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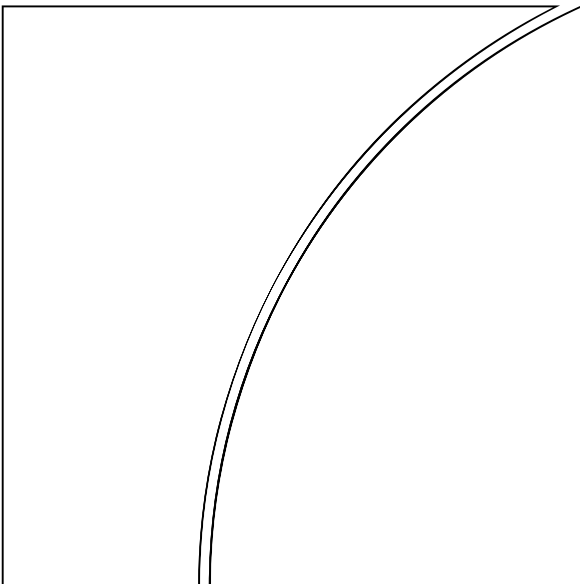
Basel Committee
on Banking Supervision



Consultative Document

Pillar 2 (Supervisory Review Process)

Supporting Document
to the New Basel Capital Accord

Issued for comment by 31 May 2001

January 2001

BANK FOR INTERNATIONAL SETTLEMENTS

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Pillar 2 (Supervisory Review Process)

Introduction

1. As previously set out in the June 1999 consultative document, the supervisory review process is explicitly recognised as an integral part of the New Basel Capital Accord. It is intended to ensure not only that banks have adequate capital to support all the risks in their business, but also to encourage banks to develop and use better risk management techniques in monitoring and managing these risks. Such supervisory review will enable early intervention by supervisors if banks' capital does not sufficiently buffer the risks inherent in their business activities.

2. There is recognition of the correlation that exists between the amount of capital required to adequately address banks' risks and the strength and effectiveness of their risk management and internal control processes. Increased capital should not be viewed as the only alternative to effectively addressing a corresponding increase in risks confronting banks. Other means for addressing risk, such as strengthening risk management, applying internal limits, and improving internal controls, also need to be considered. Further, capital should not be regarded as a substitute for fundamentally inadequate control or risk management processes that must be improved.

3. The supervisory review includes not only the principles identified in this document, but also those that have been identified in other Committee documents, including the Core Principles for Effective Banking Supervision and specific guidance relating to the management of banking risks. A list of relevant documents is included in Annex 1. Most of these documents are available in the compendium of documents produced by the Basel Committee on Banking Supervision on the BIS website at www.bis.org.

4. In order for certain internal methodologies, credit risk mitigation techniques and asset securitisations to be recognised for regulatory capital purposes, banks will need to meet a number of requirements, including risk management standards and disclosure. In particular, banks will be required to disclose features of their internal methodologies where they are used to calculate minimum regulatory capital requirements for credit and operational risk. As part of the supervisory review process, supervisors must ensure that these conditions have been met and monitor on-going compliance with them. Furthermore, Pillar 3 makes a series of recommendations for disclosure on the area of scope of application of the New Basel Capital Accord, capital, risk exposure and capital adequacy. The Committee expects supervisors to use the supervisory review process, as applied their respective jurisdiction, to encourage banks to meet the disclosure recommendations set out in Pillar 3.

5. The supervisory review process is based on four key principles:

Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

6. The supervisory review process, together with Pillar 3 (market discipline), complements Pillar 1 (minimum capital requirements) in achieving a level of capital commensurate with a bank's overall risk profile. In the proposed New Basel Capital Accord, Pillar 1 has been enhanced to reflect more accurately a bank's overall risk profile relative to the minimum capital requirement. While this more precise measurement of risk is an important step in the effort to align more closely capital charges with underlying risk, minimum regulatory capital requirements will tend to lag market innovations, and they will not fully capture all elements of risk that are specific to an individual bank's risk profile. Further, in several important areas, the measurement of risk is not yet a fully developed discipline.

7. It is not the purpose of Pillar 2 to harmonise the supervisory process in member and non-member countries, as different legal regimes, powers and styles of supervision will persist. Nevertheless, it is intended that Pillar 2 will encourage consistency in supervisory approaches and that supervisors will share their experiences in implementing Pillar 2. Furthermore, on an on-going basis it is hoped that supervisors can draw on each others experience in applying Pillar 2 in practice.

8. There are three main areas that might be particularly suited to treatment under Pillar 2: risks considered under Pillar 1 that are not fully captured by the Pillar 1 process (e.g. the proposed operational risk charge in Pillar 1 may not adequately cover all the specific risks of any given institution); those factors not taken into account by the Pillar 1 process (e.g. interest rate risk); and factors external to the bank (e.g. business cycle effects).

9. The New Basel Capital Accord strongly emphasises the importance of bank management developing an internal capital assessment process and setting targets for capital that are commensurate with the bank's particular risk profile and control environment. This internal process would then be subject to supervisory review and intervention, where appropriate. Member countries currently employ a variety of approaches to supervisory review, including:

- On-site examinations or inspections;
- requirements for policy statements on risk management issues;
- off-site review;
- discussions with bank management;
- commission and review of work done by external auditors (provided it is adequately focused on the necessary capital issues); and
- periodic reporting.

Having carried out the review, supervisors should take appropriate action if they are not satisfied with the results of the bank's own risk assessment and capital allocation process. Actions may include, but are not limited to:

- increased monitoring of the bank;

- requiring improvements in the controls environment and risk management process of the bank; and/or
- additional capital requirements above the basic minimum.

Further examples of such actions are given under Principles 3 and 4 below.

10. The nature of the balance between capital requirements and other supervisory tools (such as increased supervisory scrutiny and/or limitations in permitted activities) varies across countries, and it may be partly dependent on existing legal powers and authority of the supervisor.

11. The inclusion of supervisory review, including importantly on-site examinations, under the proposed New Basel Capital Accord is designed to increase the use of current supervisory review processes more widely. It will also emphasise the responsibility of banks' management to develop better processes for examining their own capital adequacy beyond the core minimum regulatory capital requirements. The purpose of this paper is to set out more clearly what each of the various approaches entails, and to assess how widely they might be applied.

Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

12. Banks must be able to demonstrate that chosen internal capital targets are well founded and these targets are consistent with the bank's overall risk profile and its current operating environment. In assessing capital adequacy, bank management needs to be mindful of the particular stage of the business cycle in which the bank is operating. Rigorous, forward-looking stress testing that identifies possible events or changes in market conditions that could adversely impact the bank should be performed. Bank management clearly bears primary responsibility for ensuring that the bank has adequate capital to support its risks. Historically, banks have considered a number of factors in determining their capital levels:

- regulatory ratios and requirements;
- peer comparisons;
- expectations of counterparties, and rating agencies;
- concentrations of credit and other risks;
- other qualitative and subjective factors;
- formal modelling and risk analysis (typically used to support internal capital allocation but generally not applied to overall capital adequacy); and
- building value for shareholders.

Recently, there has been increased focus on the responsibility for management to align economic capital with the risk of the bank and its risk management capability, which is in turn supported further with peer comparison and rating agency expectations. In this regard there has been increased focus on maximum insolvency probability targets and desired bond rating targets for the bank.

13. The optimal level and composition of capital for banks differs depending on particular circumstances. For instance, the funding cost of a bank with an extensive retail

deposit base may be relatively unaffected by the bank's level and composition of capitalisation. In contrast, for a bank heavily dependent on capital markets for its funding and investing, the perception of the bank's capital adequacy (in terms of both quantity and quality) by counterparties and shareholders may well have a heavy influence on that bank's funding costs. However, even if funding costs are relatively insensitive to capitalisation, capital should be adequate for the risk taken

14. The supervisory review process of the New Basel Capital Accord establishes the expectation that the level and sophistication of a bank's own assessment of what constitutes adequate capital will be commensurate with the nature of the bank's activities and the risks involved. Although there is no single correct way to design or implement an internal capital adequacy assessment process, supervisors should make banks aware of the elements of such a process that they would expect to see. Following are five features of an assessment process.

(i) Board and senior management oversight[1]

15. A sound risk management process is the foundation for an effective assessment of the adequacy of a bank's capital position. Bank management is responsible for understanding the nature and level of risk being taken by the bank and how these risks relate to adequate capital levels. They are also responsible for ensuring that the formality and sophistication of the risk management processes are appropriate in light of the risk profile and business plan.

16. A key function of senior management, in conjunction with the board of directors, is the design, implementation, and support of the bank's strategic plan. Strategic planning is a long-term approach to integrating asset deployment, funding sources, management, marketing, operations, and information systems to achieve success. Strategic planning helps an organisation more effectively anticipate and adapt to change and allows the institution to be more proactive than reactive in shaping its own future. Management must ensure that planning information as well as corporate goals and objectives are effectively communicated throughout the organisation.

17. The analysis of a bank's current and future capital requirements in relation to strategic objectives is a vital element of the strategic planning process. The strategic plan should clearly outline the bank's capital needs, anticipated capital expenditures, desirable capital level, and external capital sources. Senior management and the board should view capital planning as a crucial element in being able to achieve its desired strategic objectives, particularly if expansionary or growth oriented, and should take a longer term view as to the implications for the bank's capital structure if these goals are achieved. Inadequate capital planning is an obstacle to meeting strategic objectives such as new or planned activities, the expansion of current activities, and anticipated asset growth, which may include acquisitions, and can have a disruptive effect on operations and may hinder future strategic goals.

[1] This paper refers to a management structure composed of a board of directors and senior management. The Committee is aware that there are significant differences in legislative and regulatory frameworks across countries as regards the functions of the board of directors and senior management. In some countries, the board has the main, if not exclusive, function of supervising the executive body (senior management, general management) so as to ensure that the latter fulfils its tasks. For this reason, in some cases, it is known as a supervisory board. This means that the board has no executive functions. In other countries, by contrast, the board has a broader competence in that it lays down the general framework for the management of the bank. Owing to these differences, the notions of the board of directors and senior management are used in this paper not to identify legal constructs but rather to label two decision-making functions within a bank.

18. The bank's board of directors has responsibility for setting the bank's tolerance for risks. They should also ensure that management establishes a measurement system for assessing the various risks, develops a system to relate risk to the bank's capital level, and establishes a method for monitoring compliance with internal policies. It is likewise important that the board of directors adopts and supports strong internal controls and written policies and procedures and ensures that management effectively communicates these throughout the organisation.

(ii) Elements of a sound capital assessment process

19. The formality of the elements of a sound capital adequacy assessment process will vary among banks, depending on the nature of the bank's risks and the complexity of its holdings and activities. For smaller banks where the business is less complex and senior management is involved with the daily operations, reliance on less formal processes may be acceptable. However, if no formal analysis is performed internally, management should obtain and consider analysis performed for similar banks, for example analysis produced by trade associations.

20. For more sophisticated banks, which may include those involved in complex securitisations, other secondary market credit activities, or other complex transfers of risk, a more elaborate and formal capital adequacy assessment process is necessary.

21. Fundamental elements of a sound capital adequacy assessment process include the following:

- policies and procedures designed to ensure that the bank identifies, measures, and reports all material risks;
- a process that relates capital to the level of risk;
- a process that states capital adequacy goals with respect to risk, taking account of the bank's strategic focus and business plan; and
- a process of internal controls, reviews and audit to ensure the integrity of the overall management process.

22. Risk measurement and management techniques and technology are evolving rapidly. Sophisticated institutions are making greater use of analytical techniques developed either for pricing and performance measurement across business and product lines or for making portfolio risk management decisions. As enhancements in risk management continue to develop, it is envisaged that the risk management process should be able to meaningfully aggregate economic capital across business lines and risk types. This will serve as an important tool in evaluating the bank's overall capital level.

(iii) Risks to be addressed

23. All material risks faced by the bank should be addressed in the capital assessment process.[2] While it is recognised that not all risks can be measured precisely, a process

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[2] The topic of risks that banks normally encounter has been well explored by the Committee. Among the relevant papers issued by the Committee are: *Amendment to the Capital Accord to Incorporate Market Risks* (January 1996), *Sound Practices for Managing Liquidity in Banking Organisations* (February 2000), *Principles for the Management of Credit Risk*

should be developed to estimate risks. Therefore, the following risk exposures, which by no means constitute a comprehensive list of *all* risks, should be considered.

Credit risk

24. Banks should have methodologies that enable them to assess the credit risk involved in exposures to individual borrowers or counterparties as well as at the portfolio level. For more sophisticated banks, the credit review assessment of capital adequacy, at a minimum, should cover four areas: risk rating systems, portfolio analysis/aggregation, securitisation/complex credit derivatives, and large exposures and risk concentrations.

25. Internal risk ratings are an important tool in monitoring credit risk. Internal risk ratings should be adequate to support the identification and measurement of risk from all credit exposures, and should be integrated into an institution's overall analysis of credit risk and capital adequacy. The ratings system should provide detailed ratings for all assets, not only for criticised or problem assets. Loan loss reserves should be included in the credit risk assessment for capital adequacy.

26. The analysis of credit risk should adequately identify any weaknesses at the portfolio level, including any concentrations of risk. It should also adequately take into consideration the risks involved in managing credit concentrations and other portfolio issues through such mechanisms as securitisation programs and complex credit derivatives. Further, the analysis of counterparty credit risk should include consideration of public evaluation of the supervisor's compliance with the Core Principles of Effective Banking Supervision. (Refer to *"Principles for the Management of Credit Risk",* September 2000).

Market risk

27. This assessment is based largely on the bank's own measure of value-at-risk. Emphasis should also be on the institution performing stress testing in evaluating the adequacy of capital to support the trading function. (Refer to Part B of the *"Amendment to the Capital Accord to Incorporate Market Risks",* January 1996).

Interest rate risk in the banking book

28. The measurement process should include all material interest rate positions of the bank and consider all relevant repricing and maturity data. Such information will generally include: current balance and contractual rate of interest associated with the instruments and portfolios, principal payments, interest reset dates, maturities, and the rate index used for repricing and contractual interest rate ceilings or floors for adjustable-rate items. The system should also have well-documented assumptions and techniques.

29. Regardless of the type and level of complexity of the measurement system used, bank management should ensure the adequacy and completeness of the system. Because the quality and reliability of the measurement system is largely dependent on the quality of the data and various assumptions used in the model, management should give particular

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(September 2000), *Supervisory Guidance for Managing Settlement Risk in Foreign Exchange Transactions* (September 2000) and *Principles for the Management and Supervision of Interest Rate Risk* (January 2001 – for consultation).

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attention to these items. (Refer to *"Principles for the Management and Supervision of Interest Rate Risk",* January 2001 for consultation).

Liquidity Risk

30. Liquidity is crucial to the ongoing viability of any banking organisation. Banks' capital positions can have an effect on their ability to obtain liquidity, especially in a crisis. Each bank must have adequate systems for measuring, monitoring and controlling liquidity risk. Banks should evaluate the adequacy of capital given their own liquidity profile and the liquidity of the markets in which they operate. (Refer to *"Sound Practices for Managing Liquidity in Banking Organisations"*, February 2000).

Other risk

31. The Committee recognises that within the other risk category, operational risks tend to be more measurable than risks such as strategic and reputational. The Committee wants to enhance operational risk assessment efforts by encouraging the industry to develop methodologies and collect data related to managing operational risk. For the purposes of measurement under Pillar 1 the Committee expects the industry to focus primarily upon the operational risk component of other risks. However, it also expects the industry to further develop techniques for measuring, monitoring and mitigating all aspects of other risks.

(iv) Monitoring and Reporting

32. Banks should establish an adequate system for monitoring and reporting risk exposures and how the bank's changing risk profile affects the need for capital.

33. The bank's senior management or board of directors on a regular basis should receive reports on the bank's risk profile and capital needs. The bank's level and types of risk and the potential that the level of risk could change significantly may affect the frequency of reporting. These reports should allow senior management to:

- evaluate the level and trend of material risks and their effect on capital levels;
- evaluate the sensitivity and reasonableness of key assumptions used in the capital assessment measurement system;
- determine that the bank holds sufficient capital against the various risks and that they are in compliance with established capital adequacy goals; and
- assess its future capital requirements based on the bank's reported risk profile and make necessary adjustments to the bank's strategic plan accordingly.

(v) Internal control review

34. The bank's internal control structure is essential to the capital assessment process. Effective control of the capital assessment process includes an independent review and, where appropriate, the involvement of internal or external audits. The bank's board of directors has a responsibility to ensure that management establishes a measurement system for assessing the various risks, develops a system to relate risk to the bank's capital level, and establishes a method for monitoring compliance with internal policies. The board should

regularly verify whether its system of internal controls is adequate to ensure well-ordered and prudent conduct of business.

35. The bank should conduct periodic reviews of its risk management process to ensure its integrity, accuracy, and reasonableness. Areas that should be reviewed include:

- the appropriateness of the bank's capital assessment process given the nature, scope and complexity of its activities;
- the identification of large exposures and risk concentrations;
- the accuracy and completeness of data inputs into the bank's assessment process;
- the reasonableness and validity of scenarios used in the assessment process; and
- stress testing and analysis of assumptions and inputs.

Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

36. The monitoring of the adequacy of capital in relation to risks inherent in a bank's activities is primarily the responsibility of bank management. This monitoring should be performed through the bank's internal assessment process. The supervisory authorities should regularly review this process, the risk position of the bank, the resulting capital levels and quality of capital held. Supervisors should also evaluate the degree to which the bank has in place a sound internal process to assess capital adequacy. The emphasis of the review should be on the quality of the bank's risk management and controls and should not result in supervisors functioning as bank management. The periodic review can involve some combination of:

- on-site examinations or inspections;
- off-site review;
- discussions with bank management;
- review of work done by external auditors (provided it is adequately focused on the necessary capital issues); and
- periodic reporting.

37. However, because of the substantial impact that errors in the methodology or assumptions of formal analyses can have on implied capital requirements, a detailed review by supervisors of each banks' internal analysis will be required. General discussions with senior management alone are insufficient. Supervisors may wish to adopt an approach to focus more intensely on those banks whose risk profile or operational experience warrants such attention.

38. Regardless of the type of review, supervisors should assess the degree to which internal targets and processes incorporate the full range of material risks faced by the bank. Supervisors should also review the adequacy of risk measures used in assessing internal capital adequacy and the extent to which these risk measures are also used operationally in setting limits, evaluating business line performance and evaluating and controlling risks more

generally. Supervisors should consider the results of sensitivity analyses and stress tests conducted by the institution and how these results relate to capital plans.

39. Supervisors should review the bank's processes to determine:

- that the target levels of capital chosen are comprehensive and relevant to the current operating environment;
- that these levels are properly monitored and reviewed by senior management; and
- that the composition of capital is appropriate for the nature and scale of the bank's business.

40. Supervisors should consider the quality of the bank's management information reporting and systems, the manner in which business risks and activities are aggregated, and management's record in responding to emerging or changing risks.

41. Supervisors should also consider the extent to which the bank has provided for unexpected events in setting its capital levels. This analysis should cover a wide range of external conditions and scenarios, and the sophistication of techniques and stress tests used should be commensurate with the bank's activities.

42. In all instances, the economic capital levels at individual banks should be determined according to the bank's risk profile and adequacy of its risk management process and internal controls. External factors such as business cycle effects and the macroeconomic environment should also be considered.

Supervisory Review of compliance with minimum standards

43. In order for certain internal methodologies, credit risk mitigation techniques and asset securitizations to be recognised for regulatory capital purposes, banks will need to meet a number of requirements, including risk management standards and disclosure. In particular, banks will be required to disclose features of their internal methodologies used in calculating minimum capital requirements. As part of the supervisory review process, supervisors must ensure that these conditions are being met on an on-going basis.

44. The Committee regards this review of minimum standards and qualifying criteria as an integral part of the supervisory review process under Principle 2. In setting the minimum criteria the Committee has considered current industry practice and so anticipates that these minimum standards will provide supervisors with a useful set of benchmarks which are aligned with bank management expectations for effective risk management and capital allocation. There will also be an important role for supervisory review of compliance with certain conditions and requirements set for standardised approaches. In this context, there will be a particular need to ensure that use of various instruments that can reduce Pillar 1 capital requirements are utilised and understood as part of a sound, tested, and properly documented risk management process.

45. Having carried out the review process described above, supervisors should take appropriate action if they are not satisfied with the results of the bank's own risk assessment and capital allocation. Supervisors should consider a range of actions, such as those set out under Principle 3 and 4 below.

Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

46. Pillar 1 capital requirements will include a buffer for uncertainties surrounding the Pillar 1 regime which affect the banking population as a whole. Bank-specific uncertainties will be treated under Pillar 2. It is anticipated that such buffers under Pillar 1 will be set to provide reasonable assurance that banks with good internal systems and controls, a well-diversified risk profile and a business profile well covered by the Pillar 1 regime, and who operate with capital equal to Pillar 1 requirements will meet the minimum goals for soundness embodied in Pillar 1. Supervisors will need to consider, however, whether the particular features of the markets for which is it responsible are adequately covered.

47. A survey by the Committee established that supervisors in all member countries expect their banks to operate above the minimum capital ratios laid down in the 1988 Accord. While supervisors in a few member countries do not have the *legal* authority to require banks to maintain capital ratios above those minimum required thresholds, they have nevertheless developed means for encouraging banks to do so[3].

48. Consistent with these findings, at present supervisors typically require (or encourage) banks to operate with a buffer, over and above this standard. The case for banks to operate with such a buffer rests on the following points:

(a) Pillar 1 minimums are anticipated to be set to achieve a level of bank creditworthiness in markets that is below the level of creditworthiness sought by many banks for their own reasons. For example, most international banks appear to prefer to be highly rated by internationally recognised rating agencies. Thus, banks are likely to chose to operate above Pillar 1 minimums for competitive reasons.

(b) In the normal course of business, the type and volume of activities will change, as will the different risk requirements, causing fluctuations in the overall capital ratio.

(c) It may be costly for a bank to raise additional capital, especially if this needs to be done quickly or at a time when market conditions are unfavourable.

(d) For a bank to fall below minimum regulatory capital requirements is a serious matter. It may place a bank in breach of the relevant law and/or prompt non-discretionary corrective action on the part of supervisors.

(e) There may be risks, either specific to individual banks, or more generally to an economy at large, that are not taken into account in Pillar 1.

49. Under Principle 1, management bears primary responsibility for ensuring that processes exist to ensure that a bank holds sufficient capital to meet both regulatory and economic capital targets. Supervisors should review and validate this process, in accordance with Principle 2. Under Principle 3, supervisors are able to require (or encourage) banks to hold capital in excess of the minimum Pillar 1 requirement. When deciding how much capital a bank or group of banks needs to hold above the minimum laid down in Pillar 1, the banks and supervisors need to consider a variety of factors. These can be grouped under three headings: those factors relating to risks considered under Pillar 1 that are not fully captured

[3] Changes to legislation should be sought in those countries where supervisors do not have explicit authority to set capital above the regulatory minimum. The Committee, however, acknowledges the differences in legal systems in various countries and the resulting difficulties that implementation of this concept may entail.

by the Pillar 1 process; those factors not taken into account by the Pillar 1 process; and factors external to the bank.

50. In assessing risks at individual banks considered but not fully captured under Pillar 1, **banks and** supervisors should consider whether:

- the bank's credit risk regime adequately reflects the risks it is running;
- the bank's market risk regime adequately reflect the risk it is running in the trading book;
- the bank's "other" risks regime adequately reflects the risks it is running;
- the bank is active in areas where supplementing the Pillar 1 process is necessary; and
- the bank is able to accurately measure Pillar 1 inputs.

51. In assessing factors not incorporated in Pillar 1, banks and supervisors should consider whether there are risks in other areas of the bank's activity, for example unusual and material risks on the liabilities side of the bank or any lack of diversification in a bank's business**.** Supervisors should also review the control, organisation and management of the bank, and judge whether they are appropriate for the nature and scale of business being undertaken or considered. In this regard, fundamental inadequacies in controls or risk management processes must be corrected and not regarded as being remedied by additional capital.

52. One risk meriting particular attention is interest rate risk in the banking book. To provide detailed guidance to banks and supervisors on this issue, the Committee has revised its 1997 Principles for the Management of Interest Rate Risk, under the title "Principles for the Management and Supervision of Interest Rate Risk. This guidance places stress on banks' internal measurement systems for interest rate risk as the principal tool for the measurement of this risk and the supervisory response. To facilitate supervisors' monitoring of interest rate risk exposures across institutions, banks would have to provide the results of their internal measurement systems, expressed in terms of the change in economic value relative to capital, using a standardised interest rate shock.

53. If supervisors determine that a bank is not holding capital commensurate with the level of interest rate risk, they must require the bank to reduce its risk, to hold a specific amount of capital or some combination of the two. Supervisors would be particularly attentive to the capital sufficiency of "outlier banks" – those with economic value declines of more than 20% of total capital (Tier 1 plus Tier 2) following the standardised interest rate shock or its equivalent.

54. Supervisors should also consider external factors. These will vary in different situations and could include business cycle effects, a bank's significance in national and international financial markets and the existence and coverage of deposit protection.

55. All these factors imply that the appropriate margin above the minimum regulatory capital requirement will vary across banks and could vary over time. The supervisory authorities should closely monitor on a regular basis whether the amount of capital held by individual banks provides an adequate cushion for the risks incurred in the bank's day-to-day activities.

56. There are several means for supervisors to ensure that individual banks are operating with adequate levels of capital. These mechanisms are not mutually exclusive and

could be applied to individual banks, sectors or categories of banks, or across the whole system. These include the following.

Reliance on a bank's internal capital assessment

57. For capital requirements above the minimum threshold set out in Pillar 1, supervisors may choose to rely on a bank's own judgement regarding adequate capital levels once the supervisor determines that the bank's internal capital assessment process is fully developed and adequate. The supervisor should still retain the right to require the bank to raise its capital ratios and/or to adopt improvements to its risk management process and internal controls if the supervisor deems it necessary.

Establishment of trigger and target ratios

58. The supervisory authority may choose to work with the bank in determining the appropriate levels of capital. A trigger ratio can be set, which is deemed to be the minimum required by the bank based on its risk profile. In addition, a target ratio may be established that would provide a warning that the bank is operating too close to the trigger ratio. The trigger ratio should be reviewed periodically to ensure that it continues to reflect the bank's risk profile. In the event a bank has no unusual risk characteristics, there should be a presumption that the adequate trigger ratio is the minimum ratio required under Pillar 1.

Establishment of defined capital categories above minimum ratios

59. In addition to a review of capital adequacy at individual banks, supervisors may choose to establish defined capital categories that apply to all banks. This would be in acknowledgement that virtually all banks should be operating above the minimum ratios. An example of such an approach would be one that uses a higher threshold of capital in order for a bank to be considered “well capitalised” as opposed to “adequately capitalised”. Banks may need to be considered well capitalised in order to engage in certain activities or to make certain acquisitions. In such cases, the specific standards should be transparent and well publicised.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

60. Under Principles 1 to 3 above, supervisors should expect banks:

- to have an adequate process for assessing their overall capital adequacy; and
- to operate above minimum regulatory capital ratios.

61. If supervisors become concerned that a bank is either not meeting these requirements or is at significant risk of not meeting them in the future the Committee expects some kind of supervisory response. Depending on the severity and underlying causes of the situation, this could include:

- increased monitoring of the bank;

- requiring improvements in the controls environment in the bank, in terms of systems and/or personnel;
- requiring the bank to prepare and implement improved risk assessment and capital allocation procedures;
- requiring the bank to hold capital in excess of the Pillar 1 minimum;
- requiring the bank to prepare and implement a satisfactory capital restoration plan, which might involve plans to raise additional capital, restricting asset growth or reducing the level of assets, withdrawal from certain lines of business, and divestiture of certain subsidiaries;
- restricting the payment of dividends and/or executive bonuses;
- requiring the bank to raise additional capital immediately; and
- requiring that senior management and/or the board be replaced.

62. Supervisors will have discretion to use the tools most suited to the particular circumstances of the bank and its operating environment. They should expect timely and effective resolution of their concerns by bank management. If such effective resolution is not forthcoming, the more prescriptive measures described above would tend to be used.

63. It is not always the case that the permanent solution to banks' difficulties lies in increased capital. However, some of the required measures (such as improving systems and controls) may take a period of time to implement. Therefore, increased capital might be used as an interim measure while permanent measures to improve the bank's position are being put in place. Once these permanent measures have been put in place and have been seen by supervisors to be effective, the interim increase in capital requirements can be removed. In all cases, it is important that supervisors notify the bank if they have any concerns about capital adequacy.

Supervisory Transparency and Accountability

64. The supervision of banks is not an exact science, and therefore, discretionary elements within the supervisory review process are inevitable. Due to this greater level of required discretion, supervisors must take care to carry out their obligations in a highly transparent and accountable manner.

65. To facilitate transparency and accountability, the criteria used in the supervisory review of banks' internal capital assessments should be publicly available. Similarly, when a supervisor requires a bank to improve its internal capital assessment program, it should communicate to the bank the specific deficiencies of the program that were identified and the reason such deficiencies are material in view of the bank's business profile.

66. Where capital requirements are set above the minimum for an individual bank, the supervisor should explain to the bank's management the risk characteristics specific to the bank which resulted in the requirement, why these risks are not adequately captured under Pillar 1 and the contribution of each of the identified characteristics to the additional requirement.

67. If a supervisor chooses to set target or trigger ratios or other capital categories, factors that are (or may be) considered when setting the targets or trigger ratios should also be publicly available.

Superseded document

Annex 1

Other Documents Related to the Supervisory Review Process (Published by the Basel Committee on Banking Supervision)

TITLE	STATUS	DATE
Part B of the Amendment to the Capital Accord to Incorporate Market Risks	FINAL	JAN 1996
Core Principles for Effective Banking Supervision	FINAL	SEP 1997
The Core Principles Methodology	FINAL	OCT 1999
Risk Management Guidelines for Derivatives	FINAL	JUL 1994
Risk Management for Electronic Banking	FINAL	MAR 1998
Framework for Internal Controls	FINAL	SEP 1998
Sound Practices for Banks' Interactions with Highly Leveraged Institutions	FINAL	JAN 1999
Enhancing Corporate Governance	FINAL	AUG 1999
Sound Practices for Managing Liquidity	FINAL	FEB 2000
Principles for the Management of Credit Risk	FINAL	SEP 2000
Supervisory Guidance for Managing Settlement Risk in Foreign Exchange Transactions	FINAL	SEP 2000
Principles for the Management and Supervision of Interest Rate Risk	For consultation	JAN 2001
Operational Risk Sound Practices	In progress	-