AFRICAN DEVELOPMENT BANK

UPDATING THE BANK'S POLICY FOR PROVISIONING PUBLIC SECTOR LOANS AND GUARANTEES

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Rev.9

EXECUTIVE SUMMARY

1. The Bank's policy for provisioning public sector loans and guarantees is one of its key financial policies. The provisioning policy helps the Bank to ensure that the Bank's financial statements fairly reflect the losses that can be reasonably expected from its public sector loan and guarantee portfolio. This policy is part of an integrated framework of prudent credit management policies that helps to support the Bank's strong credit rating.

2. As a key financial policy, the Bank's provisioning policy is subjected to regular reviews. In 1998, the Bank began a second five-year transition period of automatic 0.5% increases in the general provisioning rate. In 2000 and 2001, the Board used the flexibility afforded in the revised policy to increase the Bank's general provisions by 0.75% and 1.25% respectively. The current level of general provisions has been evaluated against the expected loss estimates of the public sector portfolio and has been found to be adequate. Management is therefore proposing a policy shift from prescribed annual increases in the general provisioning rates to annual adjustment of general provisions based on an analysis of the portfolio expected losses.

3. The proposed refinements to the Bank's provisioning policy are consistent with the norms defined by international accounting standards and the best practices of multilateral development banks. By adopting the proposed changes, the Bank's general provisions will remain closely and directly aligned with the estimated collectability risk embedded in the public sector portfolio. Based on current portfolio trends, it is expected that the proposed changes will result in a low level of incremental annual provisions over the medium-term. However, in the event of dramatic changes in the size or risk profile of the Bank's portfolio of loans and guarantees, the proposed policy changes would ensure that the level of accumulated general provisions is appropriately adjusted to fairly reflect the marginal contribution of such changes to the portfolio's expected losses.

I INTRODUCTION

1. Banks and other financial institutions manage a range of risks during the regular course of business. For development finance institutions such as the Bank, by far the single largest source of risk is the credit risk stemming from its lending activities. As a consequence, prudent management of credit risk is particularly critical to ensuring the long-term viability of the Bank and its ability to pursue its poverty alleviation and sustainable development mission.

2. Consistent with its over-arching risk management philosophy, the African Development Bank manages credit risk through an integrated framework of prudent credit management policies. These policies relate to country eligibility, exposure limits, capital adequacy, pricing and security, arrears & recovery, and provisioning for losses. This conservative framework of credit management policies is among the key factors that support the Bank's strong credit rating.

3. Provisioning for losses is one of the standard accounting practices for financial institutions. By provisioning, financial institutions explicitly acknowledge that losses are a natural consequence of doing business. For financial prudence, accounting standards require that expected losses be recognized as a charge against income and these standards distinguish between two principal types of provisions. On the one hand, specific provisions are supposed to reflect the degree of permanent impairment of specific assets. On the other, general provisions are meant to reflect the overall collectability risk[1] in a portfolio of assets. This paper focuses on the Bank's policy for general provisioning on the public sector loan and guarantee portfolio[2].

4. Given its importance among the Bank's key financial policies, the provisioning policy is the subject of regular review. In 1993, the Bank began a five-year program of prescribed annual increases in the general provisioning rate. In 1998, the Board approved a second five-year program with the objective of bringing the level of general provisions in line with the estimated collectability risks embedded in the public sector portfolio. The changes proposed in this paper have been triggered by the achievement of this latter objective.

5. This review of the Bank's policy for provisioning public sector loans and guarantees is organized into five sections. Following the introduction, section two reviews the mechanics of the current provisioning policy and examines the impact of having accumulated general provisions broadly in line with the assessed collectability risk of the portfolio. The third section proposes technical refinements to the Bank's provisioning policy while section four examines the implications of the proposed changes. Section five summarizes the key conclusions of the paper and presents Management's recommendations for Board consideration. This paper is supported by a number of technical annexes including a chronology of previous amendments to the Bank's policy and a comparative analysis of the approaches used by other MDBs for provisioning public sector loans and guarantees.

[1] In this paper the terms collectability risk and expected loss are used interchangeably.

[2] The Bank has a separate policy for provisioning private sector loans and other non-sovereign guaranteed credits. However, the proposed policy amendments for the public sector are consistent with the principles that underpin the Bank's policy for provisioning private sector loans.

II CURRENT POLICY AND ISSUES

6. In 1993, the African Development Bank introduced a general provisioning policy for public sector loans that prescribed 0.5% annual increases in the general provisioning rate for public sector loans over a five-year transition period. In 1998, at the end of the transition period, the adequacy of the Bank's general provisions was evaluated against an assessment of the collectability risk embedded in the Bank's outstanding public sector portfolio. Following this review, the Board decided to continue the annual increases of 0.5% for a second five-year transition period, subject to annual assessments of collectability risk and with a target of 7.5% by the end of 2003. Furthermore, in providing for annual reviews of the portfolio collectability risk it gave Management scope for recommending increases or decreases of general provisions based on the reviews.

7. In 2000, following Management's review of collectability risks and applying the flexibility afforded by the revised policy, the Board approved an annual increase in the general provisioning rate of 0.75%. One of the principal motivations for this increase was the concern expressed by one of the rating agencies regarding the adequacy of the Bank's provisions. In 2001, the Board approved a second exceptional increase in the general provisioning rate of 1.25%. By the end of 2001, the general provisioning rate had reached the new transition target of 7.5%, two years earlier than anticipated in the revised policy of 1998. Annex 1 presents a more extensive review of the evolution of the Bank's provisioning policy.

8. Since 1998, the adequacy of the Bank's general provisions for public sector loans and guarantees has been regularly evaluated against revised estimates of the collectability risk in the public sector portfolio. These assessments have consistently confirmed the reasonableness of the new transition target of 7.5% for the general provisioning rate. For example, between 1998 and 2002, the mid-point of expected losses has averaged about 7.0%, some 0.5% below the current target[3]. The key issue now is whether the Bank should continue increasing the general provisioning rate by 0.5% for the remaining two years of the second transition period? Or should the Bank revise its general provisioning policy and base future adjustments of the general provisioning rate directly on updated estimates of the portfolio's collectability risk?

III PROPOSED POLICY ENHANCEMENTS

9. In 2000, the Bank adopted the amendments proposed in the revised international accounting standard 39 (IAS39). Although IAS39 is most noted for the accounting standards it prescribes for derivative instruments, this new standard also provides specific guidance to financial institutions on provisioning[4]. According to this new standard, the provisions made by a financial institution should reflect its estimate for portfolio expected losses, where expected losses are derived from an assessment of the present value of the anticipated cash flows from its loan assets and guarantees. These estimated expected losses should take into account both the magnitude and the timing of the anticipated cash flows relative to the original contractual cash flows.

[3] The evolution of the collectibality risk of the public sector portfolio, as measured by expected loss estimates, is presented in greater detail in annex 4. The methodology used to estimate expected losses is described in annex 7.

[4] International Accounting Standard 39 (1998) paragraph 111

10. In line with this new standard and the best practice of sister institutions (see annex 2), this paper proposes that the Bank's provisioning policy be amended so that *future adjustments* of general provisions be based on a "bottom-up" assessment of portfolio collectability risk, as currently measured by estimated expected losses for each country in the public sector portfolio. Future adjustments of the Bank's general provisions would be implemented in a four-step process:

    a) All country risk ratings would be updated each quarter;

    b) Expected losses for each country would be computed using the range of expected losses corresponding to the country's risk rating and the country's outstanding portfolio of public sector loans and guarantees[5];

    c) Portfolio expected losses would be computed by aggregating the expected losses for each country;

    d) General provisions would be adjusted to maintain the appropriate alignment with portfolio expected losses.

11. To ensure that the Bank has a conservative level of general provisions at all times, the following guidelines are proposed for adjusting the level of general provisions for the public sector portfolio:

    - The level of general provisions, expressed as a percentage of the outstanding portfolio, should generally be maintained within the upper half of the range of portfolio expected loss estimates expressed as a percentage.
    - If a sharp increase in collectability risk pushes the range of expected losses above the current level of general provisions, the level of general provisions would be adjusted to reach at least the lower-end of the new range of expected losses, and, preferably the mid-point of expected losses.
    - If a sharp decrease in collectability risk pushes the range of expected losses below the current level of general provisions, the level of general provisions would be maintained at the prevailing level until it has been determined that the lower level of collectability risk is sustainable. General provisions would then be reduced to the high-end of the new range of portfolio expected losses.

IV IMPLICATIONS OF THE PROPOSED POLICY ENHANCEMENTS

12. This review has proposed that the Bank's general provisions for public sector loans should be adjusted in line with changes in the assessed collectability risk of the public sector loan and guarantee portfolio. The implications of implementing this change are examined from three perspectives. Their impact on:

    - The future evolution of general provisions
    - The adequacy of provisions against other benchmarks
    - Operating income
    - The implementation process

[5] The expected loss for a guarantee is measured against the loan equivalent amount of the guarantee, which is computed based on the present value of the guarantee to the first contractual call date.

The Future Evolution of General Provisions

13. Under the current policy, the Bank targets a prescribed general provisioning rate in each year and then evaluates its adequacy against the results of the annual collectability risk assessment. The result of this "top-down" approach for general provisioning is that all new loans and guarantees are provisioned at the same general provisioning rate without consideration for the differences in the risks associated with each borrower. For example, at a general provisioning rate of 7.5% the Bank would make a UA 7.5 million provision for each UA 100 million of newly disbursed loans regardless of the risk rating of the borrowers taking the loans.

14. The proposed changes are intended to ensure that provisions are more directly determined based upon a "bottom-up" analysis of the incremental contribution of each new disbursed loan or guarantee on the expected loss rate for the entire portfolio. This means that a given amount of new loans or guarantees to lower risk countries would attract a lower level of incremental general provisions than the same volume of new loans or guarantees to higher risk countries.

15. The impact of changing to a "bottom-up" approach from the current "top-down" approach would become even more evident if the growth rate of the outstanding portfolio were to accelerate beyond the rate envisaged in the draft strategic plan. Under the current policy framework a rapid increase in the size of the portfolio would mechanically result in a sharp increase in general provisions and a commensurate decrease in operating income for the Bank. Such a situation could inadvertently send a misleading signal regarding the credit quality of the Bank's portfolio. A more detailed analysis of the impact of the proposed policy changes on incremental provisioning is presented in annex 6.

16. To illustrate the point, it is interesting to observe that at the end of August 2002, the Bank's general provisioning rate increased to 8.14% of outstanding public sector loans even though the absolute level of general provisions has not changed since the end of 2001. This is the mechanical result of the decrease in the size of the outstanding portfolio due mainly to loan prepayments by two large borrowers.

The Adequacy of General Provisions Against Other Benchmarks

17. Although international accounting standards prescribe estimated expected losses as the benchmark for assessing the adequacy of provisioning for financial institutions, some analysts employ other benchmarks. The two benchmarks that are most often tracked are: 1) the relationship between accumulated provisions and loan principal in arrears; and 2) the relationship between accumulated provisions and exposure to countries in non-accrual status[6].

18. As illustrated in annex 5, throughout the period 1993-2002 total accumulated principal in arrears grew at broadly the same pace as total accumulated general provisions. Growth in arrears was principally due to the mechanical effect of new maturities falling due on loans to countries in arrears for many years. In 2002, with the clearance of the arrears of the DRC, total accumulated principal in arrears are expected to decrease by more than half. With respect to the second indicator,

[6] A country is deemed to be in non-accrual status when it accumulates arrears beyond 180 days. Loan income from countries in non-accrual status is recognized on a cash basis when received.

total accumulated general provisions have risen to about 60% of total exposure to non-accrual countries. The clearance of the arrears of the DRC may not, for technical reasons explained in annex 5, greatly affect this ratio.

Impact on Operating Income

19. If the Bank shifts to the proposed "bottom-up" approach for determining the appropriate level of general provisions, the total required provision at any point in time would depend on the size and risk profile of the outstanding public sector portfolio. Current projections indicate that over the next few years the Bank's public sector portfolio is expected to return to a slow growth trend around 3% per annum. Assuming the risk ratings of the Bank's borrowers remain broadly unchanged over the next few years, the risk profile of the Bank's public sector loan and guarantee portfolio is expected to continue to improve due to the dual beneficial effects of the Bank's country eligibility policy and the HIPC initiative[7]. On balance, any implied increase in provisions due to portfolio growth should be offset by a decrease in the expected loss rate due to improvement in the portfolio risk profile. Therefore, over the medium-term, any change to the overall level of general provisions for public sector loans and guarantees is expected to be very limited.

Implementation Process

20. Adopting a "bottom-up" approach for provisioning is not expected to pose any particular implementation challenges. Under the proposed policy framework, adjustment of the general provisioning rate would be based upon revised estimates of the portfolio expected losses and would be managed under the ALCO (asset and liability management committee) control framework. This would entail quarterly revision of country ratings and support statistics by FFMA and country operations that would be used as inputs for a quarterly report to ALCO on expected loss estimates. Based on these quarterly reports and the proposed guidelines, ALCO would approve the appropriate adjustment of the Bank's accumulated general provisions for implementation by FFCO. The Board would continue to exercise its oversight role through the quarterly financial statements, the annual report on the credit risk profile of the public sector portfolio, and the year-end audited financial statements.

V CONCLUSIONS AND RECOMMENDATIONS

21. The current level of general provisions has been evaluated against the expected loss estimates of the public sector portfolio and has been found to be adequate. Management is therefore proposing a policy shift from prescribed annual increases in the general provisioning rates to annual adjustment of general provisions based directly on an analysis of the portfolio expected losses.

[7] As a result of the classification of borrowing countries in the eligibility policy, higher risk countries are only able to borrow from the ADF concessionary window. The HIPC initiative provides debt service relief to countries that would otherwise have difficulty to repay their non-concessionary loans.

22. The proposed refinements to the Bank's provisioning policy are consistent with the norms defined by international accounting standards and the best practices of multilateral development banks. By adopting the proposed changes, the Bank's general provisions will remain closely aligned with the estimated collectability risk embedded in the public sector portfolio. Based on current portfolio trends, it is expected that the proposed changes will result in a low level of incremental annual provisions over the medium-term. However, if portfolio growth exceeds current expectations or the risk profile shifts, the proposed policy changes will ensure that any additional general provisions fairly reflect the marginal contribution of the new loans and guarantees to portfolio expected losses.

23. In light of the foregoing, Management recommends the following modification of the Bank's policy for provisioning public sector loans and guarantees:

- The expected loss estimates for the public sector loan and guarantee portfolio shall be updated at the end of each quarter.
- The accumulated general provision for public sector loans and guarantees shall be adjusted in accordance with the following guidelines to maintain a level consistent with the estimated level of expected losses in the public sector loan and guarantee portfolio.
  - The level of general provisions, expressed as a percentage of the outstanding portfolio, should generally be maintained within the upper half of the range of portfolio expected loss estimates expressed as a percentage.
  - If a sharp increase in collectability risk pushes the range of expected losses above the current level of general provisions, the level of general provisions would be adjusted to reach at least the lower-end of the new range of expected losses, and, preferably the mid-point of expected losses.
  - If a sharp decrease in collectability risk pushes the range of expected losses below the current level of general provisions, the level of general provisions would be maintained at the prevailing level until it has been determined that the lower level of collectability risk is sustainable. General provisions would then be reduced to the high-end of the new range of portfolio expected losses.

ANNEX 1

Revisions of the Policy for Provisioning Public Sector Loans[8]

1. In 1987, the Bank introduced an accounting policy for non-accrual of interest on non-performing loans and guarantees (ADB/BD/WP/87/126). This accounting policy provided for the exclusion of interest on loans in arrears for more than twelve months from income and the creation of a general provision for loans and guarantees with arrears of two years or more.

2. In 1989, in view of the growing level of arrears, the Bank revised the policy for general provisioning for public sector loans and guarantees. Under the revised policy (ADB/BD/WP/89/21), a general provision equal to 10% of public sector loans overdue and outstanding was recommended.

3. In 1991, in response to concerns expressed by the external auditors regarding the Bank's policies for non-accrual of interest and general provisions, the Bank's policies were revised. Under the revised policy (ADB/BD/WP/91/134), the period for non-accrual of interest was reduced from twelve months to 6 months and the size of the general provision was pegged to at least cover the total principal installments overdue.

4. In 1993, Management proposed further refinement of the provisioning policy by establishing a clearer mechanism for provisioning for countries that fall into arrears for the first time. Under this policy (ADB/BD/WP/93/08), the incremental provision would be prorated based on the timing of the first arrears. The Board rejected this proposal as insufficient in the light of trends in arrears growth.

5. Later in 1993, the Board approved a fundamental change to the Bank's policy for provisioning public sector loans and guarantees. Under the revised policy (ADB/BD/WP/93/86), the Bank established a general provision equal to 2.5% of the outstanding balance of public sector loans and guarantees. Recognizing the need to make further general provisions, the Board prescribed annual increases of 0.5% in the general provisioning rate for a five-year transition period. The Board called for a review of the policy in 1998 and prescribed that further provisioning increases would be based on the prevailing assessment of the collectability risk embedded in the portfolio.

6. In 1998, based on an assessment that general provisions were still insufficient given the estimated collectability risk in the portfolio, the Board approved a second five-year transition period. Under the revised policy (ADB/BD/WP/98/124), the general provisioning rate would be increased by 0.5% per year to reach a target of 7.5% in 2003. Each year the adequacy of the 0.5% increase would be assessed in the light of revised collectability risk assessments and if necessary, the annual increase could be adjusted upwards or downwards.

7. In 2000, reflecting the flexibility afforded by the policy amendments of 1998, the Board approved an annual increase in the general provisioning rate of 0.75%. In 2001, the Board approved a second exceptional increase of 1.25%. By the end of 2001, the general provisioning rate reached the second transitional target of 7.5%, two years ahead of the original schedule.

[8] Including guarantees

ANNEX 2

Comparison of MDB's Policies for Provisioning Public Sector Loans

1. Over the past several years, the provisioning policies and practices of the multilateral development banks have gradually evolved towards the standards set by financial regulators.

2. The **IBRD** determines the accumulated provision for loan losses based on an assessment of collectability risk in the total loan and callable guarantee portfolio, including loans in non-accrual status. The accumulated provision is periodically adjusted based on a review of the prevailing circumstances. Adjustments to the accumulated provision are recorded as a charge or addition to income. In evaluating the adequacy of the accumulated general provision, the IBRD considers the present value of expected cash flows relative to the contractual flows for loans. At the end of fiscal 2001, the IBRD's accumulated general provision was equivalent to 3.33% of the gross outstanding public sector loan portfolio up from 2.83% in 2000.

3. The **IADB**, like all MDBs, expects that each of its public sector loans will ultimately be repaid and accordingly has no expectation of writing off any such outstanding loans in the future. Since 1991, the IADB has maintained a general provision equivalent to 3% of the outstanding public sector portfolio. However, the IADB reviews the collectability of its loans on a continuous basis to evaluate the adequacy of its accumulated general provision.

4. The **AsDB** may make a provision for loan losses on public sector loans made to or guaranteed by a member State when principal or interest is in arrears for one year or more. At the end of fiscal 2001, the AsDB's accumulated general provision was equivalent to 0% of the outstanding public sector loan portfolio.

5. The **EBRD** lends to both public and private sector borrowers. It makes general provisions for possible impairment of sovereign exposures based on periodic country risk assessments.

6. Although the **IFC** lends principally to private sector borrowers, it considers a loan as impaired when, based on current information and events, it is probable that the Corporation will be unable to collect all amounts due according to the loan's contractual terms. The reserve against losses for impaired loans represents management's judgment of the present value of expected future cash flows discounted at the loan's effective rate of interest. The reserve for loan losses includes an estimate of probable losses on loans inherent in the portfolio but not specifically identifiable.

7. It can be concluded that the proposed revisions of the Bank's policy on provisioning for public sector loans most closely resembles the current policy framework of the IBRD.

ANNEX 3

Evolution of General Provisions 1993-2002

1. Table 1 below presents the evolution of the Bank's general provisions and the general provisioning rate from 1993 to 2002.

Table 1 – Evolution of General Provisions 1993-2002

(Figures in UA Millions or % at year end)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	8/02
General Prov. Rate (%)	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	6.3%	7.5%	8.1%
Accumulated Provision	151	199	241	275	308	337	372	407	479	499
Annual Provision	58.2	49.7	40.1	51.4	27.2	31.3	25.7	36.7	53.8	0

2. As illustrated in table 1, the general provisioning rate increased from 2.5% in 1993 to 8.1% at the end of August 2002. In most years the Bank has increased the general provisioning rate by adding to the accumulated provision. As explained in annex 9, the year-to-year increase in accumulated provisions may not equal the annual provision because of exchange rate effects.

3. It is also notable that in 2002, a decrease in the size of the outstanding loan portfolio has led to a mechanical increase in the general provisioning rate to 8.1%, even though no additional provisions have been made.

ANNEX 4

Evolution of Estimated Portfolio Collectability Risk 1998-2002

1. Table 2 below presents the evolution of the estimated collectability risk embedded in the Bank's public sector loan portfolio from 1998 to 2002. It shows low, mid-point and high-end estimates of portfolio expected losses over the period.

Table 2 – Estimated Portfolio Collectability Risk 1998-2002

(Figures in % of Outstanding Portfolio at Year-End)

	1998	1999	2000	2001	6/2002
Low-end Expected Losses	5.98%	5.63%	6.30%	4.56%	4.61%
Mid-point Expected Losses	7.64%	7.14%	8.06%	6.02%	6.12%
High-end Expected Losses	9.50%	8.76%	9.73%	7.58%	7.71%

2. As illustrated in table 2, collectability risk, as measured by portfolio expected loss estimates, has fluctuated in a range from 4.56% to 9.73%. During this five-year period the mid-point expected loss rate averaged 7.00%. Measured against this benchmark, the second transition target for the general provisioning rate of 7.5% appears very reasonable. The methodology used to compute these expected loss estimates is presented in annex 7. Table 3 below illustrates how the portfolio mid-range expected loss estimate for 2Q2002 of 6.12% was determined.

Table 3 – Mid-Range Expected Losses 2Q2002

(Figures as Share of Outstanding Portfolio)

Risk Class	Risk Rating	1 Mid Range Expected Loss Rate	2 Composition of Portfolio	(1x2) Contribution to Expected Loss
Very Low Risk	1	2%	20.3%	0.41%
Low Risk	2	3%	37.0%	1.11%
Moderate Risk	3	4%	17.2%	0.69%
	4	6%	11.8%	0.70%
High Risk	5	9%	2.3%	0.20%
	6	15%	4.0%	0.60%
Very High Risk	7	30%	6.8%	2.03%
	8	50%	0.8%	0.37%
	9	80%	0.0%	0.00%
	10	100%	0.0%	0.00%
Total			100%	**6.12%**

ANNEX 5

Loans in Arrears or Non-Accrual Status

1. Table 4 below presents the evolution of the Bank's public sector loans in arrears or non-accrual status from 1993 to present.

Table 4 – Evolution of Non-Performing Public Sector Loans 1993-2002

(Figures in UA Millions at year end)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	6/02
Exposure to Non-accrual Countries	746	925	932	881	714	944	962	1604	1503	845
1 Arrears of Principal	164	169	244	255	252	299	359	427	471	480
2 Arrears of Interest & Charges	229	209	302	313	323	387	462	519	534	556
Total Arrears (1+2)	393	379	547	569	575	686	820	947	1005	1036

2. As illustrated in table 4, the total exposure to countries in non-accrual status has varied from a low of UA 714 million at the end of 1997 to a high of UA 1.6 billion at the end of 2000[9]. Total arrears have increased from UA 379 million in 1994 to UA 1.04 billion by the end of June 2002. Much of the increase in arrears can be attributed to the mechanical impact of new installments falling due from countries in chronic arrears.

3. Although the standard benchmark for assessing provisioning adequacy is the portfolio expected loss rate, some analysts evaluate provisions against the level of principal in arrears and the exposure to countries in non-accrual status. Comparison of tables 1 and 3 reveals that accumulated general provisions have grown at roughly the same pace as principal in arrears through out the period 1993-2002. For example, at the end of 2001 principal in arrears stood at UA 471 million compared to accumulated general provisions of UA 479 million. On the other hand, the total exposure to countries in non-accrual has remained higher than the accumulated provision throughout the period. It is notable, however, that after the DRC's arrears are cleared in 2002, accumulated general provisions will be more than twice the level of principal in arrears[10].

[9] Excludes exposure to multinational projects in non-accrual, which have fallen from UA 83 million in 1994 to UA 36 million in 2002.

[10] For prudence it has been agreed that income from loans to the DRC will only be recognized on a cash basis even after the country's arrears have been cleared through consolidation. As a result, the exposure to countries in non-accrual will not automatically change as after consolidation. The DRC will be reinstated into accrual status when an appropriate payment track record by the DRC has been established.

ANNEX 6

Impact of Policy Changes on Incremental Provisioning

1. Table 5 below presents an example of how the proposed changes to the policy for general provisioning could potentially affect the amount of additional provisions for new loans in any given year. For illustrative purposes, this example uses the public sector lending program that was approved by the Board in 2001. It is assumed that all of these approved loans are disbursed and therefore attract an incremental general provision.

Table 5 – Impact of New Lending On Incremental Provisions

(Figures in UA Millions)

Risk Rating	New Loans	Current Provision Rate (%)	Current Provision	Mid-Point Expected Loss Rate (%)	Proposed Provision
1 – very low	374	7.5%	28.0	2.0%	7.5
2 – low risk	181	7.5%	13.5	3.0%	5.4
3 – moderate	162	7.5%	12.0	4.0%	6.5
4 – moderate	77	7.5%	5.8	6.0%	4.6
5 – high	0	7.5%	0	9.0%	0
6 – high	0	7.5%	0	15.0%	0
Total	795	7.5%	**59.6**	3.0%	**24.0**

2. As can be observed, if a prescribed general provisioning rate of 7.5% is applied to these new loans, the total incremental provision would be UA 59.6 million. On the other hand, under the proposed policy framework, the incremental provision would be UA 24.0 million. The difference of UA 35.6 million is the over-estimation of the contribution to portfolio expected losses inherent in the current policy. In other words, the proposed policy changes would provide a direct linkage between the riskiness of new lending and the incremental provision required.

ANNEX 7

Collectability Risk – Estimating Expected Losses

1. Expected losses due to credit default depend on three principal factors: 1) the probability of a default occurring; 2) the loss given a default does occur; and 3) the exposure at the time of default. The Bank's approach for estimating the probability of default, the loss given default and the exposure at default are described in greater detail in annexes 7a, 7b, and 7c.

2. The Bank's credit rating scale integrates the first two factors, the probability of default and loss given default, into a spectrum of expected loss rates. The expected loss rates represent the probable economic loss to the Bank over the life-time of any given credit. These expected loss rates are presented in table 6 below.

Table 6 – Risk Ratings and Expected Loss Rates

Risk Class	Risk Rating	Low-End Expected Loss	Mid-Point Expected Loss	High-End Expected Loss
Very Low Risk	1	1%	2%	2.5%
Low Risk	2	2.5%	3%	3.5%
Moderate Risk	3	3.5%	4%	5%
	4	5%	6%	7%
High Risk	5	7%	9%[11]	12%
	6	12%	15%	20%
Very High Risk	7	20%	30%	40%
	8	40%	50%	60%
	9	60%	80%	90%
	10	90%	100%	100%

3. As illustrated, for each risk rating there are three expected loss rates representing a range of probable life-time losses. In this framework higher expected loss rates are associated with higher risk and the incremental increase in the expected loss rises at higher risk ratings. For example, "very low risk" loans rated 1 have a corresponding range of expected losses from 1% to 2.5%. The mid-point of expected losses for rating 1 credits is 2%. This means that over an extended period and a portfolio of statistically significant size, the losses should average about 2% of the original value of the portfolio. Near the other end of the scale, at risk rating 8, the probable losses average around 50% of the original value of the credit. The Bank's credit rating scale has been calibrated to these ranges of expected losses. Therefore they apply equally to all credit exposures both public and private sector.

4. Expected loss rates are determined at the portfolio level by aggregating the expected loss contributions of individual loans and guarantees (The expected loss of the portfolio equals the sum of the expected losses of the individual assets in the portfolio weighted by their share in the portfolio).

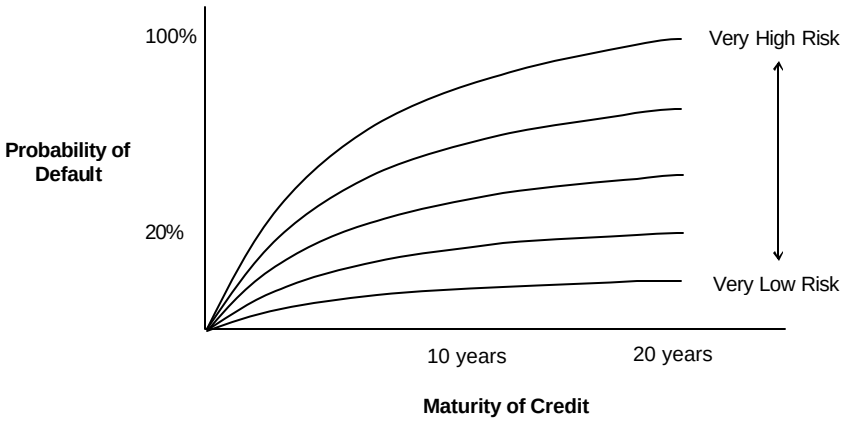
[11] The mid-point expected loss rate for risk-rating 5 was revised from 8% to 9% for better reflect the mid-range of expected losses for these credits.

ANNEX 7a

Probability of Default on Public Sector Loans and Guarantees

1. Figure 1 below illustrates schematically the Bank's experience on public sector loans and guarantees. The probability of a default event depends on two principal factors: 1) the credit risk rating; and 2) the time horizon. As expected, higher risk credits have a higher probability of defaulting on a Bank loan or guarantee. For public sector credits rated as very high risk (greater than 7), the probability of a default approaches 100%. The probability of default also depends on the time horizon. The longer the Bank is exposed to a borrower the higher the probability of a default event. The long-term nature of the Bank's public sector lending tends to give rise to higher probability of default statistics than for commercial lenders.

Figure 1 – Probability of Default for Public Sector Loans



ANNEX 7b

Loss Given Default on Public Sector Loans and Guarantees

1. As a multilateral development finance institution, the loss suffered by the Bank due to defaulted public sector borrowers may be quite different from the experience of commercial lenders. First, the Bank benefits from a full sovereign guarantee from a regional member State on all public sector credits. Second, the Bank is a preferred creditor of its borrowing regional member countries. Third, the Bank has policy mechanisms that enable it to apply sanctions to borrowers that fail to meet their debt service commitments to the Bank. In practice, these factors provide a strong incentive for borrowers to avoid defaulting or to resolve defaults as quickly as possible.

2. Table 7 below presents a summary of the defaults on public sector loans and guarantees that have been successfully resolved. Default in this example is established when a borrower falls into non-accrual status (i.e. has been in arrears for at least 6 months). The default is resolved when the country's arrears are cleared.

Table 7 – Default Experience on Public Sector Loans and Guarantees

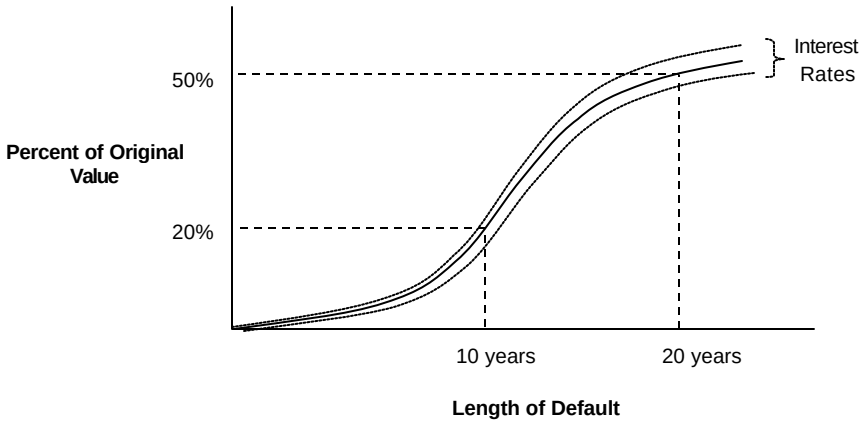
(Portfolio figures in UA Millions at 2Q2002)

	Outstanding Portfolio	Dates of Default	Length of Default
Angola	7.5	1993-2000	8 years
Cameroon	131.5	1993-1995	3 years
Cote D'Ivoire	373.7	2000-2002	3 years
DRC	348.1	1990-2002	12 years
Gabon	219.2	1998-2000	3 years
Guinea Bissau	66.2	1998-1999	2 years
Equatorial Guinea	0.6	1994-1995	2 years
Madagascar	8.0	1994-1996	3 years
Seychelles	20.0	1994	1 year
		2000-2002	3 years
Togo	0.1	1995	1 year

3. As illustrated in table 7, ten countries have experienced protracted difficulties to service their loans with the Bank but have subsequently resolved their repayment difficulties. The causes of the default range from political turmoil to adverse commodity price movements. This field experience illustrates the transient nature of the Bank's public sector defaults.

4. The African Development Bank, like other multilateral creditors, does not charge a penalty for late interest payments. Because public sector defaults are transient (full recovery of principal and interest), the loss to the Bank in the event of default is limited to the opportunity cost of lost interest on overdue interest payments. As illustrated in figure 2 below, the loss given default depends principally on the length of the default and to a much lesser extent on the level of interest rates. It is estimated that a default that is successfully resolved after twenty years results in an economic loss to the Bank equivalent to about 50% of the original value of the credit.

Figure 2 – Loss Given Default for Public Sector Loans



ANNEX 7c

Exposure at Default on Public Sector Loans and Guarantees

1. For many commercial financial institutions the composition of their portfolios are constantly evolving because most of their exposures are short-term or contingent[12] in nature. For these institutions it is particularly important to take into account the potentially sharp changes in exposure to specific clients when assessing the exposure at default for multi-period expected loss estimates.

2. For the African Development Bank, the long-term nature of its lending operations tends to reduce the year-to-year volatility in the exposure to individual public sector borrowers. Therefore, the exposure at default is assumed to equal the current exposure, where the current exposure includes all direct exposures (loans) as well as any contingent exposures (loan equivalent value of guarantees).

3. While the base assumption for exposure at default is the borrower's current exposure, an exception is made for HIPC[13] countries that have reached completion point. Under the rules of the HIPC debt relief initiative, after completion point, the Bank receives resources from the HIPC trust fund to cover the remaining debt relief on Bank Group loans that the country is irrevocably entitled to. These resources are managed by the Bank Group to provide a prescribed debt relief over the remaining life of the existing loans to that borrower. In effect, these resources reduce the Bank Group's exposure to that borrower by an equivalent amount. Therefore, for HIPC countries that have reached completion point, the net exposure is used for computing the contribution to ADB public sector portfolio expected losses, where net exposure is defined as the current exposure to the ADB less the market value of resources irrevocably provided to the borrower for debt service on its ADB loans[14].

[12] For example, a letter of credit, like a guarantee, is only draw down when requested.

[13] HIPC is an acronym for heavily indebted poor countries.

[14] For prudence, this does not include resources that may be provided by the ADB unless they have been paid into the trust fund.

ANNEX 8

Sensitivity of Expected Losses to Rating Changes

1. Table 8 presents sensitivity analysis of the portfolio expected loss estimates to changes in country risk ratings. For illustration, two plausible rating scenarios are examined: 1) the credit risk ratings of the Bank's two largest borrowers are downgraded by two notches; and 2) the credit risk rating of the Bank's largest high-risk borrower is upgraded by one notch.

Table 8 – Sensitivity of Expected Losses to Rating Changes

(Figures in % of Outstanding Portfolio)

	Base Case (31/12/2001)	Morocco & Tunisia Ratings Weaken 2 Notches	DRC Risk Rating Improves 1 Notch
Low-end Expected Losses	4.56%	5.42%	4.12%
Mid-point Expected Losses	6.02%	6.89%	5.22%
High-end Expected Losses	7.58%	8.62%	6.51%

2. In this example, the base-case expected loss estimates are taken from the end of 2001. The first scenario assumes a simultaneous double-downgrade of the risk ratings for both Morocco and Tunisia. Under this stress scenario the mid-point of portfolio expected losses would increase by about 0.87% from 6.02% to 6.89%. The second scenario assumes an upgrade of the risk rating of the DRC by one notch. Under this plausible upside scenario the portfolio expected loss range decreases by 0.80% from 6.02% to 5.22%.

3. This sensitivity analysis reveals that the portfolio expected loss estimates are most sensitive to changes in the ratings of the higher risk countries. This reflects the larger incremental changes in the expected loss rates between higher risk ratings than lower risk ratings. As a consequence, further improvements in the risk profile of the public sector portfolio should also lead to increased stability of the portfolio expected loss estimates.

ANNEX 9

Currency Composition of General Provisions

1. Table 9 below presents the current currency composition of the Bank's public sector loan portfolio, general provisions and the SDR at August 2002.

Table 9 – Currency Composition of General Provisions

(Figures in %)

	USD	EUR	JPY	Other
Currency Composition of Public Sector Loans	45.6%	28.8%	21.8%	3.8%
Currency Composition of General Provisions	45.4%	29.4%	21.6%	3.6%
Currency Composition of the SDR	43.4%	32.0%	13.2%	11.4%

2. As can be observed from table 9, the Bank's general provisions are maintained in roughly the same currency composition as the loan portfolio. However, it can also be observed that the currency composition of the loan portfolio, which depends on borrower demand, is not the same as the SDR. As a result, fluctuations in foreign exchange rates will not affect the general provisioning rate expressed as a percentage of outstanding loans. However, exchange rate fluctuations can cause changes in the UA value of accumulated general provisions.