

**COMMISSION de SURVEILLANCE  
du SECTEUR FINANCIER**

In case of discrepancies between the French and the English text, the French text shall prevail

Luxembourg, 17 July 2007

To all credit institutions and investment firms incorporated under Luxembourg law and to the branches of non-EU credit institutions and investment firms

**CIRCULAR CSSF 07/301  
as amended by Circulars CSSF 08/338, CSSF 09/403, CSSF 11/506 and  
CSSF 13/568**

**Re: Implementation of the Internal Capital Adequacy Assessment Process (ICAAP)**

Ladies and Gentlemen,

As per the provisions set out in Part XVII of circulars CSSF 06/273 and CSSF 07/290, credit institutions and investment firms shall have in place an internal capital adequacy assessment process. This circular specifies the object, the scope and the implementation of the internal capital adequacy assessment process for credit institutions and investment firms. The requirements set out in this circular follow the guidelines issued in this respect by the Committee of European Banking Supervisors (CEBS).<sup>1</sup>

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<sup>1</sup>Please refer to the document: “CEBS GUIDELINES ON SUPERVISORY REVIEW PROCESS”, commonly referred to as “GL03”. Please note that all CEBS guidelines mentioned in this circular are available on the website <http://www.c-eps.org/standards.htm>.

This circular includes four chapters followed by an annexe which provides further explanations and examples to guide credit institutions and investment firms in the practical implementation of their internal capital adequacy assessment process. This process will hereafter be referred to as ICAAP.<sup>2</sup>

## **Chapter I. Introduction**

### **Sub-chapter I.1. ICAAP as a regulatory requirement**

1. Part XVII of circulars CSSF 06/273 and CSSF 07/290 requires credit institutions and investment firms – referred to as “institutions” in this chapter - to have an ICAAP in place. These circulars define the ICAAP as “a system of sound, effective and complete strategies and processes allowing credit institutions to assess and maintain, on an ongoing basis, the amounts, types and distribution of internal capital that they consider adequate to cover the nature and level of risks to which they are or might be exposed”. This objective of the ICAAP in terms of internal capital – a concept explained hereafter under point 2 – will be referred to as “internal capital adequacy”.

### **Sub-chapter I.2. ICAAP and prudential own funds adequacy**

2. The ICAAP, which concerns *internal capital* adequacy, coexists with the requirement of the simplified or integrated ratio which constitutes the measure of the *prudential own funds* adequacy. This twofold capital adequacy requirement – internal capital adequacy and prudential own funds adequacy – can be explained as follows.

The ICAAP shall allow credit institutions to assess to what extent their internal capital suffices to cover *all the risks* to which they are or could be exposed. The ICAAP supplements the regulatory framework governing the simplified or integrated ratio from which it differs (or may differ) in the following respects:

- The notion of internal capital is larger than the notion of prudential own funds. The concept of internal capital includes all elements of own funds, not only the prudential own funds that make up the numerator of the simplified or integrated ratio as defined under Part IV of circulars CSSF 06/273 and CSSF 07/290. Internal capital may include for instance the non-assimilated part of subordinated loans. The condition for including these elements into internal capital is that they must actually be available to cover losses.
- The range of risks that shall be considered for internal capital adequacy exceeds the risks for which circulars CSSF 06/273 and CSSF 07/290 require prudential own funds. Internal capital adequacy concerns all risks, including those for which no prudential own funds requirement exists (e.g. the interest rate risk arising from non-trading activities) and the risks that are only covered in part by such requirement (sub-categories of credit risk such as concentration risk and residual risk).
- The measurement of risks differs. Internal capital adequacy is based on internal risk measurements of the institution. Institutions may thus take into account diversification effects between credit risks as well as effects resulting

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<sup>2</sup> Standing for Internal Capital Adequacy Assessment Process

from the application of credit risk mitigation techniques other than those recognised in circulars CSSF 06/273 and CSSF 07/290 for determining prudential own funds adequacy.

- The CSSF does not lay down a minimum ratio between internal capital and risks (for the purpose of the simplified or integrated ratio, the ratio between prudential own funds and risk-weighted assets is at least 8%). Institutions shall define their own solvency threshold in compliance with the provisions of this circular.

As internal capital adequacy and prudential own funds adequacy are complementary, the CSSF is particularly interested in the ICAAP which will allow it to fulfil more efficiently its prudential objectives. As stated in Part XVIII of circulars CSSF 06/273 and CSSF 07/290, the CSSF shall periodically evaluate the institutions' ICAAP in the context of the "supervisory review process".

### **Sub-chapter I.3. Purpose of the regulatory requirements on ICAAP**

3. As its name indicates, the ICAAP is an *internal* instrument, which shall allow institutions to hold the internal capital they deem appropriate in order to cover all the risks to which they are or could be exposed. The ICAAP being essentially an internal process, it is not for the CSSF to determine in detail the manner in which the ICAAP shall be set up or implemented. However, as the ICAAP will be evaluated by the CSSF in the context of the supervisory review process, the CSSF considers that it should indicate to the institutions its expectations in relation to the ICAAP. This will be the object of Chapter II of this circular.

## **Chapter II. Regulatory requirements on ICAAP**

### **Sub-chapter II.1. Scope of application**

4. This circular applies to all credit institutions and investment firms incorporated under Luxembourg law and to branches of non-EU credit institutions and investment firms in accordance with the details set out in Part II (scope of application on an individual basis) and Part VI, Chapter 3 (scope of application on a consolidated basis) of circulars CSSF 06/273 and CSSF 07/290. These entities will be referred to as "institutions".

The terms for the application on an individual and/or consolidated basis will be specified at a later stage, based on the provisions included in draft law 5664.

### **Sub-chapter II.2. General requirement for the ICAAP**

5. In accordance with the provisions of Part XVII of circulars CSSF 06/273 and CSSF 07/290, credit institutions shall have in place an ICAAP – an internal capital adequacy assessment process consisting of sound, effective and complete strategies and processes allowing them to assess and maintain, on an ongoing basis, the amounts, types and distribution of internal capital that they consider adequate to cover the nature and level of the risks to which they are or might be exposed.

6. Institutions shall define, design and implement their own ICAAP, in accordance with the requirements of Part XVII of circulars CSSF 06/273 and CSSF 07/290 and the provisions of this circular.

### **Sub-chapter II.3. Structure of the ICAAP**

7. The ICAAP consists of two key parts:
  - internal processes for identifying, measuring, managing and reporting the risks to which the institution is exposed. These processes allow the institution to control its risks and to assess its internal capital needs;
  - an internal process for capital planning and capital management which allows the institution to ensure internal capital adequacy on an ongoing basis.

### **Sub-chapter II.4. General principles applicable to the ICAAP**

8. The ICAAP is essentially an *internal* process of the institutions, adapted to their organisation and to their specific operational needs. The scope and capacity of the ICAAP increase with the scale, diversity and complexity of the institution's activities and organisation. Despite the internal nature of the ICAAP, the informational needs or technical infrastructures necessary for the operation of the ICAAP may be subject to outsourcing. Management decisions, risk and internal capital management and monitoring may under no circumstances be outsourced.
9. The ICAAP is integrated to the institution's decision and management processes. Its implementation meets the institution's internal needs and does not only aim at complying with the regulatory requirement of the ICAAP - point 5 of this circular.
10. The ICAAP shall fully reflect *all* the risks to which the institution *is or could be exposed*, as well as the economic and regulatory environment in which the institution operates or could come to operate. The ICAAP shall therefore not only take into account the current situation of the institution but shall definitely be *forward-looking* in order to ensure the internal capital adequacy on an ongoing basis.
11. The ICAAP shall ensure that institutions maintain, on an ongoing basis, an amount, a type and an internal capital distribution allowing them to effectively cover the risks to which the institutions are or could be exposed.
12. The ICAAP is subject to a periodic review in order to ensure that:
  - the coverage of risks remains comprehensive and adapted to the scale, diversity and complexity of the institution's activities and that the amount, the type and the distribution of internal capital are appropriate in relation to the risks incurred;
  - the internal ICAAP processes are fully operating and effective.This review shall take place at least once a year. It shall be carried out with the necessary objectivity and be subject to an independent internal control.
13. The ICAAP must be adequately documented as far as strategy (general principles and objectives regarding risk taking and internal capital management), methodology, description of internal processes (work procedures) as well as results and decisions linked to the ICAAP are concerned.

## **Sub-chapter II.5. Responsibility of the board of directors**

14. The board of directors is responsible for establishing, documenting and communicating to the authorised management the main principles and objectives (“strategies”) governing risk taking and risk management as well as the internal capital planning, management and adequacy. The board of directors shall promote an internal risk culture aiming at heightening the awareness of the executing personnel for sound and prudent risk management.
15. The board of directors entrusts the authorised management with the ICAAP implementation in accordance with its principles and objectives. The ICAAP is based on a risk and own funds policy which is established by the authorised management pursuant to points 20 to 22 of this circular and approved by the board of directors.
16. The board of directors entrusts the authorised management with setting-up a risk management function whose object is to measure, monitor, control and report the risks to which the institution is exposed. The risk management function shall be proportionate to the scale, diversity and complexity of the institution’s activities and organisation. Where applicable, the risk management function may be fully exercised by the authorised management itself.
17. The board of directors monitors in its supervisory mission the implementation by the authorised management of its principles and objectives in relation to risk taking and management and in relation to internal capital planning, management and adequacy. The board of directors shall approve periodically, and at least once a year, based on the authorised management’s report as referred to under point 26, the manner in which the institution manages its risks and internal capital in relation to the principles and objectives defined by the board of directors. This monitoring and approval shall cover at least the following elements:
  - the adequacy of the ICAAP to the institution’s organisation and needs. This concept of adequacy includes the ICAAP’s sound and effective operation as well as its sound theoretical conception, which includes timely, appropriate and reasonable methodological foundations;
  - the institution’s current and expected future risk profile and the adequacy of the risk policy established by the authorised management;
  - the internal capital planning and adequacy, as well as the adequacy of the internal capital policy established by the authorised management;
  - the impact of the internal capital management on prudential own funds adequacy.The board of directors may be assisted by the audit committee for some of the above tasks.

*(Circular CSSF 09/403)*

“17a. Where the board of directors becomes aware that the development of incurred risks is no longer adequately supported by internal risk management systems or internal capital management systems, it requires the authorised management to promptly provide corrective measures and immediately informs the CSSF.”

18. The decisions of the board of directors on risks and internal capital shall be recorded and kept.

### **Sub-chapter II.6. Responsibility of the authorised management**

19. The authorised management is responsible for the development and implementation of an ICAAP in accordance with the principles and objectives established by the board of directors and the requirements of this circular. This responsibility, which covers the ICAAP's sound and effective operation and adequacy as compared to the organisation and the internal needs of the institution, exists in any circumstances, in particular with respect to any parts of the ICAAP that have been outsourced.

*(Circular CSSF 09/403)* “The authorised management appoints from among its members a person directly in charge of the risk management function. The name of this person, as well as any change relating to it must be transmitted by the management to the CSSF.”

20. The authorised management establishes a written risk and internal capital policy for the implementation of the ICAAP. Written work procedures, adequately communicated to the executing personnel, shall ensure a proper implementation of this policy.
21. The risk policy provides for
- the establishment of internal standards in relation to risk taking and risk management in accordance with the principles and objectives set by the board of directors;
  - the implementation of sound and effective processes in order to identify, manage, monitor, report and, where applicable, reduce the risks. These processes shall allow the management and executing personnel to have sound, reliable and comprehensive information, and appropriate means that allow them to manage and control effectively all the risks to which the institution is exposed;
  - the implementation of limit systems, work procedures and internal controls to ensure that risk taking is commensurate with the institution's objectives and its financial strength;
  - the implementation of processes allowing to effectively manage crisis situations (in particular liquidity crises);
  - the designation of functions in charge of the management, functioning and enhancement of the processes, limit systems, procedures and internal controls mentioned under the above indents.
22. The internal capital policy provides for
- the establishment of internal standards in relation to internal capital management in accordance with the principles and objectives established by the board of directors. These standards refer, for example, to the level or quality of internal capital;
  - the implementation of sound and effective processes to plan, monitor, report and modify the amount, type and distribution of internal capital, in particular in relation to the internal capital needs for the coverage of risks. These processes shall allow the management and executing personnel to have sound,

- reliable and comprehensive information, and appropriate means that allow them to manage and permanently ensure internal capital and prudential own funds adequacy;
- the implementation of limit systems, work procedures and internal controls to ensure the adequacy of internal capital on an ongoing basis taking into account the risks to which the institution is or could be exposed and in accordance with the objectives set by the board of directors and the regulatory requirements;
  - the implementation of processes allowing to effectively manage crisis situations (inadequate prudential own funds or internal capital);
  - the designation of functions in charge of the management, functioning and enhancement of the processes, limit systems, procedures and internal controls mentioned under the above indents.
23. The authorised management shall ensure that for the processes referred to under points 21 and 22 competent and sufficient executing personnel as well as a technically appropriate infrastructure in order to fully meet the objectives included in the risk and internal capital policy are available.
24. The authorised management shall periodically review the adequacy of the risk and internal capital policy as well as its implementation and its compliance. Any observed deviation shall involve prompt and adequate corrective measures. This is particularly the case where the development of incurred risks is no longer adequately supported by internal risk management systems or internal capital management systems. (*Circular CSSF 09/403*) “In this case, the authorised management shall immediately inform the board of directors and the CSSF.”
25. Management’s decisions on risk policy and risk management and on internal capital policy, planning and management shall be recorded and kept.
26. The authorised management informs the board of directors on the institution’s situation of risks and internal capital, in the form it deems most appropriate and at least once a year. In its report, the authorised management shall at least cover the elements indicated under point 17 above.

#### **Sub-chapter II.7. ICAAP review by the internal audit and compliance function**

27. The ICAAP, as any internal process, must be included in the scope of intervention of the internal audit.
28. Being a regulatory requirement, the ICAAP also falls under the competences of the compliance function.
29. The internal audit and the compliance function contribute to realising the integrity and effectiveness objectives referred to under point 12, considering the organisation of these functions within the institution.

#### **Sub-chapter II.8. Special provisions applicable to concentration risk**

30. Concentration risk refers to the losses an institution could suffer from a group of exposures or activities whose intrinsic value depends on a common set of risk factors. Adverse movements in one of these risk factors increase the total impact on

the institution since they negatively affect the whole of the underlying exposures or activities.

There is a wide range of concentration risk. Examples of concentration risk are: concentration of the debt portfolio on a few clients or groups of connected clients, concentration of the debt portfolio on a restricted number of economic sectors, concentration of market activities on several specific products, concentration of the private banking activity on a limited number of clients, concentration of risk mitigation techniques (in particular, concentration in terms of collateral), or concentration of outsourcing measures on a limited number of providers.

In the context of the supervisory review process, the CSSF pays particular attention to concentration risk which may involve significant financial losses for the institutions.

### **Sub-chapter II.9. Special provisions applicable to interest rate risk**

31. Interest rate risk refers to the losses that an institution could suffer when interest rates change.

In the context of the supervisory review process, the CSSF assesses in particular the interest rate risk arising from non-trading activities. It expects institutions to be in a position to determine the impact of interest rate risk on both their daily profitability and their internal capital.<sup>3</sup>

### **Sub-chapter II.10. Special provisions applicable to risks linked to wealth management activities<sup>4</sup>**

32. Wealth management-related activities include in particular operational risk, legal risk and compliance risk.

In the context of the supervisory review process, the CSSF assesses in particular how the ICAAP takes into account the risks linked to wealth management activities.

### **Sub-chapter II.11. Special provisions applicable to stress testing**

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34. (...) <sup>6</sup>

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<sup>3</sup> Institutions may find further details on the management of interest rate risk arising from non-trading activities in the document “Technical aspects of the management of interest rate risk arising from non-trading activities under the supervisory review process” published by CEBS on 3 October 2006.

<sup>4</sup> The term wealth management is to be understood in the broadest sense including private banking activities (individual wealth management) and collective wealth management (through wealth management vehicles such as UCIs, SICARs, securitisation or pension funds), including services provided in this context (central administration, depositary bank and other services related to wealth management).

<sup>5</sup> Repealed by Circular CSSF 11/506.

<sup>6</sup> Repealed by Circular CSSF 11/506.



35. The CSSF expects institutions holding a significant trading book to submit it to regular stress testing.
36. Institutions shall assess the extent to which their ICAAP needs to include stress testing in relation to risks originating from the regulatory, economic (economic cycle) and competitive environment in which they operate.
37. (...) <sup>7</sup>
38. The CSSF reserves the right to require institutions to perform additional stress tests if deemed necessary for the accomplishment of its legal mission.

### **Chapter III. Evaluation of the ICAAP**

#### **Sub-chapter III.1. Supervisory review process**

39. As provided for in Part XVIII – points 1 to 3 – of circulars CSSF 06/273 and CSSF 07/290, the CSSF shall, at least once a year, evaluate the risks to which institutions are or could be exposed and assess to what extent the institutions’ internal processes, internal capital and prudential own funds ensure an adequate management and coverage of these risks. This review and evaluation, affecting in particular the ICAAP, are referred to by the term “supervisory review process”.
40. The supervisory review process contains no fundamentally new elements. In the performance of its legal mission, the CSSF already assesses the risks of the institutions falling under its supervision and determines the extent to which their internal governance and internal capital allow an adequate control and coverage of risks. This evaluation is based in particular on the permanent supervision which the CSSF exercises through the prudential reporting, the reviews executed by the external auditor, the internal auditor and the compliance function as well as the results of the on-site inspections carried out by the CSSF.
41. Even though the provisions set out in Part XVIII of circulars CSSF 06/273 and CSSF 07/290 do not fundamentally modify the supervisory review exercised by the CSSF, they nevertheless amend it in two major points.

First, the supervisory review of the CSSF will now apply to the ICAAP. To this effect, the supervisory review process does not only cover the quantitative results generated by the ICAAP, but also the qualitative aspects of internal governance within the meaning of Part XVII, Chapter 2, of circulars CSSF 06/273 and CSSF 07/290. The onus is on the institution to demonstrate the extent to which and the means by which its ICAAP allows to reach the objective of internal capital and prudential own funds adequacy.

Second, the supervisory review process will become more formalised. In accordance with the provisions laid down in “GL03” – CEBS guidelines on ICAAP – the prudential evaluation of the ICAAP by the CSSF is based on a formalised framework including a “dialogue” requiring the CSSF to thoroughly discuss its evaluation of the ICAAP with the management of the institution. So far, the CSSF only applied this type of communication where weaknesses or breaches were observed during its supervision.

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<sup>7</sup> Repealed by Circular CSSF 11/506.

### **Sub-chapter III.2. Implementation of the supervisory review process**

42. The CSSF has to receive the necessary information in order to include the ICAAP to its prudential review. The ICAAP being an internal process, the CSSF intends to evaluate the ICAAP in the same manner as the other internal processes: internal management information request followed, where applicable, by meetings and on-site inspections. The information request of the CSSF on the ICAAP will be based on the report referred to under points 17 and 26 above, which the authorised management submits on an annual basis, on its own initiative and in writing to the CSSF. This information, which must be comprehensible to third persons, shall be completed, if need be and upon request of the CSSF, by internal documents, meetings and on-site inspections, notably when the above report does not allow the CSSF to fully evaluate the internal capital adequacy.
43. In order to evaluate the progress made in the implementation of the ICAAP within the different institutions and to organise its internal resources for the ICAAP assessment, the CSSF intends to issue an information request through a questionnaire. This request will be made during the second half of 2007 and sent out to the institutions in the form of a circular-letter.

### **Sub-chapter III.3. Supervisory review process and principle of proportionality**

44. The internal character of the ICAAP and its proportionate implementation according to the structures and needs of the institution obviously correspond to a prudential assessment which respects one same principle of proportionality. The CSSF, which expects the ICAAP to be proportionate to the scale, diversity and complexity of the institution's activities and organisation, will organise its prudential evaluations according to this same proportionality. An institution whose scale, diversity or complexity of activities are important will hence require more resources to perform the supervisory review process. On the contrary, for institutions representing a minor risk for the accomplishment of the legal missions of the CSSF, the supervisory review process may be less deep. This principle shall apply in particular to the implementation of the dialogue between the CSSF and the institution concerned in relation to the ICAAP.

### **Sub-chapter III.4. ICAAP within international groups**

45. The regulatory requirements applicable to the ICAAP, as indicated in Chapter II of this circular, follow the GL03 guidelines of the Committee of European Banking Supervisors which aim at establishing converging standards in the various Member States of the European Union. These common standards facilitate the outsourcing of the ICAAP within a group and the coordinated implementation of the ICAAP within European groups.

In a similar context of convergence, the GL09 guidelines of the Committee of European Banking Supervisors organise the interaction between European authorities, particularly in the exercise of the supervisory review of the ICAAP.<sup>8</sup>

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<sup>8</sup> "GL09" CEBS guidelines ("GUIDELINES FOR CO-OPERATION BETWEEN CONSOLIDATING SUPERVISORS AND HOST SUPERVISORS")

These rules aim at enhancing cooperation between national authorities in order to avoid duplicate supervisory review activities on legal entities belonging to one group and for supervisory authorities supervising this group. For the needs of its supervisory review process, the CSSF takes into account the evaluations performed by the other European authorities insofar as these assessments concern the outsourced processes included in the local ICAAP.

### **Sub-chapter III.5. Prudential measures**

46. The CSSF requires any institution not complying with the provisions of this circular to take the necessary measures in order to become compliant with the provisions of this circular.
47. If the measures taken under point 46 appear to be insufficient, the CSSF may take the following specific measures:
- request ICAAP reinforcement;
  - restrict or limit the business, operations or network of the institution;
  - request the institution to reduce the risk inherent in its activities, products and systems;
  - require the institution to apply a specific provisioning policy or a specific treatment of assets in terms of own funds requirements to its exposures;
  - require the institution to hold prudential own funds above the minimum level set by the CSSF by virtue of article 56 of the law of 5 April 1993 on the financial sector, as amended.

Non-compliance with the regulatory requirements applicable to the ICAAP is subject to a specific own funds requirement in addition to the minimum laid down in article 56 of the law of 5 April 1993 on the financial sector, as amended, whenever the application of other measures is not likely to sufficiently improve the ICAAP or the internal capital adequacy within an appropriate time limit.

**Chapter IV. Entry into force**

48. This circular comes into force with immediate effect, but shall only produce its effects for the institutions concerned as from the moment they implement circular CSSF 06/273 or circular CSSF 07/290, as applicable.

Yours faithfully,

COMMISSION DE SURVEILLANCE DU SECTEUR FINANCIER

Simone DELCOURT  
Director

Arthur PHILIPPE  
Director

Jean-Nicolas SCHAUS  
Director General

Annexe

## Annexe: Explanations and illustrations

This annexe includes additional explanations and illustrations to guide institutions in the practical implementation of their ICAAP. The annexe focuses on a certain number of regulatory requirements described in the second chapter of this circular, explaining their impact or detailing their terms, principally from the point of view of ICAAP proportionality and evaluation in the context of the supervisory review process.

### I. Regulatory ICAAP requirements

The regulatory requirements applicable to the ICAAP, as described in Chapter II of this circular, largely affect the generic characteristics of the ICAAP as well as the responsibilities of the board of directors and of the authorised management in the ICAAP implementation. These responsibilities are linked to the supervisory and daily management missions that these bodies take on for any internal process. In this respect, the regulatory requirements on ICAAP are *not fundamentally new*, the ICAAP being one of many internal processes. The institutions shall ensure their ICAAP is integrated in their existing internal governance structures, allowing a sound and prudent business management.

#### I.1. Generic ICAAP characteristics

The generic characteristics that the ICAAP must comply with are listed under sub-Chapter II.4. of this circular. Three of these characteristics, which the ICAAP shares with other internal processes, are worth being described in detail, namely:

- its internal nature;
- its integrity and effectiveness;
- its comprehensiveness.

The *internal character* essentially originates from the very essence of ICAAP, which is an *internal* process serving the specific needs of the institutions and adapted to their organisation and to their specific activities. Considering the diversity of the institutions, of their structures and of their activities, the CSSF expects to see ICAAPs differing from one institution to another in practice. Moreover, there is currently no unique method to define, design and implement an ICAAP. Consequently, the CSSF acknowledges the multiplicity of eligible ICAAP approaches. This is the reason why it does not lay down regulatory requirements concerning the specific structure that the ICAAP shall adopt. It is important for the internal nature of the ICAAP to be *tailored to the internal needs* of each institution.

As any other internal process, the ICAAP shall satisfy the *integrity* and *effectiveness* principles relating to a sound internal governance and a sound and prudent business management as defined in particular in “Circular CSSF 12/552”<sup>9</sup>. Institutions shall ensure to include the ICAAP in their internal governance. With respect to the ICAAP, the internal governance notably includes effective internal controls and a delegation of duties which shall be clearly defined, transparent and consistent, and respecting the principle of task segregation in order to prevent conflicts of interest. The ICAAP shall

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<sup>9</sup> Circular CSSF 13/568

in addition be subject to regular objective assessments ensuring that risk management remains comprehensive and adapted to the scale, diversity and complexity of the institution's activities and that the amount, type and distribution of internal capital are appropriate in relation to the risks incurred. These internal governance requirements are not specific to the ICAAP, nor fundamentally new. The existing internal governance rules, applicable to all internal processes, also apply to the ICAAP. For this reason, Chapter II of this circular only reiterates the main guidelines. The absence of detailed rules should therefore in no circumstance be interpreted as a lack of importance that the CSSF attaches to the qualitative aspects of internal governance. The contrary holds true as witnessed by the provisions set out in sub-chapter II.7. which involve the internal audit and the compliance function in the internal assessment of the ICAAP. Furthermore, in the context of the supervisory review process, the CSSF will focus in particular on the aspects of internal governance organising the ICAAP and ensuring its full and effective operation.

The ICAAP's *comprehensiveness* results from the objective of internal capital adequacy that the ICAAP is supposed to realise. Its aim being to ensure the perennality of the institution through a permanent internal capital adequacy, the ICAAP necessarily concerns *all* the risks to which an institution *is or could be exposed*. We will further refer to this comprehensiveness in section "Implementation of the ICAAP - Risk identification".

## **I.2. Proportionality of the ICAAP**

*Proportionality* is linked to the internal nature of the ICAAP. It means that the ICAAP, which is adapted to the internal needs of the institution, varies in importance and complexity in accordance with the activities and internal organisation of the institution. The CSSF therefore expects institutions having an important or complex organisation or activities structure to have in place an ICAAP which is adapted to the nature of this structure. Their ICAAP will be more important and sophisticated than the ICAAP of a smaller institution with less important and complex risks.

The CSSF has ensured to include in Chapter II of this circular only the requirements applicable to all institutions. This is the case for the provisions applicable to certain specific risks and for the provisions in relation to stress testing. According to the principle of proportionality, each institution shall assess the intensity of the requirements applicable to it, as well as the need to cover risks other than those explicitly indicated under "special provisions applicable to certain specific risks". For example, an institution having a risk structure concentrated on two major risks, mortgage credit risks and interest rate risks arising from non-trading activities, may meet the regulatory requirements of stress testing by realising two well-targeted scenario tests as regards mortgage credit and interest rate risks. For institutions whose activity includes in addition material risks in terms of counterparty risk or risks related to collateralised transactions, the stress testing programmes will be increased accordingly.

The proportionate implementation applies to all aspects of the ICAAP, to its internal use (“use test”) and to its methodological basis.<sup>10</sup> As far as the internal use is concerned, point 9 of Chapter II of this circular provides that the ICAAP shall be integrated in the institution’s decisional and management processes in order to prevent that the ICAAP be only implemented for compliance with the applicable regulatory requirements. In the context of the supervisory review process, the CSSF will be focusing on the way the ICAAP is really used in the institution’s daily management, especially in the internal capital planning and management and in the management and control of activities and risks. In this respect, the ICAAP results have to be integrated into the management information system, allowing managers to take them into consideration in the daily business conduct. As regards methodology, it should be mentioned that the CSSF does not require the institutions to apply extensive modelling techniques (for example so-called economic capital models) to determine their internal capital adequacy. According to the principle of proportionality, the ICAAP of a small-scale institution may follow a “Pillar 1 plus” approach. In this approach, and for the purpose of the ICAAP, the institution assesses the risks for which circulars CSSF 06/273 and CSSF 07/290 require minimum prudential own funds (“Pillar 1”) in accordance with the methods laid down in these circulars. In other words, the internal capital requirements for Pillar 1 risks are considered to be equal to the prudential own funds requirements. The risks which are not covered or not fully captured by the minimum prudential own funds requirements shall be subject to a separate assessment and will be added to the risks of the first pillar in order to define the overall internal capital requirement. This assessment may, for example, be done through a limited number of stress tests. On the other hand, for institutions presenting a higher risk profile and supporting risks for which sophisticated measurement methods are available at the level of their group, the CSSF expects the local ICAAP to take advantage of these advanced methods.

Whatever the form proportionality takes in practice, it shall be consistent with the main objective of the ICAAP, which is to guarantee the internal capital adequacy. This is also the reference point from which the CSSF will assess the appropriateness of proportionate implementation. The ICAAP shall be proportionate to the scale, the diversity and the complexity of the activities and organisation of an institution whenever these factors have a direct impact on the institution’s risk profile, and, consequently, on the internal capital adequacy.

## **II. ICAAP implementation**

The internal capital adequacy is determined through three major steps: risk identification, risk measurement and the assessment of the resulting internal capital requirements.

### **II.1. Risk Identification**

In order to determine its internal capital requirements for risks, the institution shall first identify the risks to which it is exposed.

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<sup>10</sup> This proportionality is included in the CEBS guidelines. Interested parties may find details on this subject at page 24 of GL03 (ICAAP principle 9b) to f))

The permanent and total internal capital adequacy requires this identification to refer to *all* the risks to which the institution *is or might be* exposed. This is the comprehensive nature of the ICAAP.

Considering the comprehensive nature of the ICAAP, the risks to take into account go beyond credit risk and market risk to which the institution is exposed at a specific moment due to its own holdings in its balance sheet and the derivative instruments which are explicitly associated to them (for example interest rate swaps used in the asset and liability management). Most institutions actually support risks other than financial risks taken for their own account as defined in a restricted sense. For institutions holding participating interests or shares in other undertakings, the financial and operational risks (including legal risk) arising from these participating interests and shares shall be fully reflected at the level of the ICAAP. Moreover, any institution providing services, for example in the field of wealth management, UCI administration or depository banking is in particular subject to reputation risk, operational risk or compliance risk which must be taken into account in its ICAAP.

In the Luxembourg context, the CSSF expects in particular that reputation risk and operational risk linked to the wealth management activities be taken into account in an adequate manner (especially money laundering, fraud, execution errors or Know-your-customer breach linked to the activities of private banking or collective wealth management).

In accordance with the principle of proportionality, the institutions assess the extent to which their ICAAP shall cover the following risks:<sup>11</sup>

- concentration risk;
- credit and counterparty risk;
- country risk (transfer risk);
- market risk, including interest rate risk arising from non-trading activities;
- liquidity risk;
- operational risk, including IT risk, risks linked to outsourced processes as well as risks linked to new activities or products as for example credit derivatives;
- clearing/settlement risk;
- reputation risk;
- compliance risk;
- legal risk;
- residual risk (risk that recognised credit risk mitigation techniques prove less effective than expected);
- securitisation risk of which the institution is originator or sponsor;
- business risk and strategic risk;
- risks generated by the macroeconomic and regulatory environment in which the institution operates;
- model risk (risk associated to the inappropriate use of information taken from a model).

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<sup>11</sup> These risks are referred to in Part XVII (point 5 and Chapter 3) and Part XVIII of circulars CSSF 06/273 and 07/290 as well as in annexe 1 of GL03.



It should be noted that the above list of risks is not exhaustive and that the terminology used does not necessarily match the internal practices of the institutions. In consideration of the internal nature of the ICAAP, institutions are free to use their own terminology and risk classification. Moreover, the risks mentioned under the “special provisions applicable to certain specific risks” of Chapter II of this circular are not necessarily the most important ones for a given institution. The general principle remains that every institution must ensure that its ICAAP covers *all* risks to which it is exposed, in accordance with the comprehensiveness requirement as defined under point 10 of Chapter II of this circular.

It should also be noted that good judgement has to be used in the risk identification process, avoiding the traps linked to too simplistic categorisation and reasoning. Credit risks are not necessarily concentrated within the sole loan portfolio. There are also credit risks related to the holding of debt securities in the trading book, whose extent is measured in terms of credit spread (variations), sometimes accounted for under the market risks. The institution should have a comprehensive and consistent overview of its various risks, independently from the names they have been given or the portfolio where they have been booked. The institution shall also pay attention to the interaction and the transformation existing between various risks. A loan with a 6-months revisable rate, refinanced at 6 months, does not bear interest rate risk. Where the institution receives long-term sovereign fixed-rate bonds with an excellent credit rating as a collateral to cover the credit risk of the loan, credit risks can be considered as mitigated. The total position does however not become risk-free: credit risk on the initial position is transformed into market risk (interest rate risk) linked to the collateral. In addition, some risks are not fully apparent, as for example embedded derivatives. When a lender has an implicit early redemption option, the exercise of this option may expose the institution to interest rate risks depending on how the loan has been refinanced or covered. Finally, the interaction between risks must not be neglected. The materialisation of credit risk, market risk or operational risk which affects the institution’s financial base may generate liquidity risk having a significant impact on the institutions’ refinancing possibilities.

Finally, according to the general requirement of the ICAAP – point 5 of Chapter II of this circular, the institutions’ ICAAP must cover the risks to which these institutions are or *might be* exposed. As a consequence of the comprehensive nature of the ICAAP, this forward-looking requirement aims at ensuring that the ICAAP takes into account the future developments which may affect the internal capital adequacy and the risk and internal capital management framework of the institution. In this context, the institution shall identify future risks linked in particular to the planned activity expansion (growth of the existing activity volume, new activities including risks for which the current ICAAP is not prepared, participating interests and international expansion).

## **II.2. Risk measurement**

In a second step, the institution measures or evaluates the importance of the identified risks in order to determine the resulting internal capital adequacy.

For the ICAAP to be comprehensive, the institution shall assess both the quantifiable risks, for which confirmed measurement methods are available, and the risks for which

such methods are currently unavailable. In this latter case, the risk assessment inevitably takes a more qualitative and subjective form (expert judgment), the results of which are probably harder to justify. In general, the institution must be in a position to assess and explain that all its risk measures are reasonable and appropriate. This requirement also applies when the institution uses measurement instruments designed by third parties or measurements outsourced to third parties.

In theory, risks may be understood in terms of a joint probability distribution which indicates, in a comprehensive manner, the different levels of losses incurred by the various risks and the probabilities with which these risks materialise, combine and interact. The statistical tools to do this are easily available nowadays. However, in practice, this approach generally comes up against the unavailability of data in sufficient number or quality. For risks where market prices are reliable, frequently available and stationary across time, the data necessary to model the distribution of losses is available and the statistical approach becomes possible. For other risks, this information is missing and the implementation of the statistical approach requires strong hypotheses to overcome the lack of data. In this case, the use of sophisticated statistical tools may lead to non robust measurements and a more prudent approach may be necessary through expert judgment. Whatever approach is chosen, it must be based on reliable and complete information allowing to correctly evaluate the risks effectively incurred.

The CSSF does not require institutions to make use of statistical modelling or the most sophisticated measurement techniques, even though, in accordance with the CEBS and the Basel Committee on Banking Supervision philosophy, it highly encourages any progress in risk management techniques. If reliable and confirmed risk measurement and risk management methods are available on the market, the CSSF expects institutions to use them. Nevertheless, the CSSF can understand that based on the proportionality principle or other considerations of internal needs, an institution may not implement one of the available techniques. The objective of the ICCAP is internal capital adequacy. This aim may be reached in different ways. For the CSSF, realising the internal capital adequacy is the most important; the means to achieve it is of secondary importance.

The good understanding of risk measures, their correct interpretation as well as the awareness of their *limitations* by the institution's management and the managers of the ICAAP represent not only a prior condition to a sound internal capital and risk management, but above all an essential requirement of efficient business conduct according to risk adjusted profits.

### II.3. Links between risks and internal capital

In order to realise internal capital adequacy, the institution shall establish a link between risk measurement and internal capital. In order to determine this link, a number of critical choices which have an immediate impact on the previous step of risk measurement, have to be made. Among these choices, there is the holding period of risks, the set of adverse scenarios to be retained in the risk assessment and the risk aggregation hypotheses, whenever the latter are measured on an individual basis. These choices are described as follows:

- The holding period of risks refers to the time horizon for which an institution intends to guarantee, for *given* exposures and activities, the adequacy of *existing* internal capital. Where this holding period is fixed at one year, the ICAAP should assess the extent to which the internal capital currently held by the institution is sufficient to cover the risks (losses) linked to the current exposures and activities that may appear within one year. The holding period must be chosen based on several factors, of which the time frame necessary to dispose of risk exposures and activities and the time frame necessary to increase the amount of internal capital. If internal capital adequacy is indeed only obtained through an optimistic hypothesis on the selling period of exposures or activities, the institution may not succeed to reduce its risks in a timely manner if it is forced to do so in order to preserve its solvency. In case the exposures or activities cannot be sold in the considered time period, the losses may accumulate and lead to a situation of insufficient internal capital. The same might occur where the period needed to increase internal capital is too optimistic. In this case, and facing increasing losses, the institution will not find the financial means necessary to consolidate its solvency position in the given time frame and might be facing an internal capital insufficiency. This latter example shows the important link existing between risk management and internal capital management, which have to be considered together. This is the case in particular where the institution follows an active risk expansion policy. This expansion shall be duly taken into account in the planification of internal capital. Beyond the current risk and internal capital situation, institutions shall thus integrate into their ICAAP a definitely *projective* dimension. In any case, the holding period shall be chosen in order to ensure the *permanent* internal capital adequacy. To this end, the holding period shall take into consideration the time needed for the institution before being able to sell exposures or assets and put up additional internal capital – these time frames are linked to market conditions and practices as well as to limits arising from the internal management processes. In practice, the holding period is often set at one year, in line with the budgeting process.
- One may easily imagine extreme risks which make institutions lose all their internal capital. This could occur for example in extreme situations where credit risk, market risk and operational risk occur at the same time. As a general rule no institution holds internal capital in order to cope with such unrealistic situations. Consequently, institutions have to limit

their analysis to a subset of adverse scenarios in order to reach a reasonable assessment of internal capital adequacy. Clearly, the main issue then is to determine the subset of adverse scenarios for which the institution intends to ensure its internal capital adequacy. It is generally accepted that the subset concerned is the one of the realistic scenarios, those who are “likely” to occur. There are however highly plausible scenarios (very realistic) and less plausible scenarios (less realistic) and the choice to make precisely concerns the degree of likelihood that the institution intends to take into consideration in its risk measurement. This choice immediately affects the level of internal capital adequacy. Indeed, assuming a high degree of likelihood (highly probable adverse scenarios) means, as a general rule, that only scenarios with a limited negative impact remain and the internal capital adequacy is more easily reached, with a low level of internal capital. On the contrary, as the set of adverse scenarios grows larger (including scenarios that are less likely), the internal capital adequacy is more and more unlikely to prevail as the existing internal capital will be insufficient to absorb exceptionally large losses. In the quantitative risk measurement methods – measurements of the value-at-risk or “expected shortfall”-type for example – the likelihood determines the “confidence level” with which these risks are measured. This level of confidence indicates in percentage terms the number of scenarios considered as unlikely which are not included in the analysis.

- In order to establish its overall risk profile, the institution shall assess how the various risks interact between themselves and over time. The statistical modelling approach based on the joint distribution of all risks being generally not applicable due to the lack of data, institutions measure their risks on an individual basis. The aggregation of these individual risk measurements in an overall and consistent measurement which determines the overall need for internal capital, then follows from hypotheses on how the different risks interact together<sup>12</sup> and over time.

The above indicated choices that influence the link between risks and internal capital primarily originate from an internal decision of the institution. Institutions shall ensure that their choices regarding the holding period and the aggregation guarantee the objective of permanent internal capital adequacy. For this, they shall act with prudence and good judgement, in particular concerning the hypothesis made on aggregation. The assumptions concerning the way in which the various risks interact together (“co-movements” between risks) shall in particular take into account the variability of these co-movements over time, notably in stress situations. Out of the three choices indicated above, the confidence level has the most marked internal character. As it conditions the level of internal capital, the confidence level indeed determines the profitability of the institution in terms of return on investment, in this case on the internal capital. Setting the confidence level is thus a highly economic decision which belongs, in the first place, to the shareholder. Nevertheless, as the internal capital also defines the institution’s

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<sup>12</sup> One often talks about “correlation” among risks.

capacity to absorb losses, the choice of the confidence level (or solvency threshold) is also important for the investor and depositor protection missions of the CSSF.

### **III. Internal capital adequacy**

Internal capital adequacy is reached when the amount, the type and the distribution of internal own funds allow to permanently and effectively cover an institution's risks. For this purpose, internal capital must be sufficiently high (amount) and available so as to effectively absorb losses (type) in the legal entities where the risks are supported (distribution).

The extent of risks as revealed by the ICAAP does not always require the same coverage in terms of internal capital. The link between risks and internal capital depends in particular on the nature of the risks and the quality of the management and of the internal governance. For instance, the existence of important liquidity risks is not necessarily mitigated through an increase in internal capital, just as internal capital cannot make up for a deficient organisation or internal management. This is in particular the case for new activities or products, supported by internal capital, but for which the existing risk management is ill-suited. Each institution shall clearly define the mitigation factors – internal capital and/or management and internal control measures – applicable to the various risks and the weaknesses identified through the ICAAP.

Where the risk measurement follows a portfolio approach, the internal capital necessary to cover the risks arising from certain sub-portfolios are generally defined based on allocation rules (“internal capital allocation mechanisms”). This will in particular be the case for groups of institutions operating on a cross-border basis, which determine their overall internal capital requirement at the consolidated level and which, through an allocation mechanism, allocate the internal capital to the various subsidiaries and branches of the group. The CSSF is willing to analyse the extent to which the institutions authorised in Luxembourg can use this type of allocation mechanisms in the context of their ICAAP. In any event, these allocation mechanisms must lead to an amount, a type and a distribution of internal capital which effectively covers the risks incurred by the institution authorised in Luxembourg. The institutions shall produce evidence of it at the local level. It is moreover understood that the institutions cannot evade the local regulatory ICAAP requirements included in this circular on the pretext that they are covered by the allocation mechanism of their group. The allocation mechanisms, which are merely part of the information systems referred to under point 8, shall be embedded into a local management and internal governance framework ensuring a sound and effective management of risks and own funds at local level within the meaning of the last sentence of point 8.

### **IV. Special provisions applicable to stress testing**

Circulars CSSF 06/273 and CSSF 07/290 include specific requirements applicable to stress tests. These requirements especially apply to institutions which assess certain of their minimum prudential own funds requirements by means of internal models. The stress tests aim at completing these internal models, which, as is for instance the case for value-at-risk models, are often ill-equipped to capture situations where the

assessment of risks by the market suddenly largely deviates from recently observed assessments. For these models, this results in a potential under-estimation of risks and, as a consequence, a possible inadequacy of internal capital.

However, stress tests are not only used by institutions implementing internal models to determine (minimum) prudential own funds requirements. Stress tests, which take the form of simple, intuitive and easily implementable scenario tests, represent a risk management tool and (...) “a tool to assess the adequacy of the existing capacity to manage and support risks (own funds, liquidity reserves and management and risk control tools)”<sup>13</sup> accessible to small-scale institutions. Point 4a) of Part XVIII of circulars CSSF 06/273 and CSSF 07/290 requires that all institutions assess the exposure of their non-trading book positions to interest rate risk through a stress test. For the above indicated reasons, stress tests belong to best risk (...) <sup>14</sup> management practice, and the CSSF expects institutions to implement stress test programmes which are adapted to their organisation and to their specific activities.<sup>(...)</sup><sup>15</sup> In addition, in application of the proportionality principle, the CSSF has no objection to smaller institutions realising the quantitative aspect of the internal capital adequacy assessment as a complement to the regulatory provisions of Pillar 1, by means of several well-targeted stress tests.

Lastly, it should also be pointed out that the risks explicitly mentioned in relation to stress tests under sub-chapter II.11 of this circular do not constitute an exhaustive list of risks for which the institutions should consider stress tests. Institutions shall themselves identify the main risk factors that require stress testing according to the internal nature of their ICAAP.

## **V. Frequency of the ICAAP**

Institutions chose themselves the frequency of “use” of their ICAAP. Some processes, like risk identification or internal capital planning, will most probably occur at more distant intervals, whereas others, like risk measurement and risk reporting, will be performed more frequently. For market risks in the trading book for example, the risk assessment will be done on an on-going basis whereas for mortgage loans the follow-up of credit risk may be monthly. The choices about frequency of use will be adapted to the internal needs of the institution; it will be set with reference to the nature of risks incurred and the internal organisation of the institution, always with the aim of realising a permanent internal capital adequacy.

This is also applicable to the regular review of the ICAAP. The frequency of the review shall be oriented to the needs of the institution and may, to this effect, deviate from the (minimum) annual frequency fixed under point 12 of Chapter II of this circular. This is necessarily the case when the development of the activities requires amending the ICAAP in order to adapt the risk and internal capital management processes to the risks arising from these new activities.

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<sup>13</sup> Circular CSSF 11/506.

<sup>14</sup> Circular CSSF 11/506.

<sup>15</sup> Circular CSSF 11/506.

## **VI. Supervisory review process**

The ICAAP is a complex multifaceted process. In the context of the supervisory review process, the CSSF has decided to focus on two essential elements of this process: internal capital adequacy (“Is the internal capital sufficient to effectively cover risks?”) and the quality of the internal governance (“Do the organisation, the management and the internal control ensure a sound and effective control of risks and of the internal capital adequacy?”).

## **VII. Entry into force**

This circular comes into force with immediate effect, but shall only produce its effects for institutions concerned as from the moment they apply circular CSSF 06/273 or circular CSSF 07/290, as applicable. Considering the transition period provided for in circulars CSSF 06/273 and CSSF 07/290, this circular will apply to all concerned institutions on 1 January 2008 at the latest. Moreover, as the provisions of this circular relate to processes that evolve over time, driven in particular by changes in risk management methods and techniques, the implementation of an ICAAP that remains effective and up-to-date is necessarily an ongoing effort. The CSSF is aware of this and will take it into account in the supervisory review process as applied to the ICAAP.