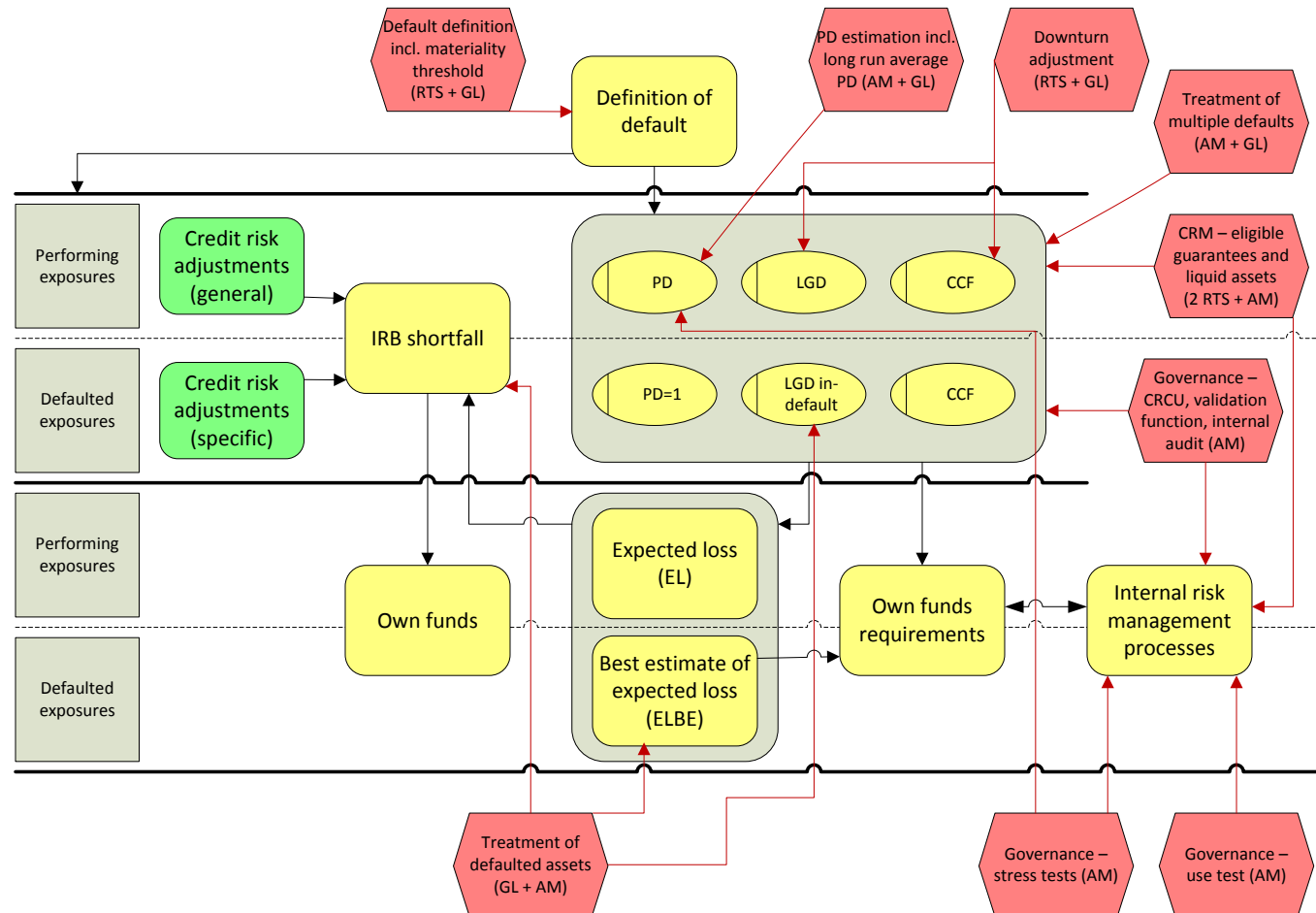# Assessment methodology of the IRB approach

9 February 2015 / London

# Changes in the EU regulatory framework

| Topic | CRR mandates | Other mandates, such as those under Article 502 report | Topic | CRR mandates | Other mandates, such as those under Article 502 report |
|---|---|---|---|---|---|
| **Supervisory practices** | RTS under Articles 144(2), 173(3), 180(3b) – on the assessment methodology | | **Benchmarking** | RTS and ITS under Article 78 – on benchmarking | May lead to further mandates, but none identified currently |
| **Definition of default** | RTS under Article 178(6) – on the materiality threshold | | | Guidelines under Article 78(6) of CRD – on benchmarking | |
| | GL under Article 178(7) – on the application of the definition of default | | | | |
| **PD estimation** | | GL on PD computation | **Disclosures** | GL under Articles 432(1), 432(2) and 433 – on disclosures | May be a need to amend, based on the additional GL and TS under way |
| **Downturn adjustments** | RTS under Articles 181(3a), 182(4a) – on the nature, severity and duration of economic downturn | GL on downturn LGD calculation | | | |
| **Treatment of defaulted assets** | | GL on LGD in-default, ELBE and IRB shortfall calculation | | | GL on the disclosures on the IRB Approach |
| **CRM** | RTS under Article 194(10) – on liquid assets | | **Supervisory reporting** | Commission Implementing Regulation (EU) No 680/2014 – on supervisory reporting according to the CRR | May be a need to amend, based on the additional GL and TS under way |
| | RTS under Article 183(6) – on the recognition of conditional guarantees | | | | |
| | RTS under Article 221(9) – use of estimates from IMA for CRM | | | | |

# Overview of IRB mandates



AM – draft RTS on the assessment methodology of the IRB Approach
RTS – draft RTS on specific issues in the defined area
GL – guidelines on specific issues in the defined area

# Legal mandates

This CP puts forward draft RTS as required by Articles 144(2), 173(3) and 180(3)(b) of the CRR to specify the assessment methodology competent authorities shall follow in assessing the compliance of an institution with the requirements to use the Internal Ratings Based Approach (IRB Approach). The consultation runs until 12 March 2015.

The draft RTS should enable harmonisation of the supervisory assessment methodology across all EU Member States. It will rectify the issues identified in the EBA Report on comparability of the IRB models and provide enhanced clarity on various aspects of the IRB Approach application.

# Structure and scope of the proposed draft RTS

All minimum IRB requirements, as defined in Chapter 3, Title II, Part three of the CRR have been mapped into 14 chapters.

This regulation is applied to:

- initial applications for the IRB Approach;

- additional application in line with sequential implementation plan;

- material changes;

- application to return to the use of less sophisticated approaches;

- regular review of IRB Approach;

- assessment of changes that require notifications.

This regulation is not meant to repeat the requirements of the CRR.

# Structure and scope of the proposed draft RTS

Each chapter starts with a description:

- of <u>the assessment criteria</u> (including the reference to the CRR requirements) to be used by competent authorities as regards validation requests;

- of <u>the methods</u> to be used by competent authorities in this context (e.g. which type of documentation should be collected, usefulness of interviews…). It includes a minimum list of methods and additional list of methods which may also be used to the extent appropriate.

The CAs shall apply specific parts of this regulation that are relevant to the scope of the assessment.

# Structure and scope of the proposed draft RTS

- General chapter

- Implementation plan and permanent partial use

- Governance and validation

- Use test and experience test

- Assignment of exposures to grades and pools

- Definition of default

- Rating systems (models)

- Risk quantification

- Assignment of exposures to exposure classes

- Stress tests used in assessment of capital adequacy

- Own funds calculation

- Data maintenance

- Requirement for Equity Exposures under the Internal Models Approach

- Management of changes to rating systems

# Chapter I: General rules

- Permission in case of roll-out plan

  - In case of roll-out plan the assessment should include at least: the use and experience test (chapter 4); assignment to grades and pools (chapter 5); rating systems (chapter 7); and risk quantification (chapter 8). These aspects of the assessment relate to every individual rating system of the IRB approach.

- Outsourcing

  - All rating systems should be equally verified regardless whether they were built internally by the institution or obtained from third party vendor.

  - All material processes related with the application of IRB Approach should be assessed in line with these proposed draft RTS even if they are outsourced to a third party.

  - The management body of the institution is ultimately responsible for the outsourced processes and the performance of rating systems even when obtained from a third party vendor, therefore sufficient in-house understanding and full documentation has to be ensured.

# Chapter II: PPU and roll-out plan

- Roll-out plan

  - The roll-out plan has to be approved by the CAs at the moment of initial application.

  - Fixed and reasonable dates have to be specified with regard to the implementation of all rating systems envisaged by the roll-out plan, which is a maximum of five years, unless where any of the specific conditions is met.

  - The CAs should closely monitor the realisation of the roll-out plan in order to avoid undue delays in the full implementation of the IRB Approach.

  - Any changes of the roll-out plan have to be approved by the CAs and can only be allowed if specific conditions are met that justify the change.

# Chapter III: Governance and validation

- Independence of the validation function

  - Independence of the validation function, in terms of staff, organisational unit and reporting lines. As a minimum, in smaller institutions, the staff performing the validation function should be separate from the staff responsible for the model design or development. Larger institutions (global or other systematically important institutions), with more complex operations should aim at establishing a separate validation unit with adequate independent reporting lines to different members of the senior management.

- Frequency of the validation

  - As a minimum the backtesting of each rating system should be carried out at least annually. The performance of those rating systems that cover material portfolios of the institution should be fully reviewed by the validation function at least annually.

- Internal audit

  - According to Article 191 of the CRR requires that the review of the IRB Approach should be performed on an annual basis and should include adherence to all applicable requirements.

  - The internal audit should performs a general annual review of all aspects of the IRB Approach in order to determine the areas that due to increased risk require more thorough review during the year.

# Chapter IV: Use test and experience test

- Use test

    - The same data and parameters should be used in the internal risk management and decision making processes. Any differences in the relevant data and risk estimates have to be justified.

    - The assessment is focused on three areas: (i) risk management, credit approval and decision-making processes; (ii) internal capital allocation; and (iii) corporate governance functions. Minimum list is proposed where the risk estimates have to used in the internal processes, and additional list is also proposed for validation when it is applied by institution.

- Experience test

    - The rating systems should be considered as "*broadly in line*" with the IRB requirements for at least three years prior to its qualification to use the IRB Approach, where: (i) the risk parameters have been used at least in the most basic areas of risk management, including the credit decisions, competences for the credit approval process, lending policies, risk monitoring and reporting; (ii) the rating systems were subject to regular monitoring, validation and internal audit reports.

# Chapter V: Assignment of exposures to grades and pools

- Independence of the assignment of exposures to grades or pools

  - Where overrides are used (the process is not automatic) in retail exposures the assignment process has to be independent from the origination or renewal of exposures.

- Treatment of outdated ratings

  - Treatment of outdated ratings, where ratings are older than 12 months or where the review of the assignment hasn't been performed in due time according to the institution's policy, conservative adjustments should be performed in terms of risk weighted assets calculation.

  - The adjustment should be proportional to the length of the period during which the rating or the information underlying the rating is out-of-date.

# Chapter VI: Definition of default

- Will be supplemented by the RTS on materiality threshold and GL on definition of default.

- Principles for returning to non-defaulted status are introduced. The institutions criteria should take into account the institution's previous default experience to avoid reclassification to non-defaulted status such obligors that are likely to default again in a short period of time.

# Chapter VII: Rating systems (models)

- Map of rating systems

  - Detailed documentation on the design and operational details of the rating systems should include the map of rating systems - a register of all current and past versions of rating systems for period of at least three years.

- Human judgement

  - The scope of application of human judgment in the rating systems is clarified.

  - The application of human judgement at the moment of model development should be controlled and justified by a positive impact on the accuracy of predictions.

  - Human judgement may also be applied after the implementation of the rating system, in particular by overriding the results of the model. In that situation the quantity and justifications for overrides should be regularly analysed by the institution to identify possible weaknesses of the models.

# Chapter VII: Risk quantification

- Margin of conservatism

  - Sufficient margin of conservatism should be adopted by institutions. This conservatism should account, for any identified deficiencies in data or methods used in the risk quantification and increased uncertainty that might result for example from the changes in the lending or recovery policies.

  - The application of the margin of conservatism should not be used as an alternative to correcting the models and ensuring their full compliance with the requirements of the CRR.

- Long run average for PD

  - Long run average for PD estimates should be based on a period representative of the likely range of variability of default rates in that type of exposures in a complete economic cycle, considering the cyclicality of major economic factors.

- Default weighted average of LGD

  - LGD estimation should be based on the average weighted by the number of defaults.

  - If however the exposure value is a material risk driver, it should be used for the segregation or risk differentiation of LGD in order to ensure that the parameter is calculated for homogenous pools or facility grades.

# Chapter VII: Risk quantification

- Treatment of multiple defaults

  - To ensure consistency between the estimates of various risk parameters the multiple defaults should be treated in a similar manner.

  - Multiple defaults of the same obligor within a short period of time should be treated as one default.

- LGD in-default

  - LGD in-default may be estimated either directly or as a sum of best estimate of expected loss (ELBE) and an add-on that captures the unexpected loss that might occur during the recovery period.

  - In particular the LGD for defaulted exposures should take into account the time the particular exposure has been in defaulted status and recoveries realized so far and consider possible reverse change in economic conditions during the expected length of the recovery process.

- Collateral management

  - At least policies and procedures of the institution relating to the internal requirements for collateral valuation and legal certainly should be full consistent with CRM requirements.

# Chapter IX: Assignment of exposures to exposure classes

- Sequencing

  - The sequencing of the assignment process has been introduced: (i) the assignment of exposures to exposure classes based on the characteristics of the transaction should be performed at the first stage; (ii) later the assignment of the remaining exposures to the exposure classes based on the characteristics of the obligor; and (iii) finally, all other exposures should be classified as corporate exposures.

# Chapter X: Stress tests used in assessment of capital adequacy

- Integration of the stress tests with the risk and capital management processes

  - The results of the stress tests should be taken into account in the decision making process in the area of risk and capital management processes.

  - In particular the default rates and rating migrations under stress conditions should be taken into account in the assessment of the adequacy of the calculation of the long-run averages of one-year default rates and the dynamics of rating systems.

  - The integration of the stress tests results in the decision making processes ensures that the scenarios and their impact on capital requirements are developed and performed in a meaningful manner and that forward looking aspects of capital requirements are taken into account in managing the institution.

# Chapter XI: Own funds calculation

- Effective maturity (M)

  - In the case of revolving exposures the calculation of effective maturity (M) should be based on the expiry date of the facility.

- Calculation of IRB shortfall

  - The calculation of the difference between expected loss amounts and credit risk adjustments, additional value adjustments and other own funds reductions should be performed on an aggregate level separately for the portfolio of defaulted exposures and the portfolio of exposures that are not in default.

# Chapter XII: Data maintenance

- Data quality

  - In order to ensure the correctness of the calculations and processes the institutions have to attach great importance to the quality of data and reliability of IT systems.

  - The quality of data should therefore be regularly controlled and corrected if necessary.

  - The infrastructure related to gathering and storing the information as well as the relevant procedures have to be well documented.

- IT infrastructure

  - The continuity of risk management processes and own funds requirements calculation can only be ensured when the IT systems used for that purpose are safe, secure and reliable and the IT infrastructure is sufficiently robust.

  - Reliability of the institution's IT systems and the robustness of the IT infrastructure.

# Chapter XIII: Requirement for Equity Exposures under the Internal Models Approach
# specific requirements

- Internal models for equity exposures

  - Non-overlapping observations, as far as possible non-overlapping observations of returns on equity exposures should be used both for the purpose of development as well as validation of internal models for equity exposures.

# Chapter XIV: Management of changes to rating systems

- Management of changes to rating systems

  - Any material changes to the rating systems and the scope of application of the rating systems have to be approved by CAs, the other changes have to be adequately notified. It is necessary that the institutions implement the policy to define the classification of the changes and the internal process of management of the changes.

  - Draft RTS specifies the methodology to assess such policies, in particular it defines the minimum content of the policy that should be required by the CAs. Change policy is operationalization by institutions the RTS on materiality of model changes – minimum content of such policy is specified.

# Comments

The consultation runs until 12 March 2015.