

Guide for the Targeted Review of Internal Models (TRIM) – General topics

European Central Bank (ECB)

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List of abbreviations

| Abbreviations | Meaning | | |
|------------------|-------------------------------------------------|--|--|
| AVA | Additional Valuation Adjustment | | |
| BT | Back-testingBanking BookCompetent Authorities | | |
| BB | | | |
| CAs | | | |
| CCF | Credit Conversion Factor | | |
| СР | Consultation Paper | | |
| CRCU | Credit Risk Control Unit | | |
| CRD IV | Capital Requirements Directive | | |
| CRR | R Capital Requirements Regulation | | |
| DQF | Data Quality Framework | | |
| EAD | Exposure At Default | | |
| EBA | European Banking Authority | | |
| EL _{BE} | Best Estimate of Expected Losses | | |
| EPE | Expected Positive Exposure | | |
| ETC | Early Termination Clauses | | |
| GL | Guidelines | | |
| G-SIIs | Global Systemically Important Institutions | | |
| HQLA | High Quality Liquid Assets | | |
| ICAAP | Internal Capital Adequacy Assessment Process | | |

| Abbreviations | Meaning | |
|---------------|-------------------------------------------|--|
| IMA | Internal Model Approach | |
| IMM | Internal Model Method | |
| IRB | Internal Rating-Based Approach | |
| IRC | Incremental Risk Charge | |
| JST | Joint Supervisory Teams | |
| LGD | Loss Given Default | |
| MoC | Margin of Conservatism | |
| MPOR | Margin Period of Risk | |
| OFR | Own Funds Requirements | |
| O-SIIs | Other Systemically Important Institutions | |
| PD | Probability of Default | |
| PPU | Permanent Partial Use | |
| RDS | Reference Data Set | |
| RNIM | Risks Not In the Model | |
| RR | Recovery Rates | |
| RTS | Regulatory Technical Standards | |
| sVaR | Stressed Value at Risk | |
| ТВ | Trading Book | |
| TRIM | Targeted Review of Internal Models | |
| VaR | Value at Risk | |
| PV | Permanent Value | |

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In November 2018 the ECB published a Guide to the TRIM which covers the final update of the first chapter on general aspects

Introduction

In February 2017, the ECB issued a **Guide to the TRIM** addressed to significant institutions, which sets out its view on the appropriate supervisory practices and spells out how the ECB intends to interpret the relevant EU law on internal models and on general model governance topics. The Guide to the TRIM covers four main chapters: general topics, credit risk, market risk, and counterparty credit risk.

Moreover, it should be highlighted that the section on overarching principles for internal models covers all **Pillar 1 internal models** regarding credit risk, market risk and CCR (unless stated otherwise), whereas all subsequent sections only cover credit risk Pillar 1 models. All other models, including operational risk models, Pillar 2 and managerial models are not included in the scope of this Guide, unless otherwise mentioned.

- In this context, following the consultation launched in March 2018, the ECB published a **Guide to internal models** in November 2018, which covers the update of the first chapter of the Guide to the TRIM.
- In particular, this first chapter is devoted to general topics and contains principles for the following non-model-specific topics:
 - Overarching principles for internal models
 - · Roll-out and permanent partial use
 - Internal governance
 - · Internal validation
 - Internal audit
 - Model use
 - · Management of changes to the IRB approach
 - Third-party involvement

This **Technical Note** includes a summary of the ECB's first chapter for the Guide to the TRIM, regarding the general topics.



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The updated chapter on general aspects of the Guide to the TRIM, provides transparency on how the ECB understand the general, i.e. non-model-specific topics for internal models, in particular for the IRB approach

| Exocutivo Summary | | | | |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Scope of application | Regulatory context | Next steps | | |
| Significant institutions | CRD IV and CRR. Final GLs on estimation of IRB parameters. Final RTS on assessment methodology for IRB. Final RTS on assessment methodology for IMA. SREP Guidelines. EBA Guidelines on internal governance. | The execution of the TRIM project will continue with a focus on reviewing models for low-default portfolios All on-site activities are aimed to be finalised in the course of 2019. | | |

Executive summary

Main content

- **Overarching principles**. They are subject to supervisory approval for the calculation of own funds requirements for credit, market and counterparty credit risk (Pillar 1 models).
- Roll-out and permanent partial use. The CRR and the Final Draft RTS on assessment methodology for IRB have established several GL and criteria for application, monitoring and assessment of the IRB approach.
- Internal governance. These principles are organised along the following lines: i) the materiality of rating systems; ii) the management body and senior management; and iii) responsibilities of the Credit Risk Control Unit (CRCU).
- Internal validation. A consistent and meaningful assessment of the performance of internal rating and risk estimation systems.
- Internal audit. The internal audit or another comparable independent unit shall review the institution's rating systems and its operations at least annually.
- **Model use**. The ECB acknowledges that the degree of use of internal ratings and default and loss estimates in the institution's risk management is more extensive for PD/internal ratings than for LGD/loss estimates and conversion factors.
- Management of changes to the IRB approach. Changes to a rating system's range of application or to a rating system itself are subject to approval by the CAs if assessed as material, or to ex ante or ex post notification if non-material.
- Third-party involvement. It refers to the involvement of third party in IRB models, focusing on internal functions and tasks.

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This Guide includes expectations on the overarching principles for internal models regarding the application level, documentation, the model risk management framework,...

General topics (1/14) These principles for internal models are subject to supervisory approval for the calculation of own funds Overarching principles for requirements for credit, market and counterparty credit risk (Pillar 1 models). internal models Consolidated Institutions should either: vs. subsidiary Develop binding group-wide (i.e. consolidated) principles and guidelines relating to the life cycle of level internal models (i.e. development, calibration, validation, supervisory approval, implementation in internal processes, application and review of estimates), or • Ensure that each relevant entity has an appropriate and independently audited principles and guidelines in place with a high degree of consistency between one another. All internal models should be **documented** to allow a qualified third party to independently understand the **Documentation** methodology, assumptions, limitations and use of the model and to replicate its development and implementation. Institutions should therefore define principles and guidelines for model documentation¹, and adequate controls of the register of its internal models, together with an inventory of the documentation, including an annual review, should be in place. Model risk Institutions should have a model risk management framework in place that allows them to identify, management understand and manage their model risk for internal models across the group. framework This **framework** should comprise: i) a written model risk management policy; ii) a register of the institution's internal models; iii) guidelines on identifying and mitigating any areas where measurement uncertainty and model deficiencies are known to exist, according to their materiality; iv) guidelines and methodologies for the qualitative and/or quantitative assessment and measurement; v) guidelines with respect to the model life cycle; vi) procedures for model risk communication and reporting (internal and external); and vii) definition of roles and responsibilities within the model risk management framework.



The institution should demonstrate how its documentation and the register of its internal models facilitate the internal and external understanding of the models. The register should contain the models owner, approval date, etc.



...the management body and senior management, internal validation,...

General topics (2/14)

| Managemen body and sen managemen | ior | Institutions should clearly define the roles and responsibilities of their management body and senior management with regard to internal models and in relation to each risk type. It should document the roles and responsibilities of each individual in the management body (executive members). The institution should assess the appropriateness of designated committees of the management body in order to ensure that they provide an adequate support function for effective decision-making procedures. It should clearly document the composition, mandate and reporting lines of committees responsible for internal model governance and oversight, as well as the decisions taken. These committees should be chaired by a |
|----------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | member of the management body. |
| | | The senior management should either report directly to the management body or be responsible for providing it with the necessary information to carry out its duties (especially regarding its oversight role). |
| Internal validation | | All internal models and internal estimates should be subject to an initial validation of new models and material changes and extensions to approved models, and subsequently to an annual, internal validation. |
| | | The institution may choose from 3 different organisational arrangements in terms of effective independence from the model development process¹: Separation into two different units reporting to different members of the senior management. |
| | | Separation into two different units reporting to the same member of the senior management. Separate staff within the same unit. |
| | | The institution should ensure that the staff of the validation function is separate from the staff involved in the model development process in order to mitigate the risk of conflicts of interest. |
| | | The validation function should be adequately staffed following the proportionality principle, including suitable resources and experienced qualified personnel. |
| agementSolutions | • • | The ECB understands that the first option should be implemented by large and complex institutions; the second option is a good practice for institutions that fulfil the requirements specified on the Final RTSs on assessment methodology for IRB and for IMA; and the third |

option could be suitable for small legal entities which are not classified as G-SIIs or O-SIIs.



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...and the internal audit function

General topics (3/14)

Internal audit

- The CRR requires internal models to be subject to **regular review by the internal audit** or another comparable independent auditing unit, that needs to be **efficient and effective**.
- The internal audit function should grant an **adequate level of independence** to ensure that: i) there is an effective separation of the internal audit from the staff involved in the operations of the internal models; ii) the internal audit reports directly to the management body; and iii) no undue influence is exerted on the staff responsible of the audit conclusions.
- To enable a sufficient number and adequate scope of internal model reviews the internal audit should:
 - Have adequate resources and experienced, qualified personnel.
 - Be **adequately equipped and managed** in proportion to the nature, size and degree of complexity of the institution's business and organisational structure.
- To ensure that the internal audit reviews have a timely and effective impact, the following are considered to be good practice:
 - **Conclusions, findings and recommendations** should be reported to the audit committee and/or the appropriate management level of the audited areas.
 - Where weaknesses are identified, action plans and related measures should be approved by the audit committee and/or the appropriate management level of the audited areas.
 - **Regular** (at least annual) **status reports** should be prepared and the results discussed in the appropriate committees to ensure the timely and proper implementation of follow-up actions.



The Guide also specifies several aspects regarding the roll-out and the PPU of internal models, including the application of the IRB approach by asset class, the governance of the roll-out plan,...

General topics (4/14)

Roll-out and PPU

The CRR and the Final RTS on assessment methodology for IRB have established several GL and criteria for application, and monitoring as well as the assessment methodology for IRB approach. In this regard, the ECB has set expectations on this issue.

Application of the IRB approach

- Institutions **must implement the IRB approach for all exposures**, unless they have received the permission of the competent authority to permanently use the standardised approach on some exposure classes or some types of exposures.
- The criteria used to define the application and sequential implementation of the IRB approach include: i) quantitative aspects (e.g. the materiality and risk profile of the exposures and internal thresholds/ratios), and ii) qualitative aspects (e.g. importance of the exposure classes).
- Institutions with permission to use the IRB approach are expected to reach a **50% minimum IRB coverage ratio**, and the **time frame** for the initially approved roll-out plan should generally **not exceed 5 years**.
- Institutions are expected to provide the **competent authority with full transparency and regular communications** regarding this treatment, which should include information on all subsidiaries and all portfolios (together with clear exposure assignment criteria).
- Decisions of the institutions on the application and sequential implementation of the IRB approach should be triggered by internal criteria, with the main purpose of enhancing risk management and risk sensitivity.

Governance of the roll-out plan

- All material aspects of the rating and estimation processes shall be approved by the institution's management body or a designated committee thereof and senior management. As the roll-out plan determines the intended application of the IRB approach and its sequential implementation, it should be approved by the institution's senior management and management body.
- It is expected that the status and progress of the sequential implementation of the IRB approach should be a
 regular agenda item for the management body or designated committee. The status of the roll-out plan should
 be reported at least annually and include the exact scope of application, the planned dates of approval, or use, etc.
- Institutions should have a **framework or policy** for the governance of their roll-out plan.



... changes to the roll-out plan, and monitoring of compliance with the PPU provisions

General topics (5/14)

Roll-out and PPU (continue) The CRR and the Final Draft RTS on assessment methodology for IRB have established several GL and criteria for application, monitoring and assessment of the IRB approach. In this regard, the ECB has set expectations on this issue.

Changes to the roll-out plan

- Institutions are required to follow the roll-out plan approved by the competent authorities, and when a change in the plan is necessary, these changes may be approved and assessed against these conditions on the basis of the documentation provided by the institution regarding the rationale for the change, the materiality of the portfolios affected and governance arrangements for the change.
- · Institutions should pay attention to the following:
 - **Resource constraints and re-prioritisation** may affect their operational capability to develop and maintain rating systems.
 - General **uncertainty caused by potential changes to the IRB regulatory requirements** should not be considered a valid reason for changing the roll-out plan (or for delaying its implementation).

Monitoring of PPU compliance

- Institutions need to ensure on an ongoing basis that exposures under PPU fall within the categories listed in the CRR. In particular, institutions should implement:
 - **Measures and triggers** for a re-assessment of the suitability for PPU of PPU-authorised exposure classes or types of exposures.
 - A **reporting process** monitoring the materiality of the exposure classes or types of exposures in PPU over time.
 - **Processes and guidelines** to assess whether further exposure classes or types of exposures may become eligible for PPU.



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Regarding internal governance, the Guide include provisions in relation to the materiality of rating systems, decision-making responsibilities, internal reporting...

| | General topics (6/14) |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Internal governance | Internal governance principles have been organised along the following lines: i) the materiality of rating systems; ii) the management body and senior management (i.e. decision-making responsibilities, internal reporting and understanding of the rating systems); and iii) responsibilities of the Credit Risk Control Unit (CRCU). |
| Materiality of rating systems | • Whether a rating system is material depends on quantitative criteria (e.g. share of total EAD and RW exposure amount covered by the material rating systems) and qualitative criteria (e.g. complexity of the rating models). |
| | Institutions should assess and determine the materiality of their rating systems and communicate it to the CAs. The same requirements apply to all rating systems throughout the model life cycle, but additional requirements may apply to material rating systems (internal reporting and internal validation). |
| Decision-making responsibilities | Material aspects of all rating and estimation processes must be approved by the institution's management body or a committee designated by it, as well as by senior management. In this regard, it is expected that the approval process includes the documentation of the approvals. |
| | The institutions should define which policies should be approved by the management body and senior management¹, and should have a policy in place which defines material changes or exceptions. |
| Internal reporting | To ensure consistent oversight of the functioning of the rating systems, the CRR requires internal reporting on their performance. |
| reporting | • Institutions should determine the level of detail of the information and data to be presented to senior management and the management body, and the frequency of the reporting (at least annually). These reports should include information regarding the materiality of each rating system, its perceived strengths and limitations, and its current status in the light of validation and/or audit actions. At least annually, they should receive an aggregated overview of the validation results for each rating system. |

(1) These policies should cover, in particular, risk management policies that could have material impact in the institution's rating systems and risk estimates, and the risk of a third-provider for model-related tasks ceasing to operate (in relation to IT infrastructure and contingency planning).

...the understanding of the rating systems, the CRCU and the review of estimates

| | General topics (7/14) |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Understanding the rating systems | The management body must possess a general understanding of the rating systems and senior management must have a good understanding of the rating systems design and operations. Institutions should be able to provide evidence of the processes they use, and the format and content of these processes should match the roles and responsibilities of the management body and senior management. The format and content of these processes (e.g. workshops, seminars or dedicated training on IRB models) should match the roles and responsibilities of the management body and senior management. |
| CRCU | To ensure that the CRCU is independent from the personnel and management functions responsible for originating and renewing exposures, institutions should clearly determine which individuals and/or teams make up the credit risk control function and which personnel and/or units are responsible for originating and renewing exposures, and why they are independent from one another. Institutions should have a clear written mandate for their CRCU which clarifies its roles and responsibilities. Furthermore, the CRCU is responsible for ensuring the satisfactory performance of the rating systems and their ongoing maintenance . The CRCU may provide the validation function , with the necessary input for the validation of internal estimates; and should address any deficiencies identified by the validation function. |
| Review of estimates | In accordance with the CRR, risk estimates should be reviewed when new information comes to light but at least on an annual basis. The ECB considers it good practice to do it on the basis of: i) the ongoing monitoring performed by the CRCU, and ii) the annual validation of internal estimates performed by the validation function. |



The Guide includes provisions regarding the internal validation function, specifying the validation level and responsibilities, the content and frequency of the validation process...

General topics (8/14)

Internal validation

- Validation level and responsibilities
- The internal validation function, which encompasses the personnel responsible for performing the validation, should perform a consistent and meaningful assessment of the **performance of internal rating** and **risk estimation systems**.
- Internal validation should be performed at all relevant levels. In particular, institutions should pay attention to the following:
 - If the institution has approval for a rating system on a **consolidated bases only**, the validation of that rating system should be performed at least at consolidated level.
 - If the institution has approval for a rating system on a **consolidated basis** as well as on a **sub-consolidated and/or individual basis**, the validation of that rating system should be performed at the consolidated as well as on the sub-consolidated and/or individual levels.
- In order to **ensure consistency in validation activities across the different levels**, the group validation function can provide support to validation functions at lower levels (sub-consolidated or individual level)¹.

Content and frequency

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- The **validation policy** should involve proven procedures and methods which adequately validate the accuracy, robustness and stability of their estimation of all relevant risk parameters.
- The **validation process** should assess the performance of the rating systems by means of qualitative and quantitative methods, in particular with regard to the ranking of borrowers by creditworthiness (ranking power) and risk parameter estimation (calibration appropriateness).
- The content of the validation processes should be consistent across rating systems and through time, in
 order to be able to meaningfully and consistently assess the performance of the rating systems. Further, it
 should include quantitative analyses, which should include thresholds, set up for certain tests such as backtesting; discriminatory power; analyses of overrides; or stability analyses of the internal ratings and risk
 parameters over time.
- A meaningful validation of the rating systems requires not only an **initial validation** but also **assessment on regular basis**. These assessments should be carried out **annually**.
- (1) However, responsibility for the validation tasks should be retained at the level at which the rating system is approved (sub-consolidated and/or individual level)

...as well as the reporting and follow-up of the internal validation function

General topics (9/14)

Reporting and follow-up

- Institutions should ensure that **senior management and the management body are informed** about the conclusions and recommendations of the validation results as set out in the rating systems' validation reports, and in particular about any exceeded thresholds and deficiencies identified.
- Institutions should be able to demonstrate that, on the basis of the validation results and recommendations, **measures are initiated to remedy** identified deficiencies of the rating systems (e.g. model change, recalibration). This process should involve people with the appropriate level of seniority and responsibility from both the CRCU and the validation function.
- An escalation process up to management body level should be in place in the event of conflicts between the validation function, the CRCU and/or business units.
- Institutions should have adequate processes in place for tracking the status of the measures adopted to remedy deficiencies.
- Further, they should always **notify the CA** in the event of changes to their validation methodology and/or process.



The Guide specifies that the internal audit should review the rating system and its operations at least annually

General topics (10/14)

Internal audit • Pursuant to the existing regulatory requirements under the CRR, the internal audit or another comparable independent unit shall review the **institution's rating systems and its operations at least annually**.

Scope and frequency

- The internal audit should carry out a **general risk assessment** of all aspects of the rating systems for the purpose of drawing up the appropriate internal audit work plan.
- For the purpose of the **general risk assessment**, the internal audit should develop its own opinion on the areas of rating systems to be reviewed but can take into consideration the analysis performed by the internal validation function where appropriate. This assessment should include, at least, the **opinion of the internal audit unit** on:
 - The development and performance of the rating system.
 - The use of the models
 - the process for the materiality classification, the impact assessment and the compliance with regulatory requirements of all changes to the rating systems
 - · The quality of data used for the quantification of risk parameters
 - The integrity of the rating assignment process
 - The validation function, in particular with regard to its independence from the CRCU
 - · The process for calculating own funds requirements
- The procedures and results of the general risk assessment, the annual work plan, the auditing techniques and guidelines and the subsequent production of the internal audit reports should be properly documented and approved by the management body.
- For extensions and changes to the IRB approach, institutions must submit, among other things, reports of their independent review or validation.



Regarding the model use, this Guide specifies the role of internal ratings and default and loss estimates in the risk management and credit approval, in the internal capital assessment and allocation, in the corporate governance functions,...

General topics (11/14)

• The ECB acknowledges that the degree of use of internal ratings and default and loss estimates in the institution's risk management is **more extensive** for PD/internal ratings than for LGD/loss estimates and conversion factors. The IRB risk parameters can be used in an adjusted form or indirectly through risk measures stemming from rating systems, when justified and documented.

Risk management, credit approval

- Institutions should use internal ratings and default and loss estimates in: i) the **approval, restructuring and renewal of credit facilities**; ii) their **lending policies**, including exposure limits and mitigation techniques; and iii) the **monitoring process** of obligors and exposures.
 - In addition, institutions should take into account the internal ratings and default loss estimates in: i) pricing of transactions; ii) early warning systems; iii) collection and recovery policies and processes; iv) credit risk adjustments; and v) allocation or delegation of competence for the approval process. If an institution is not using the internal ratings in one or several of those areas, it should be able to properly justify its rationale.

Internal capital assessment and allocation

 Internal ratings and the default and loss estimates produced by the rating systems play an important role in the assessment, calculation and allocation of institutions' internal capital under the framework of the ICAAP (RW exposure amounts can also be used as an additional driver). This role should be reflected within the institutions' internal policies and procedures on internal capital assessment and allocation.

Corporate governance functions

- Institutions should use internal ratings and default and loss estimates in their **internal reporting** and **portfolio credit risk monitoring** procedures.
- The ECB considers that institutions comply with the above if they establish the following: i) institution's internal reporting, i.e. a structured reporting system on risk measured by their IRB risk parameters; and ii) portfolio credit risk monitoring, where the CRCU performs descriptive analyses of portfolio riskiness.



...as well as in the assignment of exposures to grades or pools

General topics (12/14)

Assignment of exposures to grades or pools

- The CRR requires institutions to assign and continue with assigning each exposure in the range of application of a rating system to a rating grade or pool of this rating system, and to review those assignments at least annually.
- The ECB observes that institutions' portfolios occasionally show a certain proportion of **non-rated exposures and/or outdated ratings**. The ECB considers that this should be properly investigated, justified, documented and monitored.
- Regarding the root causes, **non-rated exposures** are temporary exceptions to the 'ordinary' rating assignment process and should therefore be investigated, documented and justified in detail; while **outdated ratings** include both ratings that have not been updated within the 12-month period following the last rating date and ratings based on outdated information.
- Further, regarding the materiality, institutions should implement specific policies and procedures to identify these **non-rated exposures and outdated ratings** and **monitor their materiality** (in terms of number, EAD, and RW exposure amounts).
- All exposures within the range of application of an IRB rating system must eventually be rated and are not
 expected to be treated under the SA, unless they have received the permission of the CA to be
 permanently treated under the SA. Non-rated exposures and outdated ratings present a risk of potential
 underestimation of own funds requirements. To mitigate that risk, institutions should comply with certain
 guidance (e.g. they should have internal policies establishing a process to monitor non-rated exposures).
- Moreover, relative to the analysis of overrides¹, the rating of retail exposures is less likely to be affected by an override process given the high degree of standardisation of information processing – including in qualitative terms – and the small margins of discretion in the evaluation. In this regard, institutions should document those situations, retain the quantitative and qualitative information concerning each phase of the rating process, analyse the performance of those exposures whose assignments have been overridden, and identify specific criteria for assessing whether or not the number of and justifications for overrides indicate significant weaknesses in the rating system

Moreover, the management of model changes is covered through guidance on change policy, notification and classification of changes; impact assessment; and on re-rating process

General topics (13/14)

Management of changes to the IRB

Change policy, notification and classification Changes to a rating system's range of application or to a rating system itself are subject to **approval by the CAs** if assessed as material, or to ex ante or ex post notification if non-material. In addition, institutions are encouraged to share their policy with the CA and inform about any implemented modifications to it.

Institutions should establish a policy related to changes to the IRB Approach ('change policy'), which
includes the responsibilities, definitions, methods, metrics, significance levels and procedures to identify,
monitor and for implementing changes.

- To facilitate the process for submitting the documentation, the institution is expected to use a **standardised template** for notifying ex ante and ex post non-material changes/extensions and for submitting applications for material model changes/extensions.
- Institutions are expected to have processes in place which specify, in detail, that the classification of a
 model change/extension is adequate and consistent with the classification of other changes/extensions.
 Further, several unrelated changes/extensions should not be combined to produce one change of lower
 materiality (e.g. two different model changes that affect RW exposure amounts in opposite ways).

Impact assessment

- The impact assessment process should consist of a **quantitative assessment** (focused on the impact of the model change or extension on risk-weighted exposure amounts) and a **qualitative assessment** (based on certain specifications set in the Commission Delegated Regulation 529/2014 on the IRB and AMA).
- Regarding the **user acceptance test**, institutions should assess and document the impact of a material changes on the use of the parameters and ensure that the related internal policies remain relevant.

Re-rating process

- Institutions are expected to cover the **re-rating process** (i.e. calculation of their own funds requirements on the basis of this approved extension or change from the date specified in the new permission) in their change policy, and the process should be immediate.
- The re-rating process for model changes/extensions that are classified as non-material may take up to **1 year** from the date of implementation.



Finally, this Guide also specifies the third party involvement in IRB models, focusing on internal functions and tasks

General topics (14/14)

Third party involvement

- For the purposes of this Guide, outsourcing in the context of IRB models refers to the involvement of third parties in any IRB-related tasks, including data provisioning and the use of external data¹.
- · All outsourcing arrangements for IRB-related tasks should be subject to a formal and comprehensive contract or similar documented agreement in accordance with the proportionality principle.
- The outsourcing agreements should provide for: i) the agreed terms do not impede the institution in performing its validation activities; ii) the agreed terms do not impede the necessary communication between the institution and the CAs in performing their supervisory duties; and iii) the agreed terms should ensure that the provider gives the institution access to relevant information.

Internal functions and tasks

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- Internal validation and internal audit tasks. If an institution plans to delegate certain internal validation or internal audit tasks to a third party that would perform them outside the EU, it should discuss this plan with the CA in advance.
- Use of external credit risk parameters/ratings. When using these parameters as a component of their rating systems, institutions should take internal information into account, and demonstrate good knowledge of the work performed by the third party in producing the estimates.
- Model development and maintenance. If an institution plans to delegate such tasks to a third party located outside the EU, it is encouraged to discuss this with the CA in advance.
- · Use of pool models. Institutions using pool models shall remain responsible for the integrity of its rating systems. Where a third party is involved in the tasks of developing a rating system and risk estimation for an institution, the institution should verify that the validation activities are not performed by that third party.
- In-house knowledge. Institutions should retain adequate in-house knowledge and core competence when they are responsible for the outsourced tasks and functions.
- Independent monitoring of third-party performance. The institution should monitor the performance of third parties and have appropriate processes. This practice reinforces the fact that the institutions are the ultimate users of the rating systems and thus have the ultimate responsibility for their operations.

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The TRIM project will finalise in the course of 2019 and it will continue with a focus on reviewing models for low-default portfolios

Next steps



- The execution of the TRIM project will continue with a focus on **reviewing models for low-default portfolios** (which include, for example, exposures to mid-sized/large corporates or financial institutions).
- Furthermore, the objective of the TRIM is to finalise all on-site activities in the **course of 2019**. Further updates on TRIM will be shared with the industry in due course, through the regular communication processes that have been established.

