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Compendium of Supplementary Guidelines on implementation issues of operational risk

A. INTRODUCTION

1. Given the young and evolutionary nature of operational risk as a risk management discipline, one of the biggest challenges firms face in the implementation of Directive 2006/48/EC is the establishment of an operational risk framework which, on the one hand, is able to improve the way operational risks are identified, controlled and mitigated and, on the other hand, correctly reflects the level of operational risk the firms are exposed to.
2. The information gathered and the experience gained within the EU supervisory community during the initial phase of the adoption of the new regulatory capital framework provide evidence that the quality of the operational risk management and measurement frameworks of firms is dependent on their proper recognition and timely resolution of the issues that emerge through the phases of definition, establishment and maintenance of such frameworks.
3. In light of this, after publishing the Guidelines on the validation and assessment of the Advanced Measurement (AMA) and Internal Ratings Based (IRB) Approaches (GL10, April 2006)¹, CEBS has continued to work on issues arising from the implementation of the AMA, Standardised (TSA/ASA) and Basic Indicator (BIA) approaches for operational risk. The period after the publication of the GL10 has proved to be a good test of the principles stated in it and has pointed up areas requiring further clarification and supervisory guidance.
4. Consistently with GL10, this new Operational Risk Compendium represents CEBS' current thinking and expectations and aims to promote a higher level of homogeneity and common understanding among

¹ CEBS Electronic Guidebook, pp 110 – 273 <http://www.c-eps.org/getdoc/e59e3da6-aea8-43f0-b967-a12e34ff9ef2/2008-09-03-EGB2.aspx>

competent authorities on several issues that have emerged from building operational risk frameworks.

5. Unlike other guidelines, this Operational Risk Compendium is not structured as comprehensive guidance but as a collection of individual guidance papers on particular operational risk implementation issues which will be enlarged and updated on a regular basis. The focused guidelines are structured as semi-independent documents, allowing their stand-alone use (i.e. each with its own introduction, main body, etc.), but at the same time following an overarching approach and allowing their use in conjunction with other documents, thus contributing to the provision of CEBS' views on wider issues related to operational risk.
6. The main purpose of the individual papers - drafted as guidance to supervisors, but also relevant to firms - is to support the work of the national authorities in their assessment and review of the operational risk frameworks of firms. They will thereby help to create a level playing field and to foster the convergent application of the operational risk regulatory framework across the EU.
7. The considerations described in GL10, in particular those regarding the purpose, scope of application and good faith principle, also apply to the guidelines included in this Compendium. The topics are included once they become sufficiently relevant to industry practices and there is sufficient experience of them². Depending on the type of topics, the guidelines refer to all firms subject to the CRD's provisions or only to those firms adopting a specific approach for calculating operational risk regulatory capital. This Compendium, published as part of CEBS' electronic guidebook, is structured into three sections:
 - a) this introduction;
 - b) an "executive summary", which provides essential information on the topics, characteristics and objectives of each published document; and

² The chosen approach means that some topics, although deemed relevant in the context of an AMA framework are not addressed until their level of development within the industry is deemed adequate (for instance, this currently applies, amongst others, to correlation, insurance and other risk transfer mechanisms, back-testing and benchmarking). Accordingly, principles and guidelines as expressed in the CRD and GL10 are for the time being considered sufficient to allow a flexible "evolution path" for such elements while respecting minimum supervisory standards. As more knowledge and experience is gained on them within the industry and supervisory authorities, these topics may be covered by CEBS to identify practices, develop a common supervisory view and deliver relevant implementation guidelines.

- c) the main section containing the individual guidance papers, categorised according to the potential recipient (all firms, BIA firms, TSA/ASA firms, or AMA firms).

B. EXECUTIVE SUMMARY OF THE PUBLISHED GUIDANCE PAPERS

The scope of operational risk and operational risk loss

8. The guidelines on “The scope of operational risk and operational risk loss” are intended to meet the well recognised need to have definitions of the scope of operational risk and of operational risk loss which are unambiguous and meet the prudential criteria so allowing firms to achieve high standards in terms of capturing and representing their operational risk profile.
9. The paper aims to identify those industry practices for the categorisation of the “scope of operational risk” and the “scope of operational risk loss” which are considered to be consistent with achieving the stated purposes. The document is intended to be a helpful tool for national supervisors in examining, assessing and reviewing the operational risk frameworks developed and implemented by AMA and TSA (or ASA) firms.
10. The BIA firms are also encouraged to adopt such practices, to make their operational risk frameworks more effective. Greater consistency by all firms across different jurisdictions in terms of the scope of their operational risk and operational risk loss will contribute to a level playing field.

The use test for AMA firms

11. The guidelines on “The use test for AMA firms” originate from the consideration that the use test requirement obliges an AMA firm to ensure that its operational risk measurement system is not solely used for calculating regulatory capital, but is also integrated into the day-to-day business process, embedded within the various entities of the group and used for risk management purposes on an on-going basis.
12. The objective of this paper is to build on the four use test principles outlined in the GL10 both by describing what should be considered to be an appropriate interpretation of the use test by an AMA firm and by identifying what the supervisory expectations are at the beginning, and in a “business as normal” scenario for the AMA framework.

The allocation of the AMA capital

13. The guidelines on “The allocation the AMA capital” describe the range of allocation mechanisms which are currently used by major EU banking

groups and outline the range of sound practices in terms of the assessment of allocation mechanisms and home-host related issues.

C. PUBLISHED GUIDANCE PAPERS

LEVEL OF APPLICATION: ALL FIRMS

Guidelines on the scope of operational risk and operational risk loss

1. Introduction

1. Operational risk is mainly triggered by a firm's internal drivers. This is evident in the definition of operational risk itself in Directive 2006/48/EC (CRD), where the drivers of the risk are stated to be found (apart from external events) in "inadequate or failed internal processes, people and systems".
2. Given the nature of operational risk, its correct classification for management and measurement, as well as supervisory, purposes requires an unambiguous definition of the "scope of operational risk" and appropriate criteria and procedures to identify and capture the risk wherever it may occur.
3. The CRD provides little guidance on how to distinguish operational risk from the range of other risks arising within business and support areas.
4. In particular, due to legal considerations, the CRD gives a positive definition of operational risk, the consequence being that it is silent with respect to strategic and reputational risks; risks that are explicitly excluded from the scope of operational risk in the Basel II Accord framework³. Despite such differences in the texts, the definition of operational risk within the CRD should be read consistently with that of the Basel Accord, meaning that reputational and strategic risks should be excluded from the scope of operational risk⁴.
5. On the other hand the CRD explicitly includes legal risk - as the Basel II Accord does - in the definition of operational risk and this should include every type of legal event triggered by operational risk, regardless of how it is labelled (e.g. compliance risk, environmental risk).

³ "Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework", November 2005.

⁴ In the answer to the question n. 210, published on February 26th, 2007 the CRDTG expressed the same view for strategic risk.

6. With reference to the interaction between operational risk and the other Pillar 1 risk types, for AMA firms the CRD deals with the boundaries between operational risk and credit and market risks with potentially different treatments for the two types of boundaries. While credit-related operational risk losses are excluded from the operational risk capital requirement (as long as they continue to be treated as credit risk for the purpose of calculating minimum regulatory capital), operational risk/market risk boundary events are included in the scope of operational risk for regulatory capital calculation. The CRD does not provide any guidance on how to distinguish between those boundary events which are to be included in the operational risk capital requirement, and the “pure market risk” events which are to be excluded from the operational risk requirement.
7. A further aspect that can generate inconsistencies within and across jurisdictions is the interpretation of the “scope of operational risk loss”. This issue, which is neither addressed in the CRD nor in the Basel Accord, refers to the type of events, whether or not having a quantifiable loss impact, to be included in the operational risk database and the purposes for which they are included (e.g. for management and/or for measurement purposes).
8. The inclusion or exclusion of some elements/items from the scope of operational risk loss can produce a very different loss outcome, even for firms with the same risk profile with unavoidable consequences in terms of management practices and economic and regulatory capital requirements, as well as unknown consequences for the quality and consistency of consortia loss data.

2. Objectives and content

9. The definition of “scope of operational risk” and “scope of operational risk loss” in ways which are unambiguous and consistent with prudential criteria are important in order to achieve high standards in terms of capturing and representing the firm’s operational risk profile.
10. Each firm has its individual operational risk profile, and therefore needs to define its individual scope of operational risk and operational risk loss. Having that in mind, this paper aims to identify those industry practices for the categorization of the “scope of operational risk” and the “scope of operational risk loss” which are considered to achieve the stated purposes. These guidelines are meant to be a helpful tool for national supervisors in examining, assessing and reviewing the operational risk frameworks developed and implemented by AMA and TSA (or ASA) firms.
11. By encouraging the BIA firms also to adopt such practices, their operational risk frameworks are expected to generate greater effectiveness. Greater consistency amongst firms in all jurisdictions in

terms of their scope of operational risk and operational risk loss contributes to a level playing field.

12. Section 3 covers the scope of operational risk and in particular the issues related to the interpretation of operational risk versus market and strategic risks. The issues related to the interpretation of operational risk versus credit and reputational risks are not included in this document.
13. Section 4 deals more specifically with the scope of operational risk loss. It aims to distinguish between those items arising from an operational risk event that should, at the minimum, be considered to be within the perimeter of the loss and those that can be excluded, provided that specific conditions on the nature of the items or on the environment surrounding them are fulfilled.

3. The “scope of operational risk”

14. This section outlines a number of criteria for assigning a specific event to one of the three risk categories, namely operational, market and strategic risks. Such criteria refer to the most frequently experienced cases and are supplemented with examples that illustrate how to comply with the criteria. The main sources of information taken into account in setting out the criteria and in choosing the examples are the data gathered from supervisory activities and the standards set by consortia for collecting operational risk data.
15. Such risk categorization is not meant to be comprehensive and is expected to be applied as a general guideline and under normal circumstances. Different classifications from those outlined in this paper can be envisaged. However, they should refer to single and limited cases and should be well reasoned and properly documented.

3.1. Operational risk versus Market risk

16. When distinguishing between operational risk (events or losses) and market risk (events or losses), the following criteria should be applied:

The events (and the related losses) described below should be included in the “scope of operational risk”:

- A. gains/losses due to operational errors;
- B. gains/losses due to failures in internal controls;
- C. gains/losses due to a wrong selection of the model, made outside a defined business process/formalised procedure and lacking a formalized conscious risk-taking; and

D. gains/losses due to wrong implementation of the model.

17. In all these cases, the whole amount of the loss incurred should be included in the "scope of operational risk loss", including the portion of the loss due to adverse market conditions.

Examples to be included in the "scope of operational risk":

Due to operational errors:

- errors during the introduction or execution of orders;
- errors in classification due to the software used by the front and middle office;
- incorrect specification of deals in the term-sheet (errors relating to the transaction amount, maturities and financial features);
- loss of data and/or misunderstanding of the data flow from the front to the middle and back offices; and
- technical unavailability of access to the market (e.g. system down).

Due to failures in internal controls:

- failures in properly executing a stop loss; and
- market positions taken in excess of limits.

Due to model risk:

- selection of a model from a range of software without verifying its suitability for the financial instrument to be evaluated and for the current market conditions;
- errors in the in-house IT implementation of a selected model; and
- erroneous evaluation of a position due to a failure in updating prices or to wrong attribution of its parameters.

The events (and the related losses) described below should be excluded from the "scope of operational risk":

Losses due to wrong selection of a model, made through a formalized corporate process where the pros and cons of the model itself are carefully weighed up.

Examples of cases to be excluded from the "scope of operational risk":

Due to model risk:

- o losses caused by a pricing model where the potential exposure to the model risk had been previously assessed, including by considering potential adjustments to "mark-to-market" transactions.

3.2. Operational risk versus strategic risk

18. When distinguishing between operational risk (events or losses) and strategic risk (events or losses), the following criteria should be applied.

The events (and the related losses) described below should be included in the "scope of operational risk":

- A. losses relating to operational risk events triggered by legal settlements (e.g. judicial or out of court, arbitration, claims negotiations etc.) or from the expenses incurred voluntarily by the firm in order to avoid a legal risk's loss.

(The loss amounts to be recorded are the specific provisions, costs of settlement⁵ and any other expenses incurred as a result of the risk event e.g. amounts paid to refund the damage, interests in arrears, legal fees and penalties.)

- A. losses stemming from internal inadequacies, failures and errors or from an external event (e.g. external fraud) occurring when implementing a project⁶.

(The loss amounts to be recorded are the specific provisions and any other expenses incurred as a result of the risk event e.g. amounts paid to refund the damage, interests in arrears, legal fees and penalties.)

Examples to be included in the "scope of operational risk":

⁵ Costs of settlement are not to be considered to be timing impacts (see below).

⁶ This view is consistent with the position of the CRDTG expressed in the answer to the question n. 216 published on April, 17th 2007.

- aggressive selling - stemming for instance from individual initiatives or from the need to meet specific business plans – with the consequence of breaching regulations, internal rules or ethical conduct;
- expenses stemming from law cases or from interpretations of the regulations which proved to go against corporate practice;
- compensation paid to employees and refunds to customers before they can lodge a complaint but, for example, after the firm has already been required to refund other customers for the same event; and
- interest/penalties on late payments of tax.

The events (and the related losses) described below should be included in the “scope of strategic risk”:

Losses incurred by the firm as a result of inappropriate strategic/senior management decisions or business choices which do not breach any rules, regulations, or ethical conduct.

Examples to be included in the “scope of strategic risk”:

- losses relating to flawed investment choices in merger/acquisitions, organizational/management restructuring, etc;
- losses relating to decisions made by the competent decision making body which are not compatible with the firm’s risk tolerance level and deviate from its core business activities;
- losses relating to implemented but flawed strategies; and
- sums of money paid back to customers as a result of a firm’s own decision (no breach of rules, regulations or ethical conduct occurred).

4. The scope of “operational risk loss”

19. When an operational risk event occurs it may be discovered through different elements/items. Some of them have a quantifiable impact, and hence are reflected in the financial statements of the firm, others do not affect the books of the firm and are detectable from other types of sources (e.g. managerial archives, incidents dataset).

20. The table below illustrates the types of elements/items, whether or not having a quantifiable impact, which can result from an operational risk event. It should not be considered to be an exhaustive list:

Type of elements/items that can result from an operational risk event
1. Direct charges to P&L and write-downs
2. External costs incurred as a consequence of the event ⁷
3. Specific provisions taken following the occurrence of a risk event
4. Pending losses ⁸
5. Near misses
6. Operational risk profits/gains
7. Opportunity costs/lost revenues
8. Timing impacts ⁹

⁷ External expenses include, for example, legal expenses directly related to the event and fees paid to advisors or suppliers.

⁸ "Pending losses" can be defined as losses stemming from operational risk events with a definite and quantifiable impact, which are temporarily booked in transitory and/or suspense accounts and are not yet completely reflected in the P&L.

⁹ "Timing impacts" can be defined as the negative economic impacts booked in a fiscal period, due to operational risk events impacting the cash flows (lower cash in / higher cash out) of previous fiscal periods.

21. The 1st, 2nd, 3rd and 4th elements/items should be included in the scope of operational risk loss for management and measurement purposes.
22. If institutions exclude “pending losses” from the scope, this should only be for a relatively short time and should be supported by analyses that demonstrate efficient processes for final accounting and loss data base entry. If a pending loss is expected to have a high impact, firms should immediately include it in the scope of operational risk loss through a scenario analysis.
23. Moreover:
 - The “near misses”, “operational risk profits/gains” and “opportunity costs/lost revenues” are – after operational risk losses - also important for promptly detecting failures/errors in processes or internal control systems. Accordingly, it is sound practice to develop criteria and procedures for collecting such items.
 - The exclusion of the “timing impacts” from the scope of operational risk losses should be limited to those losses which cause a clear temporary distortion of the P&L. All the losses – whether or not labelled as “timing impacts” – that produce a substantial permanent distortion of the P&L (e.g. losses caused by legal risks; see for instance the examples in the first box in section 3.2) should be included in the scope of operational risk loss for management and measurement purposes.

LEVEL OF APPLICATION: BIA FIRMS

None

LEVEL OF APPLICATION: TSA/ASA FIRMS

None

LEVEL OF APPLICATION: AMA FIRMS

Guidelines on the use test for AMA firms

1. Introduction

1. In accordance with Annex X, Part 3, Section 1.1, paragraph 2 of Directive 2006/48/EC (CRD) AMA firms are required to meet the principle that: *"The credit institution's internal operational risk measurement system shall be closely integrated into its day-to-day risk management processes."*
2. This requirement, known as the "use test", obliges an AMA firm to ensure that its operational risk measurement system is not solely used for calculating regulatory capital, but is also integrated into its day-to-day business process, embedded within the various entities of the group and used for risk management purposes on an on-going basis.
3. The requirement expects the inputs and outputs of an AMA firm's operational risk measurement system to contribute to, and be an integral part of, its risk management processes, including at business line level.
4. By requiring the information incorporated in the model to be used in the decision making process and to support and improve operational risk management within the organisation, the requirement aims to promote the use of appropriate and consistent information that fully reflects the nature of the business and its risk profile. For these reasons, supervisors expect the AMA framework to be updated on a regular basis and to evolve as more experience in management and quantification of operational risk is gained.
5. The objective of this paper is to make progress on the four use test principles outlined in the GL10 by describing what should be considered to be an appropriate interpretation of the use test by an AMA firm and by identifying what the supervisory expectations are at the beginning and in a "business as normal" scenario of the AMA framework.

2. Use Test Assessment

6. Almost all EU supervisors have set minimum criteria to assess compliance with the use test requirement. There are a number of factors which drive the supervisory process and assessment with many of these often being conducted against the four use test principles outlined in Par. 496 of the GL10. Most supervisors have incorporated the four principles in national legislation, rules or assessment procedures. These principles are:

- *"The purpose and use of the AMA should not be limited to regulatory purposes.*
 - *The AMA should evolve as the institution gains experience with risk management techniques and solutions.*
 - *The AMA should support and enhance the management of operational risk within the organisation.*
 - *The use of an AMA should provide benefits to the organisation in the management and control of operational risk."*
7. The assessment of the use test requirement is an important part of the AMA validation process. The fulfilment of this requirement for a firm is a condition for the supervisory approval of use of the AMA framework and needs to be assessed by the firm and validated by the competent authority. It also requires that - in the case of the use of an AMA at consolidated level - the parent's AMA framework has been rolled out to the subsidiaries and that the subsidiaries' operational risk and controls are incorporated in the group wide AMA calculations.
 8. The majority of the supervisors assess compliance with this requirement on a case-by-case basis taking into account all the surrounding factors and circumstances that include, but are not limited to, the firm's size, nature, structure and complexity, the regulatory expectations of current and future AMA standards and the current standard and evolution of the AMA process.
 9. The supervisory expectations on the industry's answer to the use test requirement are strictly connected to the underlying timeframe: at the beginning or in a "business as normal" scenario of the AMA framework implementation.
 10. In particular, in a "business as normal" scenario, the objective of the supervisory validation and review process of the use test requirement is to assess the following aspects:
 - the extent to which the operational risk framework is integrated into the business and is used in day-to-day risk management;
 - the use of the risk measurement system in the management of operational risk exposures across different business lines within the organisational structure;
 - management processes and reporting; and
 - the use of model inputs and outputs, as well as the information received from the operational risk management process, in the decision-making process and any associated remedial action.

11. Additional factors considered in this context are those that are usually overarching elements essential to well-implemented and functioning risk management processes, some of which are highlighted in the above mentioned Par. 496 of GL10. They are:
 - the incentive that the operational risk framework provides for better risk management by increasing transparency, risk awareness and operational risk management expertise;
 - the relationship between business strategy and operational risk management, including approval of new products, systems and processes;
 - the use of model inputs and outputs in action plans, mitigation plans, business continuity, internal audit working plans and budgeting decisions; and
 - the definition of an appropriate operational risk appetite.
12. For these purposes it can be useful to verify, on one hand, the regular use of model inputs and output by business line management, its capacity to achieve operational risk objectives and their use in terms of capital assignment and, on the other hand, the role senior management plays in the strategic implementation phase and in the on-going monitoring activity of the overall operational risk framework
13. The senior management is also expected to ensure the quality of the inputs and output of the model as well as whether there is sufficient buy-in from the business. Part of the senior management's work is especially to understand the operational risk management process and the relevant aspects of the model with reference to the business units. It is therefore imperative that senior management be constantly updated on the operational risk framework, including its strengths and weaknesses, any significant shifts in the firm's operational risk exposure or adjustments to the model itself.
14. Home-host considerations affect the assessment process where AMA EU banking groups' applications are considered. As the assessment and contribution of the host and home supervisors will be influenced by a number of factors, supervisors determine their assessment process on a case-by-case basis. Key factors influencing the assessment process include: whether the supervisor is acting as home or host supervisor, the size and local impact of the subsidiaries, and the contribution of the subsidiary towards the AMA's design, implementation and process.
15. These factors shape the contribution of the home and host supervisors. In some cases much reliance is placed on the home supervisor's assessment process, for example, the group model is usually audited by the home supervisor. In other cases a greater contribution will be

required from the host supervisor, e.g. local implementation and the local use test requirement will often be reviewed by the host, or by the host together with the home supervisor. The size and impact of the subsidiary must be assessed from both the home and host perspectives. A subsidiary may require less consideration from the home supervisor if it contributes a negligible proportion to the group's size or income; yet the subsidiary may have a sizeable market share in the host's jurisdiction.

16. At the beginning of the AMA framework process, supervisors have acknowledged that some aspects of the elements in operational risk management are in their infancy and expect advances in these areas. Therefore, supervisors are in general prepared to offer some flexibility on the development, implementation and advancement of some of the key elements.
17. In particular, the factors reflecting the business environment and internal control systems are those where some supervisors show the most leniency. With this flexibility comes the expectation that firms will strive to continuously advance and improve various areas of their operational risk framework, both those that meet current standards and those that do not. Supervisors expect the less developed areas to advance and improve significantly over the near term as progress is made in these areas, and equally the developed areas are also expected to improve and advance as the quantification of operational risk management becomes more sophisticated.
18. Supervisors want the evolution of the operational risk framework to include more widespread use of the inputs and outputs of the framework. Furthermore, supervisors anticipate an improvement in the quality of inputs, which should in turn, enhance the modelling process and output. These will allow for enhanced use of model inputs and outputs for risk management purposes.

3. Final remarks

19. It is clear that meeting the use test requirement is a difficult task for firms. Where firms were asked to postpone their application, the use test requirement was often an area that needed further development. This resulted in supervisors having to inform firms that greater effort was required from them to meet the use test requirement and subsequently having to conduct extra firm visits or reviews to assess their progress.
20. Supervisors have been successful in informing industry that the use test requirement is a key driver for enhancing not only the quality of the modelling process but also of the management process. Supervisors want clear evidence that the modelling process supports and advances the operational risk management in the firm; accordingly it should be adaptable to the changing dynamic of the firm so that it can continuously enable the firm's operational risk exposure to be determined.

21. As operational risk frameworks advance, the inputs should become more relevant and bespoke and therefore more reflective of the firm's business, strategy and exposure to risk. As the firm's operational risk framework becomes more sensitive and more closely aligned to its operational risk profile, the firm is better equipped to provide evidence that it meets the use test requirement.
22. For the sake of completeness, it is worth mentioning that firms adopting the Standardised Approaches (TSA or ASA) for operational risk capital purposes, in accordance with Annex X, Part 2, Section 4, paragraph 12(b) of the CRD, have to meet the principle that: *"The operational risk assessment system must be closely integrated into the risk management processes of the credit institution. Its output must be an integral part of the process of monitoring and controlling the credit institution's operational risk profile"*.
23. This provision poses the question how TSA or ASA firms meet this principle, given that the difference between the use test requirement for AMA or TSA/ASA firms is the element to be integrated into their risk management and businesses processes: the "measurement system" for AMA firms and the "assessment system" for TSA/ASA firms.
24. As more experience with the implementation of TSA/ASA requirements is gained within the industry and supervisory authorities, this topic may be taken up by the CEBS to identify the range of practices, develop a common supervisory view and produce the relevant sections of the Compendium of Supplementary Guidelines.

Guidelines on the allocation of the AMA capital

1. Introduction

1. EU firms usually adopt a group-wide model to calculate operational risk capital requirements at a consolidated level, taking into account internal and external data, scenario analysis and business environment and internal control factors. This practice is in line with Directive 2006/48/EC (CRD), which does not require a stand-alone AMA calculation at the solo-level. Simultaneously, this practice resolves the current difficulties that firms face - due to the scarcity of relevant information - of building the consolidated capital charge starting from the contributions of the individual operating segments within the group. Furthermore, large banking groups usually adopt a group-wide risk management approach so that a group risk model is consistent with the risk management system.
2. Accordingly, banking group-wide capital requirements provide the basis for the calculation of solo or sub-consolidated capital requirements for the entities within the group, using an allocation mechanism and, in some cases, adjustments to ensure that subsidiaries have sufficient amounts of capital.
3. Starting from the description of the range of allocation mechanisms which are currently used by major EU banking groups, the objective of this paper is to outline sound practices in terms of assessments of allocation mechanisms and home-host related issues.

2. Observed range of allocation mechanisms

4. EU banking groups often use Basic Indicator (BIA) or Standardised Approaches (TSA) figures such as gross income as the key for allocation. Nevertheless, some firms use other indicators or a combination of them as a basis to determine the capital charge for the subsidiaries, which tends to reflect, on the one hand, the size of the institution (e.g. FTE, assets) and, on the other hand, its internal loss experience.
5. In a few cases, allocation keys - which could be considered more risk sensitive than adopting gross income or BIA/TSA figures - are used namely:
 - the marginal contribution to AMA capital requirements based, among others, on stand-alone calculations, expected shortfall, Shapley method, etc; or

- the risk exposure at local level measured by business environment and internal control factors or by scenario-generated data or actual losses.

3. Assessments of allocation mechanisms

6. The use of an allocation mechanism to determine the regulatory minimum capital charge for operational risk for a subsidiary is conditional on the approval of the AMA framework and needs to be approved itself. It also requires that the parent's AMA framework has been rolled out to the subsidiary and that the subsidiary's operational risks and controls are incorporated in the group-wide AMA calculations.
7. Annex X, Part 3, point 3 of the CRD states that, "when an AMA is intended to be used by the EU parent credit institution and its subsidiaries, or by the subsidiaries of an EU parent financial holding company, the application shall include a description of the methodology used for allocating operational risk capital between the different entities of the group". The description should include the relevant documentation on the allocation mechanism and any supporting data, as appropriate.
8. Most supervisory authorities do not set explicit restrictions on the allocation mechanisms which can be used. When deciding on the appropriateness of an allocation methodology those supervisors examine the choice of the underlying allocation indicators, bearing in mind the early stage of the development of risk-sensitive allocation mechanisms.
9. However, even if simpler allocation methodologies can be accepted as a starting point, AMA banking groups are strongly encouraged – with a view to the overall improvement of the risk sensitivity of their risk measurement framework - to introduce over time capital allocation mechanisms that more appropriately reflect the operational risk profiles of each relevant subsidiary and, to the extent possible, that are more equitable between the subsidiaries themselves.
10. The implementation of more risk-sensitive allocation mechanisms at local level could be a way to provide comfort to host supervisors on the appropriateness of the capital figures. One of the main issues is that, as diversification effects are generally determined on a consolidated basis and allocation mechanisms act on the already diversified capital, capital figures allocated to some subsidiaries may not reflect in an appropriate way the actual operational risk and contribution of such subsidiaries to the diversified consolidated capital. This may result in some supervisors imposing supplementary requirements on subsidiaries.
11. A firm intending to use an allocation mechanism is expected to demonstrate its feasibility. Moreover, the adequacy of the allocation key(s) should be assessed by taking into account the size and the complexity of the subsidiaries. It is sound practice for firms to compare

at least the results of different allocation mechanisms and analyse varying results considering the risk profile of the entities.

12. Supervisors expect that firms will regularly review the AMA framework, including their adopted allocation mechanism. The allocated AMA capital should be relevant and adequate at all times, meaning that it should reflect the evolving operational risk profiles of the subsidiaries.

4. Home-host issues regarding allocation mechanisms

13. In the case of cross border banking groups, the use of an allocation mechanism is subject to the approval of both the home supervisor and host supervisors and has to be addressed within the joint decision on the AMA application. Relevant host supervisors are all the supervisory authorities within the EU which supervise subsidiaries whose capital requirements are calculated (or included in the roll-out plan) according to the AMA adopted by a banking group located in another Member State.
14. The home supervisor coordinates the approval process with all relevant host supervisors, given that the level of participation of relevant host supervisors will differ from case to case. If there are specific information needs, they should be agreed between the home supervisor and host supervisors at an early stage in the approval process to give the firm and the home supervisor sufficient time to provide that information without endangering timely approval. In any case, complete documentation of the allocation methodology and its validation results is needed and will be provided by the home supervisor to the host supervisor on request. Host supervisors may perform their own on-site examinations, and they will in these cases inform the home supervisor of the results.
15. A change in the capital allocation mechanism should be considered as a model change. Even if a new application is not necessary, a significant change to the allocation methodology should be based on a joint decision.
16. The results of ongoing validation can be discussed during the regular contacts between the firm and its supervisors as part of the supervisory review process.