

# The BSP's New Risk-Based Capital Adequacy Framework

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International Convergence of Capital  
Measurement and Capital Standards:  
A Revised Framework  
“Basel 2”



# International Convergence of Capital Measurement and Capital Standards: A Revised Framework

## “Basel 2”

- Document issued by the Basel Committee on Banking Supervision (BCBS) on 25 June 2004
- Revision of the 1988 Capital Accord and its amendments (“Basel 1”)
  - Minimum capital requirements based on credit risk and market risk
- Promotes adoption of stronger risk management practices by banks
- Framework based on three mutually reinforcing “pillars”

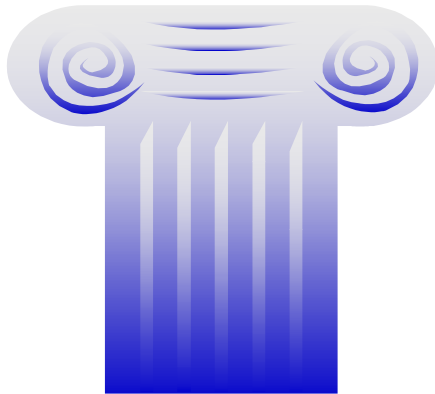


# International Convergence of Capital Measurement and Capital Standards: A Revised Framework

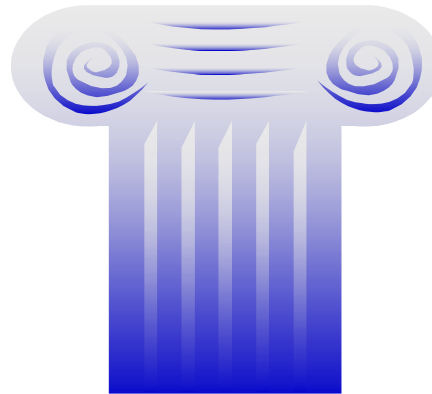
## “Basel 2”

### THE THREE PILLARS

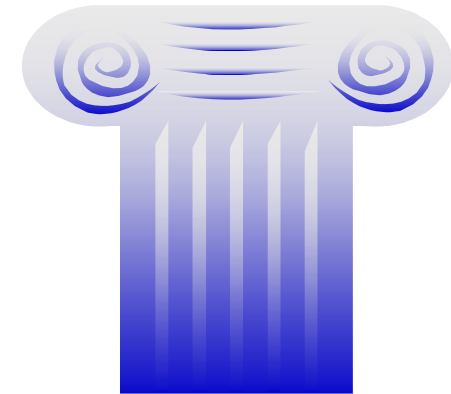
Minimum Capital  
Requirements (Pillar 1)



Supervisory Review  
Process (Pillar 2)



Market Discipline  
(Pillar 3)



# International Convergence of Capital Measurement and Capital Standards: A Revised Framework

## “Basel 2”

- Pillar 1: Minimum Capital Requirements  
“Banks should have capital appropriate for their risk-taking activities.”
- Prescribes requirements for
  - Credit Risk (major change)
  - Market Risk (minor change)
  - Operational Risk (new provision)

that can be computed using different approaches depending on banks’ level of sophistication



# International Convergence of Capital Measurement and Capital Standards: A Revised Framework

## "Basel 2"

### Menu of Approaches to Capital Charge Computation

**SIMPLE**



**COMPLEX**

Credit Risk	Standardized Approach		Internal Ratings-Based Approaches	
			Foundation IRB	Advanced IRB
Market Risk	Standardized Approach		Internal VaR Models	
Operational Risk	Basic Indicator Approach	Standardized Approach	Advanced Measurement Approaches	



# International Convergence of Capital Measurement and Capital Standards: A Revised Framework

## “Basel 2”

- Pillar 2: Supervisory Review Process

“Banks should be able to properly assess their capital adequacy in relation to the risk they are taking, and supervisors should be able to evaluate the soundness of these assessments.”

- Pillar 3: Market Discipline

“Banks should be disclosing pertinent information necessary to enable market mechanism to complement the supervisory oversight function.”



Basel 2

# BSP's Implementation Plans



# BSP's Implementation Plans

## Where We Are Now

- Adopted Basel 1 through the issuance of:
  - Circular No. 280 (capital requirements for credit risk; 03/2001),
  - Circular No. 360 (capital requirements for market risk; 12/2002)
  - Circular No. 400 (capital requirements for credit risk for quasi-banks; 8/2003)
  - + AMENDMENTS



# BSP's Implementation Plans

## Where We Are Headed

- Issued Memorandum to All Banks dated 13 December 2004 (per MB Res. No. 1516 dated 14 October 2004)
- To be implemented in the Philippines by 2007
  - For UBs/KBs: standardized approach for credit risk and basic indicator or standardized approach for operational risk, plus existing market risk framework



# BSP's Implementation Plans

## Where We Are Headed

- To be implemented in the Philippines by 2007  
*(cont.)*
  - For TBs that are S&A of UBs/KBs - approach of parent
  - For stand-alone TBs, RBs and Coop Banks - enhanced Basel 1 approach
- Implementation guidelines are in the **EXPOSURE DRAFT**



# The BSP's New Risk-Based Capital Adequacy Framework

## A Snapshot

2005	2006	2007	2008	2009	2010
Gradual phasing in of certain Basel 2 provisions (securitization SA, past dues, highest credit quality corporates)		Credit Risk - standardized approach  Operational Risk - basic indicator or standardized approach			Credit Risk - FIRB and AIRB allowed  Operational Risk - AMA allowed

Pillar 2 (Supervisory Review) - a continuing process

Pillar 3 (Market Discipline) - gradual implementation starting 2007



Exposure Draft  
The BSP's New Risk-Based  
Capital Adequacy  
Framework



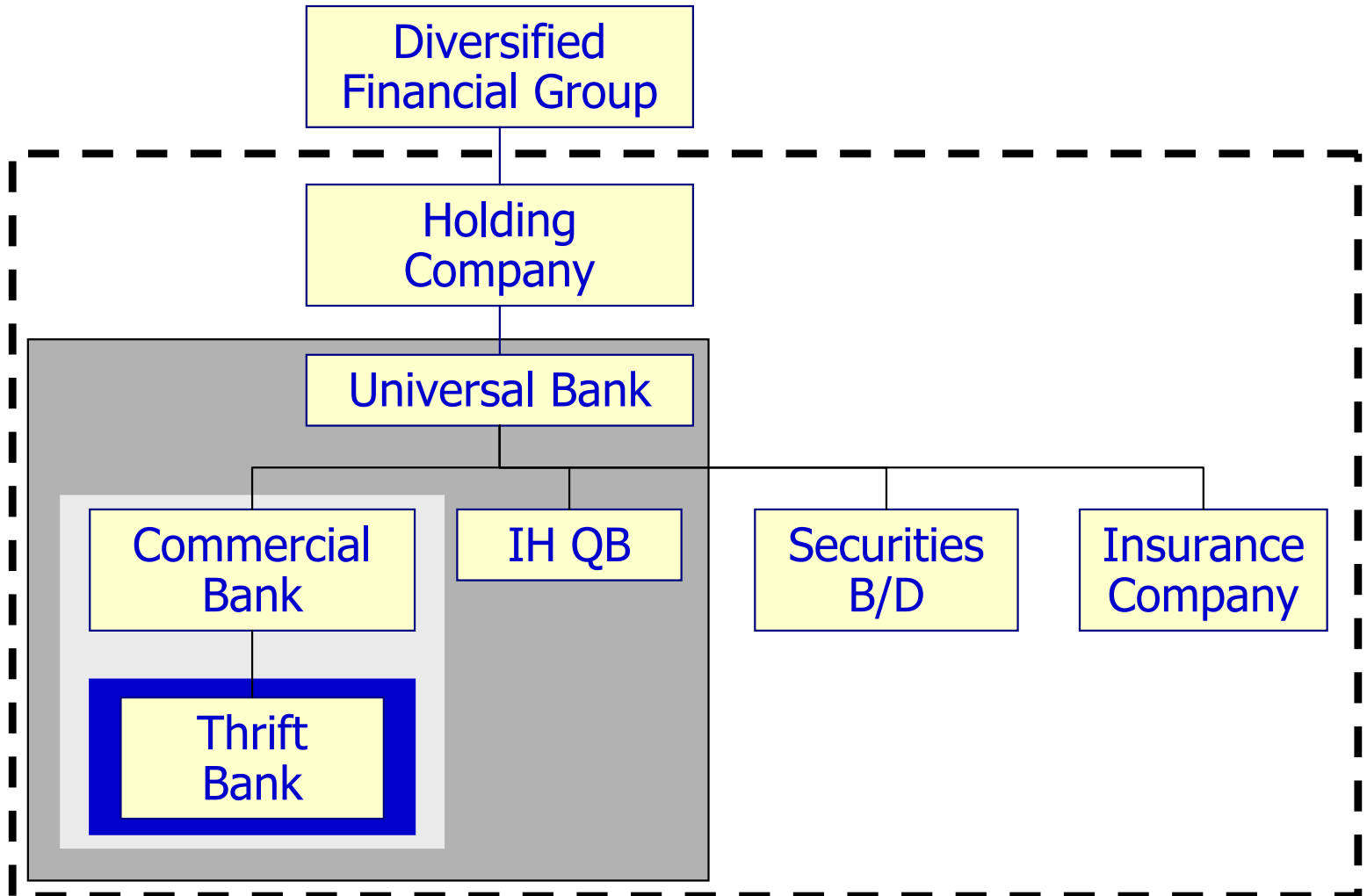
## Scope of Application

- To be applied on both solo and consolidated bases to banks and their **financial/non-financial allied/non-allied subsidiaries/associates** at each bank level in a banking group
  - For purposes of line-by-line consolidation, only **financial allied subsidiaries**, excluding insurance companies and securities brokers/dealers, are included.
  - Subsidiaries refer to ownership of >50% in an enterprise



# The BSP's New Risk-Based Capital Adequacy Framework

## Scope of Application



## Scope of Application

- Treatment of subsidiary insurance companies and securities brokers/dealers
  - to be deducted from capital on both solo and consolidated bases
  - capital shortfalls of these subsidiaries with other regulatory agencies likewise to be deducted from capital



## Scope of Application

- Treatment of subsidiary insurance companies

ABC Bank			
	<u>Asset</u>		<u>Liabilities and Capital</u>
Loans	8,750	Liabilities	8,100
Investment in XYZ Insurance Subsidiary	250	Capital	900
<b>Total</b>	<b><u>9,000</u></b>	<b>Total</b>	<b><u>9,000</u></b>

XYZ Insurance Subsidiary			
	<u>Asset</u>		<u>Liabilities and Capital</u>
Loans	4,000	Liabilities	3,750
		Capital	250
<b>Total</b>	<b><u>4,000</u></b>	<b>Total</b>	<b><u>4,000</u></b>



## Scope of Application

- Treatment of **non-financial allied subsidiaries**, as well as **significant minority investments in financial/non-financial allied/non-allied undertakings (>20%-50% ownership)**
  - to be deducted from capital on both solo and consolidated bases



# Capital Requirements

- Includes capital charges for
  - credit risk according to the standardized approach
  - market risk according to either the standardized or internal models approach
  - operational risk according to the basic indicator or standardized approach



# Credit Risk Measurement

## Risk Weights

- Banking book exposures are risk-weighted based on external assessments given by BSP-recognized external credit rating agencies

### STANDARDIZED CREDIT RISK WEIGHTS

Credit Assessment	AAA	AA+ to to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ to B-	Below B-	Unrated
NG/BSP	ALL EXPOSURES RISK-WEIGHTED AT 0%							
Sovereigns	0%	0%	20%	50%	100%	100%	150%	100%
MDBs	0%	20%	50%	50%	100%	100%	150%	100%
Banks	20%	20%	50%	50%	100%	100%	150%	100%
Foreign PSEs	20%	20%	50%	50%	100%	100%	150%	100%
Corporates	20%	20%	50%	100%	100%	150%	150%	100%



# Credit Risk Measurement

## Risk Weights

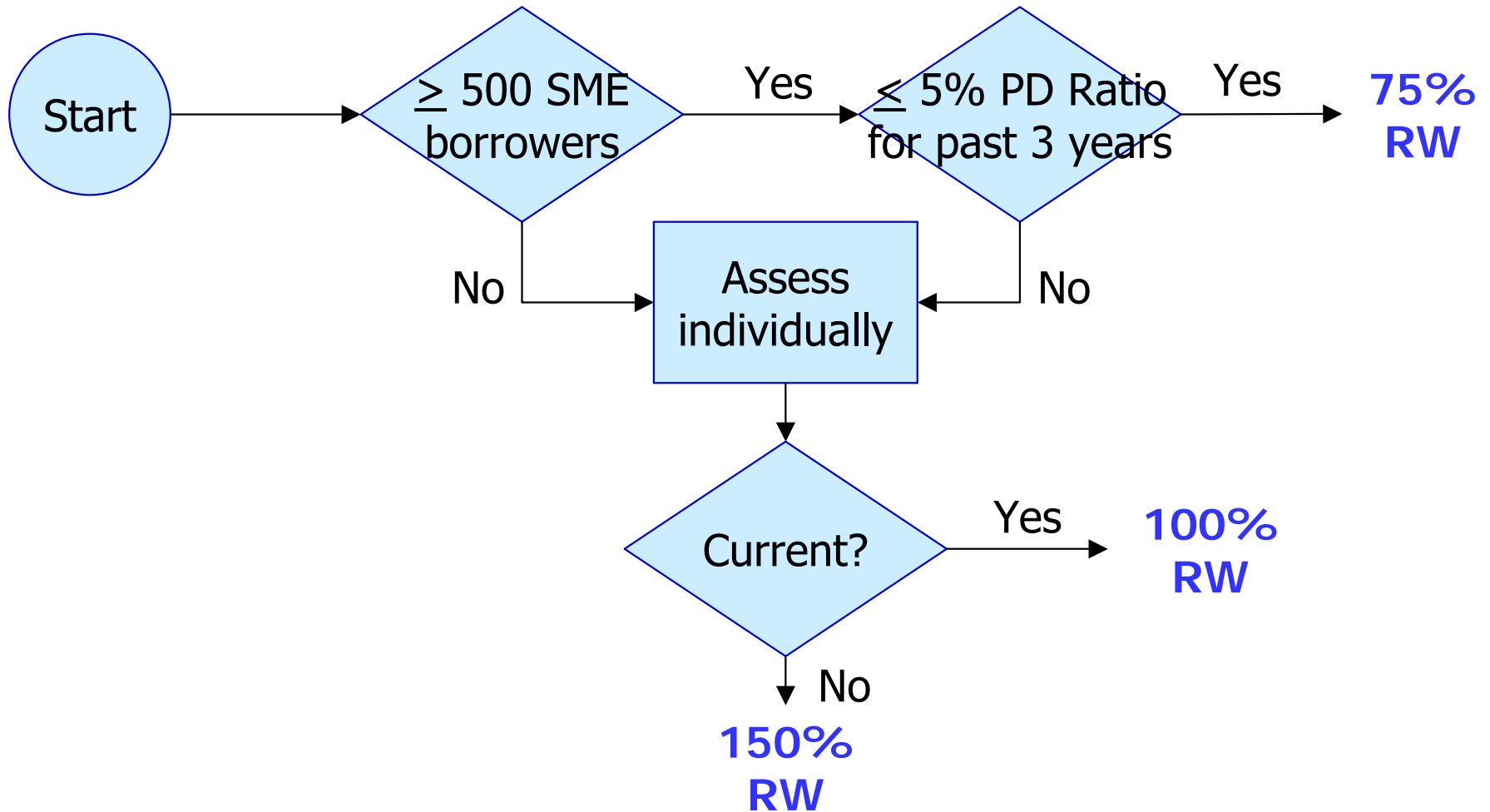
- Preferential treatment is given to housing loans, qualified LGU bonds and qualified SME portfolio exposures subject to strict criteria.
- Non-performing exposures are given heavier risk weights.

### STANDARDIZED CREDIT RISK WEIGHTS (*regardless of rating*)

Housing loans	50%
LGU Bonds Qualified	50%
Others	100%
SME Qualified portfolio	75%
Other SME exposures	100%
Non-performing exposures	
Housing loans	100%
Others	150%
ROPOA	150%
All other assets	100%



# Evaluation of SME Portfolio



Credit Risk Measurement  
**BSP-Recognized Credit Assessment Agencies and Mapping of Their Ratings**

Agency	R A T I N G S						
<b>S&amp;P</b>	AAA	AA+	AA	AA-	A+	A	A-
<b>Moody's</b>	Aaa	Aa1	Aa2	Aa3	A1	A2	A3
<b>Fitch</b>	AAA	AA+	AA	AA-	A+	A	A-
<b>PhilRatings</b>	AAA	Aa+	Aa	Aa-	A+	A	A-

Agency	R A T I N G S								
<b>S&amp;P</b>	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-
<b>Moody's</b>	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3
<b>Fitch</b>	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-
<b>PhilRatings</b>	Baa+	Baa	Baa-	Ba+	Ba	Ba-	B+	B	B-



# Use of External Ratings of Recognized Assessment Agencies

- Multiple Assessments
  - If only 1 rating, use the rating for risk-weighting purposes.
  - If 2 or more ratings, use the higher of the 2 lowest risk weights.
- Issuer vs. Issue Assessments
  - In general, use **issue-specific** ratings.



# Use of External Ratings of Recognized Assessment Agencies

- Issuer vs. Issue Assessments (*cont.*)
  - **Issuer** ratings can be used only for:
    - Senior obligations of the issuer that are of the same denomination applicable to the rating
    - Short term claims
    - Guarantees
  - Loans are risk weighted based on the rating of (1) the borrower **or** (2) the unsecured senior obligation of the borrower, provided loan is denominated in the currency applicable to the rating used



# Use of External Ratings of Recognized Assessment Agencies

- Domestic vs. International Issuance
  - Domestic issuances - use ratings of (1) domestic agencies or (2) international agencies with national rating scales acceptable to the BSP
  - International issuances - use ratings of international agencies only



# Credit Risk Mitigation (CRM)

- Credit risk mitigants recognized include **collaterals** and **guarantees**.
  - General requirements for recognition:
    - Legal certainty
    - Robust risk management process, particularly to cover residual risks
    - Compliance with disclosure requirements



# Credit Risk Measurement

## CRM: Collateral

- Specific criteria for recognition
  - Pledged for the life of the exposure
  - Marked to market at least every 6 months
  - Same denomination as the exposure
  - Bank has right to timely liquidation or legal possession
  - No material positive correlation between credit quality of counterparty and value of collateral
  - Bank has robust procedures for liquidation
  - If under custody, should be held by a third-party custodian authorized by the BSP



# Credit Risk Measurement

## CRM: Collateral

- Eligible instruments
  - (1) Cash
  - (2) Debt securities issued by the National Government (NG) and the BSP
  - (3) Debt securities issued by central governments of central banks rated at least BBB- or its equivalent
  - (4) Other debt securities with external credit ratings of at least AA- or its equivalent



# Credit Risk Measurement

## CRM: Guarantees

- Specific criteria for recognition
  - Represents a direct claim on the protection provider
  - Explicitly referenced to specific exposures
  - Irrevocable
  - Unconditional
  - Documentation of the original transaction explicitly states that:
    - The bank can timely pursue the guarantor for monies outstanding.
    - The guarantee is an obligation assumed by the guarantor.
    - The guarantee covers all types of payments the underlying obligor is expected to make under the transaction.



# Credit Risk Measurement

## CRM: Guarantees

- Eligible instruments
  - (1) NG and the BSP
  - (2) Central governments and central banks of foreign countries rated at least BBB- or its equivalent
  - (3) Other financial or non-financial institutions rated at least AA- or its equivalent



# Credit Risk Mitigation (CRM)

- 2 Approaches for Addressing CRM Techniques
  - Simple Approach
  - Comprehensive Approach



# CRM for Banking Book Exposures

- **Simple Approach** to be applied on exposures in the banking book
  - Results in risk weight substitution
  - The covered portion of exposures will take the risk weight of the mitigant instead of the original counterparty.



# CRM for Trading Book Exposures

- **Comprehensive Approach** to be applied to exposures in the trading book
  - uses **haircuts** to adjust exposure amount for effects of collateral
  - adjusted exposure takes risk weight of original counterparty

$$E^* = \max \{ 0, [ E \times ( 1 + H_e ) - C \times ( 1 - H_c ) ] \}$$

where  $E^*$  = the exposure value after risk mitigation

$E$  = the current value of the exposure

$H_e$  = the haircut appropriate to the exposure

$C$  = the current value of the collateral received

$H_c$  = haircut appropriate to the collateral



# Credit Risk Measurement CRM for Trading Book Exposures

## Haircuts

Eligible Instruments	Residual maturity	Haircut (in %)
Debt securities rated AAA to AA-	≤ 1 year	1
	> 1 year, ≤ 5 years	4
	> 5 years	8
Debt securities rated A+ to BBB-	≤ 1 year	2
	> 1 year, ≤ 5 years	6
	> 5 years	12
Debt securities rated BB+ below; unrated debt securities		15
Equities		25
Securities issued by the Philippine national government and BSP, and central governments and central banks of foreign countries with a credit rating of at least AA-		0
Cash		0



# Credit Risk Measurement Simple Approach

Book Value of Exposure	₱ 100
Risk Weight of Exposure	50%
Risk Weight of Collateral	20%
Risk Weighted Asset	<u>?</u>



# Credit Risk Measurement Comprehensive Approach

Fair Value of Exposure	₱ 100
$H_e$	5 %
Fair Value of Collateral	₱ 100
$H_c$	25 %
Exposure after CRM	<u>?</u>



## Market Risk Measurement

# Changes to the Framework

- Expanded definition of the **trading book**
- *For the Standardized Approach* Specific risk weights for debt securities/derivatives based on external credit assessment of the issue/r

Credit ratings of debt securities/derivatives issued by		Unadjusted specific risk weight
central governments and central banks of foreign countries	other entities	
AAA to AA-		0.00%
A+ to BBB-	AAA to BBB-	
Residual maturity ? 6 months	Residual maturity ? 6 months	0.25%
Residual maturity > 6 months, ? 24 months	Residual maturity > 6 months, ? 24 months	1.00%
Residual maturity > 24 months	Residual maturity > 24 months	1.60%
Debt securities/derivatives issued by the NG and BSP		0.00%
LGU Bonds covered by D/A of IRA and guaranteed by LGUGC		4.00%
All other debt securities/derivatives		8.00%



# Operational Risk Measurement

## Overview

- Operational risk - the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events
  - includes legal risk
  - excludes strategic and reputational risk
- Measurement Approaches
  - Standardized Approach
  - Basic Indicator Approach
    - Both use gross income as a proxy, where  
$$\text{GROSS INCOME} = \text{NET INTEREST INCOME} + \text{NON-INTEREST INCOME}$$



# Basic Indicator Approach

- Capital charge  
= 15% of the average gross income over the previous 3 years of positive gross income

$$K_{BIA} = 15\% \times \left[ \frac{\sum \text{Gross Income}_{1\dots n}}{n} \right]$$

where  $K_{BIA}$  = capital charge

Gross Income = Annual gross income, where  
positive, over the previous 3 years

$n$  = number out of the last 3 years for which gross  
income is positive



# Operational Risk Measurement

## Standardized Approach

- Requires ability to map income into business lines
- Use is subject to prior BSP approval
- Capital charge
  - Overall charge is the sum of charges for all business lines
  - Capital charge per business line is the average gross income over the previous three years of positive gross income multiplied by the corresponding beta factor
    - Similar to basic indicator approach



## Operational Risk Measurement

# Business Lines and Beta Factors

<b>Business lines</b>	<b>Activity Groups</b>	<b>Beta factors</b>
Corporate finance	Mergers and acquisitions, underwriting, privatizations, securitization, research, debt (government, high yield), equity, syndications, IPO, secondary private placements	18%
Trading and sales	Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repos, brokerage, debt, prime brokerage	18%
Retail banking	1) Retail lending and deposits, banking services, trust and estates; 2) Private lending and deposits, banking services, trust and estates, investment advice; 3) merchant/commercial/ corporate cards, private labels and retail	12%
Commercial banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange	15%
Payment and settlement	Payments and collections, funds transfer, clearing and settlement	18%
Agency services	Escrow, depository receipts, securities lending (customers) corporate actions, issuer and paying agents	15%
Asset management	Discretionary and non-discretionary fund management, whether pooled, segregated, retail, institutional, closed, open, private equity	12%
Retail brokerage	Execution and full service	12%



## Operational Risk Measurement

# Basic Indicator Approach

Gross Income

Y1      ₱ 100

Y2      ₱ 100

Y3      ₱ 100

Op Risk Charge          ?

Gross Income

Y1      ₱ 100

Y2      (₱ 100)

Y3      ₱ 100

Op Risk Charge          ?



# Risk-Weighted Asset Equivalent

- Determined by multiplying the operational risk capital charge by 10, the reciprocal of the minimum capital ratio of 10%
  - Similar to the approach for market risk capital charges



# The BSP's New Risk-Based Capital Adequacy Framework Disclosures in the Annual Reports

- Requires disclosures on
  - capital structure and capital adequacy ratio
  - risk exposures and assessments
- Full compliance with requirements is necessary for capital relief in respect of credit mitigation techniques



# Capital Structure and Capital Adequacy

- Tier 1 and its components
- Tier 2 and its components
- Deductions from capital
- Total qualifying capital
- Capital requirements for credit, market and operational risk
- Capital adequacy ratio
- Discussion on bank's approach to internal assessment of capital adequacy



# Risk Exposures and Assessments

- General disclosures for each risk category - A description of risk management objectives and policies including:
  - Strategies and processes
  - Structure and organization of the relevant risk management function
  - Scope and nature of risk reporting/measurement systems
  - Hedging and risk mitigating policies and strategies; and processes for monitoring effectiveness of hedges/risk mitigants



# Risk Exposures and Assessments

- Specific disclosures for Credit Risk
  - Risk-weighted assets broken down by type of exposure
  - Rating agencies used and types of exposures for which they were used
  - Eligible credit risk mitigants used
  - For securitization activities*
    - Accounting policies
    - Exposures securitized and exposures retained/purchased



# Risk Exposures and Assessments

- Specific disclosures for Credit Risk *(cont.)*
  - For structured products and credit derivatives*
    - Accounting policies
    - Credit protection bought and sold through credit derivatives broken down by reference exposures
    - Structured products issued and purchased broken down by type



# Risk Exposures and Assessments

- Specific disclosures for Market Risk
  - Total risk-weighted assets broken down by type of exposures (interest rate, equity, foreign exchange, and options)
  - For banks using internal models
    - Characteristics of the model
    - Description of stress testing applied to the portfolio
    - Approach for backtesting/validating the accuracy and consistency of the internal models and modeling processes
    - Scope of acceptance by the BSP
    - Comparison of VaR estimates with actual gains/losses; analysis of outliers in backtest results



# Risk Exposures and Assessments

- Specific disclosures for Operational Risk
  - Amount of operational risk-weighted assets
- Specific disclosures for Interest Rate Risk in the Banking Book
  - Internal approach to measurement including underlying assumptions
  - Changes in earnings or economic value as a result of rate shocks



# The BSP's New Risk-Based Capital Adequacy Framework Going Forward



## Going Forward

- Between now and end-2005
  - Capital treatment of credit derivatives and securitization
  - Standardized computation of liquidity risk and interest rate risk in the banking book
  - Broad guidelines on op risk management
- After 2007...
  - More advanced approaches to be allowed by 2010
    - For credit risk, Foundation IRB and Advanced IRB
    - For operational risk, Advanced Measurement Approaches



# The BSP's New Risk-Based Capital Adequacy Framework

## A Snapshot

2005	2006	2007	2008	2009	2010
Gradual phasing in of certain Basel 2 provisions (securitization SA, past dues, highest credit quality corporates)		Credit Risk - standardized approach  Operational Risk - basic indicator or standardized approach			Credit Risk - FIRB and AIRB allowed  Operational Risk - AMA allowed

Pillar 2 (Supervisory Review) - a continuing process

Pillar 3 (Market Discipline) - gradual implementation starting 2007



# The IRB Approach to Credit Risk Measurement **Banks' Preparations**

- Compliance with Circular No. 439 as an initial step
- Strong IT system to support data collection
- Personnel with technical background and knows how to use data for risk management analysis



## Pillar 2: Key Principles of Supervisory Review

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

i.e., Banks should have their own capital adequacy assessment process (CAAP).



## Pillar 2: Key Principles of Supervisory Review

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



## Pillar 2: Key Principles of Supervisory Review

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



## Pillar 2: Key Principles of Supervisory Review

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



# **The BSP's New Risk- Based Capital Adequacy Framework**