BANK LICENSING,
SUPERVISION & SURVEILLANCE

Guideline No. 01-2007/BSD

SPECIAL PURPOSE VEHICLES, SECURITISATION & STRUCTURED FINANCE
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PREFACE

I. Short title

This Guideline may be cited as Guideline No. 01-2007/BSD: Special Purpose Vehicles, Securitisation & Structured Finance.

II. Authorisation

The Guideline is issued in terms of section 45 of the Banking Act [Chapter 24:20].

III. Application

This Guideline applies to all banking and non-banking financial institutions that are registered and supervised by the Reserve Bank involved in SPVs, securitisation and structured finance transactions. Wherever the term “bank(s)” or “banking institution(s)” is used in the Guideline, it shall also be read to include non-bank financial institutions that are registered and supervised by the Reserve Bank, including Bank Holding Companies.

IV. Definitions and general terminology

(a) In this Guideline the terms itemized below shall have the meaning assigned to them hereunder:

“Arbitrage transactions” refers to transactions of securitisation where assets are acquired from various originators, or from the market, and are securitised with the intention of making an arbitrage profit resulting from the difference between the average return of the assets and the average coupon on the liabilities.

“Banking Act” refers to the Banking Act [Chapter 24:20].

“Beneficial interest” means the right to stand to benefit, short of legal title. In a securitization transaction, the receivables / cash flows or security interest thereon are legally held by an SPV or trust, for the benefit of the investors; that means the investors are beneficiaries and their interest is the beneficial interest.

“Credit enhancement providers” are typically either third parties or parent company of originator that guarantees principal and interest payments to security holders.

“Credit enhancement” is a general term for measures taken by the originator to enhance the security, credit or the rating of the securitized instrument. Among these measures is cash collateral, profit retention, third party guarantee.

“Credit enhancement facility” means any facility or arrangement in terms of which the provider of such a facility or obligor under the arrangement is obliged to absorb losses associated with-
(a) the assets transferred in terms of a traditional securitisation scheme; or
(b) the risk transferred in terms of a synthetic securitisation scheme; including both a first-loss credit enhancement facility and a second-loss credit enhancement facility.

“Credit linked note (CLN)” refers to a debt security which allows the issuer to set-off the claims under an embedded credit derivative contract from the interest, principal, or both, payable to the investor.

“Debt defeasance” refers to a transaction under which a promoter removes a future liability or debt from its balance sheet by conveying it to an SPV and amortises the costs over a period of years.

“De-recognition” refers to the action of removing an asset or liability from the balance sheet subject to fulfillment of certain conditions, stated in the accounting standards. In securitisation transactions, the term refers to removal of assets securitised by the originator.

“First-loss credit enhancement facility” means a credit enhancement facility that represents the first level of credit enhancement to parties involved in a securitisation scheme.

“First loss risk” refers to the extent risk is borne by a particular class before it can affect the other classes. It arises in cases where the risks in the asset portfolio of an SPV are segregated into several tranches. The first loss class must fully cover the loss before it affects the other classes. The first loss class, like equity of an entity, provides credit enhancement to the other classes.

“Liquidity facility” means a short-term liquidity or overdraft facility provided by a bank or by the originator to the SPV to meet the short-term funding gaps and redemption of securities.

“Mortgage-Backed Securities (MBS)” are securities backed by cash flows resulting from mortgage loans. MBS can be divided into Residential and Commercial Mortgage-Backed Securities.

“Obligor” is a debtor from whom the originator has right to receivables.

“Originator” refers to an institution that, whether at the commencement or during the life of the scheme, transfers assets from its balance sheet or in a synthetic securitization scheme, uses a credit derivative instrument to transfer the risk associated with a specified pool of assets to investors without actually selling the assets.

“Orphan company” means a company without identifiable shareholders, e.g. an SPV owned by a charitable trust.

“Pass through” means a special payment method, where the payments made by an SPV to the investors take place in the same periods and are subject to the same fluctuations as the receivables. This means that the cash flows collected every month are passed through to investors, after deducting fees and expenses.

“Pay through” refers to a special payment method, where the payments made by an SPV to the investors take place at a pre-fixed pattern and maturity, not reflecting the payback behaviour of the receivables. During the intervening periods the SPV reinvests the receivables, mainly in
passive and pre-defined kinds of investments.

“Primary role” means the participation by an institution in a securitization scheme as an originator, remote originator, sponsor or repackager.

“Remote originator” means an institution that directly lends money to a special-purpose institution in order for the special-purpose institution to take transfer of assets in terms of a securitization scheme.

“Regulatory arbitrage” refers to the possibility for banks to reduce their regulatory capital requirements of a portfolio of assets without any substantial reduction in the real risks inherent in the assets. For instance, this may arise in a case where economic risks of the assets securitised have been substantively retained.

“Reserve Bank” means the Reserve Bank of Zimbabwe established in terms of the Reserve Bank of Zimbabwe Act [Chapter 22:15].

“Secondary role” means the participation by a banking institution in a traditional or a synthetic securitisation scheme, as a provider of a credit-enhancement facility, a provider of a liquidity facility, an underwriter, a purchaser of senior commercial paper, a servicing agent or counterparty to a transaction included in the trading book of a bank;

“Securitisation” is a process whereby financial promises or assets are packaged into marketable securities that can be freely traded on the capital and financial markets. It has the effect of transforming a pool of relatively illiquid assets into tradable liquid assets. There are generally two types of securitisation, namely traditional schemes and synthetic securitisation schemes.

“Senior commercial paper” means commercial paper issued in terms of a securitisation scheme, the purchase of which commercial paper does not constitute providing a first-loss or second-loss credit-enhancement facility.

“Servicing agent” refers to an entity with the responsibility to set up and operate mechanisms for collecting payments of interest or principal deriving from the underlying assets, and channeling these funds to the investors or the trustee representing them. Other functions include customer service, cash management, maintenance of records, and reporting duties.

Special Purpose Vehicle (SPV) is a single-purpose business entity which may be a company, limited partnership, trust, society, mutual fund, or other entity formed for the purpose of conducting a specific purpose, the activities of which are limited to those appropriate to accomplish the purpose of the SPV, and the structure of which is intended to isolate the SPV from the credit risk of an originator or seller of exposures.

“Traditional securitization–scheme” involves the legal and economic transfer of assets to a special purpose vehicle that issues marketable securities that are claims against the said assets. The underlying instruments in a pool being securitised may include but not limited to the following: loans, commitments, corporate bonds, equity securities, and private equity investments. The underlying instruments in a pool being securitised may include but not limited to the following: loans, commitments, corporate bonds, equity securities, and private equity investments.
The underlying pool may have one or more exposures. Different classes of securities are normally issued, and each class has a different priority claim on the cash flows originating from the underlying pool of assets.

“Structured Finance” refers to non-standard financial products structured to meet the specific financial needs of a customer.

“Synthetic securitisation” refers to a scheme whereby funded or unfunded credit derivatives are used to transfer the credit risk associated with a specified pool of assets to an SPV. Normally, the resulting credit exposures have different levels of seniority.

“Tranche” means a piece, fragment or slice of a deal or structured financing. In practice the risks distributed on different tranches concerning losses, sequential payment of the cash flows, etc are different, hence coupons on different tranches is also different.

“True Sale” occurs where (i) the sale is in compliance with legal provisions governing asset sales and the assets are legally isolated from the transferor (i.e. beyond reach of the transferor’s creditors even in bankruptcy); (ii) the transferee is a qualifying SPV and holders of the beneficial interest in that entity have the right to pledge or exchange those interests; and (iii) the transferor does not maintain effective or indirect control over the transferred assets and consideration is other than beneficial interest.

“Trustee” refers to an entity with legal responsibility for activities of the SPV and the receipt and disbursement of payments to investors.

(b) Any word or expression used but not defined in this Guideline, but defined in the Banking Act [Chapter 24:20] or any other applicable statute shall have the meaning respectively assigned to it in that statute.
V. List of Abbreviations

ABCP - Asset Backed Commercial Paper
ABS - Asset Backed Securities
CCF - Credit Conversion Factor
CLN - Credit Linked Note
EAD - Exposure at Default
IAA - Internal Assessment Approach
IRB - Internal Ratings Based Approach
K_{IRB} - Capital Under IRB
LGD - Loss Given Default
MBS - Mortgage Backed Securities
PD - Probability of Default
RBA - Ratings Backed Approach
SFA - Supervisory Formula Approach
SPE - Special Purpose Equity
SPV - Special Purpose Vehicle
1 INTRODUCTION

(a) Overview

1.1 This Guideline, which is issued in terms of section 45 of the Banking Act [Chapter 24:20], outlines the regulatory framework for banking institutions involved in securitization and SPV activities.

1.2 Internationally, there has been popular usage of special purpose vehicles (SPVs), also known as special purpose entities (SPEs), for securitization, structured finance, and a variety of capital market transactions. In view of the rapid growth in structured finance and growing sophistication in synthetic forms of asset securitization, there is need for a common regulatory policy on the treatment of SPVs and securitization activities in which banking institutions have a role to play.

1.3 The International Convergence of Capital Measurement and Capital Standards: a Revised Framework (Basel II) also requires banks to hold a certain amount of capital against certain synthetic or traditional securitization transactions depending on the characteristics of securitized assets, available credit ratings, and the different roles played by banks in the securitization process.

(b) Nature of SPV and Mechanics of Securitisation

1.4 SPVs are business entities which may take the form of a company, orphan company, limited partnership, trust, society, mutual fund, or other entity specifically designed to conduct a single predefined activity. The term “special purpose” comes from the limited scope of the SPV’s activities. For this reason, SPVs are often described as “brain-dead” or on auto-pilot.

1.5 In some cases SPVs are not companies in substantive operations as they do not have any business except acting as a legal instrumentality.

1.6 The confinement by design of an SPV’s activities to conduct just one pre-specified activity greatly assists prospective investors in assessing the quality of assets and risks in the venture undertaken. In addition to having restricted activities and powers an SPV is generally constituted so that it is insulated from insolvency risks – both voluntary and involuntary. These restrictions minimise the risk of any SPV carrying out any other activity that might lead to its insolvency.

1.7 Generally, the generic use of SPVs is to isolate identifiable assets/risks into a stand alone, self-sustained entity. As such SPVs are used in securitisation transactions as devices of hiving off assets and converting them into securities.

1.8 In most countries, the securitization market historically started to develop through issuance of Mortgage-Backed Securities (MBS) and other types of financial receivables. As a securitization market grows and becomes more sophisticated, the types of assets that are securitised are broadened into non-financial types of assets.
The diagrams below illustrate the process and key participants of a common securitisation transactions structured through a special purpose vehicle:

**Figure 1: Securitisation Process**


**Figure 2: Participants in a Securitisation Transaction**

1.10 Some SPVs are established as ‘multi-issue’ vehicles, involving the SPV in a number of separate security issues relating to distinct transactions. In such instances, it is usual to ‘ring fence’ the assets relating to each issue. In certain cases, the SPV will issue distinct classes of shares or, in the case of a trust, units. In cases whereby an SPV and its service providers operate as asset managers and/or issue unit trusts they will require appropriate registration under the relevant laws.

1.11 The structure of most SPVs, is however inherently complex, requiring formation of legal entities, and creation of financing arrangements between the company, its lenders and new outside investors. Some of these financial arrangements are sometimes referred to as “structured finance” or “synthetic securitisation.”

1.12 Structured finance refers to non-standard lending arrangements customized to the needs of specific clients. Such arrangements are often not fungible. They often involve professionals from multiple disciplines within the financial institution due to potential for elevated levels of market, credit, operational, legal or reputational risks.

1.13 “Synthetic securitization” refers to a structure or scheme whereby funded (e.g. credit-linked notes) or unfunded (e.g. credit default swaps) credit derivative instruments are used to transfer (in whole or in part) the credit risk associated with a pool of assets to an SPV. The investors’ potential risk is dependent upon the performance of the underlying pool of assets. The credit derivatives and/or guarantees serve to hedge the credit risk of the underlying portfolio. Normally, the resultant credit exposures have different levels of seniority.

1.14 There tends to be substantially higher loss severity for lower rated tranches both in traditional securitization schemes and synthetic securitization schemes than for higher rated tranches. Investors in junior tranches will suffer a total loss before the investors in senior tranches incur any loss.

1.15 In addition, the packaging of risks relating to multiple underlying assets, reference assets or entities for transfer may create risks that are more complex than those for a single or few assets.

1.16 The use of a credit derivative instrument to transfer risk may lead to a change in the risk profile of the assets remaining on a bank’s balance sheet, in terms of both the quality and the spread of risk.

1.17 The art of financial engineering and use of SPVs is beneficial to banks since securitization enables them to accomplish a number of objectives. The banks are able to (i) reduce their regulatory capital requirements; (ii) access cheaper sources of funding, generally at lower cost; (iii) attain improvement in financial ratios e.g. risk return on capital; and (iv) manage their portfolio risk.

(c) Banks’ Roles and Exposures in Securitisation

1.18 A banking institution’s participation in securitisation and SPV activities may involve one or several roles. A bank may act as the originator of assets to be transferred; the servicing agent to the securitized assets; or, sponsor or manager in third-party securitization programs. In addition a bank may provide credit enhancement or liquidity facilities, act as a trustee, underwriter of ABS, or investor in the securities. Alternatively, a bank may establish and manage its own
securitization transactions, including **setting up**, or cause to be set up, an SPV.

1.19 Generally, the risk exposures that banks encounter in securitization are identical to those that they face in traditional lending. These involve credit risk, concentration risk, operational risk, liquidity risk, interest rate risk and operational risk. However, securitization **unbuckles the traditional lending** function into several limited roles, such as originator, servicer, sponsor, credit enhancer, liquidity provider, underwriter, trustee, and investor thereby rendering these less obvious and more complex than when encountered in a traditional lending process.

1.20 Banking institutions’ exposure to securitistion can include but not restricted to the following asset-backed securities, mortgage-backed securities, credit enhancement facilities, liquidity facilities, interest rate or currency swaps, credit derivatives, and tranched cover.

1.21 The role played by banking institutions in SPV and structured finance transactions has placed pressure on **adequacy of accounting and taxation rules**. Some complex transactions have given rise to significant concerns about the legality and appropriateness of these transactions.

**(d) Overall Benefits**

1.22 Establishment of an efficient and facilitative legal, regulatory, tax and accounting framework for securitization and structured finance will promote sophistication of capital markets in the country.

1.23 Securitization supports a number of objectives and may generate a wide range of benefits to originators. Securitization can help to achieve desirable social and economic goals such as affordable housing, and efficient market structures and institutions.

**(e) Regulatory Concerns and Expectations**

1.24 The Reserve Bank is aware that in the recent past some banking institutions or banking groups often conducted part of their banking business using special purpose vehicles (SPVs) and unregulated subsidiaries in order to attain various forms of **regulatory arbitrage**.

1.25 As financial intermediaries, banking institutions play a **critical role** in ensuring the integrity of financial markets and maintaining the trust and public confidence essential to the proper functioning of the financial system.

1.26 The Reserve Bank pays particular attention to safeguarding the interests of investors and the stability of the financial system. In addition the Reserve Bank has a mandate to ensure that banking institutions **understand, monitor and manage their own risks** appropriately. In line with this philosophy, supervisory requirements relating to the use of SPVs have two main strands:

a. disclosure of financial information about SPVs and securitization activities; and

b. ensure that risks arising from use of SPVs and securitization activities are taken into account in the measurement of a bank’s capital adequacy ratios.

1.27 This guideline among other things **outlines regulatory requirements** relating to appropriate
policies and procedures, disclosure, separation, and where applicable, any other conditions related to the provision of facilities and services as seller, servicer, provider of credit enhancement or liquidity facilities, trustee or investor to any securitization transaction.

1.28 It sets out capital requirements in respect of securitization exposures and related activities. The Reserve Bank expects a banking institution to minimise its exposures to risks arising from its relationship with an SPV.
2 GENERAL REQUIREMENTS

(a) Prior Approval from Reserve Bank

2.1 The guideline prescribes minimum regulatory requirements to ensure that banking institutions appropriately manage the risks arising out of their involvement with SPVs and that appropriate capital is held against the risks involved.

2.2 Any banking institution proposing to undertake or participate, either solely or jointly with other parties, in new schemes involving SPVs in securitization or structured finance transactions must seek prior approval of the Reserve Bank.

2.3 Where a banking institution seeks to undertake a securitization transaction using a structure which it had previously received approval from the Reserve Bank, only notification is required.

2.4 Any banking institution proposing to participate in any securitization transaction that raise issues not covered in this Guideline should consult the Reserve Bank well in advance.

2.5 Any SPV controlled by, or which is an associate of a banking institution shall not conduct any business that the bank would otherwise be prevented from carrying out at law.

2.6 In addition to the requirements of this Guideline prior consent of the Registrar is required under the Collective Investment Scheme Act [Chapter 24:19] and the Asset Management Act [Chapter 24:26] in respect of SPVs established as “multi issue” vehicles especially if:

   a. the securities to be issued by the SPV are to be issued and/or redeemed continuously or at short, regular intervals; and

   b. the transaction operates to spread risk through the purchase of different assets by the SPV.

2.7 The Reserve Bank’s prior consent is also required for the circulation of any prospectus or other offering document relating to those securities.

2.8 Banking institutions should submit to the Reserve Bank details of any proposed SPV before proceeding to incorporate the company. The Reserve Bank will undertake an initial review of the transaction and may issue an “in principle” approval. Following incorporation, appropriate documentation relating to the transaction must be submitted to the Reserve Bank before final consent is granted.

(b) Role of Board and Senior Management

2.9 The board shall have ultimate responsibility for defining and establishing a banking institution’s control processes, risk tolerance limits, and any mechanisms put in place to manage potential conflicts of interest, insider trading or other concerns in respect of SPVs, securitization and structured finance.
2.10 Internationally, some banking institutions have established senior management committees to ensure that all potential risks pertaining to SPVs, securitization and structured finance are comprehensively and consistently managed on a firm-wide basis.

2.11 The board and senior management should create a firm-wide corporate culture that is sensitive to the importance of integrity, compliance with the law and accounting issues, business ethics, and appropriate incentive structures.

(c) Policies and Procedures

2.12 Banking institutions should have a comprehensive set of formal, written policies and procedures governing their participation in securitization and SPV activities, and there must be appropriate internal systems and controls to identify, monitor and manage the various types of risks (credit, market, operational, legal or reputational risks) arising out of their involvement in such activities.

2.13 Banking institution’s policies and procedures relating to securitization, structured finance and SPV transactions should outline the particular responsibilities of the personnel involved in the structuring, trading, review, approval, documentation, verification, and execution of these transactions.

2.14 At a minimum a banking institution should also have procedures that address the following:

   a. transaction approval;
   b. new product approval;
   c. reputational and legal risk;
   d. accounting and disclosure by the customer;
   e. documentation;
   f. reporting;
   g. independent monitoring, analysis and compliance with internal policies;
   h. audit; and
   i. staff training.

2.15 It is imperative that the approving authority includes representatives from appropriate control functions that are independent of the transaction originators. Where the conditions are not met, a banking institution shall be required to hold capital against the full exposure to the SPV.

2.16 Personnel should have appropriate experience and stature in the financial institutions to ensure appropriate consideration of elements or factors that may expose the institution to higher levels of credit, market, operational, legal or reputational risk.

2.17 Policies and procedures should also provide for the engagement of third party professionals where appropriate.

2.18 Banking institutions should ensure that their personnel receive appropriate training concerning the institution’s policies and procedures governing its SPV, securitization and structured finance activities.
2.19 Banking institutions should provide for generation, collection, and retention of appropriate documentation and timely reports to senior management and/or the board to monitor the use of SPVs, securitization and structured transactions. The reporting requirements should be detailed and transparent for review by all control or approval functions.

2.20 The internal audit function should cover a banking institution’s SPV, securitization and structured finance transactions as well as adherence to own control procedures, and adequacy of its policies and procedures.

2.21 Banking institutions should provide for independent monitoring by a risk control function or compliance unit to ensure that all policies, procedures and activities receive appropriate review, to evaluate their appropriateness and adequacy.

(d) External Audit Certification

2.22 A banking institution’s external auditors shall be required to certify annually, alongside a institution’s statutory disclosure requirements, that the regulatory requirements outlined in this Guideline have been met on a continuous basis for the reporting period.

2.23 Where the conditions are not met, a banking institution shall be required to hold capital against the full exposures to the SPVs.
3 DISCLOSURE REQUIREMENTS

3.1 A banking institution involved in SPVs and securitization activities shall disclose in the financial statements the extent, nature, incidence of risk and reward and obligations relating to its involvement.

3.2 Documentation or marketing of SPV schemes should not give the impression that recourse to the banking institution would extend beyond any specific undertakings to which the banking institution has formally committed.

3.3 Any recourse to the banking institution for repayment of principal and/or interest will require appropriate capital support.

3.4 Investors should be unambiguously informed in writing that:
   a. their investments or securities they purchase do not represent deposits or other liabilities of the banking institution;
   b. their investments are subject to investment risk, including interest rate risk, possible delays in repayment and loss of income and principal invested; and
   c. the banking institution and/or any other entities to which it is related does not in any way stand behind the capital value and/or performance of the securities issued, or assets held by the SPV except to the extent permitted under this Guideline and as specified in the investment prospectus.

3.5 Investors should provide a signed acknowledgement indicating that they have read and understood the required disclosures.

3.6 A banking institution should ensure that any marketing or promotion of a scheme with which it is associated does not give any impression contrary to the disclosure requirements.

3.7 A banking institution may allow its logo or trademark to be used in marketing investment products of third-party institutions, including SPVs, (a process known as badging), provided the name and/or logo of the other party providing the product features prominently in all advertising material and marketing documentation, and all disclosure requirements outlined in this section are fully satisfied.

3.8 Disclosure documents shall provide all other information that may reasonably be necessary to enable an investor to ascertain the nature of the financial and commercial risk of the investment.

3.9 The disclosure requirements in this section shall apply in addition to any other disclosure requirements under applicable law.

3.10 The Reserve Bank may prescribe additional disclosure requirements in respect of SPV, securitization, and structured finance activities.
4 SEPARATION REQUIREMENTS

4.1 All business transactions between the banking institution and the SPV must be conducted at arm’s length and on market terms and conditions.

4.2 SPV schemes or activities should stand clearly from any banking institution involved in the schemes, and there should be clear limits governing the extent of that involvement.

4.3 Any undertakings given by a banking institution to an SPV and/or investors should be subject to the banking institution’s usual approval and control processes. Such undertakings should be expressed clearly in the legal documentation of the scheme, and must be fixed as to time and amount.

4.4 A banking institution and its associates may not:

   a. include the word “bank” and its variants, “authorized dealer”, or “banking institution” in the name of the SPV;

   b. have its directors, officers or employees on the board of an SPV unless the board is made up of at least five members and the majority are independent non-executive directors. In addition, the official(s) representing the bank must not have veto powers;

   c. support any losses by the SPV or by investors involved in the SPV or bear any of the recurring expenditures of the transaction; and

   d. directly or indirectly “control” the SPV such that it would need to be consolidated in accordance with International Accounting Standards.

4.5 Where the SPV is a trust, the beneficiary and/or issuer trustee must be third parties independent of the banking institution.

4.6 An SPV shall be taken as part of a banking institution for Consolidated Supervision and computation of capital requirements.

4.7 For avoidance of doubt:

   a. an SPV must have its own board with independent directors, and the SPV’s organizational documents must restrict its ability to place itself into bankruptcy; and

   b. it must maintain separate assets, bank accounts, recording keeping; and pay its own expenses out of its own funds.

4.8 Where these conditions are not met a banking institution is required to hold capital against all debt instruments issued to third parties by the SPV.
5 PURCHASE & SUPPLY OF ASSETS

(a) Requirements for Banks as Sellers / Originators

5.1 A banking institution may exclude assets sold to an SPV or third party from its regulatory capital calculations (i.e. relieved of the need to hold capital in support of securitized exposures) where it has:

a. complied with disclosure and separation requirements in this Guideline;

b. complied with the requirements of the constitution of a clean sale; and

c. confirmed in writing to the Reserve Bank that it has received written opinions from its external auditors and legal advisors that the transaction complies with the requirements of paragraphs (a) and (b) in this clause.

(b) Requirements for a Clean Sale

5.2 A “clean sale” will occur where the following conditions are met:

a. assets are completely transferred, and the banking institution retains no beneficial interest in the assets;

b. the risks and rewards on the assets have been fully transferred to the SPV acquiring the assets. The banking institution retains no obligation, risk or return in relation to the assets sold;

c. the transfer of assets does not contravene the terms and conditions of any underlying agreement governing the assets and all the necessary approvals have been obtained;

d. the assets must be transferred at fair value, and the banking institution (seller) receives a fixed amount of consideration for the assets no later than at the time of the transfer of the assets;

e. the banking institution is under no obligation to repurchase any part of the securitized assets at any time;

f. where the banking institution transfers an undrawn commitment to lend, the transfer should be effected by novation or assignment, and accompanied by a formal acknowledgement of the transfer by the borrower/debtor, or such other means as may be approved by the Reserve Bank;

g. the document of transfer specifies that, if cashflows relating to an asset are re-scheduled or re-negotiated, the purchaser / SPV will be subject to the re-scheduled or re-negotiated terms; and
h. the SPV or third party has no formal recourse to the banking institution for costs, expenses or losses resulting from the transfer of the assets except where such losses arise from breach of any service agreement.

5.3 Should a banking institution retain any obligation, risk or interest relating to the assets sold, the assets must be treated as if they were still on the banking institution’s balance sheet (i.e. regarded as a credit enhancement).

5.4 In supplying assets to SPVs, a banking institution should ensure that the transaction would not lead to deterioration in the average quality of assets remaining on its balance sheet.

5.5 Where a banking institution transfers assets to an SPV or third party at below book value (e.g. via an over-collateralisation agreement or by sale at discounted price) the amount short of the book value should be considered as a first loss credit enhancement unless it is written-off in the banking institution’s profit and loss (and capital) accounts.

(c) Spread Accounts and Similar Arrangements

5.6 Where a banking institution sells its assets to an SPV, it may be entitled to surplus income or payments generated by the securitisation scheme, in the form of a residual interest, excess servicing income, a spread account or similar arrangement.

5.7 The transfer of assets under such arrangements should be considered a clean sale where a banking institution:

a. makes no payment to the SPV in exchange of income;

b. is under no obligation to repurchase any non-performing assets, or otherwise cover losses on assets; and

c. is under no obligation to return any fees or income once received.

5.8 Where a banking institution provides funds to establish a spread, reserve or similar account, those amounts should be treated as a first loss credit enhancement unless the funds are written-off in the banking institution’s profit and loss accounts.

5.9 Where a banking institution contributes to the start-up costs of a securitization scheme, the amounts involved need not be treated as a credit enhancement, provided:

a. the funds contributed are not intended to protect investors against loss;

b. the funds involved represent a one-off commitment;

c. the amounts involved are limited and are in line with normal market expenses for similar schemes;

d. there is no direct repayment of the contributions or direct fee earned for contributing to the start-up costs; and
e. the contribution of funds is not linked to the provision of any specific facilities by the banking institution.

**d) Revolving Facilities**

5.10 A banking institution may sell the receivables arising from a revolving finance facility (e.g. credit card, overdraft) to an SPV and retain an interest in those receivables.

5.11 The sale of these revolving credit receivables can be considered a clean sale where:

a. the rights and obligations of the banking institution and investors are clearly specified at the commencement of the securitization scheme;

b. the distribution of the principal and other cash flows during the run-down period is clearly stated at the commencement of the program;

c. the pro-rata share of payments (or expenses) due to investors should not exceed their interest in the underlying receivables in the securitization scheme;

d. there should be no subordination or deferral of cash flows due to the banking institution, other than arising from a facility provided pursuant to this guideline;

e. the banking institution shares in any losses or liquidity shortfalls associated with receivables on a pro-rata basis, not exceeding the proportion of its interest in receivables held by the SPV;

f. any discount rate, fixed at the commencement of the securitization scheme, shall not be altered to provide additional protection to investors or to compensate investors for part losses;

g. following the commencement of the amortizing period, a bank retains the right to cancel (without notice) any undrawn limits on revolving facilities whose receivables have been sold to the SPV;

h. a banking institution is able to demonstrate that the payment of principal on outstanding receivables held by the SPV will be sufficient to ensure repayment of the bank and investors over the amortising period;

i. any provision for early amortisation of assets held by an SPV cannot be precipitated by regulatory action affecting the seller of the assets;

j. a banking institution has considered the effect of early or rapid amortisation events (if any) on its capital and liquidity management plans; and

k. the banking institution is under no obligation to:

   i. repurchase outstanding balances in a default situation;
ii. alter the amortisation period except upon the occurrence of any specified early amortisation events; and

iii. alter the principal allocation percentage which stipulates the share that investors would bear in any losses incurred by the SPV.

(e) Representations and Warranties

5.12 A banking institution that provides facilities and services, or supplies assets, to an SPV, may make representations and warranties concerning those functions or assets.

5.13 The banking institution will not be required to hold capital against such representations and warranties where the following conditions are met:

a. any representation or warranty is provided only by way of a formal written agreement, and is in association with market practice;

b. the banking institution undertakes appropriate due diligence before providing or accepting any representation or warranty;

c. the representation or warranty refers to an existing state of facts that is capable of being verified by the banking institution at the time of contracting; and

d. the representation or warranty is not open-ended and, in particular, does not relate to the future creditworthiness of the assets, the performance of the SPV and/or the securities the SPV issues.

5.14 A banking institution shall notify the Reserve Bank of any instance where it has agreed to pay damages arising out of any representation or warranty.

(f) Requirements for Banks as Investors

5.15 A bank may purchase assets issued by an SPV, and treat them for capital adequacy purposes according to the risk weights prescribed by the Reserve Bank from time to time where the following conditions are met:

a. the purchase is conducted at arm’s length, on market terms and conditions and is subject to the bank’s normal credit approval process;

b. the bank has no pre-existing obligation to undertake the purchase;

c. the total value of assets purchased, and held on the books of the banking institution are within the maximum authorized investment limits prescribed by the Reserve Bank from time to time; and
d. where non-performing assets are purchased:
   i. the assets must be marked-to-market for financial and regulatory purposes; and
   ii. the banking institution demonstrates that the assets are acquired at a fair market value that fully reflects the non-performing status of assets and the presence of any credit enhancement(s) by an independent party.

5.16 Where any of these conditions are not met, the purchase should be regarded as a credit enhancement.

5.17 A banking institution may also purchase securities issued by an SPV, and treat them for capital adequacy purposes according to the risk weights attached to the securities themselves as prescribed by the Reserve bank from time to time, provided:
   a. the conditions in clause 5.15 are satisfied;
   b. the bank has adequate risk management systems to curb disproportionate accumulation of securities issued by an SPV relative to its total assets and capital;
   c. purchases of subordinated securities issued by an SPV should be treated as a credit enhancement, as either a first or a second loss facility depending on the level of loss the securities are supporting.

5.18 Where these conditions are not met, any acquisitions arising from market-making activities should be regarded as credit enhancements.

5.19 Where the Reserve Bank assesses that a banking institution’s purchase of securities implies that it is supporting investments in an SPV beyond any legal obligation, the bank will be required to hold capital against all the securities issued by the SPV.

(g) Prudential Limits and Restrictions

5.20 Banking institutions that participate in specialised financial activities involving the use of SPVs are required to allocate capital commensurate with the risks on their balance sheet.

5.21 The following prudential limits should be observed by all banking institutions that participate in securitisation schemes:
   a. the aggregate exposure of a bank and its associates, whether individually or jointly, towards securities issued by an SPV shall not exceed 10% of the bank’s regulatory capital or 20% of the total value of the securities issued by the SPV which ever is less;
   b. the aggregate exposure on account of all of SPVs, structured finance, securitisation, specialized financing schemes or otherwise, shall not exceed 25% of a bank’s regulatory capital base; and
c. the aggregate value of outstanding loans made by the bank and its associates; whether individually or jointly; to SPV should not exceed 25% of the bank’s regulatory capital.

5.22 A banking institution shall not invest in any securities where the originator or company setting up the SPV is a defaulter in any financial institution.

5.23 Banking institutions participating in asset securitization transactions should formulate policies and devise checks, controls and balances to effectively manage associated risks.

5.24 A banking institution investing or holding senior or providing second or subsequent loss enhancement may be able to use the ratings based approach to determine the capital requirements for these exposures. The tables below provide the risk weights and factors that correspond to the various external credit ratings.

**Table 1: Long-term rating category**

<table>
<thead>
<tr>
<th>External Credit Assessment</th>
<th>AAA to AA-</th>
<th>A+ to A-</th>
<th>BBB+ to BBB-</th>
<th>BB+ to BB-</th>
<th>B+ and below or unrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Weight</td>
<td>20%</td>
<td>50%</td>
<td>100%</td>
<td>150%</td>
<td>Deduction from Capital</td>
</tr>
</tbody>
</table>

**Table 2: Short-term rating category**

<table>
<thead>
<tr>
<th>External Credit Assessment</th>
<th>A2/P2/R1H</th>
<th>A2/P2/R1M</th>
<th>A3/P3/R1L</th>
<th>All other and unrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Weight</td>
<td>20%</td>
<td>50%</td>
<td>100%</td>
<td>Deduction from Capital</td>
</tr>
</tbody>
</table>

5.25 However, investment grade securities from a securitization transaction involving residential mortgages held in the banking book will be eligible for a maximum 75% risk-weight where the following conditions are met:

a. The loans underlying the MBS must at the start of the securitization transaction are fully secured by mortgage on residential property;

b. The mortgage loans are not adversely classified at the time they are transferred to the SPV;

c. Investors in such MBS are not obliged to absorb more than their pro-rata share of losses in the event of arrears or default on payment of interest on, or principal of, the underlying mortgage loans; and

d. The activities of the SPV are restricted to solely that of issuing securities and it may only hold assets qualifying for risk-weight of 50 per cent or less.

1 The rating designations used in the following charts are for illustrative purposes only and do not indicate any preference for, or endorsement of, any particular external assessment system.
5.26 Where banking institutions purchase non-investment grade Asset Backed Securities (ABS), such purchases will be regarded as a form of credit enhancement to the SPV, and the bank will be required to deduct the purchase from its capital base.
6 CREDIT ENHANCEMENT

6.1 A banking institution may provide credit enhancement facilities to support a proprietary or part securitization transaction.

6.2 Credit enhancement facilities include all arrangements that in a banking form or substance, provide for a banking institution to absorb losses of an SPV, its investors, or any providers of liquidity and other facilities. Credit enhancement facilities may take the form of a first or a second loss facility. Such facilities may be provided to an SPV that is “sponsored” (i.e. created) by the banking institution or by a third party.

6.3 A banking institution should hold capital against the credit risk incurred when it provides credit enhancement, explicit or implicit, to a special purpose vehicle or its investors.

6.4 A banking institution providing credit enhancement facilities should ensure that the following conditions are fulfilled:

   a. it is able to demonstrate that the facility is provided on an arm’s length basis, is subject to the banking institution’s normal credit approval and review processes and is transacted on market terms and conditions (including price or fee);

   b. the nature and extent of any undertaking provided to a SPV and/or its investors are clearly specified in a written agreement. There should be no recourse to the banking institution beyond the specified contractual obligations;

   c. the facility is limited to a specified amount (i.e. a maximum dollar amount of the banking institution’s commitment);

   d. the duration of the facility is limited to a specified time period which is
      i. the earliest of when assets are redeemed;
      ii. all claims connected with the securities issued by the SPV are paid out; or
      iii. the banking institution’s obligations are otherwise terminated.

   e. A fixed termination date need not be specified, provided the banking institutions is able, at its absolute discretion, to withdraw from its commitment at any time following a reasonable period of notice. As a general rule, a banking institution should be able to relinquish its role after giving 90 days notice;

   f. withdrawal must not be conditional upon the appointment of an alternative facility provider;

   g. the SPV and/or investors have the express right to select an alternative party to provide the facility;

   h. the facility is documented in a manner which clearly separates it from any other facility provided by the banking institution. A banking institution’s obligations under each facility should stand alone; and

   i. disclosure requirements have been complied with in any appropriate documentation.
6.5 Where any of the above conditions is not satisfied, a banking institution should hold capital against the full value of all securities issued by the SPV, as if they were held on its balance sheet.

6.6 Where all these conditions are satisfied, the capital treatment to be applied to credit enhancement facilities as set out below.

6.7 Credit enhancement facilities may take the form of a first or second loss facility.

**First Loss Facility...**

6.8 A “first loss facility” provides the first level of financial support to an SPV and/or its investors in a securitization transaction. The provider of the facility bears the bulk (or all) of the risk associated with the issued securities, or the assets held by the SPV.

6.9 A first loss credit enhancement also arises where a banking institution provides an undertaking covering the payment of interest on assets held by a SPV and/or the payment of interest to investors (except where the undertaking is provided as part of a second loss facility). A first loss credit enhancement facility also includes an undertaking to provide cover against reinvestment/prepayment/extension risk.

6.10 A banking institution that provides a first loss facility should, for capital adequacy purposes, deduct the amount of the facility from its capital base. The deduction will be capped at the amount of capital the banking institution would be required to maintain for the full value of all the assets, had they not been securitized.

**Second Loss Facility...**

6.11 A “second loss facility” is a credit enhancement that provides a second tier of protection to an SPV and/or its investors in a securitization transaction against potential losses.

6.12 A credit enhancement facility will be deemed to be a second loss facility only where:

   a. it enjoys protection from a “substantial” first loss facility;

   b. it can be drawn on only after the first loss facility has been completely exhausted; and

   c. it only cover losses beyond those covered by the first loss facility.

6.13 Any banking institution providing a second facility should assess the adequacy of the first loss facility on an arm’s length basis in accordance with its normal credit approval and review processes. A review of a first loss facility may refer to one or more of the following factors:

   a. the class and quality of the assets held by the SPV;

   b. the history of default and loss rates on the assets;

   c. the output of any statistical or other models used by the banking institution to assess expected losses on the assets;
d. the types of activity permitted to the SPV;

e. the quality of the parties providing the first loss facility; or

f. the opinions provided by reputable third parties (e.g. credit rating agencies) regarding the adequacy of the first loss facility.

6.14 Where a banking institution provides only a second loss facility, the facility should be treated as a direct credit substitute for capital adequacy purposes with a 100% credit conversion factor (CCF) and a 100% risk weight covering the amount of the facility.

6.15 Where a facility provided by a banking institution substitutes for a first loss facility provided by another party upon that party’s default, the banking institution’s facility should be created as a first loss facility.

6.16 A banking institution providing both a first and a second loss facility may treat the facilities as separate facilities, where:

   a. the facilities are separately documented and clearly function separately;

   b. the second loss facility meets the preconditions spelt out in 6.12 above; and

   c. the second loss facility is made up of subordinated securities which could be readily transferred by the banking institution at any time.

6.17 Where these conditions are not met, the combined facilities shall be treated as a first loss facility.
7 LIQUIDITY FACILITIES AND TREASURY OPERATIONS

7.1 Offering Advice

7.1.1 A banking institution may act as an adviser to an SPV and/or offer investment advice to investors regarding securities issued by SPVs subject to the following conditions:

a. they are conducted with investors or the SPV on an arm’s length basis and on market terms and conditions;

b. the decision making rests with investors or the SPV, who shall be responsible for, and shall bear all risks associated with, the decision taken; and

c. the bank has clearly defined policies and procedures outlining the roles and responsibilities of personnel involved in these activities.

7.1.2 Where a banking institution makes investment decisions or purchases securities for customers or an SPV at the banking institution’s own initiative or discretion it will be deemed to be acting as a manager. A banking institution acting as an asset manager is required to establish a separate division or subsidiary dedicated to asset management.

7.1.3 Where the above conditions are not met the banking institution will be required to hold capital against the assets it is managing as if they were held on its balance sheet.

7.2 Servicing

7.2.1 A banking institution may undertake the role of servicing a pool of assets held by an SPV provided:

a. the banking institution should have clearly defined policies and procedures outlining the roles and responsibilities of personnel carrying out these activities;

b. there is a formal written agreement in place which specifies the services to be provided and any required standards of performance. There should be no recourse to the banking institution beyond the specified contractual obligations;

c. the duration of the agreement is limited to the earlier of:

i. the date on which all claims connected with the securities issued by the SPV are paid out; or

ii. the bank’s replacement as servicer.

d. the facility is documented in a fashion which clearly separates it from any other facility provided by the bank;
e. that the banking institution is able to demonstrate that the agreement is undertaken on an arm’s length basis, and is subject to the banking institution’s normal approval and review processes;

f. the banking institution’s operational systems are adequate to meet its obligations as a servicer; and

g. the servicer has written opinions from its external auditors and legal advisors that the terms of agreement protect it from any liability to investors in the securitisation transaction or the SPV (except normal contractual obligations relating to its role as servicing agent).

7.2.2 The servicer shall not be under any obligation to remit funds to the SPV or investors until they are received from the underlying assets.

7.2.3 The servicer may receive a performance-related payment (or benefit from any surplus income generated), in addition to its base fee, provided that the base fee is on market terms and conditions and any performance-related payment does not commit it to any additional obligations. Such payment shall be recognised for profit and loss purposes only after it has been irrevocably received.

7.2.4 Where any of the above conditions is not satisfied, the servicer shall be required to hold capital against the assets it is servicing as if they were held on its balance sheet.

7.3 **Treasury Operations**

7.3.1 A banking institution may enter into treasury (market-related) transactions with an SPV provided such transactions are undertaken in accordance with the following conditions:

a. the banking institution is able to demonstrate that the transactions are conducted on an arm’s length basis and are subject to the banking institution’s normal approval and review processes;

b. the transactions involve specified principal amounts and cover specified time periods;

c. the SPV has the express right to select an alternative party with whom to deal before entering into any transaction;

d. the banking institution has reasonably satisfied itself that the counterparty has the power and capacity to undertake the transactions, and is reasonably expected to be aware of the risks that it might face from the transaction; and

e. the transactions do not involve the acquisition of securities issued or assets held by an SPV.

7.3.2 Where the above conditions are satisfied, a banking institution may treat treasury transactions involving SPVs as market-related transactions for the purposes of calculating the capital charge. Where these conditions are not met, the transaction should be regarded as a credit enhancement.
7.4 Liquidity Facilities

7.4.1 Liquidity facilities may be provided to help smoothen the timing differences faced by the SPV between the receipt of cash flows from the underlying assets and the payments to be made to investors of the securities it has issued, subject to the following conditions:

a. the nature and extent of any undertaking provided to the SPV are clearly specified in a written agreement. The purpose of the facility must be clearly specified. There shall be no recourse to the bank beyond the specified contractual obligations;

b. the facility is limited to a specified amount and duration;

c. the facility is documented in a fashion which clearly separates it from any other facility provided by the bank;

d. the funding is provided to the SPV, and not directly to investors;

e. the documentation for the facility shall clearly define the circumstances under which the facility shall or shall not be drawn on;

f. the facility shall not be capable of being drawn on for the purpose of credit support or to support losses of the securitisation transaction or investors involved in it;

g. any drawdown under the facility shall not be used to provide permanent revolving funding;

h. the facility shall provide for the repayment of any drawdown within a reasonable time period;

i. repayments of any drawdown under the facility shall not be subordinated to the interests of the investors;

j. the agreement for the liquidity facility expressly provides that the bank may reduce (and ultimately withdraw) its funding if the quality of the SPV’s assets deteriorate below some appropriate and specified level; and

k. the securities should be marked to market for regulatory and financial reporting purposes.

7.4.2 Where a liquidity facility fails to meet any of the above conditions, it shall be regarded as a credit enhancement facility (or direct credit substitute) and therefore shall be treated in the same manner as a credit enhancement for capital adequacy purposes.

7.4.3 Should the quality of the securitised assets deteriorate to a level where the level of credit enhancement is no longer sufficient, the liquidity facility will be treated as a credit enhancement for capital adequacy purposes.

7.4.4 An eligible liquidity facility that is in compliance with the above conditions is subject to the following capital treatment:

a. 0% credit conversion factor (CCF) for a facility that is available in the event of a general market disruption;
b. 10% CCF for facilities that are unconditionally cancelable at any time without prior notice;

c. 20% CCF for qualifying liquidity commitments with an original maturity of one year or less;

d. 50% CCF for qualifying liquidity commitments with an original maturity of more than one year; and

e. 100% CCF for all other liquidity commitments.

7.5 Underwriting of SPVs

7.5.1 A banking institution may act as an underwriter or committed dealer for the issue of securities by a SPV, and treat the facility as an underwriting facility for Capital Adequacy purposes, where:

a. the extent of any undertaking provided to a SPV is clearly specified in a written agreement, and there is no recourse to the banking institution beyond the contractual obligations contained therein;

b. the banking institution is able to demonstrate that the facility is provided on an arm’s length basis, on market terms and conditions (including price/fee) and is subject to the banking institution’s normal credit approval and review processes;

c. the facility is limited to a specified amount and time period;

d. the SPV has an express right to select an alternative party to provide the facility;

e. the facility is documented in a manner that clearly separates it from any other facility provided by the banking institution;

f. the underwriting is exercisable only when an issuer cannot issue securities into the market at a price equal to (or above) the benchmark predetermined in the underwriting agreement;

7.5.2 Where these conditions are not met, the facility should be regarded as a credit enhancement.

7.5.3 Where a banking institution commits to underwrite or to acquire subordinated securities issued by a SPV, the banking institution will be deemed to have entered into a credit enhancement.
7.5.4 A banking institution’s holding of securities acquired through underwriting shall not exceed the limits prescribed by the Reserve Bank with respect to purchases of securities issued by SPVs.

7.5.5 A banking institution may participate in a revolving underwriting facility, or an underwriting facility covering subsequent issues of securities by an SPV, where:

a. the banking institution’s commitment to take up securities shall not be triggered by the failure of the SPV to meet its obligations, other than where such failure results from an inability to roll-over securities due to adverse market conditions; and

b. an independent party acts as co-underwriter, or a sub-underwriting agreement exists, for at least 20 per cent of securities to be issued. The banking institution shall hold only “several” liability under the terms of the facility.

7.5.6 The sub-underwriting agreement, mentioned above, shall provide that:

a. the sub-underwriter is independent of the banking institution;

b. the agreement is executed before the securities are issued;

c. the agreement is transacted on an arm’s length basis, on market terms and conditions, and is subject to the banking institution’s normal credit approval and review processes;

d. the sub-underwriter can be excused from meeting its obligations only on the same basis upon which the banking institution may be excused from meeting its obligations under the underwriting facility; and

e. the banking institution does not perform its functions as underwriter where the sub-underwriter exercises its right to be excused from meeting its obligations.

7.5.7 Where it is not practicable for a banking institution to locate a co- or sub-underwriter, the banking institution may underwrite 100 per cent of the issue of securities and treat the facility as an underwriting facility for capital adequacy purposes, provided:

a. the banking institution can demonstrate its ability in placing securities of the type underwritten; and

b. the amount of the banking institution’s aggregate commitment under all such underwriting facilities (as “sole dealer”) is less than 20 per cent of the banking institution’s capital base.

7.5.8 Where any of these conditions are not met, the facility should be regarded as a credit enhancement.

7.6 Lending to SPVs

7.6.1 A banking institution may offer temporary funding to a SPV during a scheme’s establishment phase to facilitate the acquisition of assets pending the issue of securities, provided:
a. the banking institution has in place adequate systems and controls to ensure that it does not accumulate disproportionate levels of aggregate exposure to assets held by SPVs.

b. a banking institution is only committed to fund the initial acquisition of assets;

c. assets to be acquired are not impaired at the time the banking institution is required to advance funding;

d. a banking institution is fully secured against any funding provided;

e. drawings under the facility will be repaid within 6 months; and

7.6.2 A lending facility that does not meet these requirements should be treated as a credit enhancement and assessed as a first or a second loss facility according to its characteristics.
8 THE SECURITISATION FRAMEWORK

8.1 Banks must apply the securitisation framework for determining regulatory capital requirements on exposures arising from traditional and synthetic securitisations or similar structures that contain features common to both.

8.2 Capital requirements for securitization transactions should either be based on the Standardized Approach or the Internal Ratings Based (IRB) approach.

8.3 There are three methods for calculating capital charges under the IRB securitization approach, namely the Ratings Based Approach (RBA) based on ratings assigned by external credit rating agencies; the Supervisory Formula Approach (SFA) based on the application of a prescribed formula, and the Internal Assessment Approach (IAA) based on the internal rating system of a bank.

8.4 Both the SFA and the RBA must be used by banking institutions using the IRB Approach in either the Foundation or the Advanced form. The hierarchy rules prescribe the applicable circumstances.

A. The Standardized Approach for Securitisation

8.5 Banking institutions are required to use the same method for regulatory treatment of securitization transactions as the one used to determine the capital requirements of the underlying credit exposures.

8.6 Banking institutions that apply a standardised approach to measure credit risk for the underlying assets of securitized exposures are automatically required to use the standardised approach within the securitization framework.

8.7 Both the Standardized Approach and the IRB Approach provide for the use of qualifying external ratings.

8.8 The risk-weighted asset amount of a securitization exposure is computed by multiplying the amount of the position by the appropriate risk weight. For off-balance sheet exposures, banks must apply a credit conversion factor (CCF) and then risk weight the resultant credit equivalent amount.

8.9 The tables below provide the risk weights for exposures with various long-term and short-term credit ratings.

Table 3: Long-term rating category²

<table>
<thead>
<tr>
<th>External Credit Assessment</th>
<th>AAA to AA-</th>
<th>A+ to A-</th>
<th>BBB+ to BBB-</th>
<th>BB+ to BB-</th>
<th>B+ and below or unrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Weight</td>
<td>20%</td>
<td>50%</td>
<td>100%</td>
<td>150%</td>
<td>Deduction from Capital</td>
</tr>
</tbody>
</table>

²The rating designations used in the following charts are for illustrative purposes only and do not indicate any preference for, or endorsement of, any particular external assessment system.
8.10 The application of the securitization framework for positions held by a banking institution varies depending on whether it is an originator or an investor. The capital treatment of positions retained by originators, liquidity facilities, credit risk mitigants, and securitization of revolving exposures are identified separately.

8.11 When applying the standardised approach, only banks acting as third party investors, as opposed to banks that serve as originators in substance, may use the risk weight set forth for exposures in the BB+ to BB- range.

8.12 Originating banks will be required to deduct all retained exposures that are rated below BBB-. However, IRB originating banks are entitled to rely on a BB+ to BB- rating to avoid deduction.

Table 5: Treatment of Rated and Unrated Exposures Under Securitisation

<table>
<thead>
<tr>
<th>Securitisation Exposure</th>
<th>Standard Approach</th>
<th>IRB Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Originating Bank</td>
<td>Investing Bank</td>
</tr>
<tr>
<td>Investment Grade Rating</td>
<td>Risk-Weight of long-term ratings: AAA to AA- (20%), A+ to A- (50%), BBB+ to BBB- (100%), Risk-Weight of short-term ratings: A1/P1 (20%), A2/P2 (50%), A3/P3 (100%).</td>
<td>Max capital Requirement: $K_{aa}$</td>
</tr>
<tr>
<td>Non-Investment Grade Rating</td>
<td>All positions: Deduction</td>
<td>Risk-Weight of long-term ratings: BB+ to BB- (350%); all positions rated B+ and lower: Deduction</td>
</tr>
<tr>
<td>Unrated 4</td>
<td>All positions: Deduction</td>
<td>SFA/Simplified SFA 2</td>
</tr>
</tbody>
</table>

1: Investing banks need to seek supervisory approval for inclusion in this category of regulatory capital treatment whereas originating banks automatically fall into this category. 2: The application of the Simplified SFA in lieu of the SFA is also subject to supervisory approval. 3: Under the IRB approach the term ‘rated’ refers to positions with an external rating or an inferred rating. 4: The IAA permits originating banks to use RBA for exposures to A/BACP conduits, where the internal rating equivalent represents an investment grade/rating.


3 Deduction is equivalent to a 1250% risk weighting. An unrated corporate exposure held by a bank has only a 100% risk weighting, not full deduction.
I. Exceptions to Deduction of Unrated Positions

8.13 There are three exemptions to the general rule that unrated transactions be deducted from capital as discussed below.

a. The most senior exposure in a securitisation

8.14 If the most senior tranche is unrated, a banking institution holding the most senior tranche may apply the so called “look through approach” to determine the capital requirements.

8.15 In the look-through treatment, the unrated most senior position may be assigned the average risk-weight of the underlying exposures provided the composition of the underlying pool of assets is known at all times.

8.16 If a bank is unable to assign a risk weight to all the underlying assets, the “look through” approach may not be used by that bank, and the unrated position must be deducted.

b. Exposures that are in a second loss position or better

8.17 Qualifying exposures provided by sponsor banks may apply a risk weight that is the greater of (a) 100% and (b) the highest risk weight assigned to any of the exposures in the underlying asset pool, provided the exposure is economically a second loss position and the associated credit risk is equivalent of investment grade or better. Other second loss conditions should apply.

c. Eligible liquidity facilities

8.18 For eligible liquidity facilities as defined in this guideline, and where the conditions for use of external credit ratings are not met, the risk weight applied to the exposure’s credit equivalent amount is equal to the highest risk weight assigned to any of the underlying individual exposures covered by the facility. Otherwise, unqualifying liquidity support will be deducted from capital.

8.19 Where the minimum requirements for liquidity facilities are met, a banking institution may generally apply the following CCFs:

a. 20% for qualifying liquidity commitments with an original maturity of one year or less;

b. 50% for qualifying liquidity commitments with an original maturity of more than one year; or

c. 100% for all other liquidity commitments.

8.20 If a liquidity commitment is not a qualifying liquidity commitment or if the risk weight for the facility is based on an external rating of that facility, CCF will be 100%.

8.21 A CCF of 0% is only available for qualifying liquidity facilities that can only be withdrawn in the event of general market disruption, (that is, no securities can be issued or rolled over at any price), and are secured by the underlying assets, and must rank pari passu with the claims of holders of the capital market instruments.
II. Treatment of overlapping exposures

8.22 In the case of overlapping facilities (whether they are liquidity facilities or credit enhancements) provided by the same bank, the banking institution is only required to hold capital once, and not duplicate capital holdings, for the positions covered by the overlapping facilities.

8.23 Where the overlapping facilities are subject to different conversion factors, the bank must attribute the overlapping part to the facility with the highest conversion factor. However, if overlapping facilities are provided by different banks, each bank must hold capital for the maximum amount of the facility.

III. Treatment of credit risk mitigation

8.24 When a bank other than the originator provides credit protection to a securitization exposure, it must calculate a capital requirement on the covered exposure as if it were an investor in that securitization.

8.25 If a banking institution provides protection to an unrated credit enhancement, it must treat the credit protection provided as if it were directly holding the unrated credit enhancement.

8.26 If a banking institution has obtained a credit risk mitigant (such as guarantee, credit derivative, collateral or on-balance sheet netting) it may reduce the exposure amount by off-setting the exposure amount by the value ascribed to the collateral.

8.27 Eligible collateral pledged by SPEs may be recognised. Banks may not recognize SPEs as eligible guarantors in the securitisation framework.

IV. Capital requirements for early amortization provisions

8.28 An originating bank is required to hold capital against all or a portion of the investors’ interest arising from a securitization exposure that contains an early amortization feature and the exposures are of a revolving nature (draw-downs and repayments vary within an agreed limit e.g. credit cards receivables.)

8.29 Banks are not required to apply early amortization capital requirement rules in the following situations:

   a. replenishing structures where the underlying exposures do not revolve and the effect of any early amortization is to end the ability of a bank to transfer new exposures to a securitization;

   b. transactions of revolving assets containing early amortization features that mimic term structures (i.e. where the risk on the underlying facilities does not return to the originating bank);

   c. structures securitizing one or more credit lines where the investors remain liable to fund future draws by borrowers even after an early amortization event has occurred; and

   d. securitizations where the early amortization clause is solely triggered by events not related
to the performance of the securitized asset or the selling bank, such as material changes in
tax laws or regulations.

8.30 A banking institution **must apply** the early amortization capital requirements for securitization
structures that consist of revolving and term credit exposures to that portion of the underlying
pool containing revolving exposures.

8.31 The applicable capital charge is determined by multiplying (1) the **notional** amount of the
investors’ interest times (2) the applicable credit **conversion factor** (as discussed below) times
(3) the **risk weight** appropriate for the underlying exposure type as if the underlying exposure
had not been securitized.

8.32 For a bank subject to the early amortization treatment, the total capital charge for all its positions
will be subject to a **maximum capital requirement (i.e. a ‘cap’) equal to the greater of:**

   a. the capital required for retained securitization exposures; or

   b. the capital requirement that would apply had the exposures not been securitized.

   Provided that, banks must in addition deduct the entire amount of any **gain-on-sale** and credit
   enhancement interest only strips (I/Os) arising from the securitization transaction. The deductions
   of any gain-on-sale and credit enhancement I/Os **will not be subject** to the cap.

8.33 The capital requirement should reflect the type of mechanisms through which an early amortization
is triggered. The applicable CCF will differ based on:

   a. whether the early amortization repays investors through a “**controlled**” or “**uncontrolled**”
      mechanism; and

   b. whether the securitized exposures are **uncommitted** retail credit lines that are unconditionally
      cancelable without prior notice (e.g. credit card receivables) or **any other credit lines** (e.g.
      revolving corporate facilities).

8.34 An early amortization structure must meet the following conditions to be characterized as
controlled:

   a. the originating bank must have an appropriate capital / liquidity plan in place to ensure that
      it has sufficient capital and liquidity if early amortization occurs;

   b. throughout the duration of the transaction, including the amortization period, there must be
      a pro rata sharing of interest, principal, expenses, losses and recoveries based on the bank’s
      and investors’ relative shares of receivables outstanding at the beginning of each month;

   c. the amortization period set by the originating bank must be sufficient for 90% of the total
debt outstanding at the beginning of the of the early amortization period to have been repaid
or recognized as in default; and

   d. the pace of repayment should not be any more rapid than would be allowed by straight-line
amortization over the period set out in the preceding bullet point.

8.35 An early amortization provision that does not satisfy the conditions for a controlled early amortization provision will be treated as a non-controlled early amortization provision.

8.36 Banking institutions are required to apply the CCF set out below:

a. for structures with controlled armotisation
   i. 0% to 40% for uncommitted retail lines (see table 6)
   ii. 90% for committed retail lines
   iii. 90% for all non-retail lines (whether committed or uncommitted)

b. for structures with non-controlled early armotisation
   i. 0% to 100% for uncommitted retail lines (see table 6).
   ii. 100% for committed retail lines.
   iii. 100% for all non-retail lines (whether committed or uncommitted).

8.37 The mechanics for determining the applicable CCFs for uncommitted retail exposures in controlled and un-controlled early amortisation structures involve the following steps:

a. compare the three-month average excess spread to –
   i. the point at which the bank is required to trap excess spread as economically required by the structure (i.e. excess spread trapping point), or
   ii. if the transaction does not require excess spread to be trapped, the trapping point is deemed to be 4.5 percentage points.

b. divide the excess spread level by the transaction’s excess spread trapping point to determine the appropriate segments and apply the corresponding conversion factors as outlined in the table below.

8.38 All other securitized revolving exposures (i.e. committed retail credits and non-retail credit lines/commitments) in controlled early amortisation structures will be subject to a CCF of 90%.

<table>
<thead>
<tr>
<th>Table 6: Credit Conversion Factors for Early Armotisation Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Month Average Excess Spread</td>
</tr>
<tr>
<td>Treatment for Uncommitted Retail Revolving Credits</td>
</tr>
<tr>
<td>133.33% of trapping point or more</td>
</tr>
<tr>
<td>Less than 133.33% to 100% of trapping point</td>
</tr>
<tr>
<td>Less than 100% to 75% of trapping point</td>
</tr>
<tr>
<td>Less than 75% to 50% of trapping point</td>
</tr>
<tr>
<td>Less than 50% to 25% of trapping point</td>
</tr>
<tr>
<td>Less than 25% of trapping point</td>
</tr>
<tr>
<td>Treatment for Committed Retail Revolving Credits</td>
</tr>
<tr>
<td>90%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment Non-retail Revolving Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncommitted</td>
</tr>
<tr>
<td>Committed</td>
</tr>
</tbody>
</table>

4 Excess spread is generally defined as gross finance charge collections and other income received by the SPV minus certificate interest, servicing fees, charge-offs, and other senior SPV expenses.
8.39 All other securitized revolving exposures in non-controlled early amortisation structures will have a CCF of 100% against the off-balance sheet exposures.

8.40 In determining the risk weights in the standardised approach, banks may use assessments by accredited credit rating agencies.

8.41 The capital treatment of a securitisation exposure must be determined on the basis of its economic substance rather than its legal form.

**V. Application of Deductions from Capital**

8.42 When a bank is required to deduct a securitisation exposure from regulatory capital, the deduction must be taken 50% from Tier 1 provided that any increase in equity capital resulting from a securitization transaction such as gain-on-sale is deducted from Tier 2 only.

8.43 Deductions from capital may be calculated net of any specific provisions taken against the relevant securitisation exposures.

8.44 Any specific provisions against securitisation exposures are not to be included in the measurement of eligible provisions.

**VI. Implicit support and its ramifications**

8.45 Implicit support arises when a bank provides support to a securitization in excess of predetermined contractual obligations.

8.46 When a bank provides implicit support to a securitisation, it must, at a minimum, hold capital against all of the exposures associated with the securitisation transaction as if they had not been securitised.

8.47 The bank would not be permitted to recognize any gain-on-sale for regulatory capital purposes.

8.48 Additionally, the bank will be required to publicly disclose that (a) it has provided non-contractual support to a transaction and (b) the capital impact of the non-contractual support to a transaction.

**B. Internal Ratings-based Approach (IRB) for Securitisation**

8.49 No banking institution may use the Internal Ratings-Based Approach (IRB) for its securitization exposures unless it has supervisory approval to use the IRB for the underlying assets.

8.50 To be eligible to use internal risk models to generate regulatory capital requirements, a banking institution will be required to meet the minimum qualitative and quantitative criteria necessary for adoption of IRB approaches in accordance with the Basel II.

8.51 Under the IRB Approach, there are three ways to calculate the capital requirements for a securitized exposure; namely the external Ratings-Based Approach (RBA), the Supervisory Formula Approach (SFA), and the Internal Assessment Approach (IAA).
8.52 The IRB approach extends the standardised approach along two dimensions:

a. It modifies the external ratings-based assignment of risk weights of the standardised approach by controlling for tranche size, maturity and granularity of securitization tranches (ratings-based approach (RBA)); and

b. Introduces the supervisory formula approach (SFA) as an internal-ratings based (IRB) measure to allow for more regulatory flexibility in the treatment of originators or investors in order to take due account of the different degrees of knowledge and experience of credit risk management capabilities at the individual institutions.

8.53 The IRB approach for securitization exposures deviates from the general credit risk backing rules in the IRB Approach since no internal estimates of tranche-specific PDs, LGDs etc are taken into account. Accordingly there is no distinction between a Foundation and an Advanced Approach for securitization exposures.

8.54 A bank that has received approval to use the IRB approach for the type of underlying credit exposures being securitized must use IRB for securitization.

8.55 If a bank is using the IRB approach for some exposures and the standardized approach for other exposures in the underlying pool, it should generally use the approach corresponding to the predominant share of exposures within the pool.

8.56 Where there is no specific IRB treatment for the underlying asset type, an originating bank that has received approval to use the IRB approach must calculate capital charges on their securitization exposures using the Standardized Approach. Investing banks with approval to use the IRB approach must apply the RBA.

I. Hierarchy of approaches

8.57 If a banking institution is eligible to use the IRB for a securitization it must use the RBA if an external credit rating is available or a rating can be inferred. Where an external or an inferred

8.58 The IAA is only available to exposures (e.g. liquidity facilities and credit enhancements) that banks (including third-party banks) extend to Asset Backed Commercial Paper (ABCP) programmes.

II. Maximum capital requirement

8.59 For a bank using the IRB approach to securitisation, the maximum capital requirement for the securitisation exposures it holds is equal to the IRB capital requirement that would have been assessed against the underlying exposures had they not been securitized.

8.60 In addition, banks must deduct the entire amount of any gain-on-sale and credit enhancing I/Os arising from the securitization.
C. Application of the Ratings-Based Approach (RBA)

8.61 The RBA must be applied to all securitization exposures of IRB banks for whose risk assessment and external rating exists. The capital charge will be determined by multiplying the amount of the exposure by appropriate risk weights tabulated in table 7.

8.62 The risk weights depend on (i) the external or inferred rating of the position; (ii) whether the rating is a long-term or a short term; (iii) the granularity of the underlying pool, (i.e. the effective number of credits in the pool denoted as N) and (iv) the level of seniority of the position’s claim against the pool.

8.63 A position will be treated as senior if it is effectively backed or secured by a first claim on the entire amount of the assets in the underlying pool.

8.64 The risk-weighted asset amount of a securitisation exposure is computed by multiplying the amount of the position by the appropriate risk weight as tabulated in table 7.

8.65 For off-balance sheet exposures, banks must apply a CCF and then risk weight the resultant credit equivalent amount. If such an exposure is rated, a CCF of 100% must be applied.

8.66 The table below set forth the methodology for assigning risk weights to externally rated positions that have been assigned long term ratings.

Table 7: RBA risk weights when the external assessment represents a long-term credit rating and/or an inferred rating derived from a long-term assessment

<table>
<thead>
<tr>
<th>External Rating (Iillustrative)</th>
<th>Risk weights for senior positions and eligible senior</th>
<th>AA</th>
<th>exposures</th>
<th>Base risk weights</th>
<th>Risk weights for tranches backed by non-granular pools</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>7%</td>
<td>12%</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>8%</td>
<td>15%</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+</td>
<td>10%</td>
<td>18%</td>
<td></td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>12%</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td>20%</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBB+</td>
<td>35%</td>
<td></td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBB</td>
<td>60%</td>
<td></td>
<td>70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBB-</td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>BB+</td>
<td></td>
<td></td>
<td></td>
<td>250%</td>
<td></td>
</tr>
<tr>
<td>BB</td>
<td></td>
<td></td>
<td>525%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BB-</td>
<td></td>
<td></td>
<td>650%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below BB- and unrated</td>
<td></td>
<td></td>
<td>Deduction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.67 Banks may apply the most favorable risk weights in column 2 if the position is senior as defined above and the effective number of underlying exposures, N or granular, is six (6) or more.
When N is less than 6, the less favorable risk weights in column 4 will apply. In all other cases, the risk weights in column 3 will apply.

8.68 The risk weights in the table below apply when the external assessment represents a short-term credit rating, as well as when an inferred rating based on a short-term rating is available. The decision rules outlined above also apply for short-term credit ratings.

### Table 8: RBA risk weights when the external assessment represents a short-term credit rating and/or an inferred rating derived from a short-term assessment

<table>
<thead>
<tr>
<th>External Rating (Illustrative)</th>
<th>Risk weights for senior positions and eligible senior IAA exposures</th>
<th>Base risk weights</th>
<th>Risk weights for tranches backed by non-granular pools</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1/P-1</td>
<td>7%</td>
<td>12%</td>
<td>20%</td>
</tr>
<tr>
<td>A-2/P-2</td>
<td>12%</td>
<td>20%</td>
<td>35%</td>
</tr>
<tr>
<td>A-3/P-3</td>
<td>60%</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>All other ratings/unrated</td>
<td>Deduction</td>
<td>Deduction</td>
<td>Deduction</td>
</tr>
</tbody>
</table>

8.69 For positions with long-term ratings of B+ and below and short-term ratings other than A-1/P-1, A-2/P-2, A-3/P-3, deduction from capital is required.

8.70 If a rating is inferred for an unrated position, the risk weight for that position will be that of the rated position in the securitization (the “reference position”) used to infer the rating.

**D. Operational Requirements for Use of Inferred Ratings**

8.71 The following operational requirements must be satisfied before a banking institution may assign “inferred ratings” to an unrated position:

a. the reference rated securitization position must be subordinate in all respects to the unrated position;

b. credit enhancements, if any, must be taken into account in determining subordination of the unrated position and the reference position;

c. the maturity of the reference position must be equal to or longer than that of the unrated position / exposure;

d. on an on-going basis, any inferred rating must be updated continuously to reflect any changes in the external rating of the reference position; and

e. the external rating of the reference position must satisfy the general requirements for the recognition of external ratings required in the Standardized Approach.
E. Application of the Internal Assessment Approach (IAA)

8.72 Supervisory approval is required for the use of the internal assessment approach (IAA) for determining capital charges for exposures to ABCP conduits. Once approved, a bank’s internal system will continue to be subject to regulatory review. If the Reserve Bank determines that a system is no longer adequate, the bank’s ability to use the IAA will be suspended until the system has been revised and approved.

8.73 Under the IAA, a bank would provide an internal assessment of exposures to ABCP programs. The notional amount of the securitization exposure to the ABCP programme must be assigned the risk weight in the RBA appropriate to the credit rating equivalent assigned to the bank’s exposure.

8.74 A bank’s internal assessment process must meet the following operational requirements in order to use the internal assessments in determining the IRB capital requirement arising from liquidity facilities, credit enhancements, or exposures extended to an ABCP program, with the exception of the commercial paper itself:

a. the ABCP must be externally rated for the unrated exposure to qualify for the IAA and the bank must conform to any other applicable supervisory guidelines related to ABCP programs;

b. the internal assessment must be used in the bank’s internal risk management processes, including management information and economic capital systems and generally must meet all the relevant requirements of the IRB framework (i.e. satisfy a number of credit and operational requirements);

c. in order for banks to use the IAA, (1) the credit rating agency must be accredited or recognized by the Reserve Bank, which (2) must be satisfied with the agency’s rating methodologies used in the process, and (3) a bank cannot utilize an external credit rating agency’s methodology to drive an internal assessment if the agency’s rating criteria is not publicly available;

d. a bank’s internal assessment process must identify gradations of risk, and demonstrate to the satisfaction of the Reserve Bank how the internal assessments correspond to the relevant credit rating agency standards;

e. the bank must satisfy the Reserve Bank regarding the reliability of its internal risk assessment system, which must be at least as conservative as the publicly available rating methodologies of the major rating agencies on which it is based (i.e. rating the ABCP program’s commercial paper for the asset type being purchased by the program). Where two or more credit ratings differ, the bank must opt or an approach which provides the most conservative or highest level of credit protection. If there are changes to in the methodology, the revised methodology must be evaluated to determine whether the internal assessment assigned needs revision;

f. internal or external auditors, a credit rating agency, or the bank’s risk management function, must perform regular reviews of the internal assessment process and the validity of those assessments;

g. the bank must track the performance of its internal ratings over time to evaluate the performance of the assigned internal assessments and make adjustments as necessary when the performance of the exposures routinely diverges from the assigned internal assessments of those exposures;
h. the ABCP program must have credit and investment guidelines, i.e. underwriting standards, for the ABCP program. The factors which should be discussed include the type of asset being purchased, monetary value of the exposures, legal and economic isolation, etc;

i. a credit analysis of the asset seller’s risk profile must be performed and should consider, e.g. past and expected future financial performance, current market position, expected future competitiveness, leverage, cash flow, interest coverage, and debt rating. In addition, a review of the seller’s underwriting standards, servicing capabilities, and collection processes should be performed;

j. the ABCP program’s underwriting policy must establish minimum asset eligibility criteria and among other things:
   i. exclude the purchase of assets that are significantly past due or defaulted;
   ii. limit high concentration risk to individual obligor or geographical area; and
   iii. limit the tenor of assets purchased.

k. the ABCP program should have collections processes established that consider the operational capability and credit quality of the servicer. The programme should mitigate to the extent possible seller/servicer risk through various methods such as triggers based on current credit quality;

l. the aggregate estimate of loss on an asset pool that the ABCP program is considering purchasing must consider all sources of potential risk, such as credit and dilution risk. In addition, in sizing the required enhancement level, the bank should review several years of historical information, including losses, delinquencies, dilutions and turnover of the receivables as well as characteristics of the underlying pool; and

m. the ABCP programme must incorporate structural features into the purchase of assets in order to mitigate the potential credit deterioration of the underlying portfolio. Such features may include wind down triggers specific to a pool of exposures.

8.75 The Reserve Bank will require banking institutions adopting the Internal Ratings Based (IRB) approach to credit risk to also use the Advanced Measurement Approach (AMA) for operational risk capital.

**F. The Supervisory Formula Approach**

8.76 The SFA and the IAA may be applied to unrated exposures.

8.77 The SFA prescribes how capital charges on the securitized assets should be distributed over different positions in the securitization. It calculates the capital charge by means of a complex formula based on five bank supplied inputs.

8.78 If a bank is permitted to use the IRB approach to securitization, the maximum capital requirement for the securitization exposures it holds is equal to the IRB capital requirement that would have been assessed against the underlying exposures had they not been securitized.
As in the IRB approaches, risk-weighted assets generated through the use of the SFA are calculated by multiplying the capital charge by 12.5. Under the SFA, the capital charge for a securitisation tranche depends on five bank-supplied inputs:

a. the IRB capital charge had the underlying exposures not been securitized ($K_{IRB}$);

b. the tranche’s credit enhancement level ($L$);

c. the thickness ($T$)

d. the pool’s effective number of exposures ($N$); and

e. the pool’s exposure-weighted average loss-given-default ($LGD$).

The inputs $K_{IRB}$, $L$, $T$, and $N$ are defined below.

The capital charge for any securitization position will be calculated using these inputs as follows:

**Tranche’s IRB capital charge** = (i) the notional amount of exposures that have been securitized times (ii) the greater of (a) $0.0056 \cdot T$ or (b) Supervisory Formula $[L+T] - $Supervisory Formula $[L]$.

When the bank holds only a proportional interest in the tranche, that position’s capital charge equals the prorated share of the capital charge for the entire tranche.

The Supervisory Formula, mathematically represented by the function $S[.]$, is given by the following expression:

$$S[L] = \begin{cases} 
L & \text{when } L \leq K_{IRB} \\
K_{IRB} + K[L] - K[K_{IRB}] + (d \cdot K_{IRB} / \omega)(1 - e^{(K_{IRB} - L)/K_{IRB}}) & \text{when } K_{IRB} < L
\end{cases}$$

Where

$$h = (1 - K_{IRB}/LGD)^N$$

$$c = K_{IRB} / (1 - h)$$

$$v = \frac{(LGD - K_{IRB})K_{IRB} + 0.25(1 - LGD)K_{IRB}}{N}$$

$$f = \left(\frac{v + K_{IRB}^2}{1 - h} - c^2\right) + \frac{(1 - K_{IRB})K_{IRB} - v}{(1 - h)}$$

$$g = \frac{(1 - c)c}{f} - 1$$

$$a = g \cdot c$$

$$b = g \cdot (1 - c)$$

$$d = 1 - (1 - h) \cdot (1 - Beta[K_{IRB}; a, b])$$

$$K[L] = (1 - h) \cdot ((1 - Beta[L; a, b])L + Beta[L; a + 1, b]c).$$
8.84 For securitisations involving retail exposures, subject to supervisory review, the SFA may be implemented using the simplifications: $h = 0$ and $v = 0$.

8.85 In these expressions, $\text{Beta}[L; a, b]$ refers to the cumulative beta distribution with parameters $a$ and $b$ evaluated at $L$, i.e.

$$
\text{Beta}[L; a, b] = \int_0^L \frac{\Gamma(a + b)}{\Gamma(a)\Gamma(b)} x^{a-1} (1 - x)^{b-1} dx
$$

where $\Gamma(.)$ is the gamma function.

8.86 The cumulative beta distribution function is available in Excel as the function $\text{BETADIST}$. 

8.87 The supervisory-determined parameters in the above expressions are as follows:

$$
\tau = 1000 \quad \text{and} \quad \omega = 20
$$

8.88 The interpretation of the above two supervisory-determined parameters is as follows:

a. The supervisory-determined parameter $tau$, ($\tau$):
   i. accounts for seniority variations in payment waterfalls. This is the supervisory parameter that captures the uncertainty in the loss prioritization because the rules governing the disbursement of payouts or cashflow waterfall are not known for a specific deal. It is present in the SFA model to account for uncertainty in the distribution of payouts. It is determined by regulators.
   ii. For large values of $tau$, that is as $\tau \rightarrow \infty$, uncertainty in the division of risk vanishes.
   iii. For small values of $tau$, that is as $\tau \rightarrow 0$, contractual exposure shares become less and less informative of the actual division of risk.
   iv. The value of 1000 was found to be optimal between the two extremes.

b. The supervisory-determined parameter $omega$, ($\omega$): this is the parameter that controls the decay of the supervisory add-on.

**Definition of $K_{IRB}$**

8.89 $K_{IRB}$ is a ratio (expressed as a percentage) of:

a. the IRB capital requirement, including the expected loss (EL) portion, for the underlying exposures in the pool to

b. the notional amount of exposures in the pool (e.g. the sum of drawn amounts related to securitised exposures) plus the exposure at default (EAD) associated with undrawn commitments related to securitised exposures.
8.90 The IRB capital requirement, quantity (a) above, must be calculated in accordance with the applicable minimum IRB standards as if the exposures in the pool were held directly by the bank. This calculation should reflect the effects of any credit risk mitigant that is applied on the underlying exposures (either individually or to the entire pool), and hence benefits all of the securitisation exposures.

8.91 For structures involving an SPV, all the assets of the SPV that are related to the securitizations must be included in the pool when determining \( K_{\text{IRB}} \), including assets in which the SPV may have a residual interest (such as a cash collateral account.)

8.92 In cases where a bank has set aside reserves (e.g. a specific provision) or on-refundable purchase price discount on an exposure in the pool, quantity (a) and quantity (b) defined above must be calculated using the gross amount.

8.93 The reserves can, however, count as credit enhancement.

**Credit enhancement level (L)**

8.94 \( L \) is measured (in decimal form) as the ratio of:

a. the notional amount of all exposures subordinate to the tranche in question; to

b. the notional amount of exposures in the pool.

8.95 Banks will be required to determine \( L \) before considering the effects of any tranche-specific credit enhancements, such as third party guarantees that benefit only a single mezzanine tranche. Any capital gains-on-sale associated with securitization are not included in the measurement of \( L \).

8.96 The size of interest rate or currency swaps that are more junior than the tranche in question may be measured at their current values (without the potential future exposures) in calculating the enhancement level. If the current value of the instrument cannot be measured, the instrument should be ignored in the calculation of \( L \).

8.97 If there is any reserve account funded by accumulated cash flows from the underlying exposures that is more junior than the tranche in question, this can be included in the calculation of \( L \). Unfunded reserve accounts may not be included if it is to be funded from future receipts from the underlying exposures.

**Thickness of exposure (T)**

8.98 \( T \) is measured as the ratio of (a) the nominal size of the tranche of interest to (b) the notional amount of exposures in the pool.

8.99 In case of an exposure arising from an interest rate or currency swap, the bank must incorporate potential future exposure. If the current value of the instrument is non-negative, the exposure size should be measured by the current value plus the add-on as in the 1988 Capital Accord. If
the current value is negative, the exposure should be measured by using the potential future
exposure part only.

**Effective number of exposures (N)**

8.100 The effective number of exposures is calculated as:

\[ N = \frac{\left( \sum_i EAD_i \right)^2}{\sum_i EAD_i^2} \]

where \( EAD_i \) represents the exposure-at-default associated with all exposures to the \( i \)th instrument
in the pool. Multiple exposures to the same obligor must be consolidated (i.e., treated as a single
instrument). In the case of resecuritisation (securitisation of securitisation exposures), the formula
applies to the number of securitization exposures in the pool and not the number of underlying
exposures in the original pools.

**Exposure-weighted average LGD**

8.101 The exposure-weighted average LGD is calculated as follows:

\[ LGD = \frac{\sum_i LGD_i \cdot EAD_i}{\sum_i EAD_i} \]

where \( LGD_i \) represents the average loss-given-default associated with all exposures to the \( i \)th
obligor. In the case of resecuritisation, an \( LGD \) of 100% must be assumed for the underlying
securitised exposures.

**Simplified method for computing N and LGD**

8.102 Under the conditions provided below, banks may employ a simplified method for calculating
the effective number of exposures and the exposure-weighted average LGD. Let \( C_m \) in the
simplified calculation denote the share of the pool corresponding to the largest ‘m’ exposures
(e.g., a 15% share corresponds to a value of 0.15). The level of \( m \) is set by each bank.

a. If the portfolio share associated with the largest exposure, \( C_1 \), is no more than 0.03 (or 3% of
the underlying pool), then for purposes of the SFA the bank may set \( LGD = 0.50 \) and \( N \) equal
to the following amount:

\[ N = \left( C_1 C_m + \left( \frac{C_m - C_1}{m - 1} \right) \max \{ 1 - m C_1, 0 \} \right)^i \]

b. Alternatively, if only \( C_1 \) is available and this amount is no more than 0.03, then the bank
may set:

\[ LGD = 0.50 \quad \text{and} \quad N = 1/C_1. \]
**Note:**

\[ C_m \] - The share of the pool corresponding to the largest ‘m’ exposures

\[ C_1 \] - The portfolio share associated with the largest exposure

**Liquidity Facilities**

8.103 Under the IRB, liquidity facilities are treated as any other securitization exposure, with a CCF of 100% unless certain qualifying conditions are met.

8.104 If a liquidity facility is externally rated, a banking institution may rely on the external rating under the RBA. If the facility is not rated, the bank must apply the SFA, unless the IAA may be applied.

8.105 Any eligible liquidity facility that can only be drawn in the event of a general market disruption will be assigned a CCF of 20% under the SFA. That is, an IRB bank may recognize 20% of the capital charge generated under the SFA for the facility.

8.106 If a liquidity facility meets the eligibility criteria described in this guideline or is unconditionally cancelable, the highest risk weight assigned under the standardization approach to any of the underlying individual exposures covered by the facility will be used as the risk weight for that facility.

8.107 If the eligible liquidity facility is:

a. unconditionally cancellable, a 20% CCF will apply;

b. a 50% CCF will apply for an eligible liquidity commitment of one year or less; and

c. a 100% CCF will apply for commitments of more than a year.

8.108 Banks qualifying for use of the top-down approach discussed below will be able to use that approach for liquidity commitments under the SFA.

**Top-Down Approach**

8.109 The general IRB for corporate exposures incorporates a “bottom-up” approach involving calculation of a separate probability of default (PD) for each obligor in the portfolio and either use of a supervisory assumption of LGD, EAD and maturity (M) for each exposure (in the Foundation IRB) or also calculating separate LGD, EAD, and M for each exposure (in the Advanced IRB).

8.110 In securitization of third party-originated assets, the bottom up approach could be problematic as some banks using the SFA may not have individual exposure level data sufficient to perform the required calculations. The top-down approach may therefore be used to calculate \[ K_{IRB} \].

8.111 To be eligible for the top-down approach, purchased corporate receivables must meet the following minimum conditions:
a. the receivables are purchased from unrelated, third party sellers and not originated by the bank;

b. the receivables must be generated on an arms-length basis between the seller and the obligor;

c. the purchasing bank has a claim on all proceeds from the pool of the receivables or a pro-rata interest in the proceeds; and

d. concentration levels do not exceed Reserve Bank prudential guidelines in respect of:
   
   i. the size of the individual exposure relative to the total pool;

   ii. the size of the individual exposure; or

   iii. total exposure as a percentage of regulatory capital.

8.112 The top-down approach for purchased corporate receivables requires a bank to estimate the pool’s one year EL separately for default risk and dilution risk.

8.113 Under the Foundation IRB, the EL for default risk will be decomposed into PD and LGD components. If a bank is not in a position to decompose these components the following assumptions will apply:

a. if a bank can demonstrate that the exposures are exclusively senior claims to corporate borrowers, an LGD of 45% may be used;

b. PD will be calculated by dividing the EL using the assumed LDG; and

c. EAD will be calculated as the outstanding amount minus the capital charge for dilution prior to credit risk mitigation.

8.114 If the bank cannot use the assumptions in the previous clause, PD is assumed to be the bank’s estimate of EL, LGD will be 100% and EAD will be the amount outstanding minus the capital charge for dilution prior to credit risk mitigation.

8.115 The IRB for securitization of third party retail receivables already incorporates a top-down approach. The estimates for PD and LGD must be calculated on a stand-alone basis, without taking into account recourse or guarantees.

8.116 In the Advanced IRB, a bank will be permitted to use its own estimated weighted –average PD and LGD inputs. As with retail receivables, all of these inputs are to be calculated on a stand alone basis.

8.117 For IRB purposes, capital requirements for early amortisation attributable to investors’ interest is determined by the product of (a) the investors’ interest, (b) the appropriate CCF, and (c) $K_{i,p}$. 
Eligible Servicer Cash Advance Facilities

8.118 The treatment for servicer advances and controlled amortisation features is the same under the IRB as under the Standardised approach. Additionally, both the RBA and the SFA treat credit risk mitigants in a similar fashion as the Standardised Approach.

9 PENALTIES

Any contravention of this Guideline will be dealt with through direct imposition of a fine by the Reserve Bank in terms of section 48 (1) (d) of the Banking Act [Chapter 24:20].”

10 POLICY REVIEW

The Reserve Bank will continuously monitor market developments and review its policy as and when necessary to ensure the prudent conduct of SPVs, securitisation and structured finance by banking institutions.