ADB

March 2007

Review of Prudential Exposure Limits for Nonsovereign Operations

Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
AFDB	–	African Development Bank
DMC	–	developing member country
EBRD	–	European Bank for Reconstruction and Development
IADB	–	Inter-American Development Bank
IBRD	–	International Bank for Reconstruction and Development
IEI	–	innovation and efficiency initiative
IFC	–	International Finance Corporation
LGD	–	loss given default
MDB	–	multilateral development bank
MTS II	–	Medium-Term Strategy II
PD	–	default probability
PRS	–	paid-in capital plus reserves and surplus
PSOD	–	Private Sector Operations Department
RMU	–	Risk Management Unit

GLOSSARY

Credit rating	The opinion of ADB or any other accredited rating agency regarding the general creditworthiness of an obligor with respect to a particular debt security or other financial obligation, based on relevant risk factors.
Economic capital	The capital necessary for an institution to remain solvent or to maintain a certain rating in the event of an extreme credit shock, given the level of risk inherent in its operations.
Expected loss	Represents the average loss that a financial institution may incur on a transaction or project. It is estimated as the product of the exposure at default, probability of default, and loss given default. Expected loss is managed by providing adequate loan loss reserve and provision and is considered part of the cost of doing business.
Exposure	Refers to the sum of: (i) with respect to loans and other debt instruments, ADB's total outstanding commitments thereunder; (ii) with respect to guarantees and similar arrangements (such as risk participations), the present value; and (iii) with respect to equity investments, the market value or fair value of capital invested by ADB plus the committed, but not yet invested, amounts.
Group	Two or more persons, whether natural or legal, holding exposures from ADB, on a joint or separate basis, but who are mutually associated in that (i) one of them directly or indirectly holds power of control over the other; or (ii) their cumulated exposures represent to ADB a single risk

because they are so interconnected that if one of them experiences financial problems the other, or all of them, are likely to encounter repayment difficulties.

(Source: Bank for International Settlements. 1991. *Measuring and Controlling Large Credit Exposures*. Basel, Switzerland.)

NOTES

(i) The fiscal year of the Asian Development Bank ends on 31 December.
(ii) In this report, "$" refers to US dollars.

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EXECUTIVE SUMMARY

The main objective of this paper is to establish new prudential exposure limits on nonsovereign operations. These operations encompass all financing that the Asian Development Bank (ADB) provides from its ordinary capital resources that is (i) without government guarantee; or (ii) if with government guarantee, does not allow ADB, upon default by the government of such guarantee, to accelerate, suspend or cancel any other loan or guarantee between ADB and the related sovereign. The proposed prudential exposure limit policies contained in this paper are part of an integrated credit risk management framework that ADB will introduce for its nonsovereign operations.

Under its Medium-Term Strategy II, which calls for catalyzing investment in the Asia and Pacific region, ADB is expected to scale up its private sector operations, while enhancing its risk management capability. ADB's revised strategic framework for private sector development has made investment and output the central goals for supporting sustainable economic growth in its developing member countries.

This review is timely as the existing prudential exposure limits on private sector operations are outdated and inadequate to accommodate the rapid growth in ADB's private sector operations portfolio. The current limits are also significantly lower than those of comparable multilateral development banks. A review of the existing policy is also needed to incorporate the new policy recently adopted by ADB in relation to credit enhancement products. In addition, the Subsovereign and Nonsovereign Public Sector Financing Facility under the policy on *Pilot Financing Instruments and Modalities* (also called the innovation and efficiency initiative or "IEI policy"), approved by ADB on 25 August 2005, calls for Management to determine a ceiling for ADB's operations under that Facility to replace the $3.0 billion ceiling that was tentatively set at that time.

In proposing the prudential exposure limits for nonsovereign operations, this review uses the following guiding principles that drive ADB's credit risk management: (i) maintain ADB's AAA rating, (ii) use ADB's economic capital efficiently, and (iii) diversify ADB's overall portfolio.

The prudential exposure limits for nonsovereign operations proposed under this review are based on (i) the three guiding principles mentioned above, and (ii) a proposed initial ceiling of $5.0 billion as ADB's temporary risk appetite for nonsovereign operations. This ceiling is consistent with IEI policy and reflects a cautious approach to nonsovereign public sector lending.

This review proposes to increase the single exposure limit from $75 million to $250 million for loans and guarantees representing in effect the same risk as that of a loan. The increase to $250 million is the result of applying the diversification principle to the $5.0 billion initial aggregate ceiling that is expected to be reached in the next 3 years. It further proposes a $400 million limit in circumstances where ADB's exposure has the benefit of a guarantee (or similar risk-sharing arrangement) from a third party that carries a minimum threshold international credit rating of A- for that class of exposure and for guarantees covering limited risks. This review also proposes to increase the group exposure limit from $80 million to $400 million for loans, guarantees representing in effect the same risk as that of a loan, and equity, and to $600 million for guarantees covering limited risks, based on the assumption that the total economic capital to support lending to diversified businesses within a group can be kept at the amount required to support lending of $250 million to a single obligor. The industry exposure limit is proposed to be increased from 15% to 30% of aggregate nonsovereign exposure; this will allow ADB to execute its nonsovereign investment strategy, which focuses on infrastructure and financial sectors, both of which are priority sectors under the Medium-Term Strategy II. The country exposure limit of 25% of aggregate committed nonsovereign exposure is proposed to be kept unchanged.

To ensure that the level of risk undertaken by ADB's nonsovereign operations will not increase significantly as a result of the increased limits, a mechanism to control the level of risk using a benchmark portfolio of risk distribution will be utilized.

I. INTRODUCTION

1. The objective of this paper is to establish new prudential exposure limits for all nonsovereign financing operations provided by the Asian Development Bank (ADB) from its ordinary capital resources. Such operations include loans, guarantees, equity investments, and similar financing arrangements that are (i) without government guarantee; or (ii) are with government guarantee, but do not allow ADB, upon default by the government of such guarantee, to accelerate, suspend or cancel any other loan or guarantee between ADB and that sovereign.[1] This review does not cover exposure resulting from ADB's borrowing activities and other treasury operations.

2. Controlling limits on credit exposure are an essential element of a risk management framework to safeguard a lending institution's financial strength. Credit exposure limits for ADB can be classified into three main groups: (i) limits that are stipulated in ADB's Charter; (ii) strategic limits adopted by ADB that determine ceilings for certain operations; and (iii) prudential exposure limits, which are the subject of this review.

3. Charter limits ensure that ADB's exposures are commensurate with the level of its capital. ADB's Charter includes two such limits. Article 12.1 states that the total amount outstanding of loans, equity investments, and guarantees shall not exceed the sum of ADB's unimpaired subscribed capital plus reserves and surplus.[2] Article 12.3 limits ADB's aggregate equity investments to 10% of ADB's unimpaired paid-in capital plus reserves and surplus (PRS).[3]

4. Strategic limits ensure that risks undertaken at each operational level and at the aggregate level do not exceed the economic capital allocated to each operation and the total available economic capital, respectively. Therefore, setting these limits can be seen as a way of budgeting risk among various operations.

5. Prudential exposure limits ensure that a portfolio is adequately diversified across different risk factors to minimize potential loss. A more diversified portfolio is less prone to large losses and thus requires less economic capital than less diversified portfolios.

6. Section II of this paper explains the need for establishing new prudential exposure limits for ADB's nonsovereign operations. Section III provides an overview of ADB's credit risk management framework, explains how prudential exposure limits for nonsovereign operations will form an integral component of this framework, and highlights the key guiding principles of the framework. Section IV discusses ADB's existing limits for private sector operations and compares them with those of other multilateral development banks (MDBs). Section V proposes new prudential exposure limits for all of ADB's nonsovereign operations, and section VI discusses the implications of the proposed policy's implementation.

II. REASONS FOR THIS REVIEW

7. Recognizing growing business opportunities, as well as the corresponding challenges ADB faces in maintaining financial prudence, this review of the existing limits for private sector operations is being undertaken for the following reasons: (i) the single exposure and group

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[1] ADB has the benefit of such acceleration, suspension, and cancellation rights under its ordinary operations loan regulations that apply to ADB's sovereign lending.

[2] As of 31 December 2006, ADB's unimpaired subscribed capital plus reserves and surplus was $13.3 billion.

[3] This translates into $1.2 billion and $1.3 billion, as of 31 December 2005 and 2006, respectively.

exposure limits that were established in 2001[4] have now become too restrictive; and (ii) implementation of the Subsovereign and Nonsovereign Public Sector Financing Facility (the Public Sector Financing Facility)[5] and the Medium-Term Strategy II (MTS II),[6] which will set the stage for a significant shift of emphasis from sovereign to nonsovereign operations as a source of growth for ADB's operations in the future.

8. ADB's existing credit exposure limits for private sector operations are significantly lower than those of comparable MDBs. For instance, ADB's single exposure limit, set at $75 million or 25% of total project cost (whichever is lower), is significantly less than the similar limits of other MDBs. The International Finance Corporation (IFC) sets its single exposure limit at 4% of its net worth plus general reserves on loans, or around $480 million as of the end of its fiscal year 2006, while the Inter-American Development Bank (IADB) has set the single exposure limit for private sector borrowers at $200 million, or exceptionally up to $400 million. Clearly, ADB is currently in a disadvantaged position compared with these and other MDBs in terms of its capacity to finance large infrastructure and financial sector projects in the region.

9. The review of ADB's exposure limits is further justified by the following factors:

10. ADB's Charter specifically mandates private sector operations in Article 11, subject to approval by ADB's Board of Governors, which was granted in March 1983. In 1983 ADB adopted its first policy with respect to equity operations; a policy for lending to the private sector without government guarantee was adopted in 1985, as was ADB's first comprehensive private sector policy. In 1995, the Board approved a new strategy for private sector development with a focus on infrastructure and financial sectors.[7] This strategy was reaffirmed in the *Private Sector Development Strategy* approved in 2000.[8] To support the implementation of this strategy, the 2001 review of private sector operations (footnote 4), allowed, as an interim arrangement, approvals in excess of the existing $1.5 billion capital allocation for private sector operations.

11. ADB's nonsovereign operations were further expanded in 2005 through the Public Sector Financing Facility, which allows, on a pilot basis, the provision of debt finance (loans and guarantees) to selected subsovereign, quasi-sovereign, and nonsovereign public entities, including state-owned enterprises, with or without limited sovereign guarantee. This will gradually shift the source of growth for ADB's operations from sovereign to nonsovereign in the future. No prudential exposure limits are currently in place for this type of public sector lending, except for a tentative $3.0 billion investment ceiling during the pilot phase of the facility.

12. To meet one of the key requirements for the implementation of the Public Sector Financing Facility, an independent credit risk management unit (now Risk Management Unit [RMU]) was established in August 2005,[9] with a view to moving to an integrated risk management platform within ADB. At the same time, the risk management functions for private sector operations were transferred from ADB's Private Sector Operations Department (PSOD) to RMU; RMU also assumed the credit risk assessment and management functions, which at that time were the responsibility of the Financial Policy and Strategic Risk Management Division of the Treasury Department.

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[4] ADB. 2001. *Private Sector Operations Strategic Directions and Review*. Manila (R122-01).
[5] ADB. 2005. *Pilot Financing Instruments and Modalities*. Manila (R194-05).
[6] ADB. 2006*. Medium-Term Strategy II 2006–2008.* Manila (Sec.M26-06).
[7] ADB. 1995. *Strategy for the Bank's Assistance for Private Sector Development.* Manila (R56-95).
[8] ADB. 2000. *Private Sector Development Strategy*. Manila (R78-00).
[9] ADB. 2005. *Establishment of an Independent Credit Risk Management Unit.* Manila (IN188-05).

13. MTS II calls for catalyzing investment in the Asia and Pacific region as one of five strategic priorities;[10] ADB is also expected to scale up its private sector operations, while enhancing its risk management capability. ADB's revised strategic framework for private sector development has made greater investment and output the central goals in its developing member countries (DMCs) for supporting sustainable economic growth,[11] which is consistent with MTS II. Meanwhile, the credit enhancement policy[12] highlights the need for and ability of MDBs such as ADB to make much greater use of the risk mitigation potential inherent in their unique multilateral structure.[13]

14. The credit enhancement policy calls for (i) the establishment of guidelines that indicate (a) the relative risk of financing operations supported by guarantees and or syndications, and (b) how they compare to nonsovereign loans and equity investments; and (ii) for the use of these guidelines to determine how ADB's adjusted exposure, under credit enhancement products and other nonsovereign operations, will be accounted for with respect to Charter, strategic and prudential exposure limits.

15. Other reasons for reviewing the existing limits for private sector operations include the need to align the ADB's limit-setting framework with best practices in exposure measurement.

III. ADB'S CREDIT RISK MANAGEMENT FRAMEWORK AND GUIDING PRINCIPLES

16. Exposure management is an integral part of credit risk and capital adequacy management. This section (i) discusses ADB's existing credit risk management framework, showing the importance of the connection between exposure management and credit risk management; and (ii) describes the guiding principles of the framework.

A. ADB's Credit Risk Management Framework and Its Evolution

17. ADB's risk management framework has evolved significantly since its inception. In the early years, when the bulk of ADB's activities involved sovereign lending to DMCs, the assessment and management of sovereign risk was relatively straight forward, and was managed by relying on adequate capitalization to protect ADB against major credit events and the preferred creditor treatment given by DMCs to ADB. PSOD assessed and managed risk on individual private sector operations, taking into consideration a much wider range of commercial and project risks in addition to sovereign risks.

18. In February 2004 ADB introduced a risk-based capital framework that was designed to measure the risks that ADB takes through its lending activities, and to assess the risks relative to the amount of capital that ADB holds.[14] The framework was prepared based on the principle that future losses can be estimated based on loss distributions. Following this principle, instead of using a single loss number as suggested by accounting standards, losses are estimated based on the concepts of expected and unexpected losses, using a probability distribution.

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[10] The other four strategic priorities are (i) strengthening inclusiveness, (ii) promoting regional cooperation and integration, (iii) managing the environment, and (iv) improving governance and preventing corruption.

[11] ADB. 2006. *Private Sector Development: A Revised Strategic Framework.* Manila (IN27-06).

[12] ADB. 2006. *Review of ADB's Credit Enhancement Operations.* Manila (R168-06).

[13] See the World Economic Forum. 2006. *Building on the Monterrey Consensus: The Untapped Potential of Development Finance Institutions to Catalyse Private Investment*. Geneva, which argues strongly for MDBs to better use guarantee and risk mitigation instruments and capabilities to attract increased commercial investment in development projects.

[14] ADB. 2004. *Review of the Asian Development Bank's Income Planning Framework*. Manila (R24-04).

19. Under the framework, ADB ensures its overall capital adequacy by maintaining adequate loan loss reserves, provisions, and equity capital. The expected loss represents the average loss that ADB can incur in respect of an investment. To estimate expected loss, the inputs needed are exposure at default, default probability, and loss given default. Considered part of the cost of doing business, expected loss is managed by providing adequate loan loss reserves and provisions. Unexpected loss on the other hand, is considered as the risk of doing business and should be managed by holding adequate equity capital.

20. Limiting concentration of exposures across risk sectors reduces the magnitude and volatility of unexpected losses at any point in time. Therefore, this process reduces the economic capital requirement.

B. Prudential Exposure Limits as an Integral Component of Credit Risk Management

21. Prudential exposure limits are one of the key components of ADB's credit risk management framework. Other components include the (i) credit risk rating system, (ii) credit risk measurement system, (iii) provisioning policy, (iv) capital adequacy policy, (v) risk premium pricing system, and (vi) credit portfolio management system. Some of these components are already in place (including the country credit risk rating system, credit risk measurement system, provisioning policy for both sovereign and nonsovereign operations, and capital adequacy policy), while other components (such as the risk rating system for nonsovereign operations, risk premium pricing, and portfolio management systems) have been planned for implementation under RMU's medium-term work program. This proposed prudential exposure limit policy complements, and will be consistent with, other policies recently approved by the Board, such as the asset liability management policy,[15] and the liquidity policy.[16]

C. Credit Risk Management Guiding Principles

22. Managing prudential exposure limits ensures that potential maximum loss is limited. To achieve this, three guiding principles that are considered critical to ADB as an MDB are (i) maintenance of its AAA rating, (ii) efficient use of its economic capital, and (iii) diversification of its portfolio. These guiding principles will be used to derive the proposed exposure limits. This section describes these guiding principles and their implications for managing exposures.

1. Maintenance of ADB's AAA Rating

23. ADB's AAA rating is essential to its role as an efficient development finance intermediary. With this rating, ADB can raise funds below the London interbank offered rate and issue the highest-quality guarantees, the benefit of which can be passed through to its obligors in the form of lower-cost borrowings.

24. To maintain its AAA rating, ADB must ensure that its economic capital is adequate to sustain the risk level in its portfolio at any time. ADB is required to have sound financial policies and maintain its economic capital level at the minimum equal to the estimate of its unexpected loss, calculated with a confidence level consistent with the default probability of a AAA-rated entity.

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[15] ADB. 2006. *Asset and Liability Management Policy*. Manila (R174-06).
[16] ADB. 2006. *Review of the Asian Development Bank's Liquidity Policy*. Manila (R220-06).

25. Maintenance of a AAA rating can be achieved by managing capital adequacy, which has two dimensions: (i) management of portfolio quality to achieve a certain solvency target or rating, and (ii) management of the value of equity. Risk management should minimize the risk of the portfolio at a certain level of business volume, while ensuring the availability of economic capital. Therefore, risk management should focus on economic market values, as solvency is more a function of economic value than book value. For this purpose, exposures that have readily available market values are measured using their quoted market values, while exposures that do not have quoted market values are measured based on their fair values.

2. Efficient Utilization of Economic Capital

26. Since both DMC governments and nonsovereign counterparties need ADB's assistance, ADB must construct its portfolio to ensure consistency with its risk appetite and its ability to leverage its limited economic capital. This also requires that ADB explore the use of different credit enhancement products, such as syndications. ADB should employ risk management tools to balance its portfolio, thereby using its capital efficiently.[17]

3. Diversification

27. Diversification reduces the risk level of a portfolio by eliminating unsystematic risk. As such, a portfolio should not be concentrated heavily in a single obligor or project, group of obligors, industry, or country. There is less correlation between the exposures of a diversified portfolio, and a diversified portfolio requires less economic capital to support, meaning diversification enhances the efficiency of ADB's economic capital utilization.

28. Losses reflect interactions between many correlated risk factors. Such losses can be compounded when an institution is exposed, for example, to multiple companies or a group of affiliated companies whose returns are driven by a set of similar systematic factors. To avoid losses due to correlated exposures, ADB should strive to identify potential common risk factors, and minimize its aggregate exposure to these risk factors. Consequently, when setting prudential exposure limits, ADB should try to diversify its portfolio based on exposures to a single project or group of entities, industry, or host country, and reduce concentrations of exposures that could become highly correlated, especially during crises.

IV. EXISTING PRUDENTIAL EXPOSURE LIMITS FOR NONSOVEREIGN OPERATIONS

29. Appendix 1 illustrates the different exposure limits of MDBs in US dollar amounts, reflecting the percentage limits applied to the most recently published annual financial statements, or figures provided by each institution. Appendix 2 summarizes ADB's existing exposure limits, and Appendix 3 shows the status of current exposure limits by reference to ADB's existing nonsovereign portfolio.

A. Single and Group Exposure Limits

30. Limiting single obligor or project exposures is required to ensure that potential maximum losses in a single investment can be minimized. Currently, the single project exposure limit (including loans, equity investments, and guarantees) is set at $75 million or 25% of the project cost, whichever is lower, and restricts ADB from being the single largest investor. The political

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[17] Under the RMU medium-term plans, several systems will be established to provide incentives for utilizing ADB's economic capital more efficiently.

risk guarantee limit, without government counter-guarantee, is twice the single exposure limit (i.e., $150 million), but is not to exceed 50% of the total project costs. In projects with a total project cost of less than $5 million, ADB may finance up to 33% of project costs (footnote 8). As shown in Table 1 below and Table A1.1 in Appendix 1, ADB's single exposure limit is much lower than that applied by other MDBs, which has a negative impact on ADB's ability to participate in large projects at par with other MDBs, especially IFC and the European Bank for Reconstruction and Development (EBRD).

31. ADB's Charter also prevents ADB from managing or controlling an enterprise, except where necessary to safeguard its investments.[18]

Table 1: MDBs' Nonsovereign Single Exposure Limits

MDB	Exposure Limit
ADB[a]	$75 million or 25% of project cost, whichever is lower. For political risk guarantees, $150 million but not exceeding 50% of project cost. For small projects (less than $5 million), 33% of project cost.
AFDB	0.8% of PRS or 4% of nonsovereign PRS or 33% of project cost, whichever is less. For financial institutions, 50% of shareholders' net worth.
EBRD	5% of PRS; 8% for private and nonsovereign risk-preferred banks (rated A- or better and based in countries with zero BIS risk-weighted sovereigns); 3% of PRS for equity investments.
IADB	For greenfield projects: lesser of $200 million (up to $400 million for exceptional cases) and 25% (40% for certain countries) of project cost. For expansion projects: lesser of $200 million (up to $400 million for exceptional cases) and 50% of projects (expansion) costs subject to such financing not exceeding 25% (40% for certain countries) of the company's total capitalization of debt and equity. Maximum exposure to any single obligor is 2.5% of bank's equity at the time of approval.
IFC	4% of net worth plus general reserves on loans.

ADB = Asian Development Bank, AFDB = African Development Bank, BIS = Bank for International Settlements, EBRD = European Bank for Reconstruction and Development, IADB = Inter-American Development Bank, IFC = International Finance Corporation, MDB = multilateral development bank, PRS = paid-in capital plus reserves and surplus.

[a] These limits were established for private sector operations, but effectively also apply to nonsovereign public sector operations.

Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC.

32. ADB's exposure to a single sponsor, group of sponsors, or interlocking financial/industrial interests is currently limited to $80 million and a maximum of three projects. Table 2 and Table A1.2 in Appendix 1 show that this is lower than the limits set by other MDBs.

[18] Articles 12.4 and 14 (viii) of the Charter.

Table 2: MDBs' Nonsovereign Group Exposure Limits

MDB	Exposure Limit
ADB[a]	$80 million and exposure to a maximum of three projects.
AFDB	0.8% of PRS or 4% of nonsovereign PRS.
EBRD	5% of PRS; 8% for private and nonsovereign risk-preferred banks (rated A- or better and based in countries with zero BIS risk weighted sovereigns); 3% of PRS for equity investments.
IADB	Not applicable.
IFC	4% of net worth plus general reserves on loans.

ADB = Asian Development Bank, AFDB = African Development Bank, BIS = Bank for International Settlements, EBRD = European Bank for Reconstruction and Development, IADB = Inter-American Development Bank, IFC = International Finance Corporation, MDB = multilateral development bank, PRS = paid-in capital plus reserves and surplus.

[a] These limits were established for private sector operations, but effectively also apply to nonsovereign public sector operations.

Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC.

B. Industry Exposure Limit

33. Industry exposure limits ensure that losses due to factors that are specific to an industry—such as commodity prices, regulatory environments, and technological advancement—will be minimized. Despite a private sector operations strategy that focuses primarily on the infrastructure and financial sectors, ADB limits exposure to an individual industry to 15% of the private sector operations portfolio, except to projects such as build-operate-own/build-operate-transfer projects when the government concerned gives assurances that substantially reduce the credit risk of the project.[19] Due to this inconsistency between these industry limits and ADB's investment focus, industry limits have been waived for a number of investments in ADB's existing portfolio.

[19] ADB. 1994. *Provisions for Investment Losses in the Bank's Private Sector Operations*. Manila (R16-94).

Table 3: MDBs' Nonsovereign Industry Exposure Limits

MDB	Exposure Limit
ADB[a]	15% of private sector portfolio, except to projects such as build-operate-own/build-operate-transfer projects when the government concerned gives assurances.
AFDB	5% of PRS (25% of nonsovereign PRS); 7% of PRS (35% of nonsovereign PRS) for financial intermediation.
EBRD	20% of nonsovereign portfolio.
IADB	Not applicable.
IFC	12% of PRS plus general loan loss reserves.

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[a] These limits were established for private sector operations, but effectively also apply to nonsovereign public sector operations.

Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC

C. Country Exposure Limit

34. Country risk in this review refers to the cross-border risk that typically arises from national factors, such as economic structures and policies, and legal and judicial frameworks. In a broad sense, this risk includes economic risk, transfer risk, exchange risk, location risk, sovereign risk, and political risk. In a narrow sense, country risk refers to the risk of inconvertibility or transfer restriction, political violence, expropriation and breach of contract by the government, which is or should be within the control of the host government.

35. ADB's current exposure limit to a single country is set at 25% of ADB's private sector portfolio. Within this limit, actual allocation depends on each country's economic size, creditworthiness, and ADB's country partnership strategy with the country concerned.

Table 4: MDBs' Nonsovereign Country Exposure Limits

MDB	Exposure Limit
ADB	25% of private sector portfolio.
AFDB	3% of PRS (15% of nonsovereign PRS).
EBRD	90% of PRS.
IADB	Not applicable.
IFC	10% of net worth plus general reserves for loans for lowest risk; 2.5% for highest risk.

ADB = Asian Development Bank, AFDB = African Development Bank, EBRD = European Bank for Reconstruction and Development, IADB = Inter-American Development Bank, IFC = International Finance Corporation, MDB = multilateral development bank, PRS = paid-in capital plus reserves and surplus.
Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC

D. Portfolio Limit on Equity Investments

36. ADB currently does not have specific prudential exposure limits with regard to equity investment. The Charter limits ADB's aggregate equity investments to 10% of PRS. ADB's equity investments include mainly investments in financial institutions, companies that are involved in infrastructure projects and investments in private equity funds.

V. PROPOSED PRUDENTIAL EXPOSURE LIMITS FOR NONSOVEREIGN OPERATIONS

A. Initial Ceiling for ADB's Nonsovereign Operations

37. Prudential exposure limits are established by applying a diversification principle to an existing portfolio. Strict adoption of this approach by ADB would mean that limits would be established by reference to ADB's portfolio from time to time. The resulting exposure limits would be too restrictive compared with other MDBs, and would limit ADB's ability to meet its objectives, as set forth in MTS II and other ADB strategies for private sector development in its DMCs. It is therefore proposed that a $5.0 billion ceiling for ADB's nonsovereign operations be used as the basis to determine prudential exposure limits. This initial ceiling reflects ADB's temporary risk appetite for nonsovereign operations, and could be taken as an operational portfolio target for the next 3 years.

38. This ceiling for nonsovereign operations takes into consideration the current size of ADB's private sector operations and their projected annual approval volume, and the expected level of nonsovereign public sector financing over the next 3 years.[20] This combined ceiling for ADB's nonsovereign exposure will replace the tentative $3.0 billion ceiling in the IEI policy. A review of this ceiling will be considered before the aggregate exposure under all nonsovereign

[20] As of 31 December 2006, the committed and outstanding nonsovereign loans and guarantees amount to $1.26 billion. Annual approvals of nonsovereign loans and guarantees are expected to total about $1.1 billion in 2007, $1.2 billion in 2008, and $1.2 billion in 2009. (Source: ADB. *Work Program and Budget Framework, 2007–2009.* Manila (R92-06).

operations amounts to $5.0 billion, or before the economic capital utilization to support nonsovereign lending amounts to 10% of ADB's PRS, whichever comes first.[21]

B. Prudential Exposure Limits for Nonsovereign Operations

39. **Single Exposure Limit.** In determining the proposed single exposure limits, a diversification principle of 5% has been applied, which is well established under the modern portfolio theory. On this basis, it is proposed that the exposure limits for a single borrower, investee, or other counterparty in an ADB nonsovereign financing be set as follows:

(i) For loans, and guarantees representing in effect the same risk as that of a loan: (a) $250 million; or (b) an amount equal to 25% of (1) total project cost, in the case of a limited recourse project financing; or (2) total assets of the relevant borrower, in the case of a corporate loan, provided that in the event project costs or total assets, as the case may be, are less than $50 million, the amount under (b) shall be equal to 50% of such project costs or total assets, respectively; whichever is lower. The above limit can go up to (c) $400 million, or (d) 70% of project cost or total assets, as the case may be, whichever is lower, provided that there is a guarantee from an entity with an international credit rating of A- or better, for that class of transaction.

(ii) For guarantees not covered by (i) above: (a) $400 million; or (b) an amount equal to 40% of (1) total project cost, in the case of a limited recourse project financing; or (2) total assets of the relevant borrower, in the case of a corporate loan, whichever is lower.

(iii) For equity investments: (a) $75 million; or (b) 25% of the aggregate issued share capital of the investee, at the time of ADB's commitment to invest, whichever is lower.

40. The proposed limits are investment ceilings only, and Management will provide further risk-adjusted limits in the operations manual by reference to the credit rating assigned by ADB to the relevant borrower or investee and risks inherent in the relevant investment.

41. **Group Exposure Limit.** The proposed net exposure limit to a group is as follows:

(i) For loans, guarantees representing in effect the same risk as that of a loan, and equity: $400 million.

(ii) For guarantees not covered by (i) above: $600 million.

(iii) In the event group exposure is to equity investments only: $125 million, at the time of ADB's commitment to invest.

42. The proposed higher group exposure limit compared to the proposed single exposure limit can be justified on the basis of the potential savings in the requirement for economic capital for lending to diversified businesses of the same group.

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[21] To calculate the total PRS requirement of nonsovereign operations, the PRS requirement of all exposures needs to be estimated, based on estimated unexpected loss. For example, if on average $1 of PRS can support commitments worth $4, a total of $5.0 billion commitments require a support of $1.25 billion PRS, which can then be converted into a percentage of total PRS.

43. Exposure to equity investments is initially calculated on the date of ADB's commitment to invest, but shall be adjusted by reference to the relevant investee's fair market value. Should ADB's exposure to an investee, as a result of such adjustment, exceed $250 million or result in the exposure to the group to which such investee belongs exceeding $400 million, ADB shall take steps to reduce its exposure to maintain it within such limits.

44. **Industry Exposure Limit**. In setting the industry exposure limit for nonsovereign operations, a number of factors were considered. First, as ADB's private sector development strategy focuses primarily on two major industrial groups (infrastructure and financial sector/capital markets), there is limited scope for diversification. An industry limit of 15% across a large number of sectors, as currently in place, is therefore not appropriate. Second, as the expansion of ADB's nonsovereign operations in the future will reflect the demands of DMCs, within the broad context of ADB's country partnership strategy, a higher industry exposure limit will be required. Based on these two considerations, it is proposed that exposure to an industry be limited to 30% of the aggregate outstanding committed exposure with respect to nonsovereign operations. For the purpose of this limit, sectors and subsectors shall be defined in the operations manual.[22]

45. The proposed increase of the industry exposure limit to 30% of aggregate committed exposure for nonsovereign operations is a reflection of ADB's existing private sector strategy, which focuses primarily on the infrastructure and financial sectors. The level of risk is inherently higher due to the narrow focus on a few selected industries, resulting in breaches of the existing industry exposure limit. Until there is a change in the existing strategy, this increase in the industry exposure limit cannot be avoided.

46. **Country Exposure Limit**. Exposure to a single country is proposed to be unchanged at a limit of 25% of the aggregate outstanding committed exposure with respect to nonsovereign operations. Within this limit, Management will determine individual country limits consistent with the country partnership strategy.

47. **Portfolio Limit on Equity Investments**. In addition to the proposed prudential exposure limits, Management may set further limits on equity investments, including investments in private equity funds.

48. **Exposure Limit to Risk-Sharing Counterparties**. Management may set limits for ADB's exposure to counterparties (both in respect of an individual counterparty and a related group) to which ADB has transferred some or all of its exposure, for example through a risk-participation arrangement, guarantee or similar risk-sharing instruments.

49. Appendix 2 summarizes the proposed prudential exposure limits and how they compare to existing limits.

C. Measuring and Adjusting Exposures

50. ADB's exposure under a loan or similar debt arrangement will be calculated by reference to the outstanding committed thereunder.

[22] For the purpose of monitoring the exposure limit compliance, RMU's risk classification may be different from that used for the purpose of tracking development financing.

51. ADB's exposure under a guarantee will be calculated as the present value of the guaranteed scheduled payments.

52. ADB's exposure for the purpose of the prudential exposure limits set in this paper shall be calculated net of any exposure by ADB to counterparties under risk-sharing arrangements.

53. ADB's exposure in respect of equity investments will be calculated by reference to market value, if a market price quotation is available, of capital committed or paid into by ADB plus the committed but not yet invested amount. If a market price quotation is not available, exposure will be calculated at the fair value of the capital invested, plus the committed but not yet invested amount.[23]

D. Timing of the Next Review of the Prudential Exposure Limits

54. The prudential exposure limits will be reviewed before the aggregate exposure under all nonsovereign operations amounts to $5.0 billion.

E. Exposure Limits Monitoring and Reporting

55. To ensure that at any time the level of credit risk ADB is facing is consistent with its risk appetite, RMU will create a benchmark portfolio, which is described in the operations manual. This benchmark portfolio will allow Management to limit and adjust the composition of ADB's nonsovereign operations portfolio.[24]

56. Management shall ensure that exposures to certain rating buckets are commensurate with the implied expected and unexpected loss, as determined by ADB's risk appetite. In particular, Management shall ensure that:

(i) New transactions cannot cause ADB's exposures to exceed those indicated by the benchmark portfolio.

(ii) In case the actual composition of ADB's nonsovereign operations portfolio deviates from the benchmark portfolio or prudent exposure limit due to events beyond ADB's control (such as prepayments), steps shall be taken to align the portfolio to comply with the benchmark portfolio, as proposed by RMU.

57. RMU will update the Board on compliance with the prudential exposure limits and significant deviation from the benchmark portfolio through quarterly risk management reports, as well as the status of utilization of economic capital of individual transactions, and the overall portfolio of nonsovereign operations.

VI. IMPLICATIONS OF IMPLEMENTATION OF THE PROPOSED POLICY

58. The implementation of the proposed policy will require the following:

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[23] For the purpose of compliance with Articles 12.1 and 12.3 of ADB's Charter, equity investments will continue to be measured using the invested amounts.

[24] RMU, Strategy and Policy Department, Treasury Department, PSOD and other operations departments will jointly start the work to establish ADB's strategic limits in 2007, which will state explicitly ADB's risk appetite for sovereign and nonsovereign operations.

(i) training of staff on the implementation of the policy (no additional resources are needed for this purpose); and

(ii) monitoring of prudential limits (this is currently being done manually, but an automated system is being developed by RMU that will perform this function).

VII. RECOMMENDATIONS

59. Management recommends that the Board approve the following proposed prudential exposure limits, which shall replace the limits contained in the *Private Sector Operations Strategic Directions and Review* (R122-01) and *Provisions for Investment Losses in the Bank's Private Sector Operations* (R16-94).

(i) **Single exposure limit.** ADB's exposure to a single project or obligor shall not exceed:

(a) for loans, and guarantees representing in effect the same risk as that of a loan: (1) $250 million, or (2) an amount equal to 25% of (x) total project cost, in the case of a limited recourse project financing or (y) total assets of the relevant borrower, in the case of a corporate loan, provided that in the event project costs or total assets, as the case may be, are less than $50 million, the amount under (2) shall be equal to 50% of such project costs or total assets, respectively, whichever is lower; up to (3) $400 million, or (4) 70% of project cost or total assets, as the case may be, whichever is lower, provided that there is a guarantee from an entity with an international credit rating of A- or better, for that class of transaction;

(b) for guarantees not covered by (a) above: (a) $400 million; or (b) an amount equal to 40% of (1) total project cost, in the case of a limited recourse project financing, or (2) total assets of the relevant borrower, in the case of a corporate loan, whichever is lower;

(c) for equity investments: (1) $75 million, or (2) 25% of the aggregate issued share capital of the investee at the time of ADB's commitment to invest, whichever is lower.

(ii) **Group exposure limit.** ADB's exposure to a group shall not exceed:

(a) for loans, guarantees representing in effect the same risk as that of a loan, and equity: $400 million;

(b) for guarantees not covered by (a) above: $600 million;

(c) in the event group exposure relates to equity investments only: $125 million, at the time of ADB's commitment to invest.

(iii) **Industry exposure limit**. ADB's exposure to each specified industry shall not exceed an amount equal to 30% of the aggregate outstanding committed exposure with respect to nonsovereign operations.

(iv) **Country exposure limit**. ADB's exposure to a country shall not exceed an amount equal to 25% of the aggregate outstanding committed exposure with respect to nonsovereign operations.

EXISTING PRUDENTIAL EXPOSURE LIMITS OF THE ASIAN DEVELOPMENT BANK AND OTHER MULTILATERAL DEVELOPMENT BANKS STATED IN ABSOLUTE TERMS[1]

Table A1.1: MDBs' Nonsovereign Single Exposure Limits

MDB	Exposure Limit in US Dollar Equivalent
ADB	$75 million.
AFDB	$50 million.
EBRD	$480 million. For preferred banks: $770 million.
IADB	For greenfield projects: lesser of $200 million (up to $400 million for exceptional cases) and 25% (40% for certain countries) of project cost. For expansion projects: lesser of $200 million (up to $400 million for exceptional cases) and 50% of projects (expansion) costs subject to such financing not exceeding 25% (40% for certain countries) of the company's total capitalization of debt and equity. For political risk guarantees: lesser of $200 million (up to $400 million in exceptional cases) and 50% of total project cost. Maximum exposure to any single obligor is 2.5% of bank's equity at the time of approval.
IFC	$480 million.

ADB = Asian Development Bank, AFDB = African Development Bank, EBRD = European Bank for Reconstruction and Development, IADB = Inter-American Development Bank, IFC = International Finance Corporation, MDB = multilateral development bank.
Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC

[1] Equivalent amounts were based on latest audited financial statements for AFDB (December 2005) and IFC (June 2006) and unaudited figures provided by EBRD (as of September 2006), translated to US dollars based on exchange rates as of financial statement dates.

Table A1.2: MDBs' Nonsovereign Group Exposure Limits

MDB	Exposure Limit in US Dollar Equivalent
ADB	$80 million.
AFDB	$50 million.
EBRD	$480 million. For preferred banks: $770 million. For equity investments: $290 million.
IADB	Not applicable.
IFC	$480 million.

ADB = Asian Development Bank, AFDB = African Development Bank, EBRD = European Bank for Reconstruction and Development, IADB = Inter-American Development Bank, IFC = International Finance Corporation, MDB = multilateral development bank.
Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC

Table A1.3: MDBs' Nonsovereign Industry Exposure Limits

MDB	Exposure Limit in US Dollar Equivalent
ADB	$215 million.
AFDB	$315 million. For financial intermediation: $310 million.
EBRD	$5.6 billion.
IADB	Not applicable.
IFC	$1.4 billion.

ADB = Asian Development Bank, AFDB = African Development Bank, EBRD = European Bank for Reconstruction and Development, IADB = Inter-American Development Bank, IFC = International Finance Corporation, MDB = multilateral development bank.
Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC

Table A1.4: MDBs' Nonsovereign Country Exposure Limits

MDB	Exposure Limit in US Dollar Equivalent
ADB	$360 million.
AFDB	$190 million.
EBRD	$8.6 billion.
IADB	Not applicable.
IFC	$1.2 billion for lowest risk; $300 million for highest risk.

ADB = Asian Development Bank, AFDB = African Development Bank, EBRD = European Bank for Reconstruction and Development, IADB = Inter-American Development Bank, IFC = International Finance Corporation, MDB = multilateral development bank.

Sources: AFDB, EBRD, IADB, and 2006 Annual Report of IFC

SUMMARY OF EXISTING AND PROPOSED PRUDENTIAL EXPOSURE LIMITS FOR NONSOVEREIGN OPERATIONS

Item	From (Existing)	To (Proposed)
A. Single Exposure		
For loans and guarantees representing in effect the same risk as that of a loan	$75 million or 25% of the total project cost, whichever is lower. (For project cost less than $50 million, up to 33% of the total project cost.)	(i) $250 million, or (ii) an amount equal to 25% of (a) total project cost, in the case of a limited recourse project financing, or (b) total assets of the relevant borrower, in the case of a corporate loan, provided that in the event project costs or total assets, as the case may be, are less than $50 million, the amount under (ii) shall be equal to 50% of such project costs or total assets, respectively, whichever is lower. The above limit can go up to (c) $400 million, or (d) 70% of project cost or total assets, as the case may be, whichever is lower, provided that there is a guarantee from an entity with an international credit rating of A- or better, for that class of transaction.
For guarantees not covered above	$75 million or 25% of the total project cost, whichever is lower. (For project cost less than $50 million, up to 33% of the total project cost.)	(i) $400 million; or (ii) an amount equal to 40% of (a) total project cost, in the case of a limited recourse project financing; or (b) total assets of the relevant borrower, in the case of a corporate loan, whichever is lower.
For equity investment	$75 million. Must not exceed 25% of issued/ subscribed capital of the enterprise or institution. ADB must not be the largest investor.	(i) $75 million, or (ii) 25% of the aggregate issued share capital of the investee, at the time of ADB's commitment to invest, whichever is lower. Exposure to equity investments shall be adjusted by reference to the relevant investee's fair market value. Should ADB's exposure to an investee, as a result of such adjustment, exceed $250 million, ADB shall take steps to reduce its exposure to maintain it within such limits.
B. Group Exposure		
For loans, guarantees representing in effect the same risk as that of a loan, and equity	$80 million and maximum of three projects.	$400 million.

Item	From (Existing)	To (Proposed)
For guarantees not covered above		$600 million.
Group of investees for equity investments	$80 million and maximum of three projects.	$125 million at the time of ADB's commitment to invest. Exposure to equity investments shall be adjusted by reference to the relevant investee's fair market value. Should ADB's exposure to the group to which such investee belongs, as a result of such adjustment, exceed $400 million, ADB shall take steps to reduce its exposure to maintain it within such limits.
C. Industry Exposure Limit	15% of private sector portfolio.	An amount equal to 30% of the aggregate outstanding committed exposure with respect to nonsovereign operations.
D. Country Exposure Limit	25% of private sector portfolio.	An amount equal to 25% of the aggregate outstanding committed exposure with respect to nonsovereign operations. Allocation of financing to an individual country will be subject to its country partnership strategy.
E. Portfolio Limit on Equity Investments	Not applicable	Management may set further limits on equity investments, including investments in private equity funds.

ADB=Asian Development Bank.
Sources: ADB. 1994. *Provisions for Investment Losses in the Bank's Private Sector Operations.* Manila (R16-94); ADB. 2001. *Private Sector Operations Strategic Directions and Review.* Manila (R122-01); and Asian Development Bank's Risk Management Unit.

STATUS OF NONSOVEREIGN EXPOSURE BASED ON EXISTING AND PROPOSED PRUDENTIAL EXPOSURE LIMITS
(as of 31 December 2006)

Item	**Exposure or Obligor**	**On Existing Limits**	**On Proposed Limits**
A. Single exposure limit			
For loans and guarantees representing in effect the same risk as that of a loan	Tangguh LNG (HSBC Bank USA)	Exceeds $75 million limit (committed exposure = $350 million)	In compliance
For guarantees not covered above	Not applicable	Not applicable	In compliance
For equity investments	In compliance	In compliance	In compliance
B. Group exposure limit			
For loans, guarantees and equity investments	CDC Group	Exceeds $80 million limit and more than 3 projects	In compliance
Group exposure to equity Investments only	In compliance	In compliance	In compliance
C. Industry exposure limit	Finance Banking Systems Capital Markets and Funds	 Exceeds limit by 11% Exceeds limit by 2%	 In compliance In compliance
D. Country exposure limit	In compliance	-	-
E. Portfolio exposure limit on equity investments	In compliance	-	-

CDC = Capital for Development Corporation (formerly Commonwealth Development Corporation).
Source: Asian Development Bank's Risk Management Unit.

QUESTIONS AND ANSWERS

A. Risk Management Framework

1. Elaborate on how the proposed changes to exposure limits in nonsovereign operations will be incorporated into the wider institution-wide risk management framework currently being worked on by the Risk Management Unit (RMU) of the Asian Development Bank (ADB). What is the timetable for establishing the risk management components not yet in place, such as the risk rating system, risk pricing, and portfolio management systems?

Given the urgency of revising the existing limit policy and loss provisioning policy, these two policies are given higher priority. Although risk pricing will be addressed separately, the three policies will be consistent with each other.

RMU will start working on ADB's comprehensive credit risk policy in 2008 after establishing more basic tools such, as the risk rating system, and enhancing the internal credit risk model. A new risk rating system for nonsovereign operations will be established in the third quarter of 2007; the risk pricing system is expected to be completed in the fourth quarter of 2007, with the portfolio management system completed in 2008. RMU and the Strategy and Policy Department, Treasury Department, Private Sector Operations Department (PSOD) and regional departments will jointly start work in 2007 to establish ADB's strategic limits, which will explicitly state ADB's risk appetite for sovereign and nonsovereign operations.

2. What is the task of RMU in relation to credit risk?

The mandate of RMU comprises the following main functions with regard to credit risk management: (i) assessing the risk of individual nonsovereign transactions, (ii) assessing the country risk of developing member countries, (iii) ensuring the adequacy of provisioning and equity capital, (iv) ensuring that risk is being incorporated properly in pricing of nonsovereign transactions, and (v) managing the credit portfolio to ensure that ADB's economic capital is utilized efficiently. A detailed description of the tasks mandated to RMU can be found in the terms of reference establishing the unit.

B. Credit Risk Management

1. What are the common measures of credit risk for a financial institution?

Two common measures are used: (i) expected loss, and (ii) unexpected loss. The expected loss represents the average loss that a financial institution may incur on a transaction or project. Considered part of the cost of doing business, this is managed by providing adequate loan loss reserves and provisions. In estimating the expected loss at individual transaction level, the inputs of exposure at default, default probability (PD), and loss given default (LGD) are used. Expected loss at aggregate level is the sum of the expected loss of each transaction.

The unexpected loss represents the uncertainty surrounding the expected loss and is therefore considered as the risk of doing business. It is managed by holding an adequate level of economic capital. In estimating the unexpected loss at each transaction level, all the inputs required to estimate expected loss are needed, plus the volatility of LGD and PD. Unexpected loss at aggregate level is estimated by taking into account the default correlations among obligors and the rating that an institution wants to achieve. An institution that has a higher target rating requires a higher level of economic capital compared with an institution that has a lower target rating.

2. How will RMU monitor the paid-in capital plus reserves and surplus (PRS) required to support nonsovereign lending?

RMU will estimate the PRS required for nonsovereign operations, including unexpected loss both at individual exposure and portfolio level, using a credit risk model. If the estimate of unexpected loss is 25% for the aggregate nonsovereign loans and guarantee portfolio, the amount of PRS required to support the $5.0 billion operations is estimated at $1.25 billion.

3. What measures would ADB take to ensure that increased limits would not increase the risk to ADB?

ADB will monitor the actual level of risk and the utilization of its economic capital to ensure that the allocated PRS will not be exceeded. In addition, ADB will introduce several initiatives to ensure that the risk would not increase with the increase in limits and the size of nonsovereign operations. First, the provisioning policy has been reviewed and approved by the Board in November 2006. The revised policy adopted the credit risk model used for ADB's sovereign operations since 2004, which systematically measures the potential losses that could arise out of credit transactions. Second, ADB will introduce a benchmark portfolio by rating to ensure that that the concentration of high risk transactions at any time is limited, as they have significant impact on ADB's net income through loan loss provisioning.

4. Throughout the paper, the term economic capital is used extensively. Please provide further explanation of the concept and its likely practical implications on ADB's risk management.

The term "economic capital" is used to distinguish the various common measures of capital. As normally used in ADB, equity capital is measured as the sum of book values of PRS. ADB currently uses this measure to report its capital adequacy ratio and equity-to-loan ratio. Another commonly used term is "regulatory capital," which refers to the amount of capital a financial institution holds to comply with the regulatory requirements of its regulator under the Basel II Accord. Under Basel II, regulatory capital consists of the following:

(i) **Tier 1.** Common stock, qualifying perpetual preferred stock and minority interest in equity accounts of consolidated subsidiaries.

(ii) **Tier 2.** Generally consists of (a) preferred stock that does not qualify for tier 1 status, (b) mandatory convertible debt securities, (c) debt greater than 5 years, and (d) allowance for loan and lease losses.

The term economic capital is used to emphasize that it is the economic value more than the book value of capital that would determine a financial institution's ability to remain solvent with a certain rating. Regulatory capital is determined using certain formulas that apply to all financial institutions. As a result, the amount required may not reflect the true level of risk assumed. Required economic capital, on the other hand, represents more accurately the amount of loss—in economic terms—which a financial institution may face beyond its expected loss. ADB introduced the concept of economic capital in 2004 when it reviewed its income planning framework (R24-04). Use of the concept could lead to a more accurate allocation of economic capital based on the risk assumed by an individual transaction or operation.

5. How would ADB's AAA rating be ensured without government guarantee, given the significantly higher level of financing operations?

The proposed exposure limits policy does not allow significant increase in financing operations without government guarantees.

The utilization of ADB's economic capital to support nonsovereign operations must be monitored continuously to ensure that the current allocation of 10% of PRS is not exceeded. Once ADB has gained significant experience from a higher level of nonsovereign operations, a formal ceiling will be established to ensure that the available economic capital can absorb the unexpected losses for credit, market and operation risks of its aggregate operations. Given that ADB has not established the economic capital requirement for its operational risk, it needs to gradually expand its nonsovereign operations to ensure that the adequacy of its overall economic capital is sufficient to support its AAA rating.

A risk-pricing mechanism will be established to ensure that ADB will be compensated properly for the risk it undertakes. In this regard, it is important to note that although final pricing is a business decision, following market prices consistently without adequately compensating ADB for the risk it undertakes may put ADB's AAA rating in jeopardy.

6. How should strategic limits be established?

Strategic limits reflect an institution's strategic directions and risk appetite. Since they are established to ensure that the risk undertaken is commensurate with the economic capital allocated to support various operations, the first step required in establishing the strategic limits is to establish an explicit economic capital ceiling that the institution is willing to devote to support its various operations. A statement that ADB is willing to support the innovation and efficiency initiative's (IEI) pilot phase using 10% of its PRS is an example of this step.

The second step involves formulation of an average portfolio quality that various operations should comply with. This requires that a benchmark portfolio be established in terms of composition by risk rating for reference. For each benchmark portfolio, there is an implicit economic capital leverage ratio. For example, for a portfolio with an average quality equivalent to BBB, each $1 of economic capital can support $4 of assets. Based on the willingness to use 10% of PRS and the average leverage ratio of 4 times shown above, the strategic limit can be established.

Please note that the conversion of 10% of PRS into a certain level of operations volume requires (i) a statement of the acceptable level of operations risk, and (ii) a methodology to convert the risk into an economic capital requirement for each dollar of operations volume. However, a determination to utilize 10% of PRS to support certain operations is a strategic decision, not a risk decision.

Articles 12.1 and 12.3 of the Charter are perfect examples of ADB's strategic limits, with the caveat that they are not linked with the level of risk. These strategic limits are called Charter limits because they are defined in the Charter.

7. Does the setting of strategic limits constitute an allocation of economic capital? Does it mean that the operation departments should manage their allocated capital by themselves?

In answer to the first question, yes; strategic limits must be set at a level consistent with the available economic capital. This is more commonly known as risk budgeting.

In answer to the second question, no. Capital allocation for risk budgeting purpose is purely for earmarking a certain amount of economic capital for certain operations approved by the Board. The operations departments should not be involved in managing their allocated PRS by themselves; this function is managed by an asset liability management section of the Treasury Department.

8. How would the benefits of using less-risky instruments such as guarantees be recognized?

Less-risky instruments require smaller amounts of economic capital to support them. Therefore, those operations that use less-risky instruments will have a higher aggregate volume of business. Aside from this, the rate of return, on a risk-adjusted basis, of operations that use a greater quantity of less-risky instruments could be higher than those that use straight loans.

9. What is the importance of diversification, and what impact does it have on economic capital requirements?

Diversification ensures a reduction in the amount of loss that could be realized at any time. It eliminates the unsystematic risk component of a portfolio, and therefore allows a more efficient utilization of economic capital. Consequently, it also enhances pricing efficiency. A well-diversified portfolio would result in less volatility in economic capital requirements in response to economic slowdowns and expansions.

C. Prudential Exposure Limits

1. What is the guiding principle used to establish prudential exposure limits?

The guiding principle is to achieve, as far as possible, a well-diversified portfolio at any point in time. Since portfolios that are less diversified tend to be more volatile and bear a significant portion of the diversifiable component of total risk, they tend to require more economic capital than those that are well diversified. As a result, pricing inefficiency may result from those less-diversified portfolios. Given that pricing is a significant factor in any competition, all financial institutions must try to achieve a certain level of diversification to maintain sustainable operations.

2. What is the role of exposure limits in credit risk control and management?

The first role of exposure limits is to ensure that the aggregate level of risk undertaken is commensurate with the capacity to sustain that risk. The limits used for this purpose are called strategic exposure limits. Their second role is to ensure that an adequate level of diversification is achieved to minimize the magnitude of loss that that can be realized at any point in time. These limits are called prudential exposure limits.

3. Why is exposure not measured using book value?

Controlling and managing exposure is an integral component of managing credit risk. The objective of credit risk management is to achieve a certain solvency target level. Solvency depends more on economic value than book value, meaning credit risk management should use economic value to manage credit risk

4. How is credit exposure defined?

Credit exposure is defined as the sum of (i) outstanding loans plus the undisbursed commitment; (ii) the present value of committed guarantees; (iii) current market value or fair value of equity investments plus the committed, but not yet invested, amounts; and (iv) all potential credit claims, including exposures to credit enhancement products.

5. Why are credit exposure limits of instruments that are less risky than loans, such as credit enhancement products, set at the same level as limits applied to loans?

Exposures to all products are limited at the same level despite perceptions regarding their level of risk. Risk will be expressed in the credit rating of each exposure, meaning limits must be differentiated by ratings. These limits by ratings are provided in the operations manual. Following this principle, exposures to credit enhancement products will be treated in a manner similar to those of loans.

6. How was the $5 billion limit for nonsovereign operations derived?

The $5 billion limit is based on the projected operations size, which includes nonsovereign public and private sectors operations. It takes into consideration the existing exposures of private sector operations, its annual approval volume and the likely volume of public sector operations. This amount is considered adequate given that nonsovereign public sector operations are only beginning. In addition, the 10% of PRS allocated to support the IEI and private sector lending would provide enough room for portfolio growth, as it would take some years before it is fully utilized.

7. What would be the impact of having $5 billion in operations financing without government guarantee?

Because financing operations without government guarantee entails higher risk, the increase in volume will increase the credit risk facing ADB. For example, provisioning made to private sector operations has been always higher than those of sovereign operations. ADB's sovereign operations have experienced essentially no default, except in the case of Nauru and the Marshall Islands. The economic capital requirement to support nonsovereign operations is therefore expected to be higher in percentage terms than the economic capital requirement for sovereign operations. Measures to ensure that the quality of ADB's nonsovereign operations portfolio is consistent with its risk appetite will be described in the operations manual.

8. Why is a fixed ceiling of $5 billion proposed instead of the 10% PRS ceiling?

The use of $5 billion as the ceiling is merely for ease of communication. RMU will ensure that when the actual utilization of economic capital to support nonsovereign operations is about to reach 10%, a formal ceiling-based PRS will be proposed to the Board. This initiative will be made in cooperation with Strategy and Policy Department (SPD). The ratio of 1 to 4 between PRS and ADB's commitments is used to illustrate the requirement of economic capital to support nonsovereign operations, when the average credit quality of the portfolio is about BBB.

9. Why are the single and group exposure limits proposed to be increased significantly?

The single and group exposure limits are proposed to allow ADB to have the ability to deal with large scale projects at par with other comparable MDBs. It does not mean, however, that the amount of financing provided must reach the limit on every occasion. If it did so, only minimal diversification could be achieved in ADB's nonsovereign operations, which could result in some inefficiency in terms of pricing and economic capital utilization. For this reason, ADB's ability to finance large scale projects will eventually be dictated by the need to maintain a portfolio diversification level comparable to those of other MDBs. In addition, ADB has the ability to control the risk resulting from the proposed limits.

10. What is the principle used in determining group exposure limits?

The main principle is to realize the benefit of diversification in setting the group exposure limits; if the businesses of a group that an institution lends to are only moderately correlated, economic capital savings can potentially be realized. This principle has two implications. First, if businesses in a group are deemed to be highly correlated, they would not be automatically entitled to the $400 million limit. Second, the definition of a group should go beyond the legal and financial structure and setup, and capture exposure to common risk drivers. For example, all projects may be influenced by the same management style, or rely on the same technology. As a result, although businesses may be financially and legally independent, their economic successes may still be very highly correlated. Following the Basel II definition of a group, for the purpose of monitoring exposure limits, entities that have significant common ownership where control can be exerted will be treated as a group.

11. Why are exposures to projects structured as special purpose vehicles that have the same sponsor but are financially and legally independent treated as group exposure, and not as independent exposures?

Projects that are financially and legally independent may still be subject to the idiosyncratic risk of the sponsor. For example, all projects may be influenced by the same management style, or rely on the same technology. As a result, although financially and legally independent, their economic success may still be very highly correlated.

12. How are industry limits determined? Not all industries can be seen as similar or equal in terms of risk profiles, as the level of risk varies significantly in relation to the nature and scope of industrial activity. Is it wise to propose limits for all industries at the same 30% limit?

Industry limits are determined based on the guiding principle of diversification, but taking into account of (i) ADB's strategy to focus on selected industries and/or sectors, and (ii) the demand of its DMCs.

The 30% industry limit being proposed under this review is not in line with the guiding principle of diversification. However, until ADB revises the strategy of focusing on only a few selected sectors, the suggested limit is the best that can be proposed.

13. How are country limits determined? Is it appropriate for all countries to be subjected to the same country exposure limit?

The country limit is determined based on the guiding principle of diversification but takes into account (i) ADB's strategy to focus on selected industries and/or sectors, and (ii) demand from DMCs. The proposed 25% country limit is higher than the country limit that a well-balanced portfolio should have. This is due to the fact that most countries have small and insignificant debt absorbing capacity, and only a few have significant debt absorbing capacity. The proposed country limit does not mean that a small country with a relatively small economy is entitled to up to 25% of ADB's nonsovereign lending. Actual lending volume to an individual country has to be consistent with the country partnership strategy.

14. What is the rationale behind the proposal to extend the limit even further to $400 million if a project has a single A- rated guarantor?

A guarantee provided by an entity rated A- or better would significantly reduce the probability that the obligations to ADB would not be honored, compared with obligations that lack such a guarantee. In addition, it would increase the potential recovery if the loan is defaulted. Therefore, the economic capital required to support larger loans or guarantees with guarantees of A- rated or better entities would be lower than or equal to the required economic capital for smaller stand-alone loans and guarantees.

15. What is meant by fair value? How is it measured?

Fair value represents the value that parties in a transaction agree to. Because normally fair value of an asset is derived from the asset's ability to generate income, fair value can be considered as economic value as well. Fair value is measured by discounting all future cash flows of an asset using an appropriate discount rate. Because of this, in the case of equity investments that have no market quotations, fair value can be used as a measure of exposure.