EBA's REVIEW OF THE IRB APPROACH

EIFR seminar on internal models

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Why does the IRB Approach have to be reviewed?

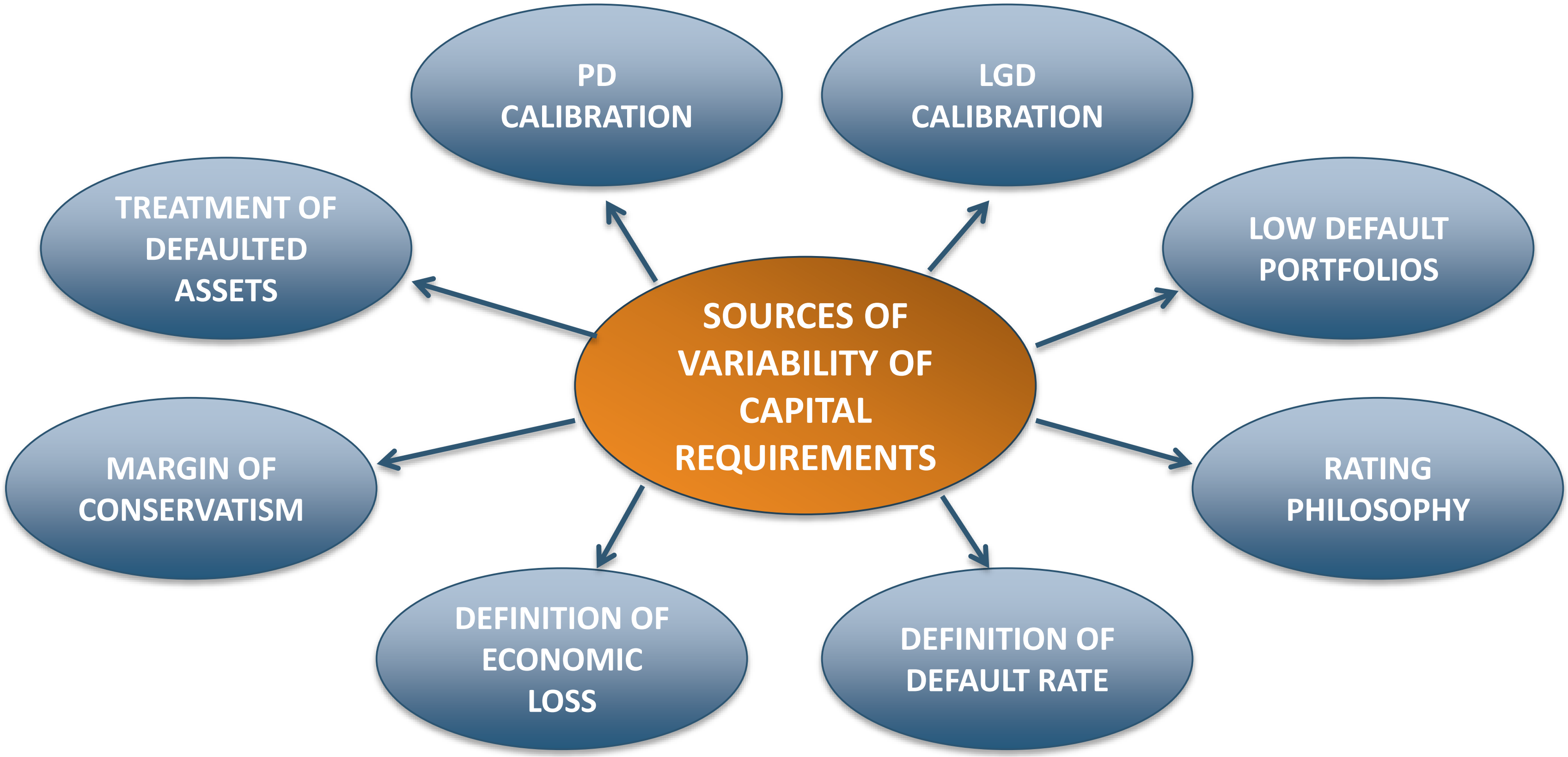
- Lack of trust regarding the use of internal models:
  - Concern that models are used to ensure low capital requirements, i.e. regulatory arbitrage, by some institutions
  - Technical model choices lead to substantial different outcomes, which indicate that capital requirements depend on non-risk based drivers
  - Supervisory practices are divergent
- **Report on the comparability and pro-cyclicality of capital requirements** published in December 2013 confirmed the existence of non-risk based variance in particular in the scope of application of the IRB Approach, PD & LGD calibration and in the treatment of defaulted assets.
- The concerns raised are general for all internal models. However, given that around 80% of capital requirements on average stem from credit risk, a revision of IRB models is the natural starting point.

Discussion Paper on the Future of the IRB Approach

- The EBA has published a Discussion Paper on the Future of the IRB Approach (EBA/DP/2015/01) in March 2015.
- EBA believes that the solution must be based on three strains of work:
  - **Regulatory review of the framework** (the topic of this presentation)
  - **Ensuring supervisory consistency** (benchmarking, home-host issues)
  - **Increased transparency** (harmonised disclosures)
- The EBA's review of the IRB Approach must be done within the legal framework of the CRR:
  - CRR requirements cannot be overruled by EBA's technical standards and guidelines
  - The review has to be carried out within the EBA's mandates
- The feedback from industry to the discussion paper is summarized in the EBAs Report on the regulatory review of the IRB Approach. (http://www.eba.europa.eu/regulation-and-policy/credit-risk/discussion-paper-on-the-future-of-the-irb-approach)

Sources of unjustified variability

The EBA's review of the IRB Approach is focused on the main sourced of unjustified variability of capital requirements identified in the studies on comparability of RWAs



The regulatory response

The EBA has undertaken a bottom-up approach to repairing the drawbacks of internal modelling: excessive RWA variability and lack of comparability across modelling outcomes

Prioritisation	Regulatory products	Current status
Phase 1: Assessment methodology	RTS on IRB assessment methodology	Finalised ✓
Phase 2: Definition of default	RTS on materiality threshold GL on default of an obligor	Finalised ✓
Phase 3: Risk parameters	GL on PD estimation, LGD estimation And the treatment of defaulted assets RTS on economic downturn	Consultation stage
Phase 4: Credit risk mitigation	RTS on conditional guarantees RTS on liquid assets RTS on master netting agreements	Planning stage

Phase 1: Assessment methodology

- Final draft RTS was published on 21 July 2016 and awaits endorsement by the Commission
- Addressed to competent authorities but applies also to institutions
- Covers all aspects of the IRB Approach, not only internal models
- Defines both criteria and methods
- Assessment and applies to all types of supervisory assessment in relevant scope, including:
  - Initial application for the IRB Approach
  - Subsequent applications based on the roll-out plan
  - Changes to the rating systems
  - Ongoing review of the IRB Approach

Phase 1: Assessment methodology – main policy decisions

1) General rules – scope of application of the RTS

2) Roll-out plans and permanent partial use of the Standardised Approach

   No minimum coverage ratio specified, qualitative criteria for exclusion of portfolios

3) Validation of internal estimates, internal governance and oversight

   Independence of the validation function based on staff separation, reporting lines or organisational structure

4) Use test and experience test

   Specification of obligatory and additional areas of use test

5) Assignment of exposures to grades or pools

6) Definition of default

Phase 1: Assessment methodology – main policy decisions

7) Rating systems design, operational details and documentation

8) Risk quantification

- Specification of long-run average default rate
- Number of defaults weighted LGD

9) Assignment of exposures to exposure classes

10) Stress test used in assessment of capital adequacy

11) Own funds requirements calculation

12) Data maintenance

- Data quality management process and IT infrastructure

13) Internal models for equity exposures

14) Management of changes to rating systems

Phase 2: Definition of default

- The final package on the definition of default that was published on 28 September 2016 contains the following documents:
  - final draft RTS on materiality threshold for credit obligations past due (EBA/RTS/2016/06) – awaits endorsement by the Commission
  - final Guidelines on the application of the definition of default (EBA/GL/2016/07) – will enter into force after translation to all European languages
  - report with the results from the QIS on the proposed regulatory changes for a common EU approach to the definition of default
- Changes in the definition of default will apply both to IRB and the Standardised Approach.

Phase 2: RTS on materiality threshold – main policy decisions

- **Level of application of the threshold** – the threshold is applied at obligor level (exception for retail-exposures where facility level may be applied)
- **Reference amount for the threshold** – credit obligation past due is defined as the sum of all amounts past due
- **Absolute threshold** – cannot be higher than EUR 100 for retail exposures or EUR 500 for non-retail exposures
- **Relative threshold** – should be set at the level of 1% for both retail and non-retail exposures (in any case lower than 2,5%)
- **Application of the threshold in default detection process** – breach of the threshold means the start of the counting of the 90 (or where applicable 180) days; in the case both of those limits are breached for 90 (or 180) consecutive days a default has occurred

Phase 2: GL on the definition of default – main policy decisions

1) Days past due criterion

   Definition of technical default – errors in data, IT systems and processes or lengthy payment allocation processes

2) Indications of unlikeliness to pay

3) Default definition in external data – only for IRB Approach

4) Criteria to return to non-defaulted status

   Specification of probation periods – at least 3 months, 1 year for distressed restructuring

5) Consistency of default definition

6) Retail exposures

7) Documentation and governance – governance only for IRB Approach

Phase 3: Risk estimation

- Phase 3 will be based mostly on the comprehensive EBA guidelines on PD estimation, LGD estimation and the treatment of defaulted assets
  - Consultation Paper published on 14 November, consultation open until 10 February 2017
  - Public hearing / workshop planned for 19 January 2017
- RTS on the nature, severity and duration of economic downturn – consultation paper planned to be published in December 2016
- Objective: address non-risk based variability of risk estimates and capital requirements while preserving risk sensitivity of internal models
- The final GL and RTS will take into account the results of the qualitative survey launched across the banks
  - participation in the survey voluntary and open to all banks

Phase 3: Draft Guidelines on PD & LGD estimation and the treatment of defaulted assets – main policy decisions

1) General requirements

Margin of conservatism – categorisation and quantification

2) PD estimation

Data requirements – development sample vs calibration sample

Long-run average default rate:

- Based on likely range of variability of 1-year default rates
- historical observation period has to include downturn
- benchmark based on the most recent 5 years and all data

3) LGD estimation

Definition of economic loss and realised LGD:

- Discounting rate = 1Y EURIBOR + 5%
- Include additional drawings, fees and interest after default

Long-run average LGD:

- Historical observation period based on all observed data
- Include estimated recoveries on incomplete processes

Phase 3: Draft Guidelines on PD & LGD estimation and the treatment of defaulted assets – main policy decisions

4) Estimation of EL_{BE} & LGD in-default

EL_{BE} and LGD in-default within the definition of LGD model and based on the same methodology (only for a given reference date instead of the moment of default)

Calibration – consideration of economic conditions:

- ELBE – current economic circumstances
- LGD in-default – economic downturn

Individually assessed provisions may lead to override

5) Application of risk parameters (conservatism, human judgement)

6) Re-development, re-estimation and re-calibration of internal models

7) Calculation of IRB shortfall or excess

Phase 4: Credit Risk Mitigation

- Limited scope of the mandates included in the CRR to develop technical standards:
  - RTS on conditional guarantees under Article 183(6) CRR
  - RTS on what constitutes sufficiently liquid assets under Article 194(10) CRR
  - RTS on the use of internal models for master netting agreements under Article 221(9) CRR
- Possible necessity for broader review of the CRM framework especially in terms of: simplicity of the framework, eligibility of CRM techniques and consistency between approaches.
- EBA’s work plan may depend on the international regulatory developments at the Basel level.

Implementation of the changes

- Many of the changes in rating systems resulting from the regulatory review will be classified as material.
- **EBA's opinion on the implementation of regulatory review of the IRB Approach** was published in February 2016 and applies to all changes resulting from the regulatory review of the IRB Approach (http://www.eba.europa.eu/documents/10180/1359456/EBA-Op-2016-01+Opinion+on+IRB+implementation.pdf)
- Timelines to be agreed individually between competent authorities and institutions:
  - taking into account the approach to recalibrate risk parameters
  - including time required for supervisory assessment
  - avoiding multiple sequential changes in the models
- Final implementation deadline of all changes – by end 2020 at the latest

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