table 26: Number of firms with a liquidity shortfall by Class

Class	Number of firms in the sample*	Number of firms in the sample with a shortfall when all liquid assets are considered (% of total)	Number of firms in the sample with a shortfall when only cash is considered as liquid asset (% of total)
Class 2 firms	461	35 (8%)	49 (11%)
Class 3 firms	359	39 (11%)	42 (12%)
Total	**820**	**74 (9%)**	**91 (11%)**

Notes: The sample excludes firms that did not report FOR or liquid assets LCR haircuts are not applied to liquid assets.

401. Figure 5 shows the total liquid assets as percentage of the 1-month FOR liquidity requirement. Most firms hold amounts of liquid assets well in excess of the liquidity requirement, with around 70% of the sample holding more than 3-month FOR.

Figure 5: Total liquid assets as percentage of 1-month FOR



13.4 Calibration

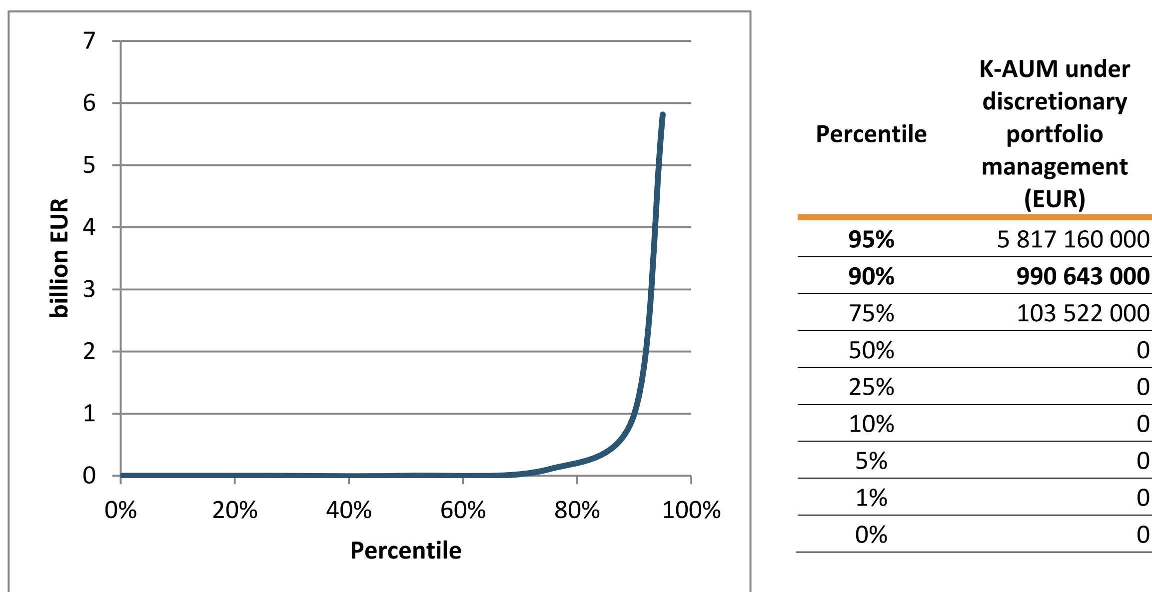
13.4.1 Categorisation

402. The categorisation is based on a threshold approach whereby an investment firm is precluded from being in Class 3 if an indicator exceeds a pre-defined threshold (categorisation thresholds). The selected indicators are the K-factors and a set of size metrics to reflect the risk that an investment firm can pose to customers and markets and thus its potential impact on others.

403. For the calibration of the pre-defined thresholds, the distribution of each indicator (K-factor or size metric) was examined individually, under the assumption that a high percentile will be a good approximation to capture those investment firms that can have a greater impact on customers and markets. Although there is no theoretically “correct” answer on which percentile of the distribution to consider, the EBA considered the 90% percentile as a reasonable level after assessing the number of firms that would fall under Class 2 and Class 3.

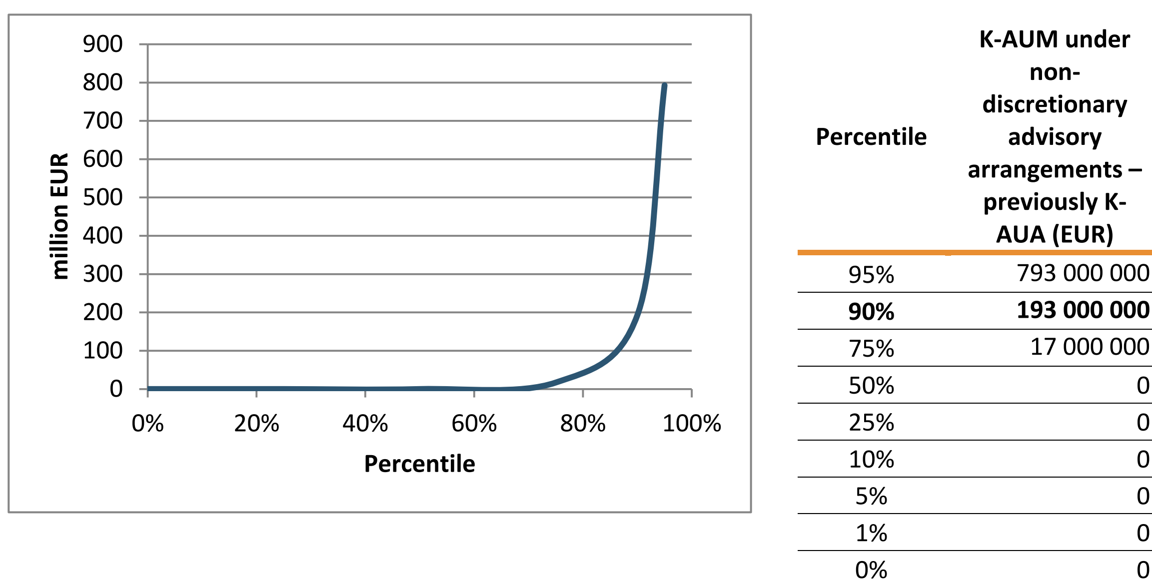
404. The distribution of K-AUM was analysed separately for assets under discretionary portfolio management and non-discretionary (advisory) arrangements (previously K-AUA), as was originally intended in the Discussion Paper. Figure 6 show that the 90% percentile for assets under discretionary portfolio management would bring the threshold to EUR 1 billion between Classes 2 and 3. Similarly Figure 7 shows that the 90% percentile for assets under non-discretionary (advisory) arrangements (previously K-AUA) indicates a threshold of EUR 200 million. The indicative threshold for assets under non-discretionary (advisory) arrangements (previously K-AUA) is one fifth that for assets under discretionary portfolio management, which does not seem consistent with the fact that investment advice is intrinsically less risky than portfolio management, but can be explained by the fact that advisory firms were underrepresented in the data collection. Some competent authorities have noted that it is not always easy to distinguish between K-AUA and K-AUM (practices vary between Member States). Therefore, a combined threshold of K-AUM for assets under discretionary portfolio management and non-discretionary (advisory) arrangements set at EUR 1.2 billion was considered more reasonable.

Figure 6: Distribution of K-AUM under discretionary portfolio management (limited to 95%)



Percentile	K-AUM under discretionary portfolio management (EUR)
95%	5 817 160 000
90%	**990 643 000**
75%	103 522 000
50%	0
25%	0
10%	0
5%	0
1%	0
0%	0

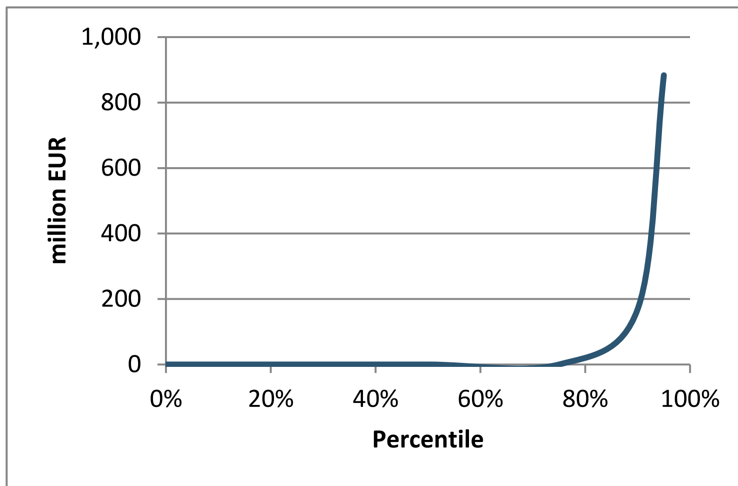
Figure 7: Distribution of K-AUM under non-discretionary advisory arrangements - previously K-AUA (limited to 95%)



Percentile	K-AUM under non-discretionary advisory arrangements – previously K-AUA (EUR)
95%	793 000 000
90%	**193 000 000**
75%	17 000 000
50%	0
25%	0
10%	0
5%	0
1%	0
0%	0

405. The distribution of K-ASA is presented in Figure 8 and the 90% percentile indicates a threshold of EUR 170 million. However, the activity of K-ASA is considered risky enough to be a condition of excluding any firm from belonging to Class 3 if it is a positive amount. Therefore, it is suggested to preclude a firm from Class 3 if K-ASA is higher than zero.

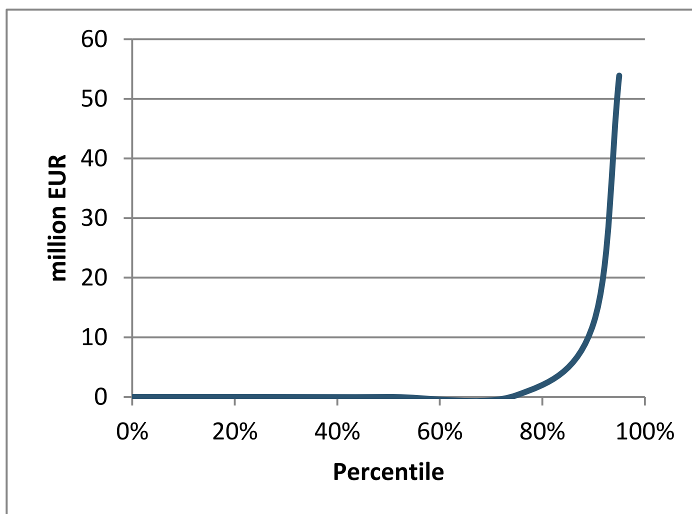
Figure 8: Distribution of K-ASA (limited to 95%)



Percentile	K-ASA (EUR)
95%	883 498 000
90%	**169 131 000**
75%	89 000
50%	0
25%	0
10%	0
5%	0
1%	0
0%	0

406. Figure 9 shows the distribution of client money held, where the 90% percentile indicates a threshold of around EUR 12 million. As in the case of K-ASA, K-CMH does not need a threshold based on a percentile, as it is considered a risky activity, and therefore it is recommended that all the firms that have K-CMH higher than zero shall fall under Class 2.

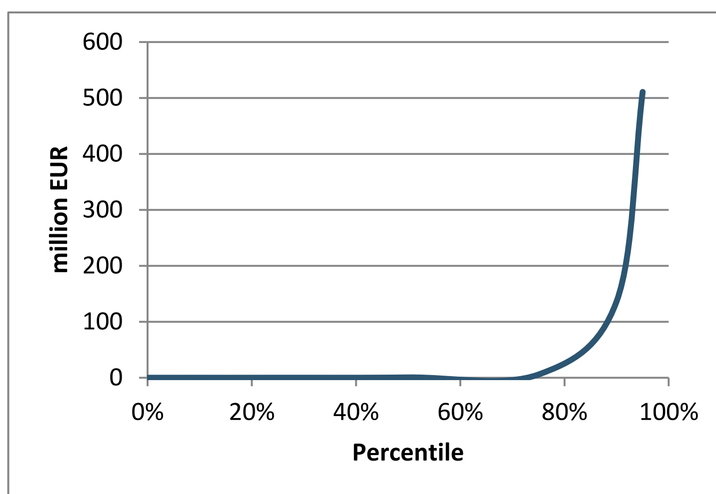
Figure 9: Distribution of K-CMH (limited to 95%)



Percentile	K-CMH (EUR)
95%	53 899 094
90%	**12 390 700**
75%	301 150
50%	0
25%	0
10%	0
5%	0
1%	0
0%	0

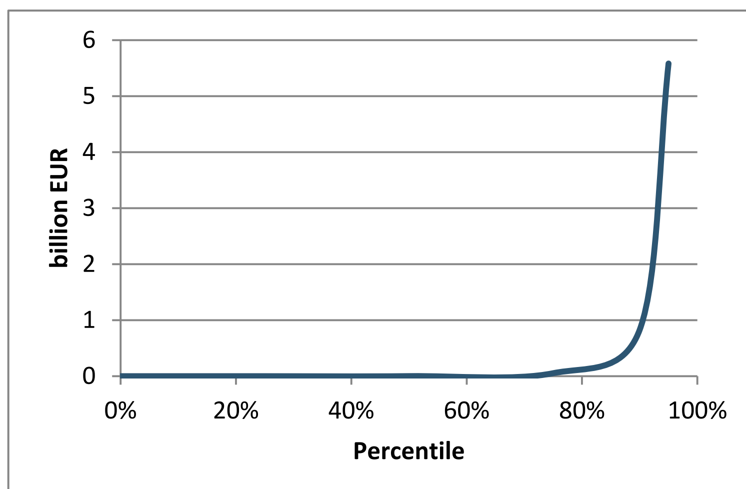
407. Client orders handled (K-COH) is based on the total value of transactions, and the 90% percentile shows that the threshold would be EUR 100 million a day for cash trades and EUR 1 billion a day for derivatives (Figure 10, Figure 11).[30]

Figure 10: Distribution of K-COH cash trades (limited to 95%)



Percentile	K-COH cash trades (EUR)
95%	510 886 000
90%	**136 495 000**
75%	5 699 500
50%	566 985
25%	45 173
10%	8 808
5%	1 000
1%	1
0%	0

Figure 11: Distribution of K-COH derivatives (limited to 95%)



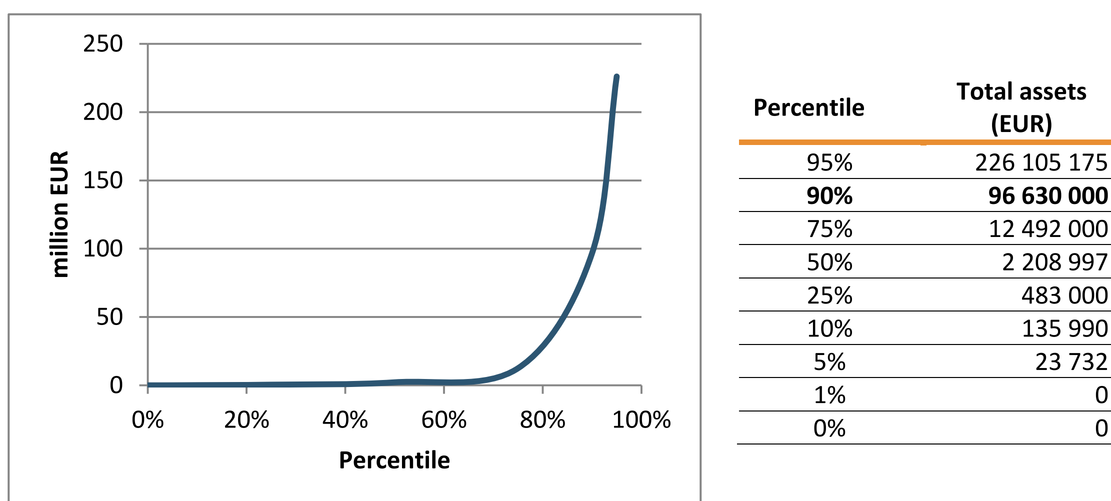
Percentile	K-COH derivatives (EUR)
95%	5 583 290 000
90%	**829 133 000**
75%	53 354 800
50%	1 217 410
25%	16 000
10%	1 200
5%	200
1%	0
0%	0

408. In addition to the K-factor thresholds, the distribution of two additional size metrics is analysed to capture large investment firms, based on the assumption that their footprint in

[30] As the split between cash trades and derivatives was not available in the first data collection, the thresholds are calibrated based on the customer orders executed collected from the supplementary data collection (keeping in mind that it does not include the service of reception and transmission of orders).

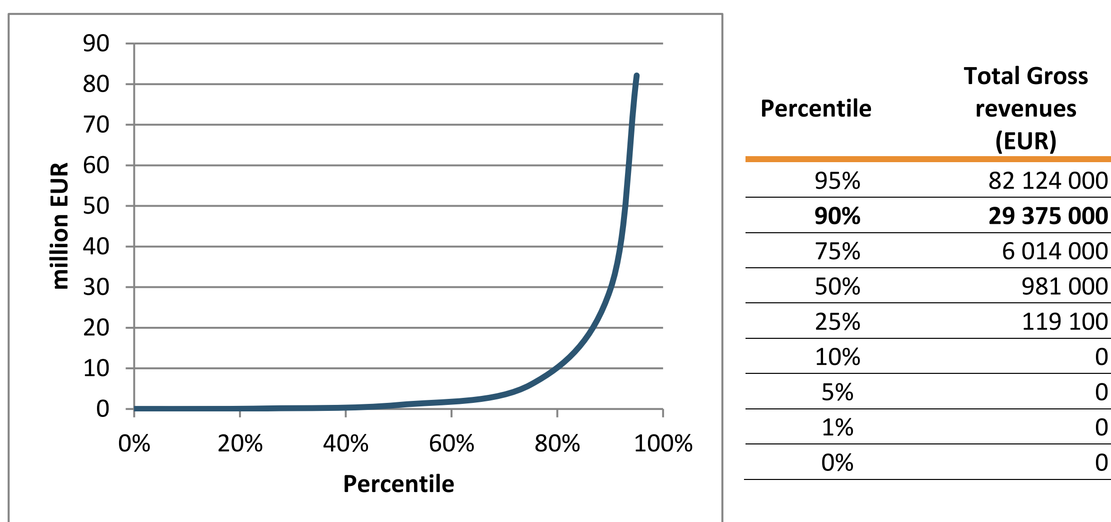
the market is potentially large. Taking into account the different business models that investment firms may have, the EBA assessed potential thresholds based on the balance sheet size and total gross revenues. According to Figure 12 and Figure 13, the 90% percentile would indicate a threshold of around EUR 100 million for balance sheet size and s is EUR 30 million for total gross revenue.

Figure 12: Distribution of total assets (limited to 95%)



Percentile	Total assets (EUR)
95%	226 105 175
90%	**96 630 000**
75%	12 492 000
50%	2 208 997
25%	483 000
10%	135 990
5%	23 732
1%	0
0%	0

Figure 13: Distribution of total gross revenues (EUR)



Percentile	Total Gross revenues (EUR)
95%	82 124 000
90%	**29 375 000**
75%	6 014 000
50%	981 000
25%	119 100
10%	0
5%	0
1%	0
0%	0

409. The distribution of most K-factors showed that only about a third of the sample reported positive values for each of the K-factors, so most percentiles below the 75th percentile equal zero. Thus, although thresholds above the 75th percentile would seem to lead to only

a small proportion of the total sample being excluded from Class 3, they would still capture a relatively large proportion of firms for which a specific K-factor is relevant; in other words, they will still cover the larger firms in terms of size of activity within specific types of business model. In addition, different firms are expected to be captured by different K-factors, reflecting the diverse range of investment firms, so that the total number of firms excluded from Class 3 is ultimately higher once all the K-factor thresholds are considered in conjunction.

410. The resulting categorisation thresholds would be the following:

a) K-AUM is higher than EUR 1.2 billion;
b) K-COH is at least EUR 100 million a day for cash trades and/or at least EUR 1 billion a day for derivatives;
c) K-ASA is higher than zero;
d) K-CMH (client money held) is higher than zero;
e) K-NPR, K-CMG or K-DTF is higher than zero;
f) Balance sheet total is higher than EUR 100 million;
g) Total gross revenues are higher than EUR 30 million.

411. Table 27 shows in more detail how many firms are below each K-factor threshold (individually) and how many in firms fall under all K-factor thresholds. In the case of K-TCD and K-NPR, the number of firms exceeding the thresholds may be overestimated as a result of the way firms reported these figures, which may include non-trading book positions. Approximately 32% of the sample would fall in Class 3 if only the K-factors are considered and would therefore be a reasonable point of reference to identify the line between Classes 2 and 3. The EBA judged that setting the thresholds at lower percentiles would result in many small and non-interconnected firms being included in Class 2, which would go against the objective of proportionality and the need to have a simpler regime for these firms.

Table 27: Class 3 firms based on individual K-factors

	Number of firms in the sample	K-AUM (less than EUR 1.2 bn)	K-NPR (Zero value)	K-CMH (Zero value)	K-DTF (Zero Value)	K-TCD (Zero Value)	K-ASA (zero value)	K-COH (cash trades less than EUR 100 m or derivatives trades less than EUR 1 bn)	Under all K-factors thresholds
Austria	3	3	3	3	3	3	3	3	3
Belgium	20	19	17	16	18	0	16	20	0
Bulgaria	44	44	25	3	23	8	4	44	2
Croatia	8	8	4	1	7	1	4	8	1
Cyprus	3	3	2	3	3	1	3	3	1
Czech Republic	17	14	1	2	10	0	4	17	0
Denmark	15	9	4	14	13	6	14	15	0
Estonia	3	3	0	0	1	0	0	3	0
Finland	2	1	1	0	2	0	0	2	0
France	57	56	45	44	51	42	47	56	23
Germany	122	107	109	120	115	99	122	122	83
Greece	57	56	27	16	46	17	23	57	10
Hungary	7	6	2	0	5	1	2	7	0
Ireland	81	57	43	59	76	16	66	81	10
Italy	51	41	32	23	42	9	23	51	6
Latvia	4	4	2	1	4	3	1	4	1
Lithuania	5	5	4	1	4	1	1	5	1
Luxembourg	82	77	69	68	79	45	67	81	38
Malta	48	48	31	25	44	23	32	48	13
Netherlands	216	191	183	202	204	192	196	213	129
Norway	62	57	48	43	62	2	52	62	1
Poland	47	47	26	18	30	4	22	47	3
Portugal	8	7	7	2	8	3	6	8	1
Romania	25	25	5	0	15	0	1	25	0
Slovakia	15	15	7	2	15	1	3	15	0
Slovenia	2	2	0	0	0	0	0	2	0
Spain	99	94	78	80	92	61	79	98	56
Sweden	1	0	0	1	0	1	1	0	0
United Kingdom	95	53	34	57	79	13	70	94	2
Total	**1199**	**1052**	**809**	**804**	**1051**	**552**	**862**	**1191**	**384**
% of total	**100.0**	**87.7**	**67.5**	**67.1**	**87.7**	**46.0**	**71.9**	**99.3**	**32.0**

412. According to Table 28, when the size thresholds are also taken into account, no additional firms of the sample will be excluded from Class 3.

Table 28: Population of Class 2 and Class 3 firms

	Number of firms in the sample	Firms under all K-factor thresholds	Balance sheet threshold 90th percentile (higher than EUR 100m)[a]	Gross revenues threshold 90th percentile (higher than EUR 30m)[a]	Balance sheet and gross revenues threshold 90th percentile (higher than EUR 30m and EUR 100m respectively)= Class 3[a]	Firms over K-factor and size thresholds = Class 2
Austria	3	3	0	0	0	0
Belgium	20	0	2	1	2	20
Bulgaria	44	2	3	2	5	42
Croatia	8	1	0	0	0	7
Cyprus	3	1	0	0	0	2
Czech Republic	17	0	3	3	5	17
Denmark	15	0	0	3	3	15
Estonia	3	0	0	1	1	3
Finland	2	0	0	0	0	2
France	57	23	14	14	18	34
Germany	122	83	5	10	10	39
Greece	57	10	4	1	5	47
Hungary	7	0	1	1	1	7
Ireland	81	10	10	14	18	71
Italy	51	6	5	5	6	45
Latvia	4	1	0	0	0	3
Lithuania	5	1	0	0	0	4
Luxembourg	82	38	2	4	5	44
Malta	48	13	4	4	5	35
Netherlands	216	129	11	10	16	87
Norway	62	1	5	4	6	61
Poland	47	3	5	2	5	44
Portugal	8	1	0	0	0	7
Romania	25	0	0	0	0	25
Slovakia	15	0	0	0	0	15
Slovenia	2	0	0	0	0	2
Spain	99	56	8	5	8	43
Sweden	1	0	1	1	1	1
United Kingdom	95	2	46	54	62	93
Total	**1199**	**384**	**129**	**139**	**182**	**815**
% of total	**100.0**	**32.0**	**10.8**	**11.6**	**15.2**	**68.0**

13.4.2 K-factor approach

General principles

413. The calibration of the K-factor capital requirements requires, inter alia, clarifying the role of the minimum capital requirements under the new prudential framework, ensuring consistency with the categorisation criteria, and assessing the costs and benefits of different calibrations.

414. The new prudential regime envisages three different levels of capital requirements: the PMC and the FOR, which act as floors for all investment firms and the K-factor capital requirement for Class 2 firms. The PMC is the amount needed for an investment firm to maintain its authorisation licence, while the FOR can be seen as an amount sufficient for the investment firm to support an orderly wind-down. In contrast, the main objective of the K-factor capital requirements is to address the impact that investment firms can have on customers and markets.

415. For smaller firms and some firms with lesser risky business models, ensuring a smooth liquidation would be enough to preserve financial stability, as these firms have no or limited interconnectedness to the overall financial system. Hence, the FOR and PMC are considered sufficient gone-concern capital requirements for this type of firm. Instead, the calibration for K-factor capital requirements should target the higher potential impact on customers and markets that follows as a consequence of the firm's size or business models. Thus, the K-factor capital requirements should ensure that these investment firms remain viable and investors are well protected while, in the case of default, the risks to customers and markets are contained.

416. When deciding on the appropriate calibration, it should be kept in mind that only Class 2 firms would be subject to the K-factor capital requirements, with FOR and PMC still acting as floors. Given this, the calibration needs to be set at a level that ensures that both elements remain consistent and complement each other. On that basis, most of the larger firms in Class 2 or the ones that pose significant risks to customers, markets and financial stability are expected to be captured by the K-factor approach.

417. The calibration should also take into account the intention of the EBA of not significantly increasing the overall capital requirements. The calibration target is the current Pillar 1 requirements. It should be noted, however, that the target is set at the EU level and therefore firm-level and country-level variations may exist, with firms currently subject to minimal or no capital requirement expected to see a significant but justifiable impact. On that basis, the calibration follows a reiterative process, in which the impact of each calibration is assessed, and, if needed, the calibration is adjusted accordingly to reach a final level, which is acceptable in terms of the impact.

Methodology

418. The EBA has adopted a bottom-up approach for the calibration of the K-factor approach, whereby each K-factor coefficient is calibrated individually and then the results are combined to reach a final calibration. It is important to highlight that there is not a single correct method to determine the calibration, and the bottom-up approach has been chosen on the basis of its economic intuitiveness as opposed to purely data-driven methods.

419. Under this approach, the K-factor coefficients are calibrated so that the K-factor capital requirements are binding for a given share of investment firms. Accordingly, calibrating the

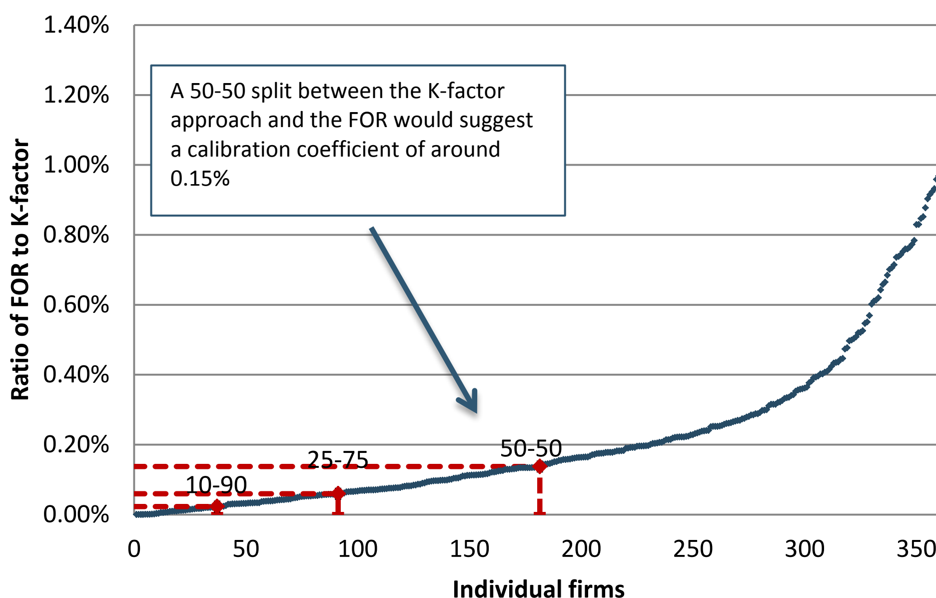
coefficients involves choosing the proportion (or split) of investment firms that are expected to be bound by the K-factor requirements against the proportion of firms that are expected to be subject to the FOR.

420. The starting point of the analysis was based on the calculation of the ratio of the FOR to each K-factor separately. Then, different levels of split between the proportion of firms that are expected to be subject to the K-factors and those subject to the FOR were considered. As an example, a target split of 50-50 would imply that half of the firms are bound by the K-factor approach and the remaining half are subject to the FOR under a single K-factor. For the analysis, the following splits (K-factor – FOR) were assessed:

a) The 50th percentile (50-50 split between firms);
b) The 75th percentile (25-75 split between firms);
c) The 90th percentile (10-90 split between firms).

421. Figure 14 illustrates how the approach works in practice. For each K-factor, the scatterplot of the ratio of the FOR to that K-factor metric is plotted and different calibration coefficients are retrieved based on the aforementioned split levels. For example, a 50-50 split between the K-factor approach and the FOR would suggest a calibration coefficient of around 0.15%. To put it another way, a calibration coefficient of 0.15% would imply that for half of the firms the K-factor requirements would be the binding constraint, while the other half would be subject to the FOR. The same procedure is repeated for all the K-factors separately, considering each time only the firms that provided information for that specific K-factor metric. As a result, the number of firms used for each calibration may vary across K-factors, depending on the data availability.

Figure 14: FOR to K-factor ratio scatterplot with different levels of calibration



422. The key criterion of the calibration is to have a level of capital requirements on an aggregate level under the new framework that does not diverge excessively from the current aggregated level. However, it is recognized that some firms are expected to experience some increase in their capital requirements. This is driven by the other criterion used for the calibration, which consist of targeting the larger firms (i.e. being subject to the K-factor capital requirements), especially large asset managers, consistently with the proposed categorisation. This implies that the calibration coefficients should be set at a level where the K-factor requirements become the binding requirement and exceed the FOR requirements for most of the major investment firms in Class 2.

423. Although there is not optimal solution for the choice of the cut-off level, the 90th percentile produces a level for the new capital requirements that is consistent with the current level of requirements in the system.

Calibration coefficients

424. Table 29 shows the calibration coefficients for a subset of K-factors using the 90th percentile split level. The K-COH was calibrated based on the K-DTF data due to data quality issues.

Table 29: Calibration coefficients

K-Factor		Coefficient
Assets under management– under both discretionary portfolio management and non-discretionary (advisory) arrangements	K-AUM	0.02%
Client money held	K-CMH	0.45%
Assets under safekeeping and administration	K-ASA	0.04%
Client orders handled	K-COH cash trades	Same as for DTF
	K-COH derivatives	Same as for DTF
Daily trading flow	K-DTF cash trades	0.1%
	K-DTF derivatives	0.01%

Minimum requirement driver

425. Table 30 illustrates the proportion of firms that would be bound by the K-factor requirement, the PMC or the FOR by business model. The 90th percentile calibration results in around 29% of the sample bounded by the K-factors approach, 39% by the FOR and 32% by the PMC.

Table 30: Proportion of firms subject to K-factor, FOR and ICR, by business model

Business model	Number of firms in the sample	K-Factor	FOR	PMC
Custodians	17	4	7	6
Execution brokers	92	22	33	37
Investment advisors	87	18	37	32
MTF	8	1	6	1
Firms placing financial instruments on a firm commitment basis	12	3	3	6
Portfolio managers	533	133	237	163
Trading firms	69	32	16	21
Multi-service investment firms	93	47	17	29
Wholesale market brokers	9	2	6	1
Total	**920**	**262**	**362**	**296**

Other considerations

426. In determining the exact level of the calibration coefficients, three approaches were considered:

a) Linear approach;

b) Non-linear approach;

c) Banding approach.

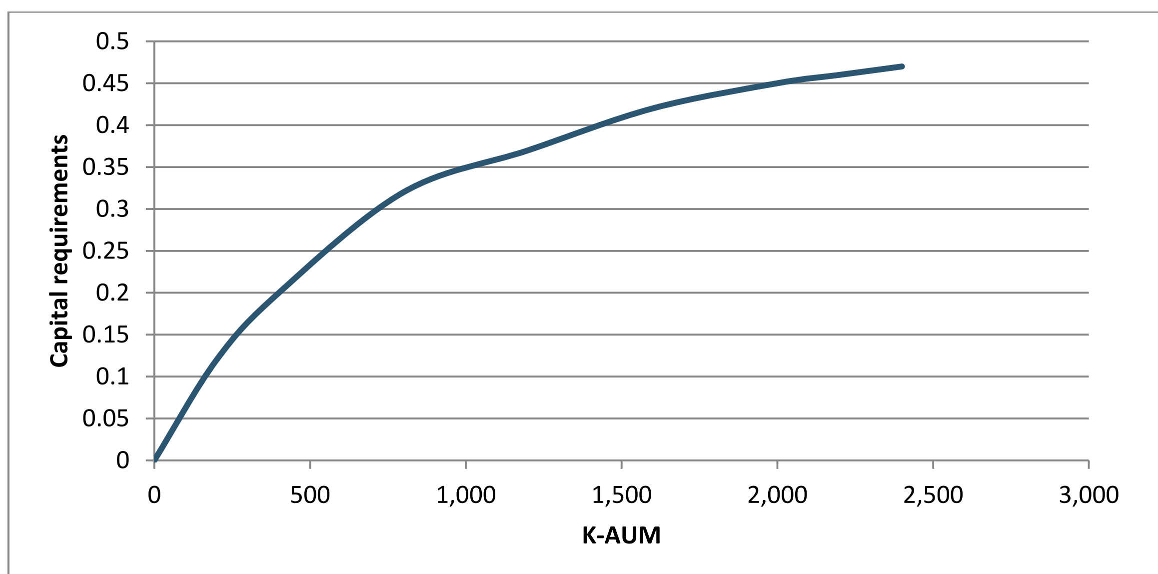
427. The first approach assumes a linear relation between capital requirements and the K-factors, and applies a constant coefficient to all investment firms regardless of the level in underlying K-factor metrics. The formula is as follows:

Capital requirement = *a* × K-AUM + *b* × K-CMH + *c* × K-ASA + *d* × K-COH + K-NPR+ *e* × K-DTF + K-TCD + K-CON

where the *a*, *b*, *c*, *d* and *e* coefficients are constant, irrespective of the level of the K-factor.

428. The second approach assumes a logarithmic relation between capital requirements and the K-factors, where capital requirements increase less than proportionally with the K-factors. Figure 15 provides a working example for K-AUM. The figure is for illustration purposes only and do not accurately reflect the relation between K-AUM and capital requirements. As shown in the figure, the marginal impact of K-AUM on capital requirements is decreasing with the level of K-AUM.

Figure 15: Example of capital requirements for K-AUM under the non-linear approach - for illustration purposes only

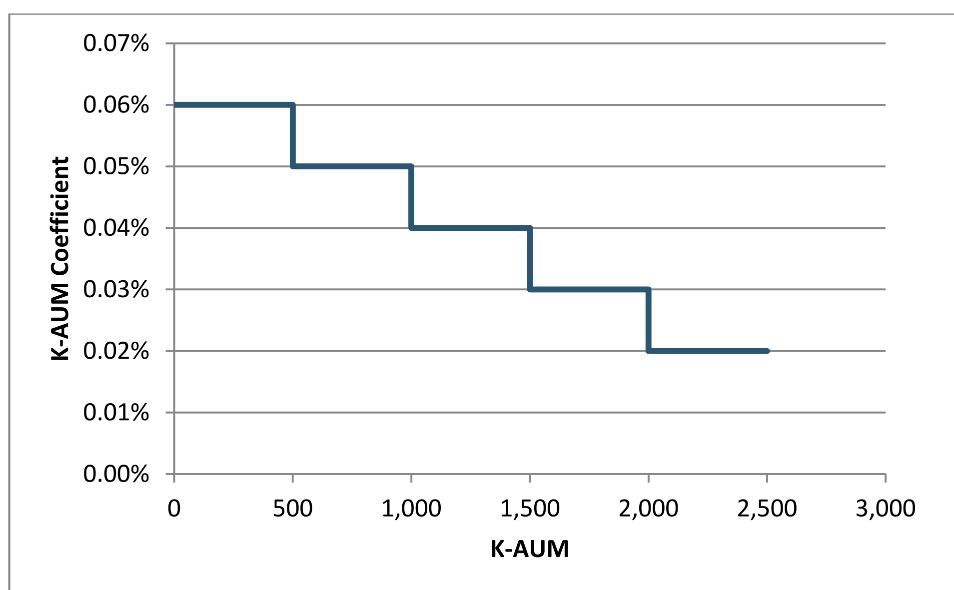


429. The third option uses discrete bands (e.g. five different bands) according to the value of the K-factor. The calibration includes progressively decreasing marginal coefficients for the K-factors. This is in similar vein as the non-linear approach, where capital requirements increase with the K-factors but at a decreasing rate. However, unlike the second method, it can create cliff effects. Figure 16 provides an example of the banding approach for K-AUM. The figure is for illustration purposes only and do not accurately reflect the relation between K-AUM and calibration coefficients. Firms in the first band with K-AUM below 500 million EUR will apply a calibration coefficient of 0.06%. Firms in the second band with K-AUM between 500 million EUR and 1000 million EUR, will have to apply a calibration

coefficient of 0.06% for the first 500 million EUR of K-AUM and a calibration coefficient of 0.05% for the remaining amount of K-AUM.

430. Both the second and third approach assumes that the risks posed by the investment firm increase less than proportionally with the size of the underlying K-factors. Thus, larger firms will be subject to – on relative terms – lower capital requirements than smaller firms. This goes against the principle of proportionality, which has been among the key objective of the EBA. Therefore the linear approach has been preferred.

Figure 16: Example of calibration coefficients for K-AUM under the banding approach - for illustration purposes only



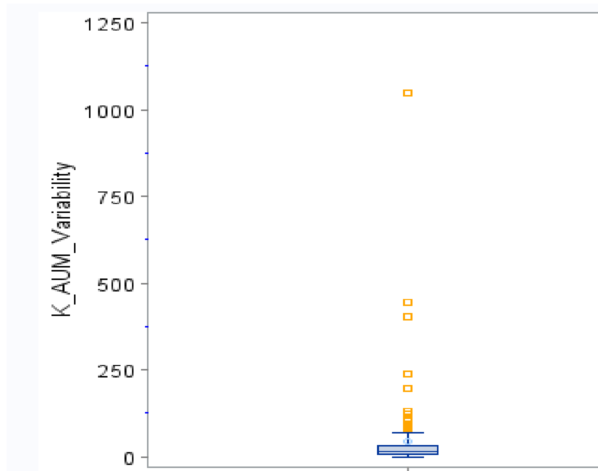
13.5 Variability analysis

431. The variability analysis aims to obtain an estimate of the potential volatility in K-factors over time. Variability is measured as the difference between the maximum value for the K-factor over the year and the respective end-of-year value, divided by the end-of-year value and multiplied by 100. For the case of K-DTF and K-COH, the end-of-year value is replaced by the average value within the respective period.

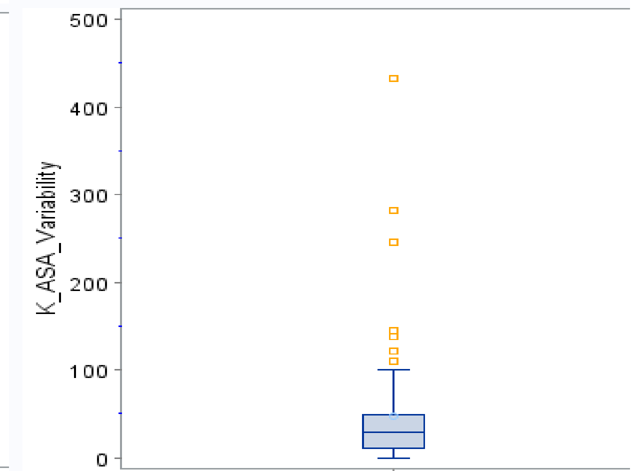
432. Figure 17 shows that all volume-based K-factors exhibit considerable variability within the relevant period, which can justify the introduction of a 'smoothing' mechanism for these K-factors (see Section 5.8 for more details).

Figure 17: Variability analysis by each K-factor

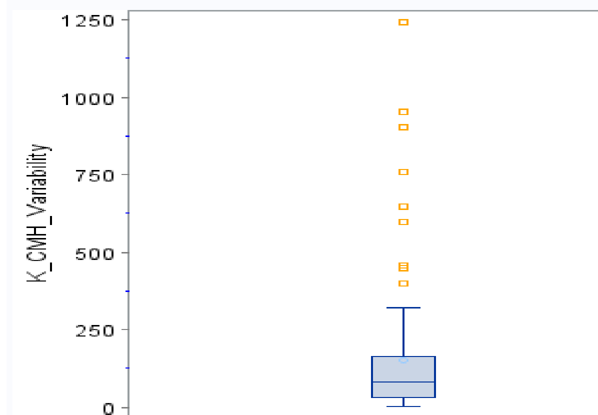
K-AUM variability (%)



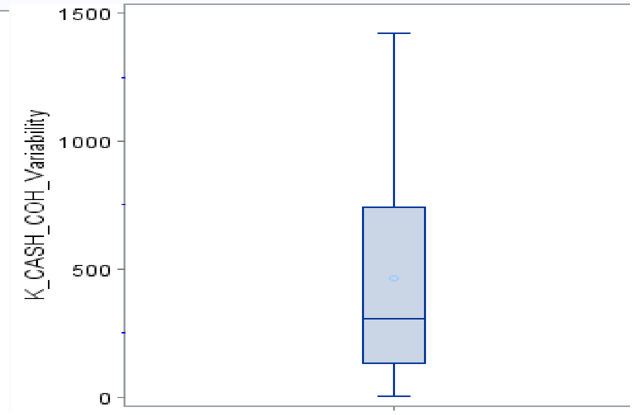
K-ASA variability (%)



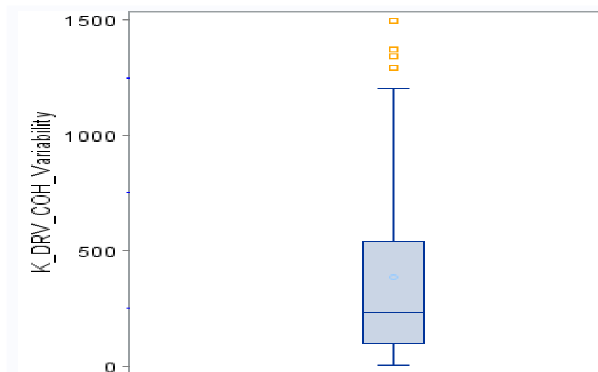
K-CMH variability (%)



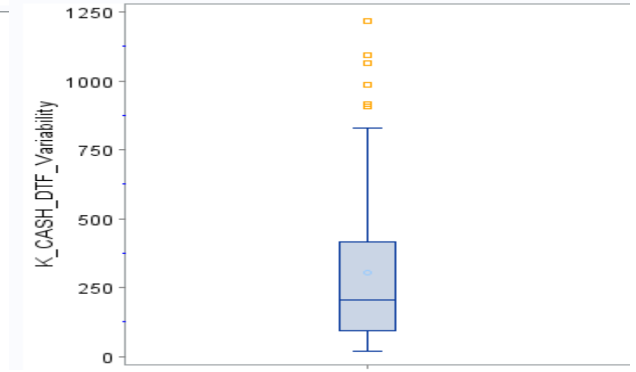
K-COH cash trades variability (%)



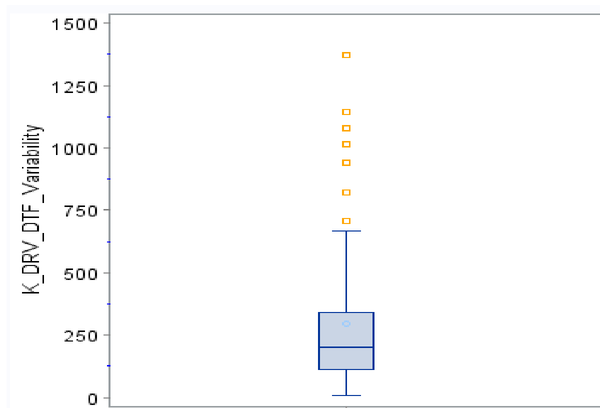
K-COH derivatives variability (%)



K-DTF cash trades variability (%)



K-DTF derivatives variability (%)



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