

# **Implementing Risk Based Elements into DGS\***

**- Challenges and Limits -**

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**\*DGS: Deposit Guarantee Scheme**

**Compensation**



**Funding**



**Early Warning**

**three to five classes**



**five to ten classes**



**more than ten classes**

**Simple**

**Accurate**

**Reasonable**

**Affordable/Sustainable**

**Flexible**

**Open/Transparent**

**Impartial**

**\*EFDI Working Group III „Development of Common Voluntary Approaches to include Risk Based Elements for DGS“, 2009 / Joint Research Center „Possible models for risk-based contribution to EU DGS“**

## credit risk

- counterparty risk/settlement risk
- country risk
- concentration risk/diversification
  - Industrial sector
  - collaterals
  - volume/quality

## market risk

- equity
- Interest/maturity
- foreign exchange risk, commodity risk
- funding

## operational risk

- legal risk
- operational risk
- risk of reputation

## strategic risk

## liquidity risk

## shareholders

- capacity
- structure

## business controlling systems

- credit
- services
- trading

## general management

- controlling
- planing
- organisational structure/corporate governance
- personnel/key personnel, board,

## strategy/business model

## models

	<b>Basel I</b>	<b>Basel II</b>	
		<b>Standard</b>	<b>IRBA</b>
<b>total capital ratio</b>	<b>2007</b>	<b>2008</b>	<b>2009 planned</b>
<b>Bank A</b>	<b>9,3%</b>	<b>11,6%</b>	<b>23,8%</b>
<b>Bank B</b>	<b>21,2%</b>	<b>14,1%</b>	
	<b>Basel I</b>	<b>Basel I</b>	
	<b>T -1</b>	<b>T 0</b>	<b>DGS-cases</b>
<b>Bank C</b>	<b>12,5%</b>	<b>12,9%</b>	
<b>Bank D</b>	<b>31,0%</b>	<b>31,8%</b>	

## Financial Ratios | Liquidity

months	T -3	T -2	T -1	T 0	T 4
<b>Liquidity ratio</b>	<b>1,25</b>	<b>1,26</b>	<b>1,14</b>	<b>1,16</b>	<b>DGS case</b>

**Liquidity ratio 1 is adequate**

## Reclassification of financial assets

	AMOUNTS AS AT 12.31.2008			FAIR VALUE LOSSES NOT RECOGNIZED DUE TO RECLASSIFICATION (PRE-TAX)
	NOMINAL AMOUNT	CARRYING AMOUNT	FAIR VALUE	
Financial assets reclassified from item "Held for Trading" to "Loans and Receivables":	19,322,448	18,204,747	15,774,049	-2,279,779
- <i>Structured credit products</i>	10,258,804	9,391,044	7,778,965	-1,522,423
- <i>Other debt securities</i>	9,063,644	8,813,703	7,995,084	-757,356
Financial assets reclassified from item "Held for Trading" to "Held to Maturity"	135,709	148,077	136,750	-7,414
Financial assets reclassified from item "Available for Sale" to "Loans and Receivables"	680,601	689,638	684,482	-97*
<b>TOTAL</b>	<b>20,138,758</b>	<b>19,042,462</b>	<b>16,595,281</b>	<b>-2,287,290</b>

(\*) amount pertaining to revaluation reserve instead of Profit and Loss.

### UniCreditGroup, Financial Report 2008

# Financial Ratios | Illiquid Markets

In millions of euros at	31 December 2008				31 December 2007			
	Market price (cat 1)	Model with observable parameters (cat 2)	Model with non-observable parameters (cat 3)	Total	Market price (cat 1)	Model with observable parameters (cat 2)	Model with non-observable parameters (cat 3)	TOTAL
<b>FINANCIAL ASSETS</b>								
Financial assets held for trading purposes at fair value through profit or loss	627,928	495,977	26,712	1,150,617	624,082	250,518	3,643	878,243
Financial assets at fair value through profit or loss under the fair value option	35,725	5,929	-	41,654	46,790	6,673	-	53,463
<b>FINANCIAL LIABILITIES</b>								
Financial liabilities held for trading purposes at fair value through profit or loss	510,407	463,078	25,876	999,361	481,831	229,788	7,828	719,447
Financial liabilities at fair value through profit or loss under the fair value option	-	55,441	-	55,441	451	76,227	-	76,678

The first category comprises financial instruments traded on liquid organised markets.

During 2008, the markets for some convertible bond classes, collateral debt obligations (CDOs), ABSs, and long-term structured derivatives

became inactive. In the absence of any significant trading volumes and, therefore, any market references, these instruments were valued on the basis of models using non-observable inputs at 31 December 2008.

## BNP PARIBAS, Annual Report 2008


# Financial Ratios | Fair Value Option

## 3 Net Income from financial Instruments designated at fair value

Net income from financial instruments designated at fair value includes:

- all gains and losses from changes in the fair value of financial assets and liabilities designated at fair value, including liabilities under investment contracts;
- all gains and losses from changes in the fair value of derivatives that are managed in conjunction with financial assets and liabilities designated at fair value; and
- interest income, interest expense and dividend income in respect of:
  - financial assets and liabilities designated at fair value; and
  - derivatives managed in conjunction with the above,
 except for interest arising on HSBC's issued debt securities, together with the interest element of derivatives managed in conjunction with them, which are recognised in 'Interest expense'.

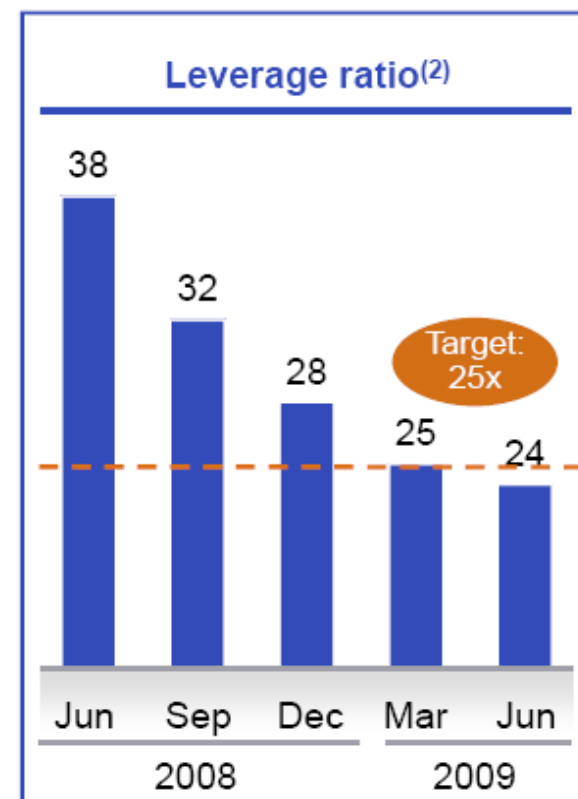
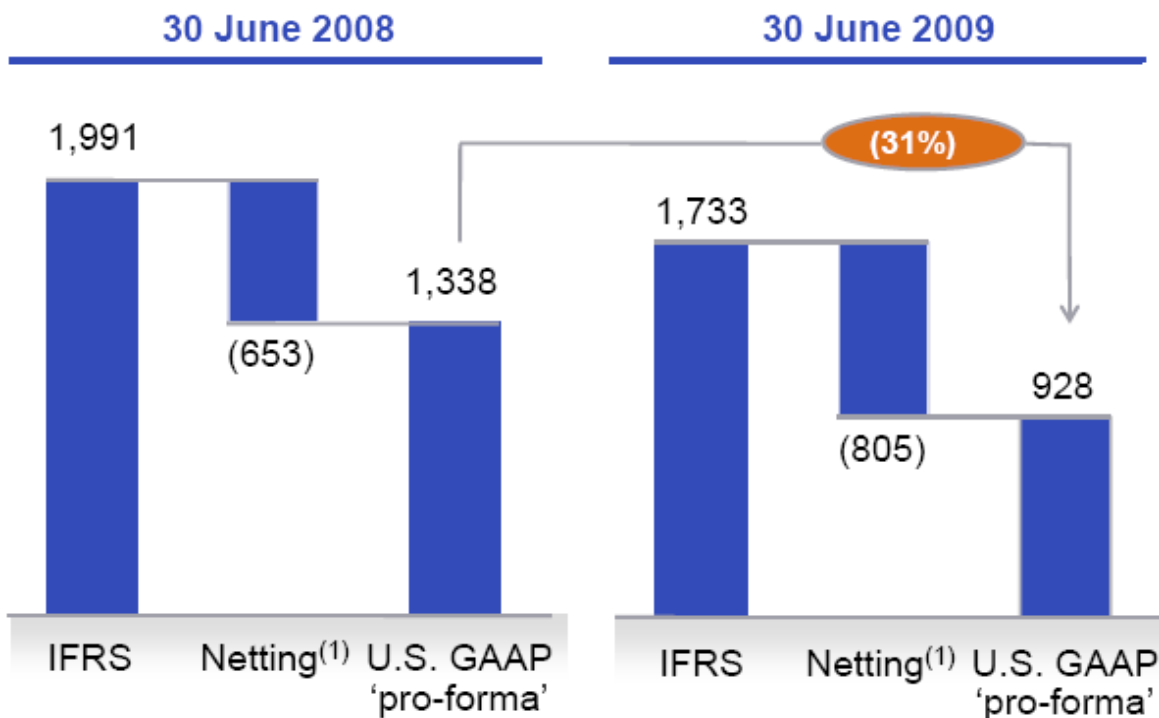
	2007 US\$m	2006 US\$m	2005 US\$m
Net income/(expense) arising on:			
– financial assets held to meet liabilities under insurance and investment contracts .....	2,056	1,552	1,760
– other financial assets designated at fair value .....	581	217	90
– derivatives managed in conjunction with financial assets designated at fair value .....	(18)	57	17
	<u>2,619</u>	<u>1,826</u>	<u>1,867</u>
– liabilities to customers under investment contracts .....	(940)	(1,008)	(1,126)
– HSBC's issued debt securities <sup>1</sup> .....	336	(277)	1,795
– derivatives managed in conjunction with HSBC's issued debt securities .....	2,476	242	(1,392)
– other financial liabilities designated at fair value .....	(395)	(125)	(112)
– derivatives managed in conjunction with other financial liabilities designated at fair value .....	(13)	(1)	2
	<u>1,464</u>	<u>(1,169)</u>	<u>(833)</u>
Net income from financial instruments designated at fair value .....	<u>4,083</u>	<u>657</u>	<u>1,034</u>

 1 Gains and losses from changes in the fair value of HSBC's issued debt securities may arise from changes in HSBC's own credit spread. In 2007 HSBC recognised a US\$3,055 million gain on changes in the fair value of these instruments arising from changes in HSBC's own credit spread (2006: loss US\$388 million).

# Financial Ratios | Leverage Ratio

## Significant de-leveraging

Balance sheet, in EUR bn



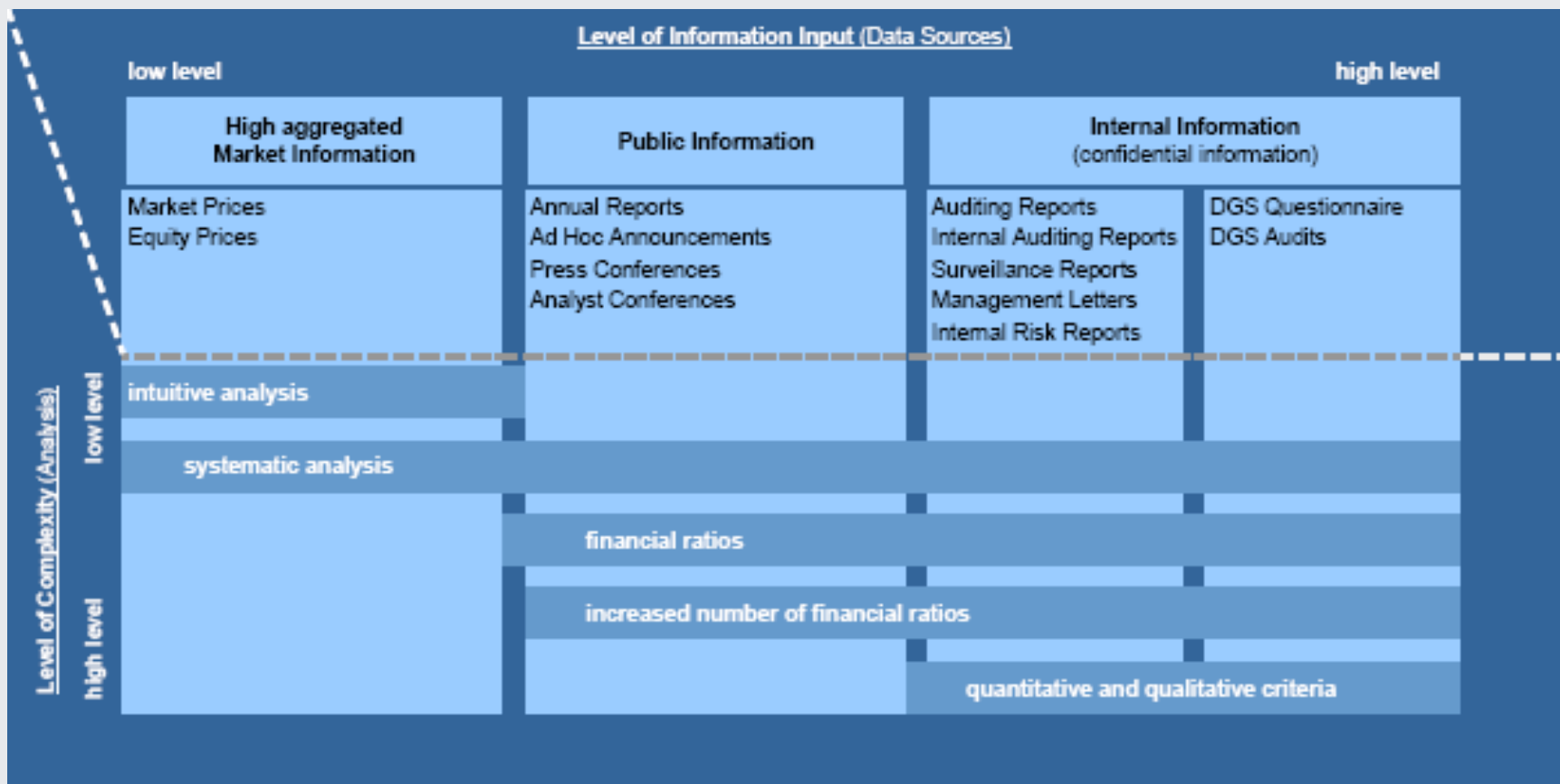
(1) For 30 June 2008 incl. derivatives netting of EUR 498 bn, pending settlements netting of EUR 92 bn and repo netting of EUR 62 bn, does not reflect revised application of U.S. GAAP nettings; for 30 June 2009 incl. derivatives netting of EUR 681 bn, pending settlements netting of EUR 113 bn and repo netting of EUR 10 bn.

(2) Total assets based on U.S. GAAP 'pro-forma' divided by total equity per target definition

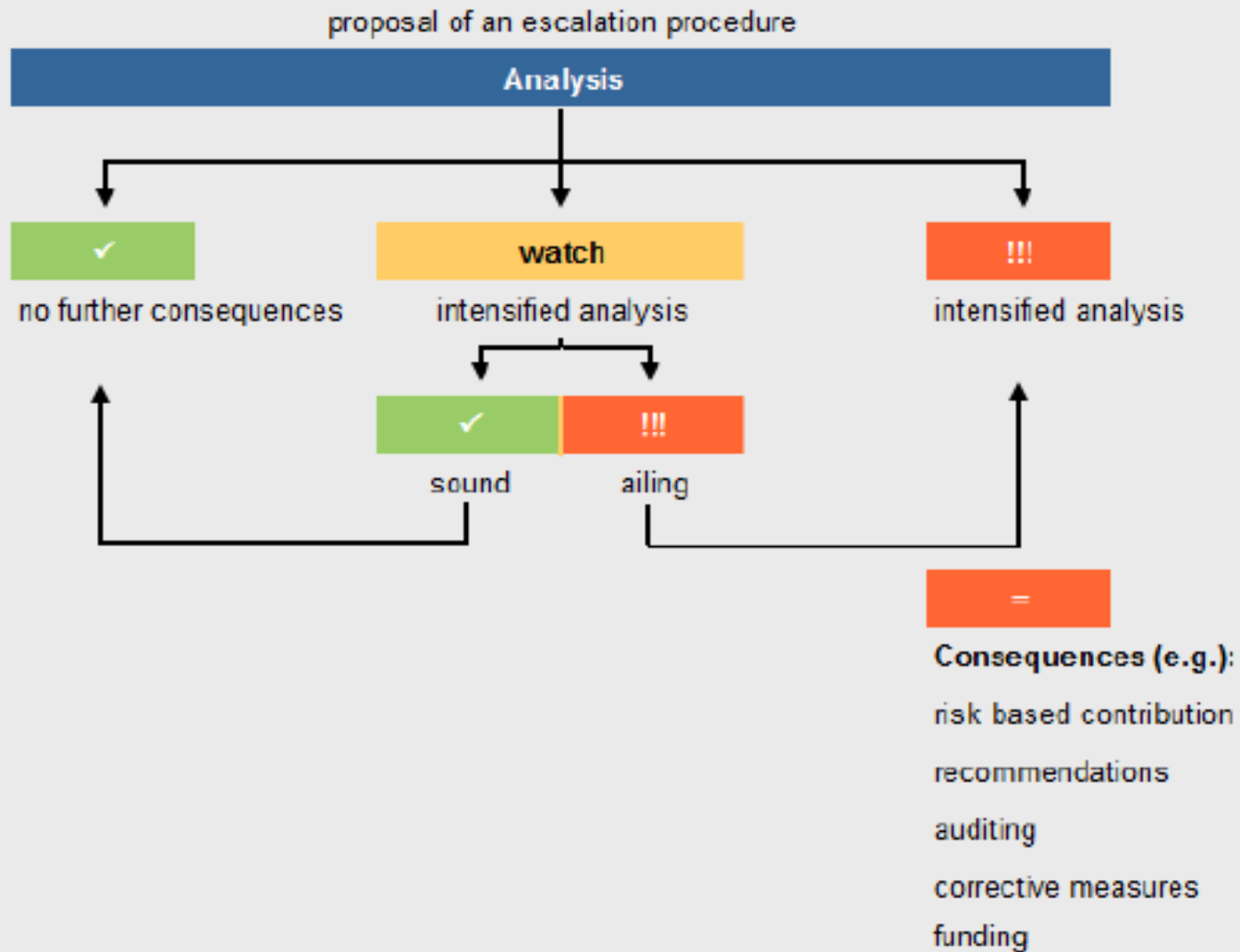
Note: Figures may not add up due to rounding differences

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# Level Approach | DGS



EFDI Working Group III „Development of Common Voluntary Approaches to include Risk Based Elements for DGS“, 2009



EFDI Working Group III „Development of Common Voluntary Approaches to include Risk Based Elements for DGS“, 2009

## Recommendations\*\* | Implementation Process

### Initialization phase:

- Creation of a common understanding of the main aims, tasks, and rights of the DGS, as far as the duties of the member banks
- Confirmation of confidentiality
- Verification of the preconditions and framework requirements for the design of the rbp-system (e. g. number of members, responsible body of the system, financing mechanism of the DSG, premium payments ex-ante or ex-post or mixed, management of the collected and not used premiums, seed capital for the DGS in the beginning if rbp's will be introduced, check-up of the legal preconditions to introduce a rbp-systems in a country, handling with non-domestic-banks and special banks)
- Development of a step-by-step-action plan to introduce rbe's
- Buildup of the needed resources (people, IT-systems, organizational frame and structure)
- Definition of the addressees of bank-specific reports and system-summarized reports

## Recommendations\*\* | Implementation Process

### Build-up of the data-base

- Review on the existing, the available, und needed data from each bank
- Clear definition of the data-sources
- Decision to use a market-system or to develop an own system
- Decision to use own-created questionnaires or other ways to collect data
- Safeguarding of the required data-quality (e. g. use of international accounting standards, single- or group accounts, dimension and currency of the numbers)

### Build-up of the model itself (partial parallel to data-base-creation)

- Collection and build-up of adequate data time course (recommended are minimum five years)
- Decision of general principle: empiric foundation or expert-system
- Quantitative modeling (“core” of the system with the definition of the figures, their weighting, and consolidation)

# Recommendations\*\* | Implementation Process

## Test phase

- Inform the Banks about first result
- Discussion with banks and amendments
- Re-definition of the model
- Probably a second (or more) tests

## Implementation phase

- Presentation of the new system to the covered banks / financial institutions  
(“roadshow” / on-site visits, written information, intranet)
- Confidential communication of the result so the banks (written / on-site)
- Help-desk / Hotline for requests
- Build-up of the operational contribution system

## Recommendations\*\* | Implementation Process

### Going concern phase / normal business operation phase (DGS-internal)

- Safeguarding of “keep-the-system-running” (e. g. collect the contributions)
- Definition of documentation duties
- Data security and confidentiality
- Back testing and validation of the model
- Definition of the organizational structure (IT, employees)
- Internal and external auditor (e. g. auditing company, supervisor, central bank)
- Map exercise how to handle with incorporated systemic relevant banks in case of a real crises and juridical responsibility of owners

## Recommendations\*\* | Implementation Process

### Safeguarding of permanent going concern of the system / normal business operation phase (for the secured DGS-members)

- Definition of reporting-contents are depended on the recipient of the information
- Servicing of the defined report-addresses with bank-individual and summarized results
- Communication of the results to the banks (written/on-site)
- Catalog of bank specific and individual measures (e. g. calculation of the rbp itself for the bank, hints, obligations)
- Definition of escalation mechanism (in the case a bank doesn't accept the output of the system)
- Definition of a arbitral procedure

# Recommendations\*\* | Implementation Process

## Enhancement phase

- Impact of external effects (markets, laws, etc.)
- Impact of DGS-internal effects

## „Advanced Model“ development

- Decision to expand the running rbp-system
- Additional figures
- Qualitative elements

**\*\* EFDI Working Group III „Development of Common Voluntary Approaches to include Risk Based Elements for DGS“, 2009**

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