EBA EUROPEAN BANKING AUTHORITY

Call for advice on Basel III implementation: key findings from the impact assessment and policy recommendations

Public Hearing | 2 July 2019

Scope of EBA's assessment

- The **Basel III reforms assessed by EBA include**:
  - Revised Standardised Approach for Credit Risk (around 40 recommendations)
  - Revised Internal Ratings Based Approach for Credit Risk (around 50 recommendations)
  - A new Standardised Measurement Approach for Operational Risk (around 35 recommendations)
  - A new treatment of Securities Financing Transactions (2 recommendations)
  - The introduction of a new output floor for internal models (around 10 recommendations)
- EBA will deliver its **advice to the European Commission around end-July 2019**
- In addition, EBA is working on an assessment of:
  - Revisions to the new market risk framework, the so-called Fundamental Review of the Trading Book
  - Changes to the CVA framework
  - Macroeconomic impact assessment (in collaboration with ECB)
- EBA will deliver its advice on these elements to the European Commission in Q3/Q4 2019

EBA delivers a prudential advice on implementation of the revised Basel framework

- The new Basel III framework introduces **a more risk-sensitive framework for the standardised approaches**, while limiting the elements of internal approaches, which in the past have given rise to some degree of variability in capital requirements.
- Implementation **ensures a globally consistent framework** and respect the calibration of the framework.
- Key EU specificities become international standards → Basel compliance made easier for the EU
  - More favourable treatment for SMEs under the SA
  - More favourable treatment for high quality infrastructure finance
  - Covered bonds: new EU-like treatment
  - Loan splitting approach for certain real estate
- International developments must be considered in the finalisation process:
  - The credibility of internal models is low at the BCBS table and among global regulators. Output floor was the compromise to continue to maintain the use of internal models.
  - The reforms have an overall aim of ensuring both a global level playing field and ensuring financial stability. Deviations jeopardise the credibility of the EU transposition as well as the global consistency of capital rules.
  - EU-specific elements, e.g. SME and infrastructure supporting factors, should be re-considered in light of the overall re-calibration agreed upon at the global table.

Summary of the main findings

Estimated impact: full implementation of the Basel III Dec 2017 revisions at steady state (2027)

- Impact in terms of MRC varies across banks and average results affected by very large banks
- MRC increase, by 24.4% for the entire sample - under conservative assumptions
- For 50% of banks impact below 10.6%
- MRC increase for small banks limited to 5.5%
- For around ¼ of the sample MRC decreases
- TC shortfall of about 135 EUR bn, almost entirely in large banks

Main drivers

- Large banks: Output Floor, CVA, Operational Risk
- Smaller banks: SA for credit risk
- **Drivers of impact mostly reflect the intentions of the standards setter**
  - Increased risk sensitivity of the SA, penalising riskier assets (e.g. SA equity, SA unrated banks, SA income producing RE)
  - Constraint on internal models (e.g. AIRB, Op Risk AMA..)

Conservative assumptions 

- Balance sheets are assumed to be static
- Given uncertainty over impact, institutions likely to be conservative in QIS reporting
- P2R and macroprudential requirements are assumed to be static. Reform may lead to their recalibration on the basis of better coverage of model risk in P1 and higher/more conservative RWAs.
- FRTB calculations based on 2016 reform instead of 2019
- Assuming income generation (based on 2014-18 data) during the five year transition, shortfall would reduce to 58.7 EUR bn

Distribution of impact: central scenario

Figure 1 T1 MRC change (as % of current MRC)

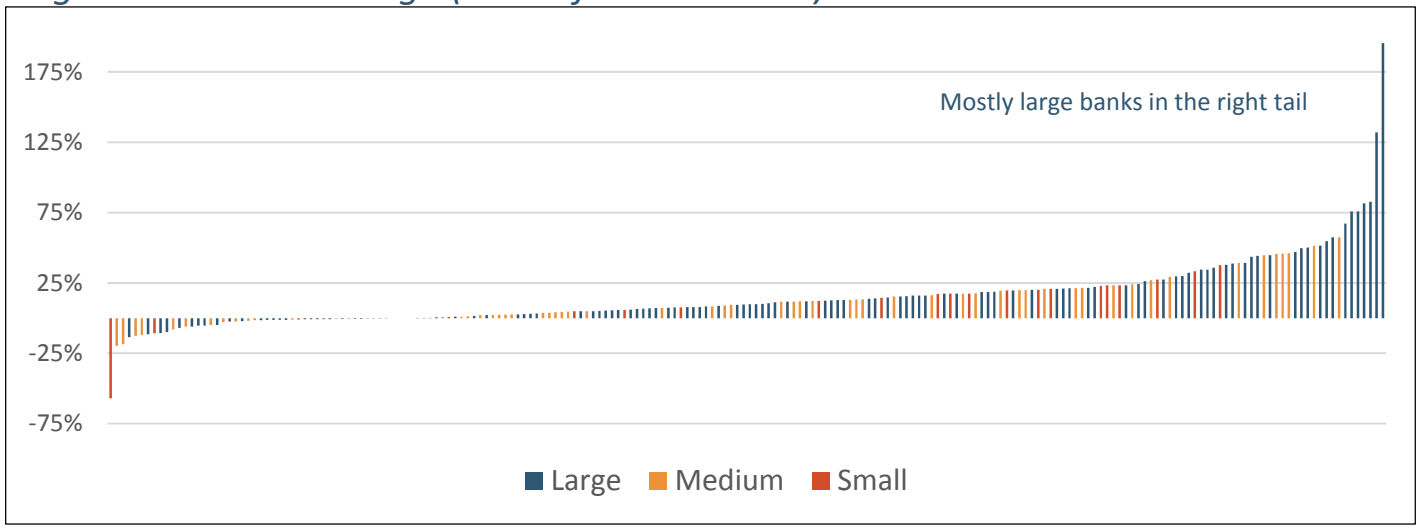
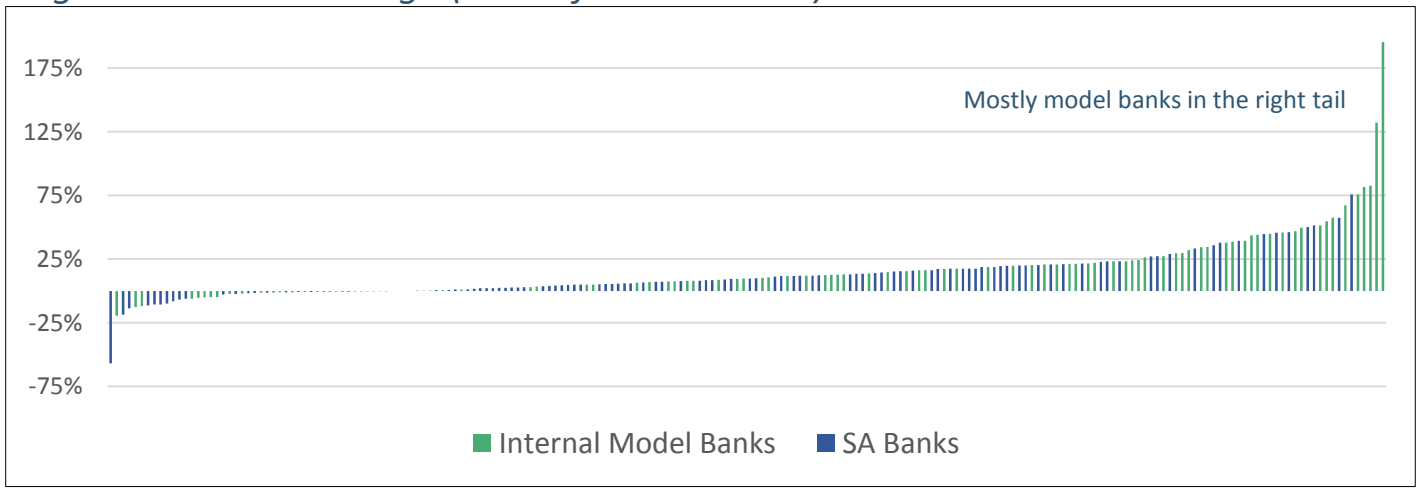


Figure 2 T1 MRC change (as % of current MRC)



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Cumulative Analysis

Sample and data

Data collection

- Took place in the period August-December 2018
- Data as of **June 2018**

Requested data

- RWA calculations before and after Basel III reforms (BCBS templates) at portfolio level
- Marginal impacts of individual reforms and alternative scenarios
- Qualitative questionnaire

Participation in the quantitative data collection

- 234 institutions participated to the voluntary QIS data collection exercise, of which:
  - 218 at highest level of consolidation
  - 16 subsidiaries (of which 13 are OSIIs)

Sample included in the cumulative analysis (if sufficient data quality):

- 189 at highest level of consolidation; of which:
  - 104 Large (of which: 8 G-SIIs, 67 O-SIIs)
  - 61 Medium
  - 24 Small
- 15 subsidiaries (of which: 12 O-SIIs)
- The cumulative sample represents approximately 85% of total assets of EU domestic banking groups and stand-alone banks.

Qualitative Questionnaire sample

- 177 institutions
  - Of which 174 also participated in the QIS data collection

Cumulative Impact: scenarios

Current RWAs: baseline

- National implementation of Basel III – i.e. CRR

Revised RWAs: Central Scenario

- **Credit Risk:**
  - ✓ SA-CR: ECRA framework adopted
  - ✓ SA-CR: loan-splitting method adopted on GRRE, GCRE, IPCRE + hard test
  - ✓ No SME supporting factor
- **Operational Risk:**
  - ✓ ILM: bank-specific
  - ✓ Minimum Loss Threshold: EUR 20.000
- **Market Risk:**
  - ✓ 2016 FRTB standards
- **CVA:**
  - ✓ No CVA exemptions
- **Output Floor:**
  - ✓ Main Approach (Floored RWAs applied to full stack of requirements)

Revised RWAs: Alternative Scenarios

- ILM = 1
- CVA exemptions
- SME supporting factor
- Proxy of FRTB 2019 revisions

Memo item: comparability with Basel III monitoring methodology

- No P2R and Macro-prudential buffers

Cumulative Impact (2027 steady-state)

Table 1 Tier 1 MRC change (as % of current MRC)

	obs	Δ SA	Δ IRB	Δ CCP	Δ SEC	Δ MKT	Δ OP	Δ CVA	Δ LR	Δ OF	Δ Total
All banks	**189**	**2.7%**	**2.7%**	**0.1%**	**0.6%**	**2.5%**	**3.3%**	**3.9%**	**-0.5%**	**9.1%**	**24.4%**
Large	104	2.3%	2.8%	0.1%	0.7%	2.6%	3.4%	4.1%	-0.5%	9.5%	25.0%
of which G-SII	8	1.7%	3.5%	-0.1%	1.2%	4.2%	5.5%	5.1%	0.0%	7.6%	28.6%
of which O-SII	67	2.3%	1.7%	0.2%	0.3%	1.6%	2.1%	3.7%	-0.5%	12.1%	23.6%
Medium	61	9.7%	0.1%	0.0%	0.0%	0.9%	0.3%	0.5%	-1.1%	0.9%	11.3%
Small	24	10.7%	0.0%	0.2%	-1.9%	0.0%	-3.7%	0.3%	-0.1%	0.0%	5.5%

Table 2 Capital ratios and shortfalls (EUR bn)

	CET1 capital			T1 capital			TC capital		
	Current Ratio	Revised Ratio	Shortfall (EUR bn)	Current Ratio	Revised Ratio	Shortfall (EUR bn)	Current Ratio	Revised Ratio	Shortfall (EUR bn)
All banks	**14.4%**	**11.5%**	**91.1**	**15.3%**	**12.3%**	**127.5**	**17.9%**	**14.3%**	**135.1**
Large	14.2%	11.4%	91.0	15.2%	12.2%	126.8	17.8%	14.2%	134.1
of which G-SII	12.7%	9.9%	53.5	13.8%	10.8%	69.0	16.2%	12.7%	82.8
of which O-SII	15.4%	12.5%	33.6	16.3%	13.2%	51.5	19.2%	15.6%	43.8
Medium	17.4%	15.2%	0.1	17.6%	15.4%	0.8	19.0%	16.6%	0.9
Small	17.0%	16.0%	0.0	17.2%	16.1%	0.0	18.3%	17.1%	0.1

➢ *Using Basel III monitoring requirements (P1R + CCB + G-SIIB)*

All banks	14.4%	11.5%	9.9	15.3%	12.3%	24.7	17.9%	14.3%	39.9

- **Impact much higher on large and systemically important institutions**
  - Output floor, CVA, Operational Risk main drivers
- **Small impact on small banks**
  - SA main driver
  - Operational Risk drop due to one institution
- **Concentrated Total Capital shortfall**
  - In a few jurisdictions
  - Only in large banks
  - Around 60% in G-SIIs
- **Would reduce to EUR 59 bn if banks retain profits during transition**
  - based on 2014-2018 profit data
- **March 2019 EBA Monitoring shortfall lower due to no P2R and no EU buffers**

Cumulative Impact – additional scenarios

Table 3 Tier 1 MRC change (as % of current MRC)

	sample	obs	Δ SA	Δ IRB	Δ CCP	Δ SEC	Δ MKT	Δ OP	Δ CVA	Δ LR	Δ OF	Δ Total
Central Scenario	**All banks**	189	2.7%	2.7%	0.1%	0.6%	2.5%	3.3%	3.9%	-0.5%	9.1%	24.4%
ILM = 1	**All banks**	189	2.7%	2.7%	0.1%	0.6%	2.5%	1.6%	4.0%	-0.5%	9.5%	**23.2%**
CVA exemptions	**All banks**	189	2.7%	2.7%	0.1%	0.6%	2.5%	3.3%	1.1%	-0.4%	9.5%	**22.0%**
CRR2 SME supporting factor	**All banks**	189	2.0%	1.8%	0.1%	0.6%	2.5%	3.3%	3.9%	-0.4%	9.2%	22.9%
FRTB 2019 proxy	**All banks**	189	2.7%	2.7%	0.1%	0.6%	1.4%	3.3%	3.9%	-0.5%	9.7%	**23.9%**

Table 4 Capital Ratios and Shortfall

		CET1 capital			T1 capital			TC capital		
		Current Ratio	Revised Ratio	Shortfall (EUR bn)	Current Ratio	Revised Ratio	Shortfall (EUR bn)	Current Ratio	Revised Ratio	Shortfall (EUR bn)
Central Scenario	**All banks**	**14.4%**	**11.5%**	**91.1**	**15.3%**	**12.3%**	**127.5**	**17.9%**	**14.3%**	**135.1**
ILM = 1	**All banks**	14.4%	11.7%	82.5	15.3%	12.4%	115.9	17.9%	14.5%	122.8
CVA exemptions	**All banks**	14.4%	11.8%	79.3	15.3%	12.5%	111.7	17.9%	14.6%	116.9
CRR2 SME supporting factor	**All banks**	14.4%	11.7%	87.0	15.3%	12.5%	120.3	17.9%	14.5%	128.3
FRTB 2019 proxy	**All banks**	14.4%	11.6%	88.0	15.3%	12.4%	123.7	17.9%	14.4%	130.9

NOTE: ratios are based on floored RWAs where applicable

- ILM = 1 halves impact of Operational Risk
- CVA exemptions reduce CVA impact by 75%
- CRR2 SME SF reduce Credit Risk impact by 40% [proxy]
- FRTB 2019 almost halves market risk impact [proxy]

But… 

- **Output floor increases as other requirements shrink**

Constraint analysis

Table 5 Constraint Analysis – number of institutions and % of RWA constrained by the different regulatory metrics – ***Standardised Institutions*** *(no subs)*

	Number of banks		Total number of banks	% of Total RWA	
	RWs	LR		RWs	LR
Baseline	88	22	110	85.9%	14.1%
Revised	93	17		92.1%	7.9%

- **LR:** weak constraint in baseline (due to P2R and CET1 buffers) and weaker in revised framework (due to increase in RWAs)

Table 6 Constraint Analysis – number of institutions and % of RWA constrained by the different regulatory metrics – ***Internal Model Institutions*** *(no subs)*

	Number of banks			Total number of banks	% of Total RWA		
	RWs	LR	OF		RWs	LR	OF
Baseline	63	16	0	79	96.4%	3.6%	0.0%
Revised	34	5	40		29.0%	0.4%	70.7%

- **OF: main constraint in the revised framework**

Table 7 Constraint Analysis – number of institutions constrained by the OF – ***breakdown by country***

	AT	BE	DE	DK	FI	FR	IE	IT	LU	NL	SE	All-banks
Number of banks constrained by the OF	1	3	13	3	1	5	1	3	1	4	5	40
Total number of banks using IM	15	7	40	8	5	14	8	24	6	12	11	79

Impact in terms of RWAs

Table 8 RWA change

	obs	Δ SA	Δ IRB	Δ CCP	Δ SEC	Δ MKT	Δ OP	Δ CVA	Δ other	Δ OF	Δ Total
All banks	**189**	**2.9%**	**2.5%**	**0.1%**	**0.6%**	**2.5%**	**3.5%**	**3.9%**	**0.0%**	**8.5%**	**24.5%**
Large	104	2.5%	2.6%	0.1%	0.7%	2.6%	3.7%	4.1%	0.0%	8.9%	25.0%
of which G-SII	8	1.8%	3.2%	-0.1%	1.1%	4.1%	5.5%	5.0%	0.0%	7.2%	27.9%
of which O-SII	67	2.5%	1.2%	0.2%	0.3%	1.6%	2.3%	3.7%	0.0%	11.0%	22.9%
Medium	61	11.1%	0.3%	0.0%	0.0%	0.8%	0.3%	0.5%	0.0%	1.2%	14.0%
Small	24	11.6%	0.0%	0.3%	-2.1%	0.0%	-3.6%	0.4%	0.0%	0.0%	6.6%

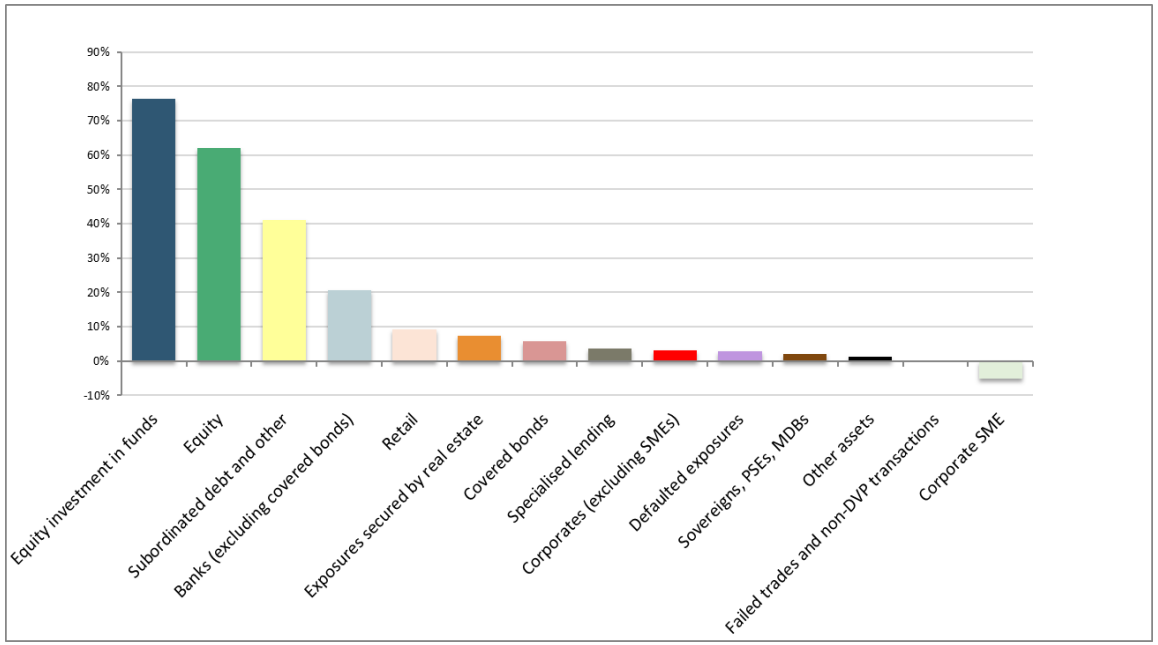
Risk-specific QIS results: Credit Risk

Credit risk SA – overview of RWA change

Reminder: contribution to total RWA change

	Δ SA
All banks	**2.9%**

Figure 3 ***Portfolio RWA change*** *(as a % of* ***current portfolio RWA****)*



The new SA framework increases granularity of risk weights, penalizing relatively riskier exposure and sub-exposure classes

Equity Funds: look-through and mandate approaches pay the increase in (underlying) risk weights, e.g. equity.
CRR applies 150% RW instead of BCBS 1250% when fall-back applies

Equity: most corporate and financial equity from 100% flat to 250% RW
(to 400% for speculative-unlisted equity and to 100% for legislated programmes, but these are minor sub-categories)

Sub Debt: most exposures from 100% to 150% RW

Banks: from flat 50% RW for unrated exposures to 40% / 75% / 150% based on grade (A,B,C depending on capital strength of the bank)

Retail:
- If refined retail definition criteria are not met, 100% RW instead of 75% RW applies
- off-balance sheet exposures. UCC commitments no longer considered riskless (CCF increases from 0% to 10%) and

Real Estate: Commercial Real Estate and newly identified Income Producing real estate and construction and development drive the increase in RWAs

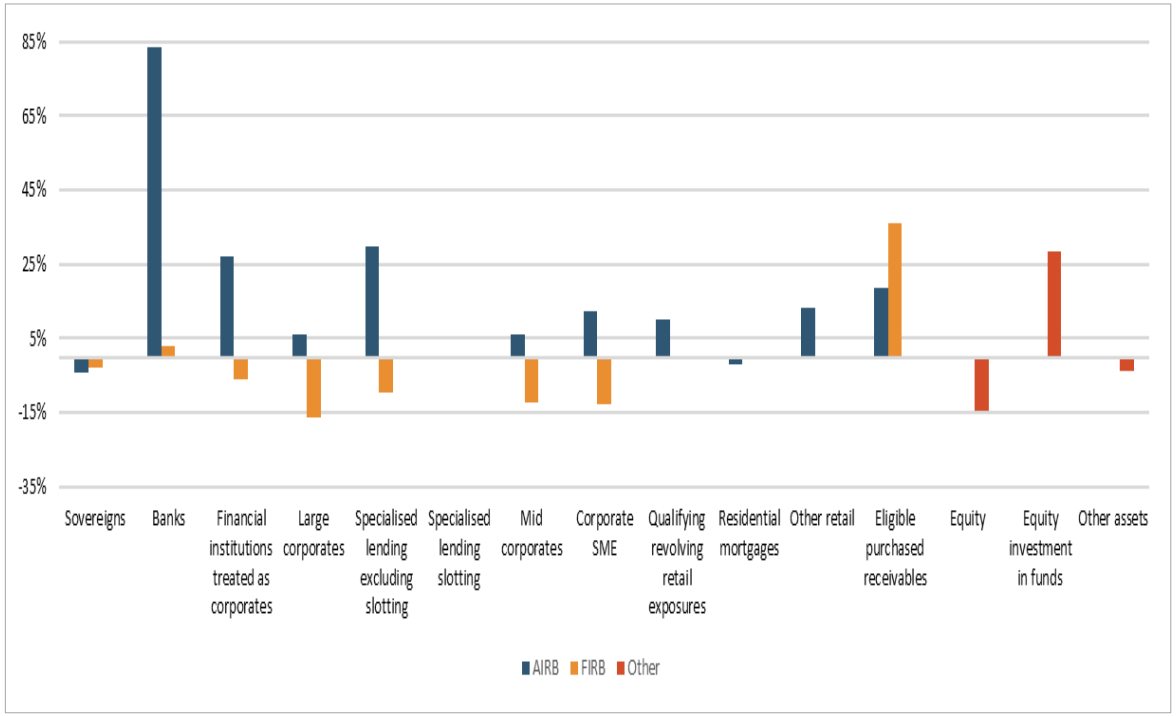
Spec Lending: New category Project Finance Construction phase drive the increase (construction risk)

Credit risk IRB – overview of RWA change

Reminder: contribution to total RWA change

	Δ IRB
All banks	**2.5%**

Figure 4 ***Portfolio RWA change*** *(as % of* ***current portfolio RWA****) [sample 78]*



The new IRB framework constrains the use of internal models:

- A-IRB: increases across exposure classes (except sovereigns and residential mortgages)
- F-IRB: RWAs decrease (lower LGD parameters, and other reforms)

Equity exposures move to the SA: decrease in RWAs

- From 370% (most common risk weight under Simple Approach) to 250% (new SA risk weight)

A-IRB main drivers of impact

- Banks and Financial Institutions: migration to F-IRB and PD input floors
- Spec Lending: PD and LGD input floors

F-IRB main drivers of (negative) impact

- Lower LGD parameters

Capital relief across most asset classes

- Removed 1.06 IRB scaling factor
- CCFs

WARNING Poor data quality on purchased receivables

Credit risk SA – ECRA & SCRA & Combined

Exposures to Corporates (excl. SME)

Figure 5 ***ECRA*** *- Share of unrated exposures – as % of exposure class total*

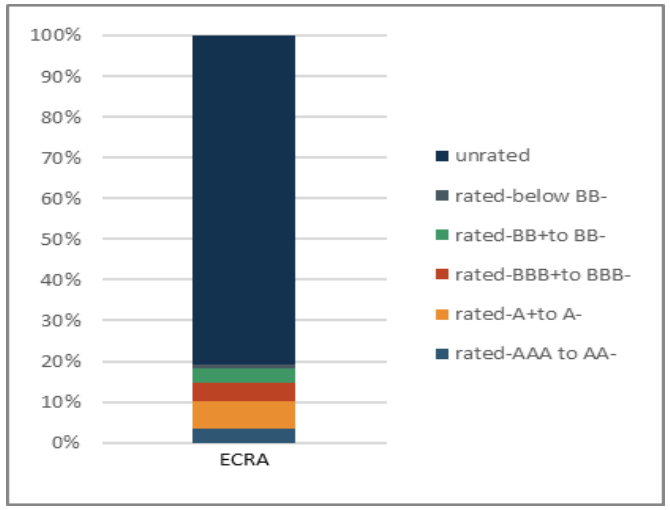


Figure 6 ***SCRA*** *- Share of investment grade exposure– as % of exposure class*

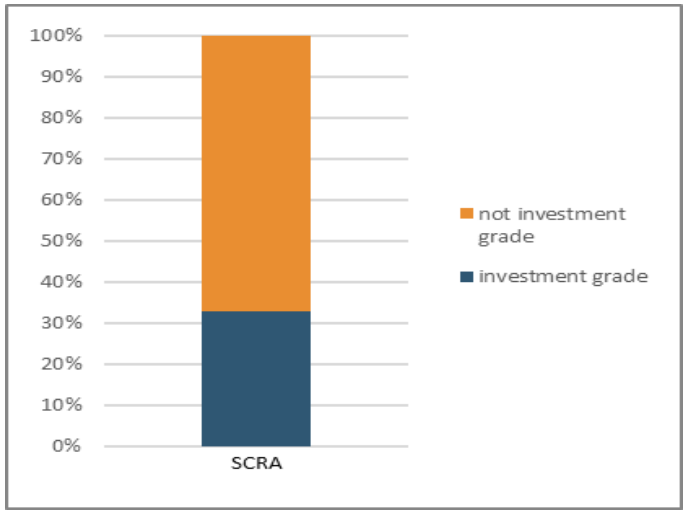
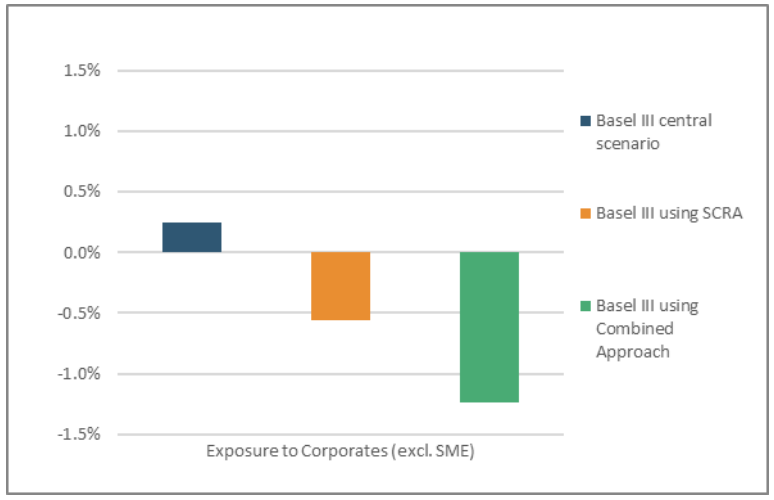


Figure 7 Change in RWA - ECRA vs. SCRA vs. Combined – per exposure class (as % of total SA-RWA)



- Exposures classes where most exposures are rated benefit from ECRA
- Corporates, and to a lesser extent SME corporates, benefit from SCRA
- the 'combined' approach cherry-picks from the two frameworks, leading to a decrease in RWAs more pronounced than in the SCRA-based scenario

Credit risk SA – Exposures secured by Real Estate

Figure 8 Exposure Value breakdown, % of total SA Real Estate exposure under Basel III

Figure 9 Change in RWA per scenario (as % of SA-RWA)

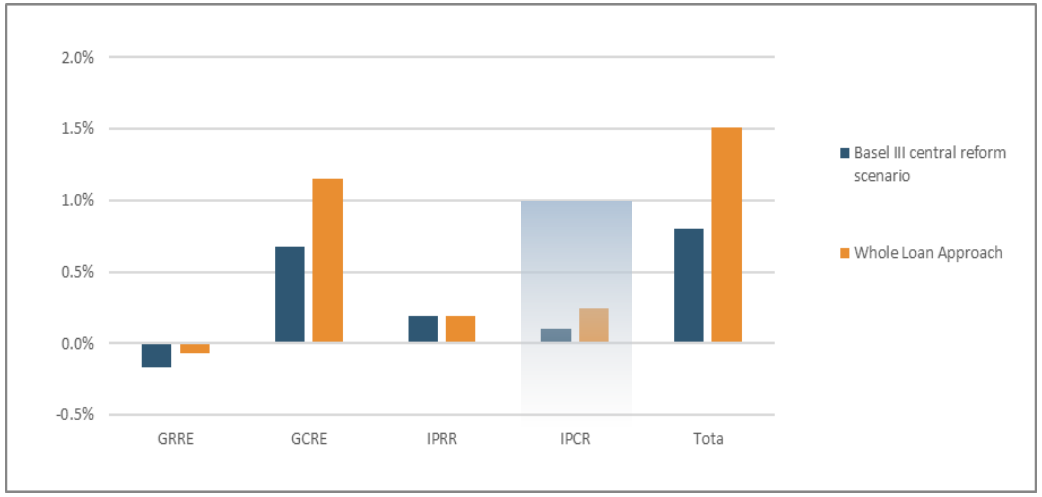


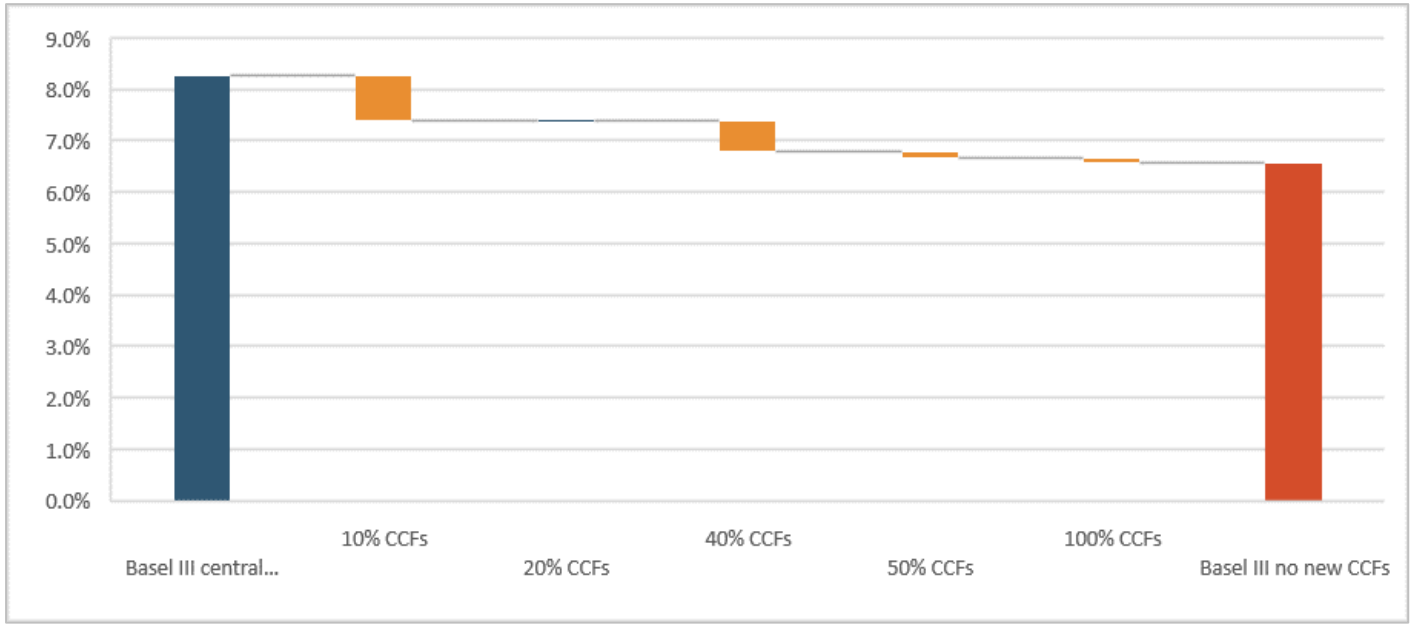
Table 9 Real Estate Exposures – scenarios specification

	Basel III central reform scenario	Whole Loan scenario
GRRE	Loan Splitting	Whole Loan
GCRE	Loan Splitting	Whole Loan
IPRRE	Whole Loan	Whole Loan
IPCRE	Loan Splitting if hard test passed otherwise whole loan	Whole Loan

The 'whole loan' approach applies risk weights in accordance with the exposures' LTV, following a mapping of LTV bands into risk weight, resulting in an increase in RWA in each class of exposures secured by Real Estate

Credit risk SA: CCF

Figure 10 Change in RWA marginal impact of revised Credit Conversion Factors



The bulk of the impact stems from UCC type of commitments

10% CCF: UCC (current 0%)

20% CCF: trade letters (current 20%)

40% CCF: other commitments (current 20% / 50%)

50% CCF: NIFs and RUFs (current 50%)

100% CCF: credit substitutes (current 100%)

Credit risk SA – SME Supporting Factor

Figure 11 Compliant exposures to SMEs (% of total exposure with exposure class)

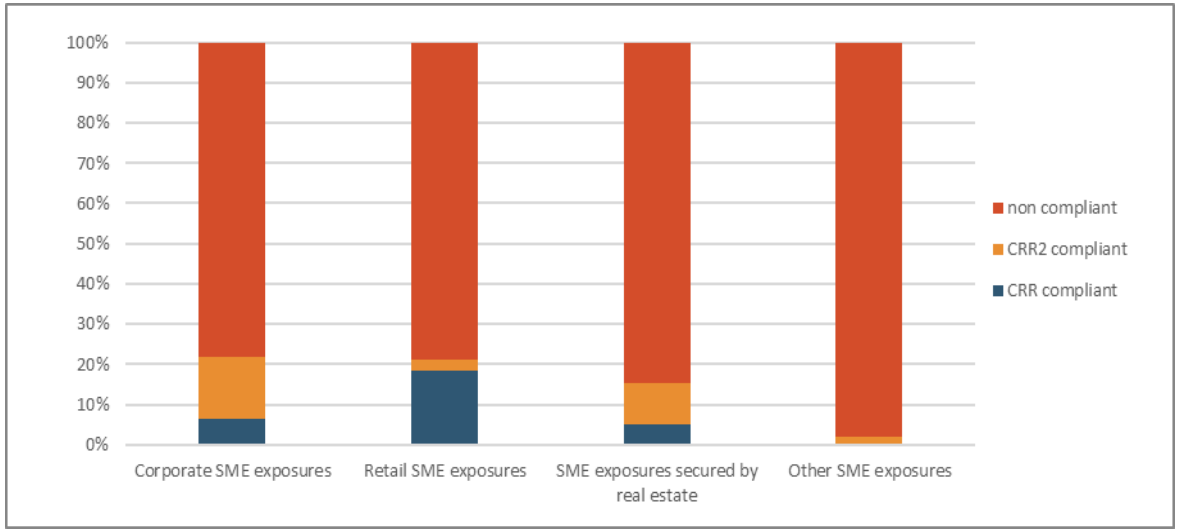


Figure 12 Change in RWA per SME regulatory scenario (as % of SA-RWA)

Reminder: contribution to total RWA change

Δ SA Central Scenario		Δ SA CRR2 SME SF	
All banks	2.9%	All banks	2.2%

- The CRR 2 expands materially the eligibility for the SME supporting factor in Corp SME and Real Estate.
- In Retail exposure the marginal impact is lower
- Including the CRR2 SME supporting factor in the Basel III framework drives the impact of the reform for SME portfolios to zero or negative

Credit risk SA – Infrastructure Supporting Factor

Table 10 Real Estate Exposures – scenarios specification

SA Portfolios	Compliant to apply the INF SA
Corporate non-SME	0 % compliant exposures
SME Corporate	1 % compliant exposures
Specialised lending	10 % compliant exposures

Results not shown as they are exclusively driven by a very limited number of institutions

QIS evidence shows very limited compliance of the existing SA corporate and specialised lending portfolios with the eligibility criteria of the infrastructure projects supporting factor

Credit risk IRB – SME Supporting Factor

Figure 13 Compliant exposures to SMEs (% of total exposure with exposure class)

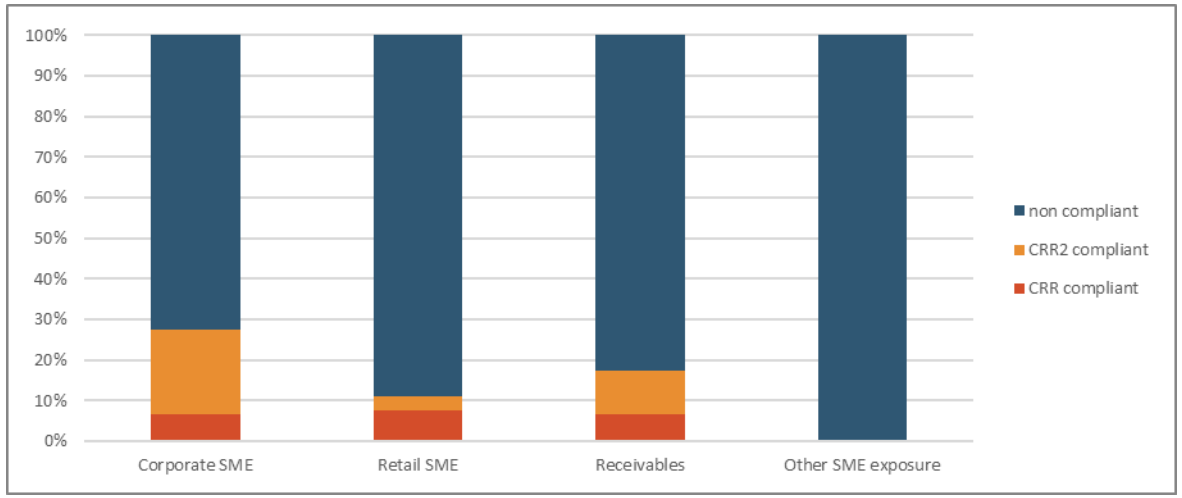
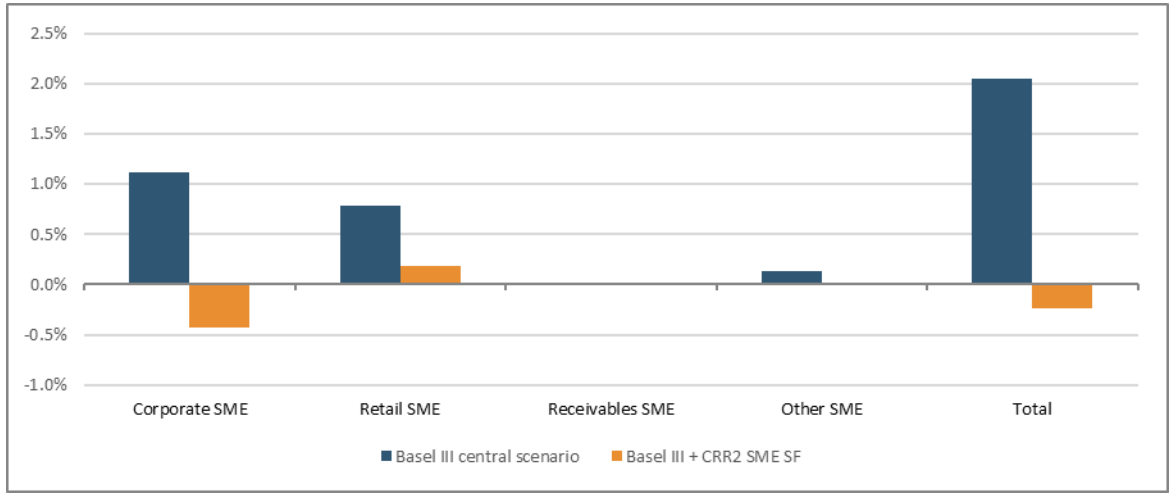


Figure 14 Change in RWA per SME regulatory scenario (as % of IRB-RWA)



Reminder: contribution to total RWA change

Δ IRB Central Scenario		Δ IRB CRR2 SME SF	
All banks	2.5%	All banks	1.6%

- The CRR 2 expands materially the eligibility for the SME supporting factor in Corp SME and Receivables.
- In Retail exposures the marginal impact is lower
- Including the CRR2 SME supporting factor in the Basel III framework takes the impact of the reform to zero or negative

Credit risk IRB – Infrastructure Supporting Factor

Table 11 Infrastructure Supporting Factor – eligibility

IRB Portfolios	Compliant to apply the INF SF
Corporate	1 % compliant exposures
Specialised lending	3 % compliant exposures

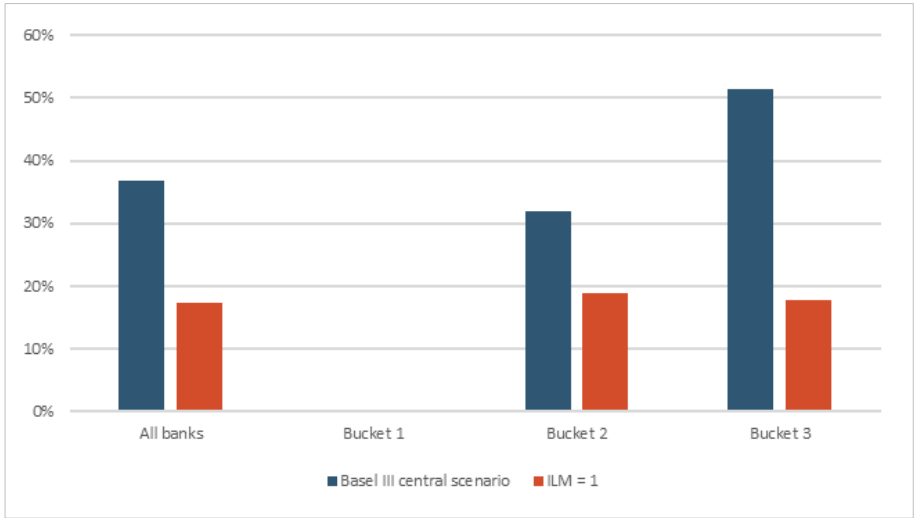
QIS evidence shows very limited compliance of the existing IRB corporate and specialised lending portfolios with the eligibility criteria of the infrastructure projects supporting factor

Results not shown as they are exclusively driven by a very limited number of institutions
Low compliance potentially due to difficulties assessing the new criteria on existing portfolios

Risk-specific QIS results: Operational Risk

Operational risk: the ILM discretion on bucket 2 & 3

Figure 15 ***OpRisk RWA change*** *(as a % of current Op Risk RWAs)*



WARNING

Impact for Bucket 1 institutions is positive close to 0

Reminder: contribution to total RWA change

Δ OP Central Scenario		Δ OP ILM = 1	
All banks	**3.5%**	**All banks**	**1.8%**

ILM: When set to 1 the historical loss component:

- increases the requirement for institutions with benign loss history
- decreases the requirement of institutions with less benign loss history

Figure 16 ***RWA change*** *(as a % of current Op Risk RWAs)*

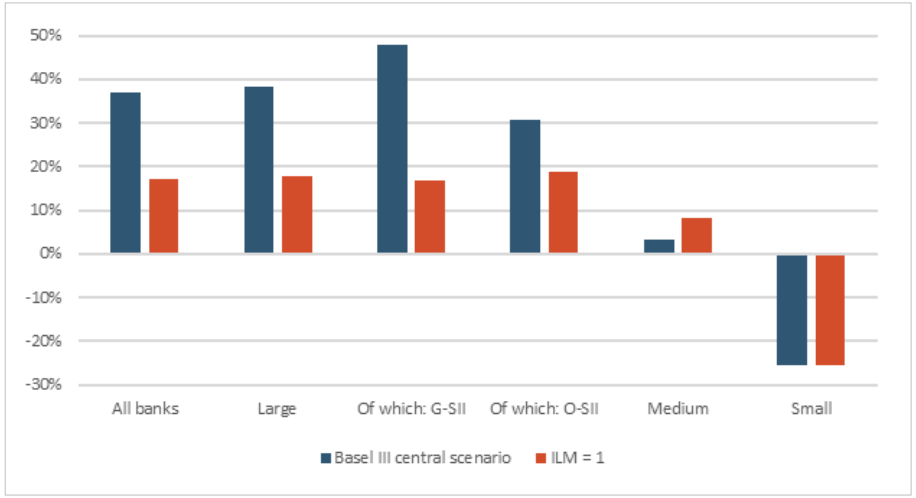
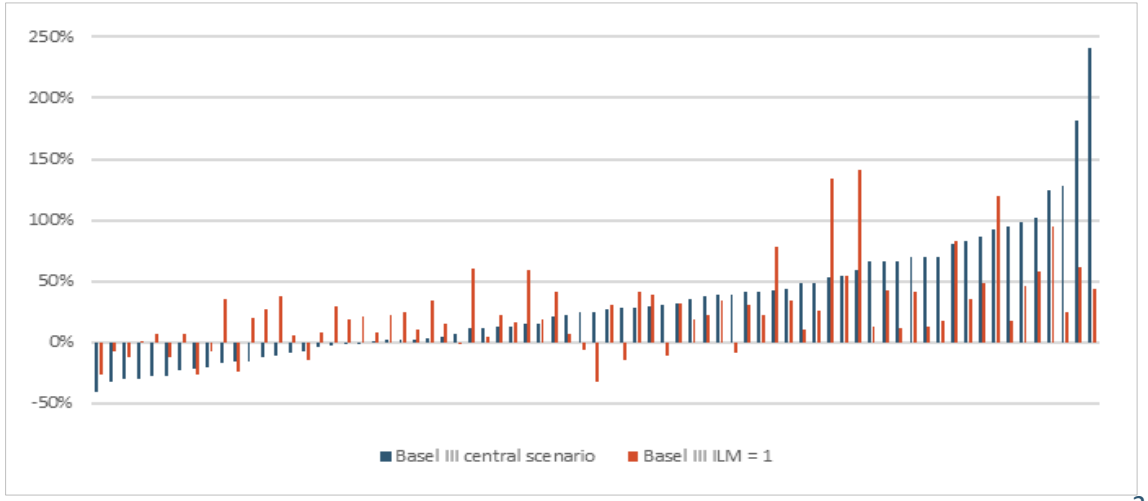


Figure 17 ***RWA change*** *(as a % of current Op Risk RWAs)*



Operational risk: the ILM discretion on bucket 1

Figure 18 ***RWA change*** *(as a % of current Op Risk RWAs)*

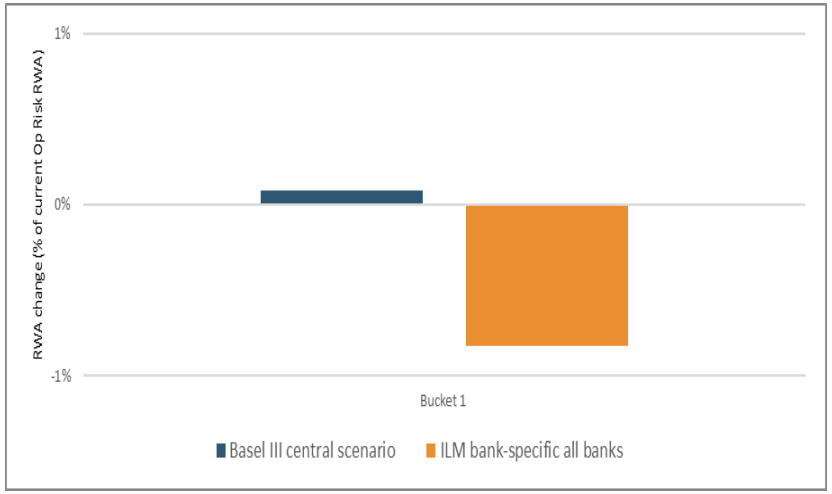


Figure 19 ***RWA change*** *(as a % of current Op Risk RWAs)*

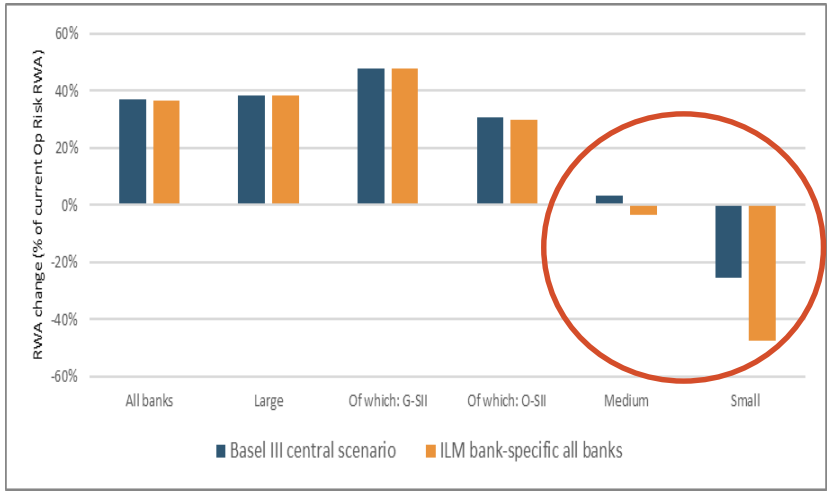
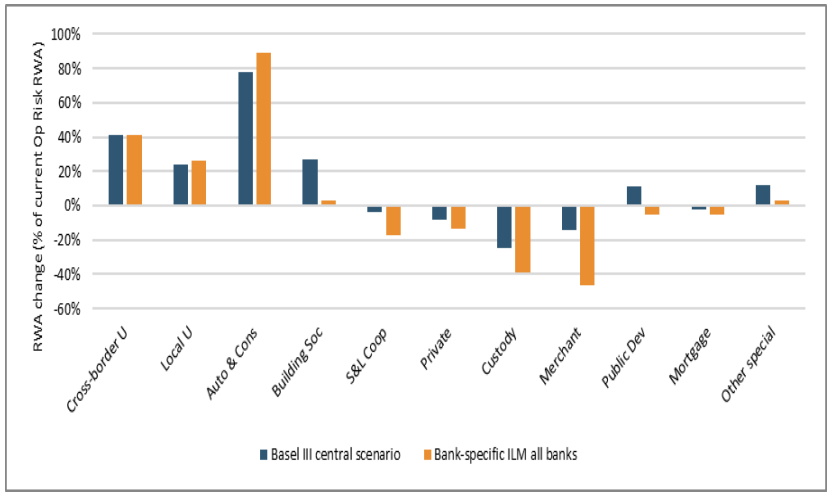


Figure 20 ***RWA change*** *(as a % of current Op Risk RWAs)*



- **(Figure 16)** An active ILM for Bucket 1 banks lowers their capital requirement as most Bucket 1 banks have ILM < 1 due to:
  - Lower historical losses
  - Historical losses below EUR 20K threshold
- **(Figure 17)** Most bucket 1 banks are in clusters Medium and Small
- Most specialised business models are bucket 1 banks → capital requirement decreases **(Figure 18)**
- Exceptions: Leasing and Automotive CC **(Figure 18)**

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Subsidiary Analysis

Subsidiary analysis: Results of qualitative survey

- Main driver is the output floor, particularly for cross border universal and local universal banks, cooperative banks and mortgage banks.
- 39% of IRB banks are constrained by the output floor under the revised framework.
- Business models affected: Local universal banks, Cross-border universal banks, Leasing, Mortgage and Cooperatives

Table 12: Constraint analysis (IRB banks)

	RWs	LR	OF		RWs	LR	OF
Baseline	25	13	0	38	66 %	34 %	0%
Revised	18	5	15		47 %	13 %	39 %

Table 13: Constraint analysis (SA banks)

	RWs	LR		RWs	LR
Baseline	18	3	21	86%	14%
Revised	19	2		90%	10%

Table 14: Constraint analysis (Group and subsidiary)

		Subsidiary constraint		
		LR	**RW**	**OF**
Group constraint	**LR**	3	1	0
	RW	2	27	2
	OF	2	9	13

Subsidiary analysis: Results of QIS based on subsidiary sample

Table 15: Cumulative results for subsidiaries participating in the QIS data collection

	Number of banks	Δ SA	Δ IRB	Δ CCP	Δ SEC	Δ MKT	Δ OP	Δ CVA	Δ LR	Δ OF	Δ Total
All banks	**15**	**1.42%**	**3.64%**	**-0.05%**	**0.80%**	**3.09%**	**0.75%**	**3.41%**	**-0.63%**	**13.34%**	**25.75%**
Large	13	1.42%	4.08%	-0.05%	0.84%	3.24%	0.74%	3.57%	-0.66%	13.96%	27.12%
Of which O-SII	13	1.42%	4.08%	-0.05%	0.84%	3.24%	0.74%	3.57%	-0.66%	13.96%	27.12%
Medium	2	1.32%	-5.66%	0.00%	0.00%	0.00%	0.87%	0.00%	0.00%	0.00%	-3.46%

Table 16: Constraint analysis (IRB banks)

	RWs	LR	OF		RWs	LR	OF
Baseline	6	3	0	9	46.3%	53.7%	0.0%
Revised	3	1	5		10.2%	1.3%	88.6%

Table 17: Constraint analysis (SA banks)

	RWs	LR		RWs	LR
Baseline	6	0	6	100.0%	0.0%
Revised	6	0		100.0%	0.0%

- Results consistent with cumulative analysis
- Main driver is the output floor, followed by IRB and CVA
- OF main constraint under the revised framework
- Business model affected: Local universal banks, Cross-border universal banks

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Policy recommendations

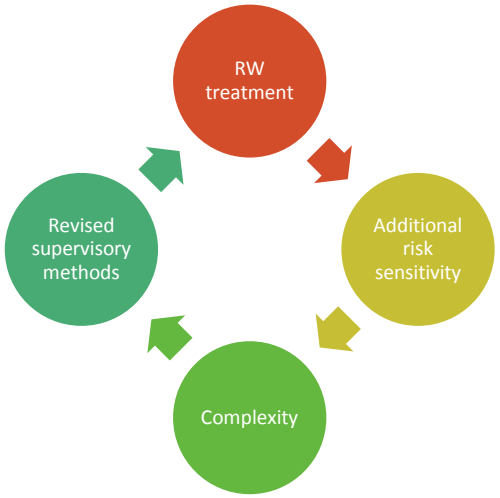
Content

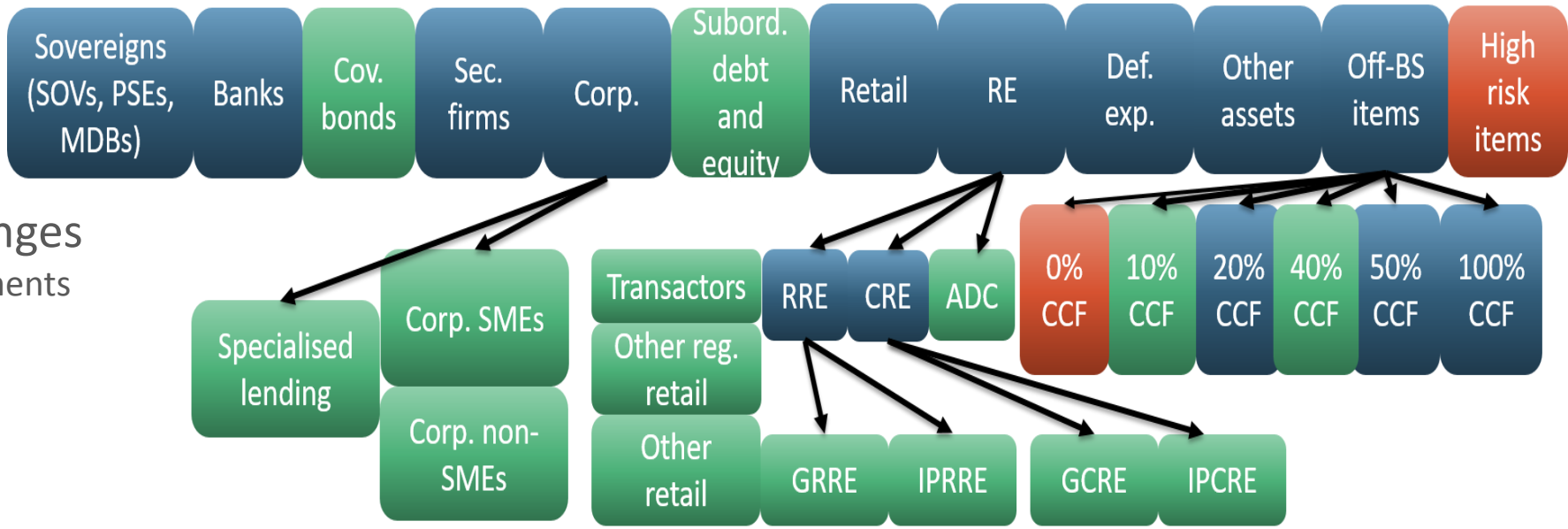
The revised Standardised Approach for Credit Risk

- Calibration for CR SA
  - Additional risk sensitivity;
  - Balance between risk sensitivity and complexity;
  - Additional needs in terms of supervisory framework for oversight

- Accommodates European specificities
  - Introduces loan-splitting approach for residential mortgages
  - Lowers SME risk weight
  - Allows continued use of ratings

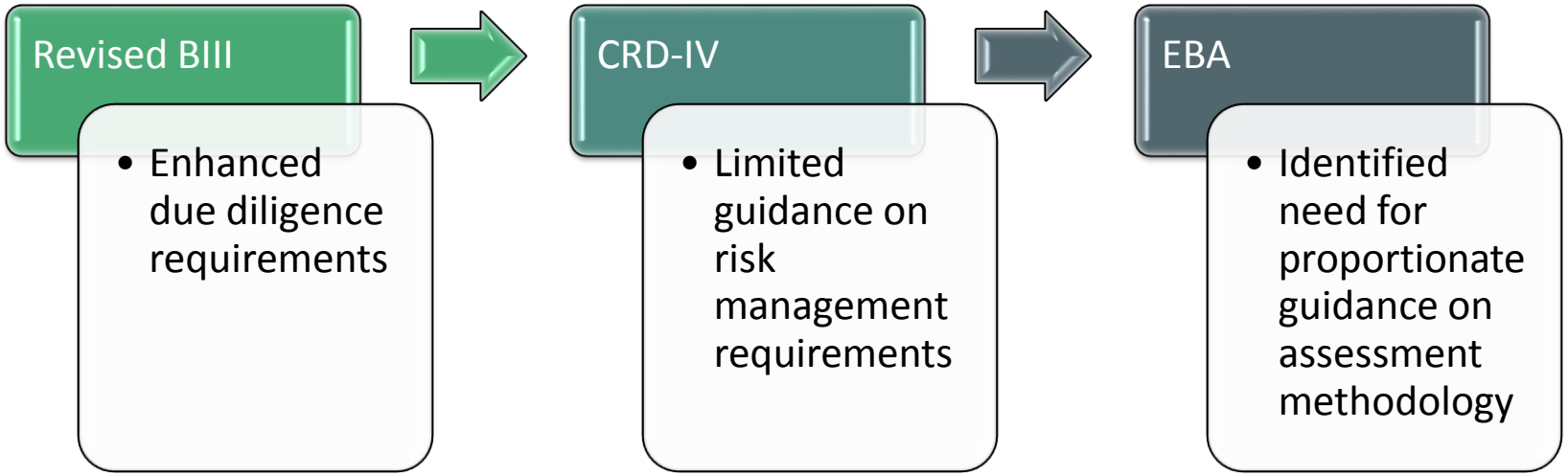
- Some implementation challenges
  - Enhanced due diligence requirements
  - Valuation requirements
  - New sub-asset classes





EBA recommends the implementation of the enhanced due diligence requirements

- To ensure adequate understanding of the risk profile and characteristics of institutions' counterparties



EBA recommends continuity in the implementation of the External Credit Ratings Approach

External Credit Ratings Approach (ECRA)

- Established methodological and regulatory frameworks for the European ecosystem of CRAs
- No European evidence of systematic deficiencies of rating methodologies
- Continuous monitoring of the adequacy of the credit ratings issued by CRAs for regulatory purposes
- Institutions' significant investments in infrastructures incorporating external credit ratings

Standardised Credit Ratings Approach (SCRA)

- Exposures to institutions: more disruptive and less granular RW treatment
- Exposures to corporates: effectively asks for the set-up of an internal rating system, which would add significant complexity for small and medium banks

Hybrid approach for unrated corporate exposures

- Non-Basel compliant
- QIS Banks -> marked difficulties in identifying 'investment grade' exposures =>
  - concern about comparability of computed RWAs
  - Un-level playing field regarding costs (capital and implementation)
- Upon accurate implementation -> no significant improvement: listed unrated corporate exposures receiving a 65% RW ⇔ externally rated corporate exposures => unlisted unrated corporate exposures receive a 100% RW

EBA recommends the implementation of the risk weight treatment for equity-like instruments

- **Equity portfolio – moving from the IRB Approach to the SA**
  - EBA paved the way via the GLs on High risk items
- **SA is provided with additional risk sensitivity**, to account for the differentiated risk profile of some of the sub-exposure classes (i.e. listed vs. unlisted equities ⇔ investments in private equity or venture capital firms, currently classified as 'high risk' under the SA).
- The Basel calibration for **equities in the Banking Book - balance with the Market Risk framework**:
  - Unlisted equities excluded from Trading Book => need to account for inherent risk in the Banking Book
  - Listed equities: limited presence in the Banking Book => limited expected impact of revised RW treatment in the Banking Book

Recommendation CR-SA 13: Revised risk weight treatment for subordinated debt, equity and other capital instruments
The EBA, recognising that the overall conservative calibration of the risk weights for this exposure class reflects its risk profile, recommends the implementation of the revised Basel III risk weight treatment for subordinated debt, equity and other capital instruments in the European regulatory framework.

Standardised approach – other recommendations

- EBA advice will contain close to 40 recommendations, which suggest improvements to the SA
- Recommendations include **clarifications on implementation issues** in the Basel framework, such as:
  - Introduction of due diligence requirements in loan granting
  - The role of government support elements in the ratings of institutions
  - Introduction of Basel framework for specialized lending
  - Specification of the capital requirements for equities
  - Continued use of the 'hard test'
  - Alignment of valuation framework proposed in Basel

- In addition, previous EBA work and issues raised in the EBA Q&A process have been included, such as:
  - Clarification of the CRM framework, in line with EBA report on CRM
  - Clarifications to the PSE definition

Content

Credit risk – IRB: how Basel 3 enhances the framework

Step 1: observation

Step 2: Model Design

Step 3: RWA computation

Low data portfolios: core of the reform

- ✓ ***Reduce scope of modelling (migration)***
- ✓ ***Constrain estimates (input floors)***

Update regulatory parameters (LGD&CCF)

Clarify modelling requirements

Delete 1.06 scaling factor

Review Credit Risk Mitigation framework

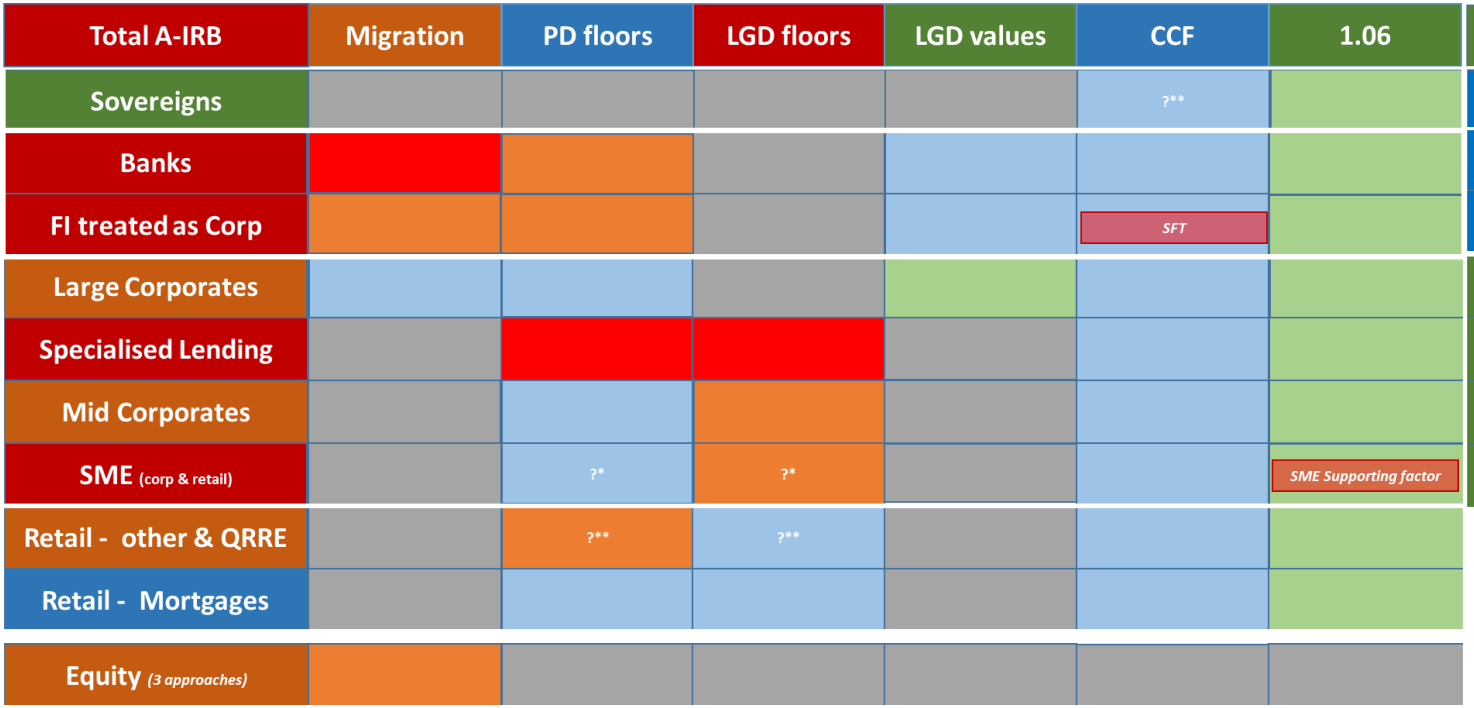
- *"A key objective of the revisions incorporated into the framework is to reduce excessive variability of risk-weighted assets (RWA). At the peak of the global financial crisis, a wide range of stakeholders lost faith in banks' reported risk-weighted capital ratios. The Committee's own empirical analyses also highlighted a worrying degree of variability in banks' calculation of RWA." (BIS December 2017)*
- The IRB framework is maintained to keep sufficient risk sensitivity in the framework, but with targeted fixes in order to reduce the variability of the model outcomes where estimates are not deemed reliable enough.
- This review shall be considered in parallel with the finalised EBA *IRB road map* (3 RTS, 4 Guidelines).

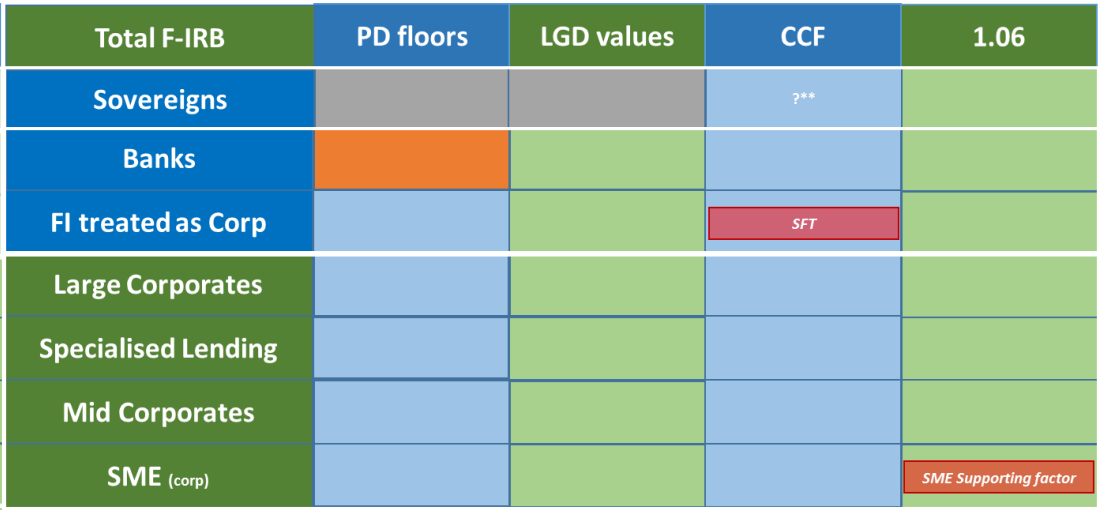
➔ **The EBA CfA answer proposes a number of technical adjustments to the current IRB framework.**

➔ **he revisions to the regulatory framework will help restore credibility in the calculation of RWAs.**

Credit risk – IRB: tackling variability from the top

impact from the main IRB elements of the finalisation of Basel III (based on QIS results)





Strong impacts >+10% | Moderate impact [10% ; 5%] | ≈ no impact [+5% ; -5%] | Negative impact <-5% | Not applicable

** To be confirmed for SME retail*
***To be confirmed*

Strong impacts >+10% | Moderate impact [10% ; 5%] | ≈ no impact [+5% ; -5%] | Negative impact <-5% | Not applicable

➔ **A-IRB is the approach mostly impacted by the reform**

➔ **The impact on F-IRB is kept neutral (diminution of own funds requirements)**

Credit risk – IRB: EBA recommendations

- EBA advice will contain close to 50 recommendations, which suggest improvements to the IRB

Reduced scope of modelling

- Clarification on the treatment of sovereign exposures, where A-IRB modelling is allowed
- Migration of LDPs to F-IRB
- reduced scope of CCF modelling
- Higher granularity in the PPU of SA & more flexibility in the reversal to less sophisticated approach (BIII = “extraordinary circumstances”)

Reshaped risk parameters

- Introduction of LGD input floors in line with the Basel framework & clarifications for the specialised lending exposures
- Flexibility in the use of effective versus standardised maturity
- Introduction of a definition for facility (LGD modelling)
- Deletion of the possibility to use 180 days past due

Adjustments for specific exposures

- Covered bonds: unchanged EU LGD values, 5bps PD floor
- No introduction of a specific category of HVCRE in the IRB framework
- Clarifications in the CRM framework (in particular for Unfunded Credit protection: Risk weight functions to be used & treatment of guarantor under FIRB or SA)

Content

1. Credit Risk – Standardised Approach
2. Credit Risk – IRB
3. Credit Risk – Common issues
4. Operational Risk
5. Output floors
6. Market Risk and SFTs

SME and infrastructure supporting factors

- **SME and infrastructures benefit from RW recalibrations**
  - SA – two different sets of preferential treatments : Retail SMEs receive a flat 75% RW, Corporate SMEs receive a flat 85% RW
  - IRB – specialised lending approaches
- **Keeping supporting factors in extra is prudentially unwarranted**
  - would lead to a “double reduction” of capital requirements for SME exposures
  - has not resulted in a clear and marked decrease in SMEs’ probability to be credit constrained
- **Technical improvements are necessary** :
  - alignment of SME definition across SA and IRB

Recommendation CR 2: SME supporting factor

The EBA considers that, due to the already more favourable treatment introduced via the revised Basel III framework for SA (an 85% RW for corporate SMEs and a 75% RW for retail SMEs), the removal of the SME supporting factor is recommended. Instead, the revised Basel III framework should be implemented without any further adjustments. The risk sensitivity of the IRB framework already implies a differentiation of the weighting of the SME exposures, and any further adjustment leads to a “double reduction” of capital.

Recommendation CR 3: Infrastructure supporting factor

The removal of the infrastructure lending supporting factor is recommended. Instead, the revised Basel III framework for specialised lending should be implemented. Similarly as for the SME supporting factor, the risk sensitivity of the IRB framework already implies a differentiation of the weighting of infrastructure lending exposures, hence no further adjustment is needed.

Common issues across credit risk- other considerations

- Consistency in definitions
- Overall, **7 recommendations**, such as:
  - Alignment of definition of commitments across SA and IRB
  - Closer alignment of retail definition across SA and IRB
  - Introduction of ‘transactor’ concept

Content

Basel 3 Standardised Approach for Operational Risk

- Current internal model approach, AMA, to be phased out.
- Introduces more risk sensitive **Standardised Measurement Approach** (SMA):

Op Risk capital = BIC x ILM

- Business Indicator Component (**BIC**) = $\Sigma(\alpha_i \cdot BI_i)$
- BI (**Business Indicator**) is the sum of three components: the interest, leases and dividends component; the services component and the financial component.

Bucket	BI range	Marginal BI coefficients (α_i)
1	≤€1 bn	0.12
2	€1 bn < BI ≤ €30 bn	0.15
3	>€30 bn	0.18

- **ILM** (the Internal Loss Multiplier) is a function of the BIC and the Loss Component (LC), where the latter is equal to 15 times a bank's **average historical losses** over the preceding **10 years**.
- **ILM 'bank specific'**

  = *ln* [*exp(1) -1 + (LC/BIC)^0.8*]
- ILM banks specific applies to Bucket 2 and 3 banks.
- ILM can be set to 1 for Bucket 1 banks (small banks).

No implementation of the ‘ILM = 1’ discretion in EU

- EBA has performed deep and extensive analyses, both at quantitative and qualitative levels, to assess if the discretion to **set the ILM = 1** for all banks should be introduced
- These analyses confirmed that:
  - a bank’s **past operational losses** are an **effective indicator** of the current-year operational losses
  - the **volatility** of the capital requirements is **mainly driven by the BIC** rather than by the ILM

Recommendation OR 1 on the discretion on ILM bank specific or equals 1

In light of the analysis of the drivers of setting ILM equal to 1 shown in Section 1.1.1, the statistical analyses on the use of losses in capital calculation shown in Section 1.1.2 and the additional policy considerations shown in Section 1.1.3, the **EBA recommends** that in the adoption of the BCBS SA by the EU legislators, the discretion to **set ILM equal to 1 is not applied**.

Recommendation OR 4 on the discretion for competent authorities to allow the use of ILM bank specific to Bucket 1 banks

In order to address with sufficient flexibility the several situations that could occur, competent authorities should retain the discretion to grant **permission** to the relevant **Bucket 1 institutions** under their supervision to use a **bank’s specific ILM** in the BCBS SA calculation. If this permission is granted to an institution, it should fulfil, like for buckets 2 and 3 institutions, the quantitative and qualitative requirement envisaged by the BCBS SA baseline and the additional qualitative requirements indicated in the Part 2 of this document.

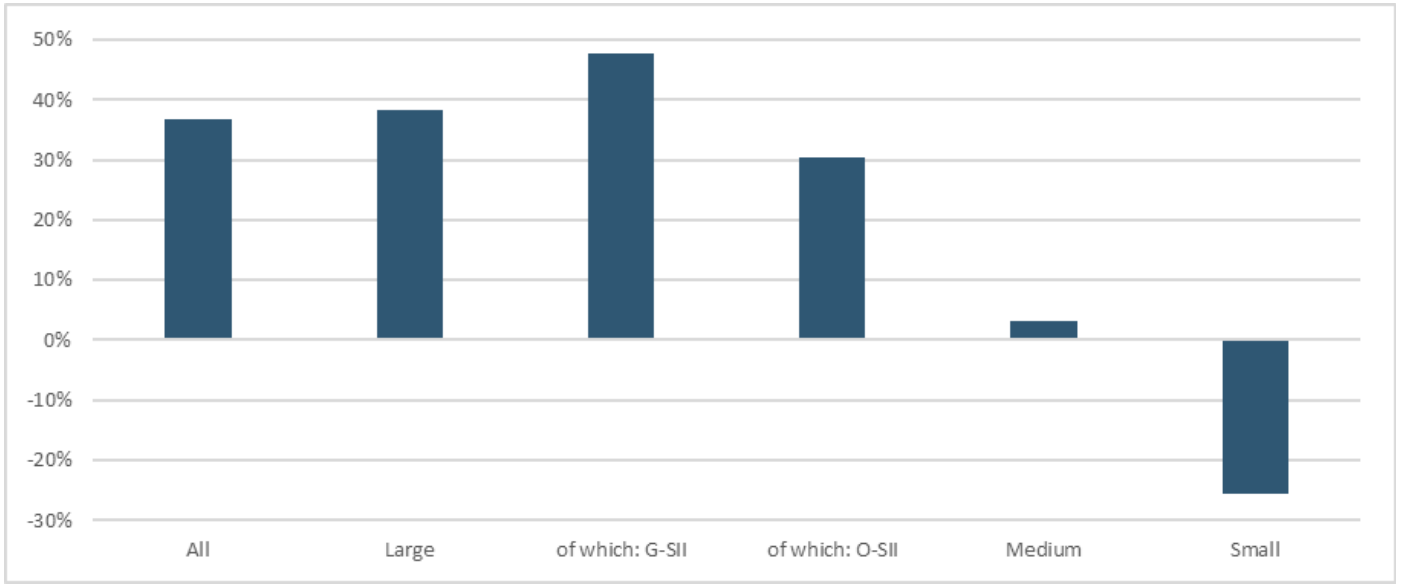
Operational risk – careful introduction of the framework

A new balance

- Significant **variability** has been observed in the use of the AMA. The **SMA** is an overall improvement and should **maintain the risk sensitive** ILM component

Multi-directional impact

- **Large** banks most impacted by reforms
- **Smaller** banks have more limited and often negative impacts



Recommendation OR 3 on a transitional phase for the introduction of the SA

Buckets 2 and 3 banks could benefit of a **more gradual introduction** of the BCBS SA baseline and make use of a phase-in solution aligned to that envisaged by the output floor, in order to **smooth potential cliff effects compared to current operational risk capital levels** and to improve quality and completeness of the loss data to be used within the BCBS SA.

Implementation of the **quantitative** requirements

- The EBA paid particular attention to the impact that the proposed requirements would have on the different types of banks compared with the current ones.
- The following table summarizes the recommended scope of the discretions for each type of banks. Bucket 1 banks are further split in large and smaller, based on the level of Business indicator.

	Banks Bucket 1 (ILM =1)	Banks Bucket 1 (if authorised to use ILM bank specific)	Banks Buckets 2 and 3
• Discretion to set **ILM equals to 1** for all the institutions in Bucket 2 and 3	Not applicable	Not applicable	Not allowed
• **Permission for bucket 1 banks** to use the **ILM bank specific**	Not applicable	Optional	ILM bank specific is mandatory
• Discretion to increase the **loss data threshold** to **EUR 100k** (from EUR 20k) for buckets 2 and 3 banks	Not applicable	Supervisor's discretion	Supervisor's discretion
• Supervisors' discretion to request banks to use **less than five years** loss data when ILM is greater than 1	Not applicable	Optional	Supervisor's discretion
• Setting the **materiality thresholds** and **minimum retention period** for the exclusion of certain operational risk loss events	Not applicable	Applicable under bank's request	Applicable under bank's request

No expected benefit for the bank

Expected benefit for the bank

No cost expected

Improvement of the **qualitative** requirements

- The BCBS **Principles for the Sound Management of Operational Risk** (PSMOR) address areas like: operational risk culture, risk management framework, appetite and tolerance, lines of defense, senior management responsibilities, risk identification and assessment, monitoring, reporting and control op operational risk.

Qualitative recommendations	Summary of the main recommendations
• **Definitional requirements:**	Set of recommendations aiming to update and harmonise definitions in the relevant regulatory products, including clarifications on model risk, legal risk and ICT risk.
• **Governance and organizational requirements on loss data:**	
– **Criteria to build the loss dataset:**	Criteria for ensuring the completeness and the quality of the loss data set.
– **Operational Risk Framework:**	Requirements on governance, reporting and control of operational risk.
– **Supervisory review of data quality:**	Requesting supervisors to perform periodical reviews of loss dataset.
– **Disclosure:**	Disclosure standards on operational risk losses for Buckets 2 and 3 banks.
• **ICAAP and Pillar 2:**	On the use of internal data, scenario analysis, external data and key risk indicators in ICAAP so to ensure: greater effectiveness in the management and control of operational risk; more granular measurement and better allocation of own funds across the organization.
• **Business indicator – FINREP mapping**	A mapping (Level 2 text) should permit the association of the BI items to the FINREP items to enables European banks to calculate the BI accurately, consistently and with minimal effort.

- Upon **36** recommendations on OpRisk, the Report includes **24** recommendations on **qualitative** elements

Content

The Output floor as cornerstone of the New Accord

- The Basel revised framework has two broad objectives in mind: "*To **reduce excessive variability** of risk-weighted assets and to **enhance the comparability** of risk-weighted capital ratios, banks will be subject to a floor requirement that is applied to risk-weighted assets*."
  - Excessive risk variability mitigated by a reduction of the distance between capital ratios of modelling banks and standardised banks.
  - Comparability enhanced between capital ratios of internal modeling institutions by more comparable RWAs.
- The output floor is one of the global measures aimed at restoring the credibility of internal models and underpins the significant efforts by the EU and national authorities to ensure the continued use of internal models and initiatives to ensure a harmonised implementation.

Recommendation OF 1: Introduction of the output floor in the EU

The output floor should be implemented in the EU in a Basel compliant manner and calibrated at 72.5% of the total RWA computed under the standardised approaches, in order to introduce a credible backstop to internal models used for capital requirements purposes.

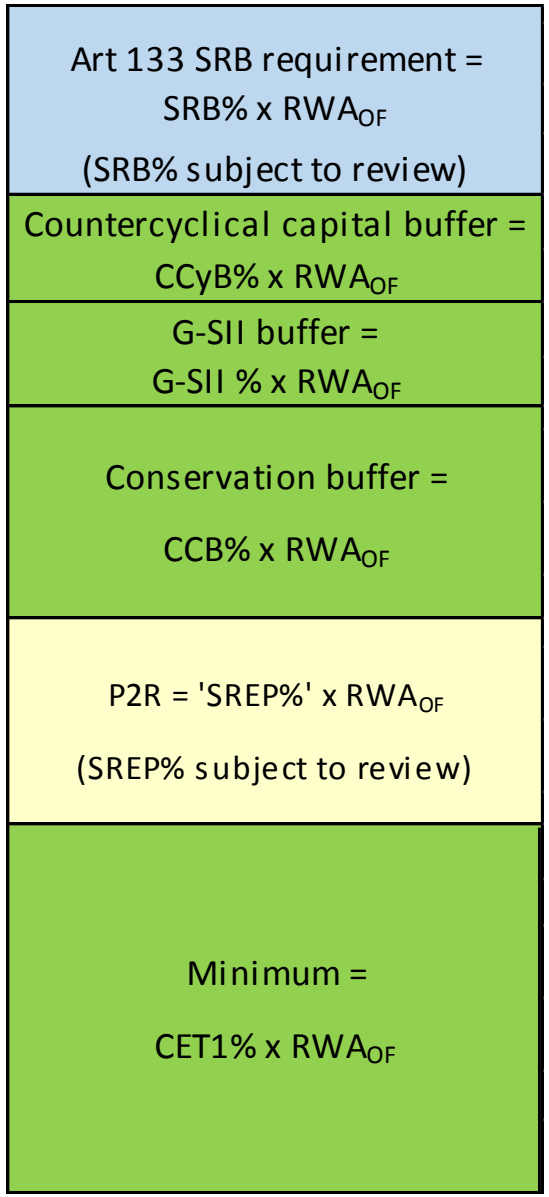
The design of the output floor

- The Basel framework specifies **that floored RWAs are the new metrics** with the output floor applied to RWAs directly, and that the floored RWAs generally to be used for all further purposes.
- Also it is clarifies that: "*The output floor will ensure that institutions' capital requirements do not fall below a certain percentage of capital requirements derived under standardised approaches*" which does not suggest that any requirements may be excepted.

➢ **All of the institutions' capital requirements should be calculated on the basis of floored RWAs.**

Recommendation OF 2: Type of output floor to be implemented

The output floor should be implemented in a Basel compliant manner in accordance with the main approach, i.e. all the full stack of capital requirements should be calculated and expressed on the basis of the institutions' floored RWA, including the countercyclical buffer, G-SII buffer, O-SII buffer, capital conservation buffer, systemic risk buffer (SRB) and Pillar 2 requirement.



Scrutiny on the output floor interaction with Pillar 2 and macroprudential tools

- Potential overlap with Pillar 2 and macroprudential tools, especially the systemic risk buffer?
  - Important that Pillar 2 and systemic risk buffer decisions are reviewed in a framework that includes the output floor
  - EBA will review its SREP Guidelines to consider this aspect

Recommendation OF 3: Pillar 2 decisions

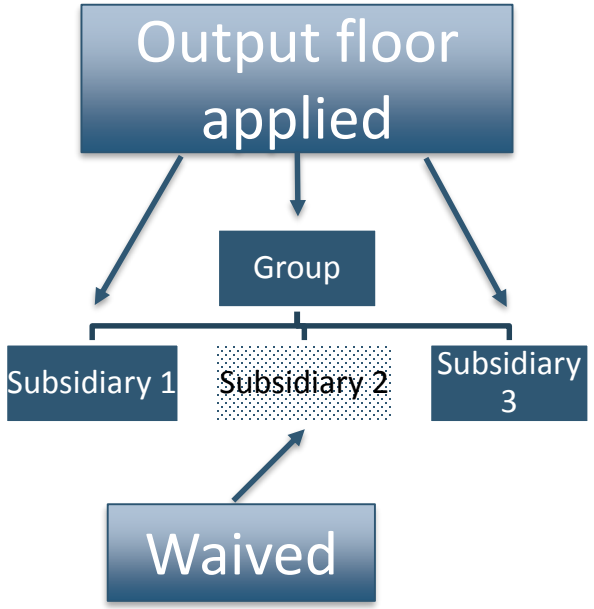
Competent authorities should re-consider the appropriate level of Pillar 2 requirements to ensure that these amounts take due account of the new output floor requirements. Additionally the EBA Guidelines on SREP shall be reviewed with this in mind.

Recommendation OF 4: Systemic risk buffer

Designated authorities are recommended to re-consider the appropriate level of the SRB rate(s) for output floor-constrained institutions, once the revised Basel III framework enters into force in EU legislation, to ensure no overlap in objectives between the macroprudential measure and the output floor or unintended increases in the requirement due to an increase in RWA.

Output floor recommended to be applied at solo and consolidated level

- Existing capital requirements in the CRR should be applied at all levels, including the leverage ratio, which also is a backstop measure and in this respect is similar to the output floor.
- Application of output floor should follow the same principles, but the implications of the output floor should be considered in the context of the waiver policy.
- Article 7 CRR includes a waiver for competent authorities to waive capital requirements for subsidiaries that are subject to authorization and supervision by the Member State concerned and subject to consolidated supervision.



Recommendation OF 8: Scope of application of the output floor

The output floor requirement should generally apply at all levels just as other prudential requirements. Competent authorities should consider the impact of the implementation of the output floor at different levels and consider neutrality of business models in their waiver policy.

Output floor – other aspects

- Implementation of disclosure requirements to ensure a harmonised disclosure framework
- Standardised approach for the calculation of the output floor should be the same as implemented by SA banks in the EU, including higher risk weights under Article 124
- Clarification of the interaction of output floor with AT1 triggers, which will be based on floored RWAs
- No adjustment for provisions. EBA will however support the work envisaged at the Basel Committee to explore this aspect further.
- Recommend implementation of transition period as envisaged in the Basel framework

Content

Revisions to the calculations of CCR exposures to SFTs

- Except the minimum haircut floors framework for SFTs discussed in the next slide, the Basel III post-crisis reforms introduced revisions to the calculation of the exposure values for counterparty credit risk (CCR) of SFTs:
  - Revision (i.e. recalibration) of the supervisory haircuts
  - Removal of the possibility for institutions to calculate own-estimated haircuts under the FCCM
  - The Repo VaR Method is no longer permitted under the Standardised Approach to credit risk (but is still allowed under the IRB Approach
  - Revision of the FCCM formula for master netting agreements covering SFTs to better account for diversification and correlation
- The EBA did not identify unintended effects related to these reforms, and supports proceeding with their implementation in the EU with a view to ensure alignment with the Basel standards and meet the objective of these reforms.

Recommendation SFTs 1: Basel III post–crisis reforms on the calculation of the exposure values of SFTs except the minimum haircut floors framework

The EBA supports the introduction in the EU of the Basel III post-crisis reforms affecting the calculation of exposure values of counterparty credit risk exposures stemming from SFTs with the exception of the introduction of the minimum haircut floors framework for SFTs discussed in Recommendation 2.

Minimum haircut floors framework for SFTs

- The FSB numerical haircut floors for SFTs have been included in Basel framework by introducing higher capital requirements for transactions not meeting the minimum haircut floors for SFTs standards.
- The EBA identified issues related to the implementation of the minimum haircut floors framework as designed in the Basel standards, in relation to:
    - Issues of regulatory arbitrage and incentives provided to banks
    - Issues related to the practical implementation of the framework

Recommendation SFTs 2: Introduction of the minimum haircut floors framework for SFTs

The EBA shares the cautious stance taken by the ESMA and the European Commission on the introduction of numerical haircut floors for SFTs, and recommends at this stage to withhold the implementation in the EU of the minimum haircut floors framework for SFTs in the capital framework as designed in the Basel III post-crisis reforms standards. In addition, if haircut floors for SFTs were to be introduced in the EU, the EBA is of the view that this should occur via market regulation, but only after further analyses and recommendations are provided by market authorities and systemic risk authorities supporting this proposal.

Questions on impact and policy recommendations ?

1. Credit Risk – Standardised Approach
2. Credit Risk – IRB
3. Credit Risk – Common issues
4. Operational Risk
5. Output floors
6. Market Risk and SFTs

EUROPEAN BANKING AUTHORITY

Floor 46, One Canada Square, London E14 5AA

Tel: +44 207 382 1776
Fax: +44 207 382 1771

E-mail: info@eba.europa.eu
http://www.eba.europa.eu