



Risk related DGS & SRM contributions

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GEB-members

	Total assets (in Euro million)	Staff
Älandsbanken	3.886,66	661
Banca March	15.393,15	1.307
Gruppo Banca Sella	13.360,50	4.042
Bank J.Van Breda & C°	4.410,30	430
Bankhaus Lampe	2.898,03	628
Banque Martin Maurel	2.077,80	473
C.Hoare & C°	3.359,73	386

Risk based SRM/DGS contributions: Concerns about unlevel playing field

1. Risk related DGS contributions
2. Risk related SRM contributions

Risk indicators mentioned in preparation of DGS directive

- **Mandatory indicators**
 - Own funds / RWA (risk weighted assets)
 - Non-performing loans / gross loans
 - (Risk adjusted) ROA / return on (RW)A
 - Liquidity ratios

- **Suggested indicators**
 - RWA / total assets
 - Excess capital / (RW)A
 - Loan loss provision/NII or LLP/operating income
 - Cost income
 - Net margin

Risk based DGS contributions: Our concerns about unlevel playing field

- 1. RWA indicators**
- 2. RWA / Total Assets**
- 3. Simple CET1 vs Excess CET1**
- 4. CET1 without Leverage**
- 5. Risk adjusted profitability (RWA?)**
- 6. NPL: net or gross?**

Concerns about unlevel playing field: several RWA indicators

■ Mandatory indicators

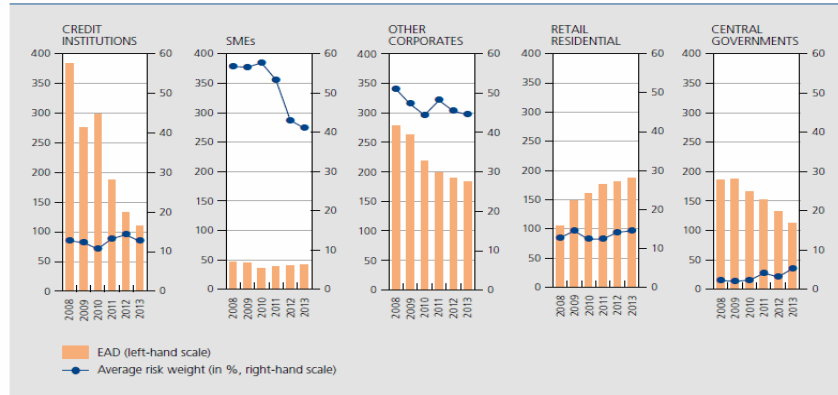
- Own funds / RWA (risk weighted assets)
- Non-performing loans / gross loans
- (Risk adjusted) ROA / return on (RWA)
- Liquidity ratios

■ Suggested indicators

- RWA / total assets
- Excess capital / (RWA)
- Loan loss provision/NII or LLP/operating income
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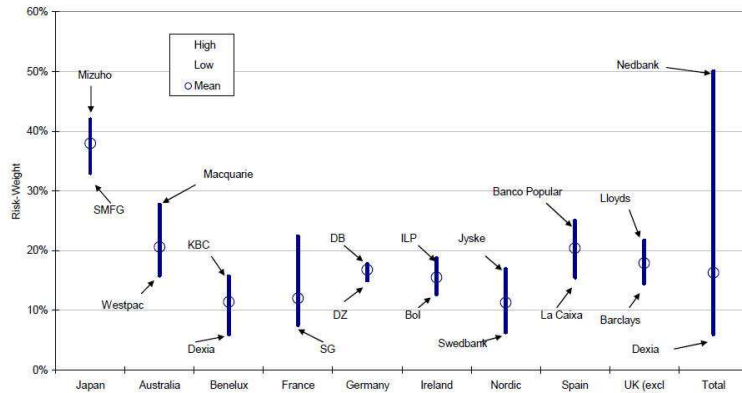
a. RWA AIRB models versus standardised

CHART 27 EXPOSURES AT DEFAULT AND AVERAGE RISK WEIGHT FOR SOME ASSET CLASSES FALLING WITHIN THE IRB APPROACHES OF THE PILLAR I CAPITAL REQUIREMENTS FOR CREDIT RISK (consolidated end-of-period data, in € billion, unless otherwise stated)



Source: NBB.

Mortgage exposure risk weight range by country under the IRB approach



S&P Approach To Bank's Capital Adequacy' Elie Hériard-Dubreuil, copyright Standard & Poor's 2009,

Noise and sample size in estimating risk weights¹

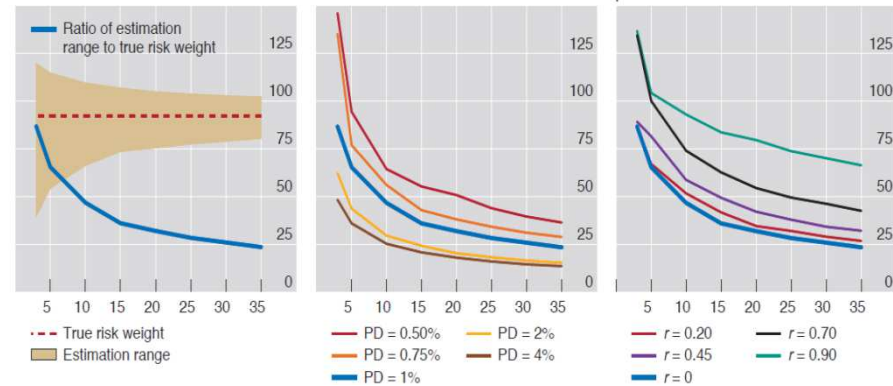
In per cent

Changing only the sample size (number of years)²

Changing the sample size with different probabilities of default³

Changing the sample size with different levels of cyclical persistence⁴

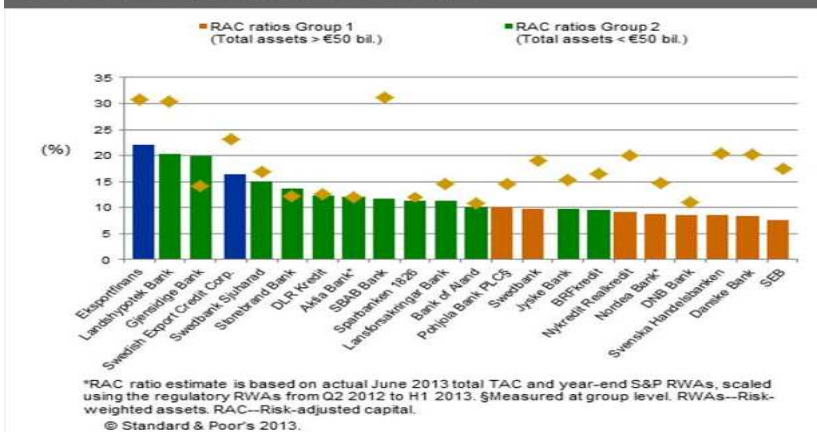
Graph V.B



¹ Risk weights are computed on the basis of the Basel framework's internal ratings-based approach for credit risk for a given probability of default (PD). ² Estimation based on cyclical persistence, r (measured as the year-on-year serial correlation of the systematic risk factor) = 0 and PD = 1%. ³ $r = 0$. ⁴ PD = 1%.

Source: BIS calculations.

Nordic Banks—Capital Ratios As Of June 30, 2013

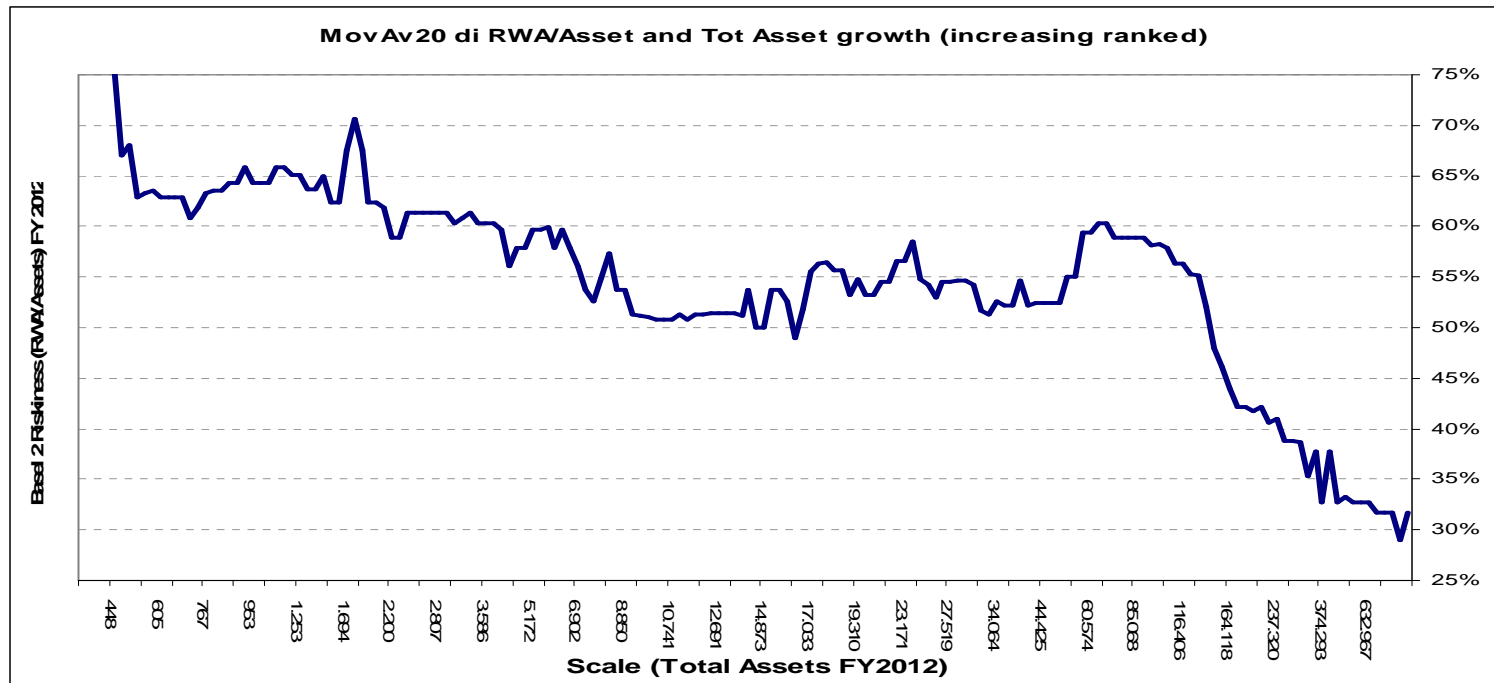


*RAC ratio estimate is based on actual June 2013 total TAC and year-end S&P RWAs, scaled using the regulatory RWAs from Q2 2012 to H1 2013. †Measured at group level. RWAs—Risk-weighted assets. RAC—Risk-adjusted capital. © Standard & Poor's 2013.

Plenty of research show the biases in RWA usually due to excessive heterogeneity in A IRB approaches



b. Risk weighted assets / total assets relation with size



The ratio has a strong decay in higher sizes (>100 B assets)

c. CET1 and regulatory requirements

Bucket ⁶	G-SIBs in alphabetical order within each bucket
5 (3.5%)	(Empty)
4 (2.5%)	HSBC JP Morgan Chase
3 (2.0%)	Barclays BNP Paribas Citigroup Deutsche Bank
2 (1.5%)	Bank of America Credit Suisse Goldman Sachs Group Crédit Agricole Mitsubishi UFJ FG Morgan Stanley Royal Bank of Scotland UBS
1 (1.0%)	Bank of China Bank of New York Mellon BBVA Groupe BPCE Industrial and Commercial Bank of China Limited ING Bank Mizuho FG Nordea Santander Société Générale Standard Chartered State Street Sumitomo Mitsui FG Unicredit Group Wells Fargo

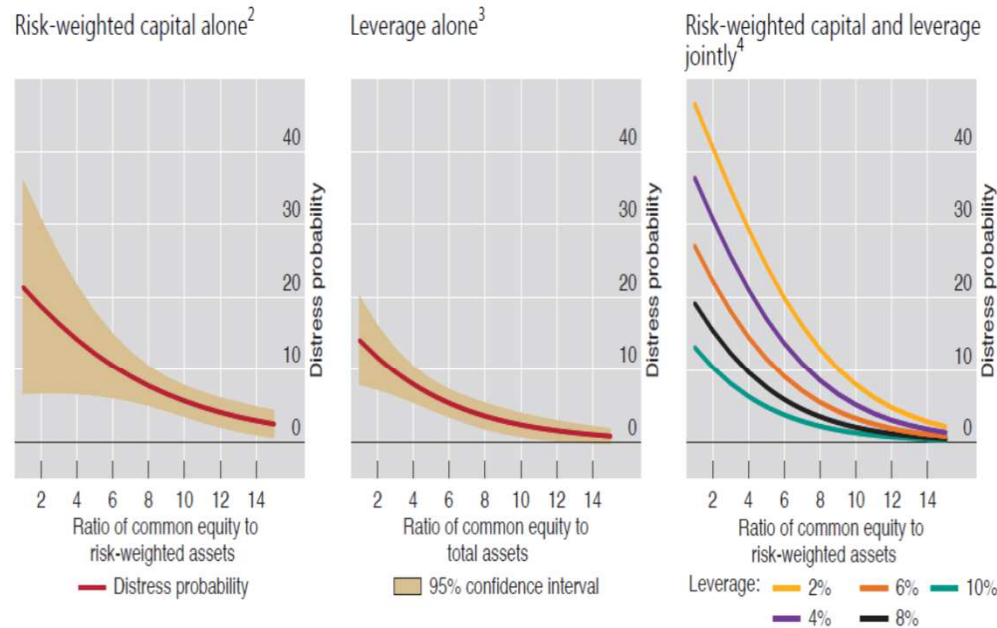
CT1 Regulatory requirements increase with size

d. Leverage and CET1

Signals of banks' distress risk

Estimated probability of distress in one year, in per cent¹

Graph V.3



¹ Estimates based on a logistic regression of an indicator variable denoting a bank's individual rating below D on the variables indicated in each panel, lagged by one year, and a dummy variable to flag observations in the post-2007 period. The sample is an unbalanced panel of annual observations for 66 internationally active banks over the period 2000-12. The vertical axis measures the estimated probability of distress for different values of the explanatory variable. Distress is the likelihood that the bank's operations, net of any external support, will receive a credit rating equivalent to distress or default. ² Risk-weighted capital is the ratio of common equity to risk-weighted assets. ³ Leverage is the ratio of common equity to total assets. ⁴ Probability of distress for a given level of risk-weighted capital (horizontal axis) at five different leverage ratios.

Sources: Bankscope; Fitch Ratings; BIS calculations.

Table 4

Mean leverage and risk-based capital ratios for stressed and non-stressed banks
(Data is calculated as at end 2006, all capital ratios in per cent)

Excludes countries with leverage ratio requirements

	Working Group Sample		Broader Sample	
	Stressed	Other	Stressed	Other
Risk-based Ratios				
Total capital / RWA	10 11.77	49 12.09	15 11.57	54 11.78
Tier 1 capital / RWA	10 7.59	48 8.25	15 8.31	54 8.37
TCE / RWA	8 5.66	45 6.86	14 6.16	58 7.69 **
Leverage Ratios				
Total Capital / Assets	6 4.32	41 7.62 **	14 4.37	51 6.28 ***
Tier 1 Capital / Assets	6 2.79	41 5.27 **	15 3.02	54 3.65 *
Common Equity / Assets	6 2.69	41 5.08 **	17 2.64	63 4.48 ***
TCE / Tangible Assets	6 1.93	41 4.34 **	17 2.22	63 3.62 ***

The symbols ***, **, * indicate that the difference is statistically significant at the 1%, 5% and 10% levels respectively. The Working Group Sample comprises up to 88 banks supplied by national supervisors from 14 countries. The Broader Sample is drawn from the Bankscope database and includes up to 117 banks from 19 countries. Each panel includes the number of banks in the sample and the relevant capital ratio.

Source: BCBS (October 2010), Calibrating regulatory minimum capital requirements and capital buffers: a top-down approach.

Combining leverage with CET1 delivers highest risk capture than using them alone



e. Asset quality and profitability

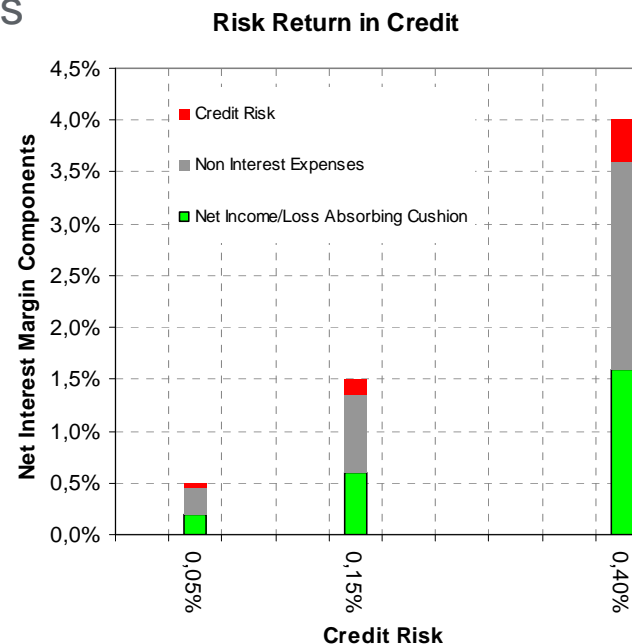
■ Which assets are of superior quality?

- Portfolio of corporate & government bonds
- Portfolio of mortgages
 - Margin 0,30%
 - Risk costs 0,03%
- Portfolio of SME credits
 - Margin 1,50%
 - Risk costs 0,15%
- Portfolio of personal loans
 - Margin 4,0%
 - Risk costs 0,40%

■ RWA/Total assets discriminates

- Nicheplayers in SME credits or personal loans
- Players in countries with higher margins / risk costs

■ Risk cost/interest income or risk cost/operating income better reflects assets quality since it takes loss absorption capacity into account



e. Asset quality and profitability

- **Risk adjusted profitability / Return on RWA?**
 - Loan loss provisions are reflected in ROA
⇒ return on assets is already risk adjusted
 - The combination of ROA with NPL/loans gives a good reflection of asset quality
 - Higher NPL can be absorbed by higher ROA
 - Low ROA must be compensated by low NPL
 - NPL-ratio combined with “Return on RWA” would bias asset quality

e. Asset quality and profitability

■ Profitability net of cost of risk

- PROS: Takes into account the different margins on different credit categories: contribution is higher for banks having lower profitability because of their lower loss absorbing power
- CONS: Procyclicality (cost of risk increases in recessions and contribution would increase in these phases); Creates incentives to bad behaviors (underprovisioning)

■ Adjusted profitability net of risk

- Profitability net of the cost of risk necessary to have a standard coverage on NPL

Risk based DGS contributions: How to avoid unlevel playing field

1. Reduce the weight of RWA based measures
2. Limit model impact (AIRB vs standard)
3. Use “excess” CET1 (vs reg.requirements)
4. Always combine CET1 with leverage
5. Omit RWA/Total Assets
6. Risk adjustments to profitability should be to numerator (income) not denominator (RWA)
7. NSFR instead of Loan-to-deposit

Risk based SRM/DGS contributions: Our concerns about unlevel playing field

- 1. Risk exposure (RP1)**
- 2. Loan to deposit ratio**
- 3. Weight of the risk component**
- 4. Definition of “small bank”**
- 5. General equilibrium**



Risk based SRM/DGS contributions: Concerns about unlevel playing field

1. Risk related DGS contributions
2. Risk related SRM contributions

Risk indicators considered in the EC consultation on SRM (public doc)

Risk Pillar 1 (RP1): Risk Exposure:

1. RWA/Tot Assets
2. CT1
3. Leverage
4. Exceeding Bailable funds

Risk Pillar 2: Stability/variety of funding sources:

1. Loans (except to FMI) / Deposits
2. LCR
3. NSFR

Risk Pillar 3: Importance to the econ./fin. stability:

1. Total Assets / Euro Area GDP
2. Exposure to other institutions (interconnectedness)

Additional progresses on risk factors

1. **Added a 4th risk pillar: “other risk factors”**
 1. Relevance of trading and off-balance act. (OTC derivatives)
 2. Complexity & resolvability
 3. Previous State Aid
 4. Being part of IPS
2. **Defined the weights of each risk pillar and weight of each factor within pillars**
 1. Pillars: 60% risk exposure; 10% liquidity; 10% systemic relevance; 20% other risk factors
 2. Factors: Equal weights in general for RP1, RP2, RP3 (=25% in RP1); for RP4 weights determined by national resol.authority
3. **Specified RP2 transitions**
 1. The L/D is used until intro of LCR; NSFR used until becomes a binding minimum requirement

Additional progresses on risk factors

4. **Defined the impact of the risk adj.term**
 1. Multiplying factor (not an additional one)
 2. Ranges 0,8-1,2
5. **Defined “Small institutions” and their contrib**
 1. Total Liabilities (net of own funds and covered depo) < 300mln AND Total Assets < 1B
 2. Contributions from 5 k/year to 15 k/year
6. **Identified figure definitions, intragroup exclusion, procedures and penalties**
 1. Each year by 15 march the resolution authority defines the target level of the fund and the annual contribution due by each institution.

Risk based SRM/DGS contributions: Our concerns about unlevel playing field

- 1. Risk exposure (RP1)**
- 2. Loan to deposit ratio**
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- 4. Definition of “small bank”**
- 5. General equilibrium**

Risk based SRM/DGS contributions: Concerns about unlevel playing field

1. Risk exposure (RP1):

- a. The ratio Risk weighted assets / total asset has a strong decay at high dimensions
IN FAVOUR OF LARGE INSTITUTIONS?
- b. RWA based measures account for 50% of the factors
 - BIASES IN RWA (A-IRB MODELS): LIMITS / STANDARD?
 - CT1 REQUISITES ARE HIGHER FOR LARGER BANKS: ONLY EXCESS (IN %) SHOULD BE USED??
- c. Combining Leverage and CT1 allows having higher risk capture than stand alone.
 - SO IF CT1 IS USED THEN LEVERAGE SHOULD BE USED
- d. Profitability and asset quality/risk are related
 - HIGHER PROFITABILITY MEANS LOSS ABSORPTION POWER
 - ADJUST THE COST OF RISK FOR STANDARD COVERAGE



Risk based SRM/DGS contributions: Concerns about unlevel playing field

2. Loan-to-deposits (in RP2):

- a. Reflects support to the real economy through lending
- b. The ratio makes an abstraction of the quality of deposits: stable retail deposits are different from short term wholesale, especially in crises
- c. LCR and NSFR are better able to capture these aspects

Risk based SRM/DGS contributions: Concerns about unlevel playing field

3. Weight of the risk component and subc.

- a. The weight of the risk component makes the contribution more than proportional to size for riskier banks. This makes sense but definition of risk factors will be the key to avoid the risk component to become a mean to redistribute contribution from powerful institutions to less powerful entities.
- b. The weight of the risk component can be even close to the maximum (49%?) if the factors are “size neutral”. Since large banks have a privileged access to SRF, the risk component (and single risk factors) should be tested against size and omitted if the measures result inversely correlated.

Risk based SRM/DGS contributions: Concerns about unlevel playing field

4. Definition of “small bank”

- a. The current definition of small banks is better suited for “micro” banks. Between large and so defined small banks there are plenty of entities which are not in the SRM radar.
- b. “Small” should be relative to the domestic economy.

Risk based SRM/DGS contributions: Concerns about unlevel playing field

5. General Equilibrium

- a. The SRF is introduced to protect taxpayer from bank failure; smaller banks, despite out of SRF radar, are called to contribute to the fund being beneficiaries of financial stability.
- b. Are other taxpayers less beneficiaries of financial stability than smaller banks?
- c. A general equilibrium model should be applied to assess if smaller banks have to contribute and how much. Additional compliance and taxation costs after the crisis should maybe be considered in the model.
- d. The argument smaller banks are usually hit by large bank failures has weak evidences. Enterprises also.

Risk based SRM/DGS contributions: How to avoid unlevel playing field

1. Omit RWA/Total Assets
2. Combine CET1 with leverage
3. Use excess CET1 (vs reg.requirements)
4. Limit AIRB impact vs standard
5. Introduce risk adjusted profitability that is not based on RWA
6. NSFR instead of Loan-to-deposit
7. Let the contribution be more than proportional to size if factors don't prove to be inversely related to size

