ECB GUIDE TO INTERNAL MODELS

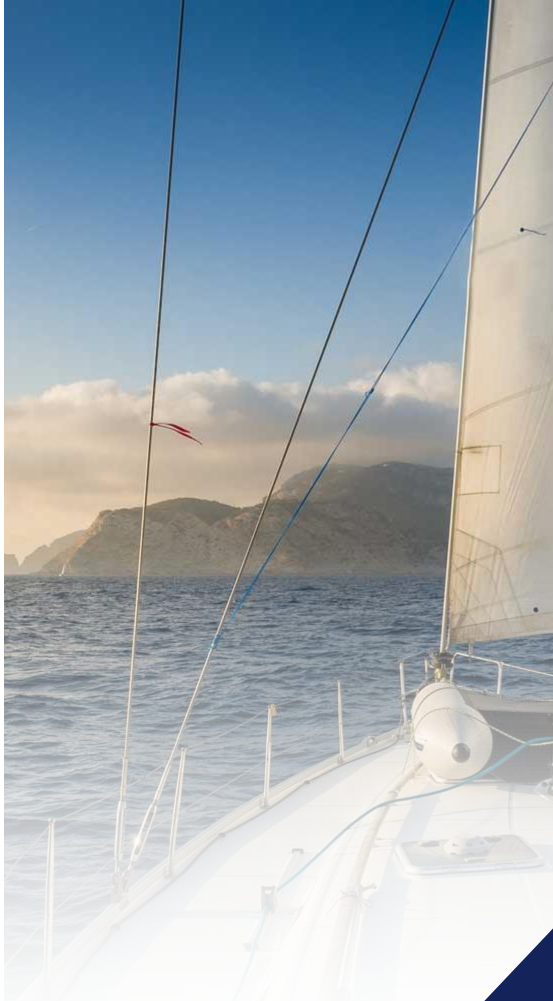
GENERAL TOPICS AND CREDIT RISK CHAPTERS – UPDATE JUNE 2023

PART 1 OF 2

JULY, 2023

TRUE NORTH PARTNERS
FINANCE | RISK | STRATEGY

Outline



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Overview of the main updates

This paper is our first of a series of two papers covering the June 2023 update of the ECB Guide to Internal Models.

In this paper we outline our interpretation of the main changes made to the **General Topics** chapter.

Our interpretation of the relevant changes related to the **Credit Risk** chapter will be covered by the second paper of this series.

Overview of the main updates & changes* in the ECB Guide to internal models
June 2023 update

General topics chapter | Updated/Incorporated sections — Covered in this paper

- Integration of **ESG risks assessment** for **internal modelling** of credit, market and counterparty credit risk
- Expectations on the **implementation date** of any material change or extension of a model
- Guidance on **reversion to less sophisticated approaches** for own funds calculations (i.e., standardised approach)
- ECB clarifications & expectations on the use of internal models in the context of a **consolidation process**
- Clarifications on **use test requirements**

Credit Risk chapter | Updated/Incorporated sections — Covered in paper 2

Definition of Default (DoD)
- Consistency in the application
- Days past due criterion
- UTP criterion
- Return to non-default status
- Consistency of external data
- Treatment of Joint Credit obligations
- Adjustments of estimates in case of changes in the definition

Probability of Default (PD)
- Model monitoring
- Clarification on the requirements for rating transfers
- Calculation of one-year default rates
- PD calibration
- ESG considerations

Loss Given Default (LGD)
- Realised LGD
- Treatment of massive disposals
- LGD structure (segmentation and ELBE)
- ESG considerations

Credit Conversion Factor (CCF)
- CCF assignment based on judgmental considerations

Margin of Conservatism (MoC)
- Considerations on MoC type C
- ESG considerations

IT systems and Use of data
- Model implementation readiness at the time of the application
- Use of data in the context of entity consolidation

(*) There have also been updates and changes in the Market Risk and Counterparty Credit Risk chapters, not covered by this document. Additionally, the new guidelines includes minor wording changes and regulatory reference updates.

General topics chapter

ECB Guide to internal models - June 2023 Update
General topics chapter

The June 2023 update has made changes and introduced new sections in the General Topics chapter, mainly related to **internal modelling in the context of consolidation**, **reversion to less sophisticated approaches** (i.e., standardised approach), the **inclusion of climate-related and environmental risk drivers** in internal modelling, and **use test requirements**.

General principles on climate-related and environmental risks — Section 1.8 | Article 25

- Institutions should incorporate all the risks in the lifecycle of their internal models within the materiality assessment, including the **assessment over climate-related** and **environmental risks**. This is also linked with expectations defined in the **ECB Guide on climate-related and environmental risks.**
- In case that climate risk drivers are considered **relevant and material**, they should be included in their internal models approved for the purpose of own funds calculations for credit and market risk.
- In addition to the paragraph in the **general topics** section, this update provides some non-exhaustive reference on the incorporation of the climate related drivers across the different risk parameters in the **credit risk chapter**, such as:
  - Application of overrides when climate-related risk drivers are relevant, but the rating system does not include information about them (Section 3.6)
  - Considerations of climate-related risk drivers in PD models (Section 5.1.1), LGD models (Section 6.2.1), ELBE (Section 6.4.1.), MoC (Section 7.1)
  - Inclusion of climate-related risk drivers' information in the Reference Data Set.

Implementation of a changed or extended model — Section 1.9 | Article 26

- ECB considers that the **implementation of a material change/extension** should occur within a reasonable time frame starting from the date of the notification of the permission, expecting that time to be **no longer than 3 months from the notification date**.
- **Exceptions** to this expectation **should be requested** by the institution in question, which should provide reasons for the request, and **can only be granted under specific circumstances** (technical constraints of IT framework).
- The **re-rating process** is expected to start at the **implementation date**.

ECB Guide to internal models - June 2023 Update
General topics chapter

Reversion to a less sophisticated approach

Section 2.6 | Articles 41 to 45

Requirements:

- **Document the rationale for reverting to less sophisticated approaches** (F-IRB or SA approach). Special emphasis on impediments after the authorisation.
- Best practice to define objective criteria for deciding which approach to use. Possible criteria:
    - **Operational capability and cost of maintenance** of the rating system taking into account the weight of the portfolio and the strategic importance.
    - Availability of **minimum representative data for redeveloping the model** or developing alternative approaches (for example the slotting).
    - **Impact of the reversion on own funds requirements** by comparing:
        1. Capital requirements with the approach used including potential supervisory add-ons due to limitations, and
        2. Capital requirements under the approach requested (F-IRB or standard).
    - When there is a **reduction in capital requirement** -> provide **evidence that there is no intention to reduce the requirements**.

Consolidate the request in the event that the change of the IRB strategy affects multiple rating systems.

Reversion to SA approach for specialised lending:

- Demonstrate that the slotting criteria is **not feasible or proportionate to the size** of the exposures (materiality) and that it cannot build a rating system with good discriminatory power.
- **Impact assessment**: compare the capital requirements under the Supervisory Slotting criteria against the capital requirements under the Standardised approach, unless there is enough evidence that the slotting is not feasible.

ECB Guide to internal models - June 2023 Update
General topics chapter

Internal models in the context of consolidation
Section 2.7 | Articles 46 to 49

Submit a return to compliance plan, covering the following aspects:
- **Internal model landscape** of the banks participating in the merger.
- The **target internal model landscape post-merger**.
- **Concrete actions with associated times**: model extensions, initial model approvals, PPU request, etc.
- **Calculation of the RWEA prior to the return to the full compliance**: before and after IT integration of the banks.

The coverage ratio of the consolidated entity should cover the IRB coverage ratio (50% of EaD and RWA).

Use test requirement
Section 6.2 | Articles 93 to 97

Initial permission to use IRB approach: provide evidence that the rating systems have been used for risk management, decision making and credit approval for at least 3 years as part of the experience test requirement.

Request to extend the IRB approach (new entities or additional exposures):
- Check if the exposures of the request differ significantly from those already approved:
  - **Differ significantly:** provide evidence of the compliance of the use test.
  - **Does not differ significantly**: need to providence evidence of the use test only for the onboard of new legal entities.

Appendix A:
Who are we

Get in touch with our team of credit risk experts

Dr. Lutz Baumgarten

20+ years - M Eng in Engineering Science, M Phil and D Phil in Economics (Oxford)

Christoph Saleh FRM

12+ years - M.Sc., Frankfurt School of Finance & Management, B.A., DHBW Karlsruhe

Dr. Hans Joerg Sellner

15 years: Credit risk management with focus on credit risk/IRB, TNP, RSU.

Academic degree in Mathematics at the University of Augsburg

Raymond Sinclaire CFA, FRM

15+ years – Bachelor’s degree Accounting, Master’s in Economics (Witwatersrand)

Juan Francisco Lizana

+10 years: Risk & Strategy, KPMG (Manager), MS and Santander Group (Risk expert)

Carlos Valenzuela

8 years: Risk modelling, Credit Suisse (Associate), PWC (Senior associate)

Business degree (ICADE), Masters Data science (CUNEF

Augusto Römer

4+ years – Tax & Legal Advisory Deloitte (Senior Consultant). Degree in Accounting (UCC, Argentina), MSc in Banking & Financial Regulation (University of Navarra)

Stefanie Rynboom CFA

8+ years – BSc Actuarial Science and Statistics, BSc (Hons) in Advanced Mathematics of Finance (Witwatersrand)

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