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BEST PRACTICE GUIDELINE

From the Banking Regulation and Supervision Agency:

GUIDELINE ON COUNTERPARTY CREDIT RISK MANAGEMENT

SECTION ONE

PURPOSE AND SCOPE, DEFINITIONS

Purpose And Scope1. The purpose of this guide is to explain sound practices expected from banks regarding CCR management, with respect to the article 35 entitled "The purpose of risk management and establishment of risk management system" of the Regulation on Banks' Internal Systems and Internal Capital Adequacy Evaluation Process, published on the Official Gazette numbered 29057 dated July 11, 2014.

- 2. The guide has been prepared based on the article 93 of the Banking Law number 5411 dated October 19, 2005 and article 7/A entitled "Good Practice Guides" of the Regulation on the Procedures and Principles Concerning the Audit to be Realized by the Banking Regulation and Supervision Agency, entered into force following its publication on the Official Gazette number 26236 dated July 22, 2006.
- 3. In accordance with the principles explained in this guide, it is expected that an effective and adequate counterparty credit risk management framework with below listed aspects should be established both solo and consolidated basis, in compliance with complexity and size of bank's activities;
- a) Corporate governance,
- b) Risk management policies and procedures,
- c) Identification and review of counterparty's credit worthiness,
- c) Applications to measure and valuate CCR,
- d) Implementation and monitoring of limits,
- e) Risk monitoring and control activities,
- f) Stress test implementations concerning CCR,
- g) Reports regarding CCR,
- ğ) CCR mitigation applications,
- h) Review and audit of CCR.

Although CCR includes some differences, it is a type of risk that is mainly considered within the scope of credit risk, in addition to the principles in this guide, banks' counterparty credit risk; The Guideline on Principles Regarding Credit Management of Banks, Guidelines on Stress Tests to be Used by Banks

in Capital and Liquidity 2 Planning and Guidelines on Concentration Risk Management should be evaluated together.

Definitions

- 4. Definitions appearing in this guide are given below.
- a) Current Exposure: Definition given in the Annex 2 of the Regulation on Measurement and Evaluation of Capital Adequacy of Banks.
- b) General Wrong-Way Risk: Arises when the probability of default of counterparties is positively correlated with general market risk factors. For example, in an interest swap transaction in which Bank A is receiver and the counterparty is a building company, a sudden increase of interest rates will increase the positive value of the transaction for Bank A. On the other hand, since it operates in a sector sensitive to interest rates, the possibility of the company to default will also increase.
- c) Margin Lending Transaction: Definition given in the Annex 2 of the Regulation on Measurement and Evaluation of Capital Adequacy of Banks.
- ç) Securities and commodities lending or borrowing transactions: Definition given in the Article 3 of the Regulation on Measurement and Assesment of Capital Adequacy of Banks.
- d) Potential Exposure: An estimate of the additional exposure to be appeared during the life of the transaction as a result of changes in market conditions. This exposure is an estimate in addition to current exposure and is prudential.
- e) Repo and Reverse-Repo Transactions: Definition given in the Regulation on Measurement and Evaluation of Capital Adequacy of Banks.
- f) Specific Wrong-Way Risk: Definition given in the Annex 2 of the Regulation on Measurement and Evaluation of Capital Adequacy of Banks. For example, in case Bank A purchases a put option of a company based on its own shares from this company, a specific wrong-way risk appears for Bank A.
- g) Pre-Settlement Risk: Means the risk which will emanate from the default of the counterparty during the period until the maturity of transaction.
- ğ) Settlement Risk: Definition given in the article 3 of the Regulation on Measurement and Evaluation of Capital Adequacy of Banks.
- h) Long Settlement Transaction: Definition given in the Annex 2 of the Regulation on Measurement and Evaluation of Capital Adequacy of Banks.
- 1) Derivative: Implies the derivative agreements operated in over-the-counter markets or organized stock markets. Organized market states the definition given in the Regulation on Measurement and Evaluation of Capital Adequacy of Banks.

- i) Top-Level Management: Implies the top-level management definition given in the article 3 of the Regulation on Banks' Internal Systems and Internal Capital Adequacy Evaluation Process.
- j) Senior Management: Implies the senior management definition given in the article 3 of the Regulation on Banks' Internal Systems and Internal Capital Adequacy Evaluation Process.

SECTION TWO

CORPORATE MANAGEMENT, RISK MANAGEMENT POLICIES AND PROCEDURES

Corporate Governance

Principle 1. Board of management and top-level management of banks should be actively involved in CCR management and make the CCR management process an integrated part of ordinary banking activities.

- 5. The Board and top-level management shall take following points into account to ensure the balance between CCR appetite and the risk control levels.
 - Banks should determine their strategies regarding CCR in line with their risk appetite and this strategy should be approved by the Board.
 - The level of risk appetite should be reviewed periodically and quantitative risk measurements (for example scenario and stress test results) and qualitative factors (for example the efficiency of risk controls function, remuneration policies) should be taken into account during this review. The frequency and scope of this review should be determined according to CCR level and complexity of the bank.
 - Banks should be certain that their CCR management and control functions are coherent with their size, complexity of their activities and their growth rates and are adequate to support these.
 - Banks' compensation policies and performance criteria should not encourage sudden increases in CCR levels and excessive risk-taking.
- 6. In order to sustain the control environment across frontline business units, the Board and top-level management should ensure that the risk management and other support and control¹ functions are robust, truly independent from the risk-taking functions, and have sufficient authority, resources and expertise to carry out their functions.
- 7. Where the bank is using an internal model for CCR, senior management must be aware of the limitations and assumptions of the model used and the impact these can have on the reliability of the output. They should also consider the uncertainties of the market environment (e.g. timing of realization of collateral) and operational issues and be aware of how these are reflected in the model.
- 8. Top-level management should have an adequate understanding of the CCR products and activities being undertaken, the associated risks and control systems involved, as well as the key assumptions and limitations of the various valuation and pricing methodologies and models employed for risk

¹ Within the framework of this guideline, control functions should be understood including internal control and audit.

management purposes. They should also emphasize the recruitment, training and retention of skilled analysts and risk managers who have sufficient product knowledge and expertise to manage the risks involved.

9. Banks should have robust and flexible information and reporting systems to ensure the fast evaluation of CCR exposure. These systems should be able to provide information to third parties in requested form and content. Banks also should ensure that their information systems and processes allow for a robust and prompt assessment of risks, with the provision of timely, accurate and useful information to the Board and top-level management. Moreover, action plans approved by the Board for possible risk increments should be available.

Risk Management Policles And Procedures

Principle 2. Banks shall have CCR management policies and procedures (flow charts included) with sufficient scope and content, consistent with the nature, complexity and size of their products and activities causing CCR. A sound counterparty credit risk management framework shall include the identification, measurement, management, approval and internal reporting of CCR.

- 10. Policies and procedures formed should be approved by the Board and should be reviewed periodically and updated according to changing internal and external conditions. These policies and procedures should be made available to the related bank personnel information systems should be established.
- 11. CCR management policies and procedures should at least include following aspects.
 - A definition of CCR, taking into account both pre-settlement and settlement risk exposures, and these risks must be managed at the counterparty level (aggregating counterparty exposures with other credit exposures) and at the firm-wide level,
 - The market, liquidity, legal and operational risks that can be associated with CCR must be taken into account.
 - The bank's risk appetite for CCR and general/special limits,
 - Within the scope of CCR management; authorities and responsibilities of the Board, top-level management, related committees, business units and internal systems units,
 - Principles and procedures concerning the approach for identifying, measuring, monitoring, controlling and reporting CCR including following;
 - Evaluation of the effect of new products and activities on the bank's CCR level and inclusion of this evaluation to the product/activity approval process,
 - Scope and type of the information to be collected to identify counterparty's credit worthiness,
 - Methodologies, models and standards used to value and measure positions causing CCR,
 - Principles concerning CCR mitigation techniques as well as controls to ensure their efficacy,
 - Limits established within the scope of CCR management and monitoring these limits,
 - Management reporting system formed within the scope of CCR management,
 - Controls on exceptional transactions as well as principles to report and analyze them,

- Principles concerning the documentation of products and activities involving CCR (such as, formation of standard contracts),
- Stress scenarios applicable to CCR exposures.

SECTION THREE

MEASUREMENT, CONTROL AND MONITORING ACTIVITIES REGARDING CCR

Identification And Review Of Counterparty's Creditworthiness

Principle 3. Before engaging in dealings causing CCR, banks should analyze counterparty's credit worthiness and maintain reviewing counterparties' creditworthiness periodically afterwards and increase the reviewing frequency if necessary.

- 12. The scope and level of information providing the evaluation of counterparty's creditworthiness may vary depending on the volume of the transaction as well as its CCR level and/or the quality of the counterparty (for example, if the counterparty is operating with high level of leverage) and following information should be obtained and evaluated by banks to appropriate extent.
 - Important financial information regarding the counterparty,
 - Counterparty relations,
 - Business and investment strategies,
 - Operational controls such as information on valuation and procedures on trade verification, collateral management and settlement,
 - Risk management approach (including risk measurement methodologies),
 - Asset quality, capital conditions and recent financial performance,
 - Evaluations concerning credit, market and liquidity exposures,
 - Important events affecting counterparty's credit quality negatively (for example, increase in collateral requirements due to rating deterioration).
- 13. Identification and evaluation process of counterparty's creditworthiness should be separated within organizational structure as financial and non-financial institutions. As a matter of fact, unlike non-financial institutions, financial institutions may be facing situations such as bankruptcy, purchase, merger or confiscation in a sudden and unexpected way and this situation may have serious effects on the bank.
- 14. In analyzing counterparty's credit worthiness, banks shall take into account the settlement risk, pre-settlement risk and wrong-way risks. Allocation conditions, pricing practices, collateral policies and margin adjustments regarding banks' transactions should ensure a consistent CCR in compliance with counterparty's credit quality.
- 15. In analyzing counterparty's credit worthiness, banks should not just rely on external resources such as credit rating agencies; banks' related units should also conduct analyses and evaluations to identify counterparty's credit quality.
- 16. The scope, quality and freshness of information obtained should determine the level and conditions of the transaction limit to be provided to counterparty. However in any case, recent important information reflecting counterparty's credit worthiness such as rating notes for financial institutions

and basic financial information should be available in the bank's system. During systemic or individual stress periods, additional information should be obtained from major counterparties, and the frequency of information-taking should be increased for an updated assessment and review.

- 17. The personnel assessing counterparty's credit quality should have sufficient knowledge, experience and expertise within this scope.
- 18. Principles and procedures to be complied during the process of acquiring qualified information not disclosed to public should be documented, moreover, control mechanisms should be formed to provide the reliability of this information.
- 19. To prevent possible disputes, it is important that parties have reached a mutual agreement about usage and protection of qualified information.
- 20. Concerning complex financial instruments; counterparty's usage strategy of this instrument, the effects of stressed economic conditions on the transaction realized and the bank's power to meet potential losses which may appear because of this transaction shall be analyzed.
- 21. When determining credit-worthiness, banks shall also evaluate counterparty's off-balance sheet liabilities. Within this scope, particularly the additional risks undertaken by a counterparty which is a sponsor to structured financial instruments and having a liquidity allocation commitment for structured financial instruments should be taken into account.
- 22. The above-mentioned facts are also valid for transactions realized with counterparties granting financial guarantees such as credit protection.
- 23. Within the scope of counterparty's credit worthiness analysis, banks should take the principles and procedures into account mentioned in Guideline for Credit Management of Banks.

CCR Measurement And Valuation Practices

Principle 4. Banks shall establish systems and processes regarding the measurement and evaluation of CCR.

- 24. There are various CCR measurement methodologies from simple measures to sophisticated statistical modeling or simulation techniques. Scope and structure of measurement system used should be in line with the structure, complexity and level of the CCR to which the bank is exposed. Possible methods ranged from simple to complex are; Original Exposure Method, Standardized Method and Statistical or Simulation Method².
- 25. A key issue in CCR measurement is the estimation of the potential exposure of a contract, which varies over the life of the contract as the underlying market factors change. Potential exposure may be based on measurements such as expected exposure, peak exposure, effective expected exposure, expected positive exposure, effective expected positive exposure³.

² Details of these methods are explained in the "Regulation on Measurement and Assessment of Capital Adequacy of Banks Annex 2"

³ Definitions regarding these measurements are given in the first part of the "Regulation on Measurement and Assessment of Capital Adequacy of Banks Annex 2".

- 26. The measurement of CCR must include monitoring daily and intra-day usage of credit lines. The bank must measure current exposure gross and net of collateral held where such measures are appropriate and meaningful.
- 27. Different measurements (current exposure, maximum exposure etc.) may be used for different purposes in risk management. For example, current risk amount may be used for margin adjustments, peak exposure for limit and monitoring functions, expected exposure for pricing purposes.
- 28. Where practicable, banks should consider using a wider range of CCR measures and not being too dependent on a single methodology or a limited set of tools.
- 29. An important issue that banks should keep in mind during the measurement model development and process design phase is that the changes in the quality and quantity of risk factors can be adapted to the system and processes quickly with the assumptions and parameters included in the measurement models. In this way, it will be ensured that the current situation in market conditions is taken into account in measurement models in a short period of time and reflected in decision-making processes.
- 30. Banks' CCR measurement systems should enable the identification of large or concentrated positions, such as:
 - by groups of related counterparties;
 - by customer investment strategies (speculative or hedging purposes);
 - by markets, countries and sectors or underlying market factors (e.g. interest rates and exchange rates).
- 31. For possible exposure concentrations, bank should take special measures for determined counterparties (for example, considering facts such as taking a high amount of risk or instruments subject to transactions are not mostly non-liquid instruments, etc. special transaction limits may be established for counterparties made subject to margin determination obligation).
- 32. Banks should form and implement a strong, consistent and independent price verification procedures. This implementation requires also that information presented by business units and rating agencies regarding valuation methods and assumptions and price estimations or based on expert opinions to be reviewed periodically.
- 33. Price estimations used in valuation practices shall be used consistently throughout bank and on the other hand, special care shall be given to compose price estimations to be used in valuation of non-standardized, structured or non-liquid products as well as to products hard to price.
- 34. Banks should incorporate relevant risks that can be associated with CCR (e.g. market and liquidity risks) into the valuation of CCR exposures. For example, current exposures may vary according to factors such as volatility of basic market factors, correlation between market factors themselves (FX rates, interest rates and credit interest rate difference) and these parameters should be taken into account in valuation. On the other hand, as a result of stressed market conditions during which liquidity risk relating to market, the value of any financial instrument within the bank's portfolio may fall rapidly or there may not be market demand.
- 35. For active market participants, revaluations should be performed on both an intraday as well as a daily basis.

- 36. Regarding the valuation of products which are complex or non-liquid and thus hard to evaluate, banks should use more conservative assumptions; and in cases which they are concentrated on these products but cannot reduce net risk, they should decrease gross risk.
- 37. Banks using internal models in CCR management should ensure that the model is solid and efficient and to that end, they should test the models before using them and the reliability of the models should be reviewed periodically by an independent party.

Limit Setting And Monitoring

- Principle 5. Banks' CCR limits appropriate for their policies and strategies should be determined by top-level management and approved by the Board. Compliance to limits should be monitored independently; exceptions to limits set should be detected and reported to the Board, top-level management and to related units with their causes.
- 38. CCR limits should be determined for each counter party based on transaction types and by specifying transfer conditions. The results of stress tests shall be taken into account in determining general limits. Limits may also be specified based on product type (swap, option etc.), on sector (financial, non-financial etc.), or risk factor regarding transaction (exchange rates, interest rates etc.).
- 39. For more efficient control and monitoring of CCR, banks may establish more than one limit for various exposure measures. Some of these measures are given below.
 - Current Exposure
 - Current Net of Collateral Exposure: calculated by subtracting net value of collateral from the current market value
 - Potential Exposure: The present value of the position is calculated by taking into account the expected future market movements, the rights included in the contract, such as collateral, collateral completion and repurchase rights, and the possibility of such rights to be put into use in the near future.
- 40. The bank's CCR management system must be used in conjunction with internal credit and trading limits. Limits set should be announced to related personnel and should be ensured that limits are fully understood. The related personnel shall have access to the mentioned limit information from the bank's information system.
- 41. Set limits shall be reviewed periodically; during periods which markets are more volatile or creditworthiness of counterparty is deteriorated, specific reviews should be more frequent. It would be appropriate to separate and standardize these reviews based on customer, product, country etc. For example, review frequency of limits based on customer may be differentiated according to own funds ratios.
- 42. There should be procedures for the timely identification, reporting, investigation and resolution (approval or rejection) of exceptions to limits.. Monitoring frequency may be differentiated depending on the characteristics of risk source. For example, banks involved excessively in over-the counter derivative transactions, the CCR amount should be monitored at the end of day and intraday.

Risk Monitoring And Control

Principle 6. Banks should monitor and control CCR exposure.

- 43. Banks trading complex and/or structured products in over-the-counter derivative markets should monitor CCR more closely.
- 44. CCR exposures should be managed as comprehensively as practicable at the counterparty level (i.e. aggregating with other credit exposures to a given counterparty). For instance, to obtain its total credit exposure to a counterparty, a bank may convert CCR exposures into loan equivalent amounts and aggregate those amounts with the bank's loan exposures to the counterparty for credit risk monitoring.
- 45. Measuring and monitoring peak exposure or potential future exposure (PFE) at a confidence level chosen by the bank at both the portfolio and counterparty levels is one element of a robust limit monitoring system. Banks must take account of large or concentrated positions, including concentrations by groups of related counterparties, by industry, by market, customer investment strategies, etc.
- 46. Banks should have procedures for controlling CCR exposures when they become large, a counterparty's credit standing weakens, or the market comes under stress. Banks should also strengthen the ongoing monitoring of the risk posed by their major counterparties by adopting an integrated approach to evaluating the linkages between leverage, liquidity and market risk.
- 47. Banks should have procedures to detect, monitor and control positions causing considerable general and specific wrong-way risk. Detection, monitoring and control activities should continue from the beginning until the end of transaction.
- 48. Banks should have a system in place for monitoring the value of collateral received from or posted to the counterparties, and the compliance with conditions of contracts under which banks and the counterparties are entitled to call for additional collateral from each other or dispose of existing collateral under the terms of the contract as well as the compliance of counterparties with contract terms. Moreover, there should be procedures for dispute resolution.
- 49. Banks which are active market participants or running significant CCR exposures should have the capacity to present estimated risk amounts of counterparties, as well as risk concentrations belonging to risk classes (for example, banks, corporate companies, SMEs etc.), both on a gross and net basis within the same day and to provide effective and consistent reports to senior management regarding risk amounts belonging to counterparties with high risk.
- 50. Banks should establish risk management and control functions in compliance with the structure, size and complexity of CCR transactions. CCR control function should be performed by unit(s) running independently from risk-taking units and composed of personnel having sufficient resources, authority and experience.
- 51. CCR control function is not limited to activities of internal systems. Units under chief executive officer conducting control and monitoring activities may also be assigned within this scope, provided that these units are independent from risk taking units. Furthermore, the CCR control function should

also be integrated to bank's general credit risk management processes. Unit(s) conducting CCR control function is/are generally responsible for following issues:

- Assessment, approval and review of counterparty's credit quality,
- Initial and periodical validation processes and reviews concerning models used for CCR measurement, analysis of valuation methods,
- Daily monitoring of CCR amounts, monitoring and reporting of levels of usage of limits set by the Board,
- CCR measurement and valuation of positions causing CCR,
- Reports for the Board and top-level management to monitor CCR amount and to compare with
 risk limits. In this regard, the daily reports prepared on a firm's exposures to CCR must be
 reviewed by a level of management with sufficient seniority and authority to enforce both
 reductions of positions taken by individual credit managers or traders and reductions in the
 firm's overall CCR exposure.

Stress-Test Applications For CCR

Principle 7. Banks should have a routine and rigorous stress testing program with strong theoretical background within the scope of CCR management.

- 52. Scenarios to be developed for stress-testing should at least have the following qualities.
 - Scenarios should be forward-looking and the assumptions to be used should have the characteristics of extremely stressed but plausible economic conditions. Alongside hypothetical stress conditions, crisis conditions which are experienced previously may also be used in composing scenarios.
 - Credit risk and market risk factors should also be included in scenarios. Correlation effects between credit risk and market risk should be used as possible.
 - Assumptions given in scenarios concerning market conditions and other variables should be reasonable and rational.
 - Scenarios should probe for vulnerabilities within and across key portfolios (including trading and investment portfolios), based on inputs from relevant business managers (credit and trading) and with particular analytical focus on the impact of stress events on large or relatively illiquid sources of risks.
 - Detailed information concerning the portfolio to which the stress test is applied (based on balance sheet items etc.) should be documented.
- 53. Stress tests should be formalized so that trends and developments in key factors and exposure amounts could be tracked and analyzed. The stress tests should also be capable of assessing the concentration risk both to a single counterparty and to groups of counterparties; and the risk that liquidating a counterparty's positions could move the market and affect bank's CCR level.
- 54. The parties performing these stress tests should ensure that the assumptions and the limitations of the methodologies or models used are adequately understood by the decision makers. Particularly in banks with high CCR levels, top-level management should use the results of these tests while making decisions.

- 55. Appropriate actions should be taken and/or risk management strategies (such as hedging or reducing gross risk amount) should be developed for unprotected positions revealed by stress test results.
- 56. Banks should be aware of the fact that their stress test results based on normal market fluctuations may be conceived lower than they really are during periods of low market liquidity, dependent on the amount of exposure.
- 57. Stress test results should be reviewed regularly by the Board and top-level management and the evaluations made should be reflected on related policies and determined limits by top-level management.
- 58. In composing the stress test program to be applied for CCR, banks should also take into account the principles and procedures in the "Guide for Stress Tests to be used by Banks in their Capital and Liquidity Planning".

SECTION FOUR

MANAGEMENT REPORTING AND MITIGATION APPLICATIONS REPORTS ABOUT CCR

Principle 8. Comprehensive, consistent, periodical and up-to-date reports should be presented to the Board and top-level management about CCR level exposed as well as the level of compliance with set limits.

- 59. The scope and frequency of the reports should be in compliance with the volume and complexity of transactions causing CCR. Dependent on the changes in market conditions, banks should increase the frequency of their reports or prepare special-purpose reports.
- 60. The scope and the frequency of the reports to be presented to the Board and top-level management should be determined so that the level of CCR exposed as well the efficiency and adequacy of risk management practices are understood. These reports should at least include:
 - Course of exposures,
 - Maturity structure of positions (or measurements such as duration which provide maturity structure analysis),
 - Concentrations within portfolio,
 - Level of usage of limits,
 - Limit exceptions and actions taken for these exceptions,
 - Counterparties subject to close monitoring,
 - Stress test results.

Moreover, the results of internal audit and control findings should also be reported to the board of directors systematically and with uniform titles. In case the presence of these positions causing general and specific wrong-way risk, the real risk situation of these risks should be reported additionally.

61. Daily (intraday if required) reports regarding the details of CCR causing transactions should be presented to the treasury unit, internal systems units, control and support units such as middle or back

offices under activity branches. These reports should include as a minimum; the usage of limits by the counterparty, limit exceptions based on customer and risk group, profit/loss levels.

- 62. In addition to the report types specified above, periodical reports shall be presented to the top-level management, concerning counterparties causing high CCR. Following issues should be taken into account in these reports:
 - This report should present the total risk amount of all on and off-balance sheet transactions. Characteristics of counterparties to be included in this report (for example customers with a gross risk higher than TL 10 million) should be specified in the document concerning CCR policy.
 - Exposures should be calculated using conservative assumptions relating to netting and collateral agreements, and taking collateral amounts into account measured at both market values and estimated liquidation value.
 - *Potential exposures should also reflect the effects of risk mitigation techniques.
- 63. Quantitative and qualitative analyses regarding large exposures should be performed for each counterparty/risk group to identify exposure increments and deteriorations in creditworthiness caused by significant changes in market risk factors.

CCR Mitigating Practices

Principle 9. As part of an effective CCR management, banks should use appropriate risk mitigating techniques such as netting, collaterals or margining arrangements.

- 64. Netting arrangements are important for reducing the risk amount arising from a specific counterparty by reducing the total exposure and the number of payments within a netting group.
- 65. Banks should ensure that collateral agreements are legally enforceable and that collaterals are prudently valued. Various processes should be developed to this end, including receiving the legal unit's opinion.
- 66. Considering counterparty's credit quality, size of transaction and the quality of collateral, Banks should determine the initial margins and haircuts for collateral types and counterparties, depending on counterparty's credit quality, size of transaction and the quality of collateral.
- 67. More detailed information concerning the practice of risk mitigating techniques take place in the Annex-2 of the Regulation on Measurement and Evaluation of Capital Adequacy of Banks, as well as the Communiqué on Credit Risk Mitigating.

SECTION FIVE

. REVIEW AND AUDIT OF CCR MANAGEMENT PROCESSES

Principle 10. Banks should regularly apply a program involving an independent review and audits to ensure the integrity, accuracy and effectiveness of the CCR management systems. These activities should be conducted by internal audit units.

68. Audits and reviews to be realized within the scope of program should also include the activities of the related business line, as well as the internal control functions relating to these activities and must include both the activities of the business credit and trading units and of the independent CCR control unit. Audit and review results should be reported periodically directly to the Board, or to a committee to which the Board has delegated its authorities (i.e. Audit Committee), together with actions to correct detected weaknesses.

69. These review and evaluations should ideally take place at least annually and must specifically address, at a minimum:

- The adequacy of the documentation of the CCR management system and process (Considering the types, content and complexity level of the positions causing CCR, examination to see if they are handled adequately within the CCR management process);
- the accuracy and suitability of the risk measurement systems used, as well as the integration level of their outcomes to the risk management and decision-making processes;
- the organization of the CCR control unit and collateral unit;
- the approval process for pricing and valuation models and results of verification reports;
- the validation of any significant change in the CCR measurement process;
- the scope of counterparty credit risks captured by the internal model;
- reliability, accuracy, integrity and consistency of data and data sources;
- the accuracy of legal requirements regarding collateral and netting agreements in the measurement of risk exposure;
- accuracy and suitability of model assumptions;
- testing of the models by back tests.