

finalyse

REGULATORY BRIEF
SPRING 2023



Our purpose

Our aim is to support our clients incorporating changes and innovations in valuation, risk and compliance. We share the ambition to contribute to a sustainable and resilient financial system. Facing these extraordinary challenges is what drives us every day.

Regulatory Brief

The RegBrief provides a catalogue of policy updates impacting the financial industry. Emphasis is made on risk management, reporting and disclosure. It further covers legislation on governance, accounting and trading, as well as information on the current business environment.

Note: The Cross-Sector chapter includes regulatory updates that may affect multiple industries.

Data: from 1 January 2023 – to 31 March 2023

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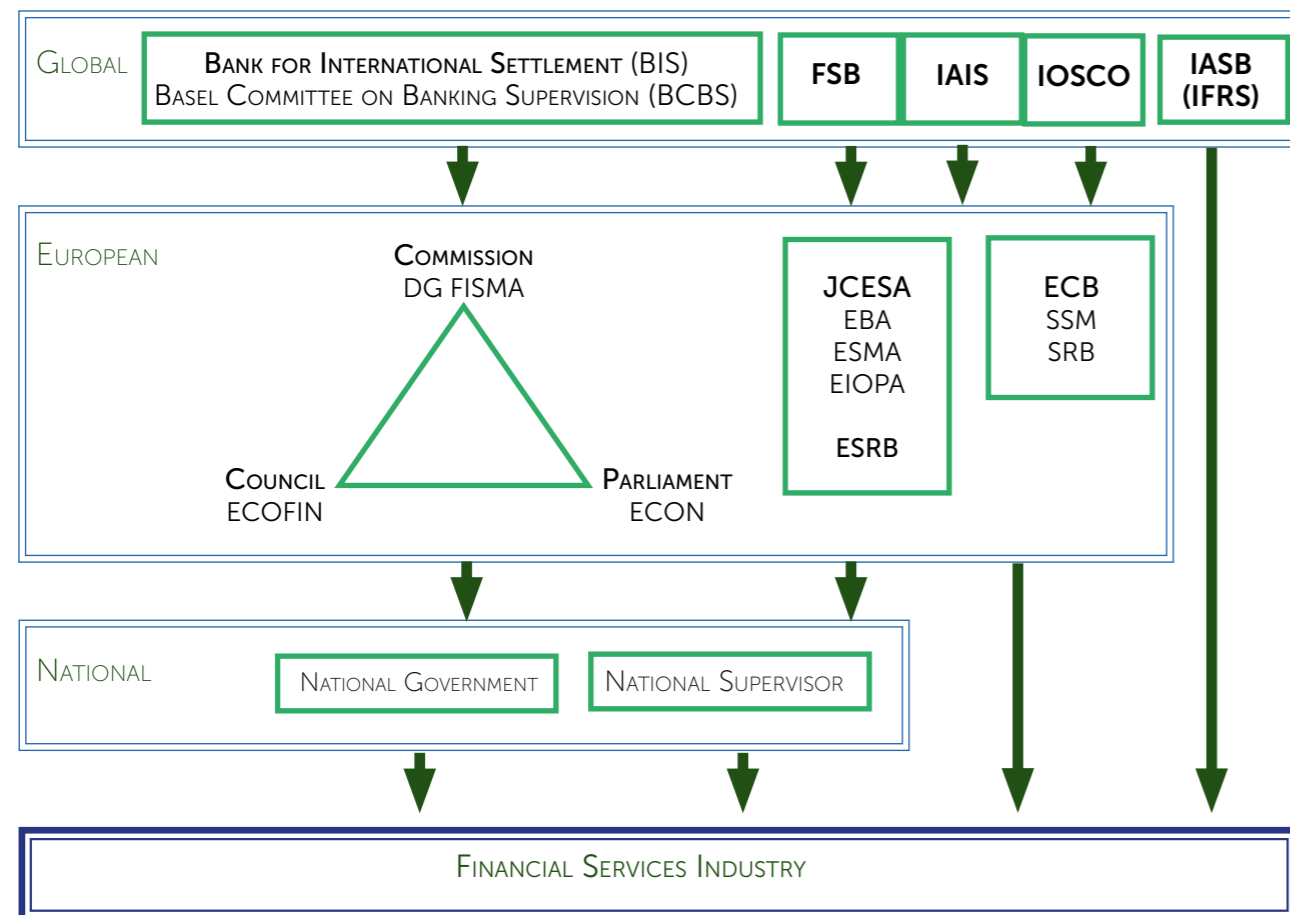
Abbreviations

AIFMD	Alternative Investment Fund Managers Directive	ECB	European Central Bank
AMA	Advanced Measurement Approach	ECL	Expected Credit Loss
AML	Anti-Money Laundering	EDIS	European Deposit Insurance Scheme
AT1	Additional Tier 1	EEA	European Economic Area
BCBS	Basel Committee on Banking Supervision	EEAP	European Electronic Access Point
BIS	Bank of International Settlements	EFTA	European Free Trade Association
BMR	Benchmarks Regulation	EIOPA	European Insurance & Occupational Pensions Authority
BRRD	Bank Recovery and Resolution Directive	ELTIF	European Long-Term Investment Fund
CCP	Central Counterparty	EMIR	European Markets Infrastructure Regulation
CET 1	Common Equity Tier 1	ESMA	European Securities & Markets Authority
CFR	Core Funding Ratio	ESRB	European Systemic Risk Board
CMU	Capital Markets Union	EU	European Union
Council	Council of the European Union	EuSEF	European Social Entrepreneurship Fund
CPMI	Committee on Payments & Market Infrastructures	EuVECA	European Venture Capital Fund
CRA	Credit Rating Agencies (Regulation)	FINREP	Financial Reporting
CRD	Capital Requirements Directive	FICOD	Financial Conglomerates Directive
CRR	Capital Requirements Regulation	FRTB	Fundamental Review of the Trading Book
CSD	Central Securities Depository	FSB	Financial Stability Board
CTP	Consolidated Tape Provider	FX	Foreign Exchange
CVA	Credit Valuation Adjustment	GAAP	Generally Accepted Accounting Principles
DGS	Deposit Guarantee Scheme	G-SIB	Global Systemically Important Bank
DPM	Data Point Model	G-SII	Global Systemically Important Institution
EBA	European Banking Authority	IAS	International Accounting Standards
ECAI	External Credit Assessment Institution	IASB	International Accounting Standards Board

Abbreviations

IBIP	Insurance-Based Investment Product	NCA	National Competent Authority
ICAAP	Internal Capital Adequacy Assessment-Process	NPL	Non-Performing Loan
IDD	Insurance Distribution Directive	NSFR	Net Stable Funding Ratio
IFRS	International Financial Reporting Standards	OSII	Other Systemically Important Institution
ILAAP	Internal Liquidity Adequacy Assessment Process	PAD	Payment Accounts Directive
IORP	Institutions for Occupational Retirement Provision (Directive)	Parl	European Parliament
IOSCO	International Organisation of Securities Commissions	PD	Probability of Default
IRB	Internal Rating Based Approach	PRIIPs	Packaged Retail and Insurance-Based Investment Products (Regulation)
IRRBB	Interest Rate Risk in the Banking Book	PSD	Payment Services Directive
ITS	Implementing Technical Standards	REFIT	Regulatory Fitness & Performance Programme
JCESA	Joint Committee of European Supervisory Authorities	RTS	Regulatory Technical Standards
KID	Key Information Document	RWA	Risk-Weighted Asset
LCR	Liquidity Coverage Ratio	SFT(R)	Securities Financing Transaction (Regulation)
LEI	Legal Entity Identifier	SI	Systematic Internaliser
LGD	Loss Given Default	SMA	Standardized Measurement Approach
LR	Leverage Ratio	SREP	Supervisory Review & Evaluation Process
LSI	Less Significant Institution	SRM	Single Resolution Mechanism
MCD	Mortgage Credit Directive	SSM	Single Supervisory Mechanism
MiFID	Markets in Financial Instruments Directive	STC	Simple, Transparent & Comparable (Securitisation)
MiFIR	Markets in Financial Instruments Regulation	TLAC	Total-Loss Absorbing Capacity
MMF	Money Market Fund	TR	Trade Repository
MS	Member States	UCITS	Undertakings for Collective Investment in Transferable Securities
		UPI	Unique Product Identifier
		UTI	Unique Transaction Identifier

Institutional Framework



The international organisations on the top row set global standards for their respective members. These global norms are not binding, but have to be further translated in national (European) legislation.

European legislation is proposed by the Commission and, after political negotiations, voted in the European Parliament and the Council of Ministers. Adopted regulations and decisions are directly applicable to EU member states, while directives have to be translated into national law before they apply. The technical details are fine-tuned by the supervisory authorities: EBA, ESMA and EIOPA.

Finally, where necessary, national governments and supervisors translate and supplement the international and European policies for the domestic market.

Regulatory Calendar

2023 Q2

CRR

ITS

On IRRBB reporting

Document release: tbd

Stress Test

Stress Test

First, second and third submission for the EBA 2023 Stress Test Exercise

Document release: April, May & June

Solvency II

Draft RTS

Prudential treatment for of assets and activities associated substantially with environmental and/or social objectives

Document release: tbd

2023 Q3

Stress Test

Stress Test

EBA 2023 Stress Test Final submission

Document release: July 2023

Stress Test

EBA 2023 Stress Test results publication

Document release: July 2023

2023 Q4

Sustainable Finance

Thematic Review

To manage C&E risks with an institution-wide approach covering business strategy, governance, risk appetite & risk management

Application date: 31 Dec 2023

2024 Q2

EMIR

RTS

Minimum Details of the Data to be Reported - EMIR REFIT

Application date: 29 Apr 2024

2024 Q3

MiCA

Regulation

Most of the provisions of MiCA

Application date: TBD

2024 Q4

Sustainable Finance

Thematic Review

To be aligned with supervisory expectations, including integration of C&E risks in stress testing framework and ICAAP

Application date: 31 Dec 2024

2025 Q1

CRR

Regulation

Most of CRR 3 provisions are intended to come into force

Application date: 1 Jan 2025

2028 Q1

Basel

Standards

Basel IV capital floor implementation end postponed from 01 Jan 2027

Implementation deadline: 01 Jan 2028

This Regulatory Calendar provides a snapshot on the most important regulatory events of this and the coming years. To see detailed calendar, please consult specific industry section of this RegBrief.

Explanatory Note & Legend

SCOPE

Regulatory updates include EU legislation, international standards and other relevant publications from the European authorities. They are gathered from official publications and institutions' official communication channels.

STATUS

Updates are labelled with a symbol which indicates the status of the regulation at the time of publication:



Consultation: The first circle is filled when an official draft is open for public consultation.



Pending: The second circle is filled when a final proposal needs to be adopted by a vote or non-objection.



Effective: The third circle is filled when a regulation is final and adopted. There might be a certain delay until it applies.



Informative: This symbol indicates purely informative documents, such as briefings and reports.

Trending Topics

1. BANKING PACKAGE - CRR/CRD



The banking institutions are waiting for the closure of the lengthy legislative process that surrounds the adoption of CRR 3 and CRD IV. At this stage there is a lack of clarity to what extent will the final banking package differ from the one proposed by the commission in October 2021 or when is it going to be published. However, the expectation is for the banking package to take force in 2025 with some phase-in anticipated for the output floors. Given the size of the requirements, there already is a shortage of time for the implementation by 2025 and we don't have the final version yet. To some extent this may be mitigated by already working on implementing the Basel standards: by what we have seen in 2021 proposal, the Basel standards are slightly stricter than CRR 3 and therefore, their implementation should cause no problem with the regulator. However, in some respects, such as reporting, this approach is not possible.

Simultaneously in 2023 some aspects of the CRR 2 came into force regarding the use of the internal models and some components of FRTB. The regulators however are deprioritising supervision of the compliance with these rules. The internal models for the market risk are not very much used and the CRR 2 FRTB framework is incomplete as it needs to be complemented by the provisions in the new banking package.

2. INSURANCE



The IFRS 17 accounting standard together with IFRS 9 is in force in the EU as of first of January 2023 with most insurers more or less having already implemented those standards.

As of now, the insurers are waiting for the release of the (originally 2020) Solvency 2 review. The Commission has adopted its proposal on 22nd September 2022 but the legislative process of adopting the release is still underway, but markedly delayed. This RegBrief contains an article on some of the changes of Solvency II review.

Climate risk will feature in more and more risk, reporting and disclosure activities bringing its own set of challenges, chiefly related to data gathering and model building. Stress testing is at the forefront of EIOPA's agenda right now where climate risk should be added to the stress testing framework this year (with the climate risk stress test for the insurers likely for the next year).

EIOPA also noted that the insurers may also benefit from exploring more sophisticated risk calculation methodologies such as machine learning, as the complexity of the regulatory requirements increases.

3. EMIR REFIT



Last October, a number of EMIR – related technical standards were published. As a result, as of April 2024, the reporting requirements under Article 9 of EMIR will once more be changed. The major changes can be described as:

1. Prohibition of using the proprietary formats for reporting to trade repositories. As of April 2024, only ISO 20022 XML will be acceptable format.
2. Closer alignment of the formats of the reports with global guidance developed by CPMI-IOSCO on the definition, format and usage of key OTC derivatives data elements reported to trade repositories.
3. Reports should now cover 3 tables where the third table focuses on the collateral related reports with some more fields being added.
4. More clarifications related to the mandatory delegation of the reporting for NFCs-.
5. Clarification about submitting information to NCAs for significant reporting issues.
6. Clarification of the controls that trade repositories are required to perform.



Banking

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Banking Regulatory Timeline

2023 Q2

CRR
Regulation
Revised capital requirements for market risk
Application date: 28 Jun 2023

Report
On the monitoring of interdependent assets and liabilities in the LCR
Document release: tbd

Report
Updated report on the LCR implementation monitoring
Document release: tbd

Guidelines
On calculation of K IRB for dilution and credit risk (CP)
Document release: tbd

ITS
Prepare the 2023 benchmarking portfolios – update of ITS
Document release: tbd

Report
On SA-CCRReport on SA-CCR
Document release: tbd

ITS
On IRRBB reporting
Document release: tbd

ITS
On supervisory disclosure
Document release: tbd

CRD
Report
On Convergence of Supervisory Practice in 2022
Document release: tbd

RTS and ITS
Update of RTS and ITS on Supervisory Colleges
Document release: tbd

Guidelines
Guidelines on diversity benchmarking under CRD and IFD
Document release: tbd

Stress test
Stress Test
First second and third submission for the EBA 2023 Stress Test Exercise
Document release: April, May & June

Resolution framework
Delegated Regulation
Commission Legislative proposal on cross holding of MREL among G-SIIs and OSIIs
Document release: 28 Jun 2023

Report
On convergence in the area of resolution
Document release: tbd

Guidelines
On resolvability testing
Document release: tbd

Guidelines
On Overall Recovery Capacity
Document release: tbd

2023 Q3

CRR
Report
CRD V/CRR II Basel III monitoring report
Document release: tbd

CRD
Report
On the application of waivers for remuneration requirements
Document release: tbd

Report
on High earner (annual, CRD and IFD)
Document release: tbd

Stress test
Stress Test
EBA 2023 Stress Test Final submission
Document release: July 2023

Stress Test
EBA 2023 Stress Test results publication
Document release: July 2023

Resolution framework
RTS
Review of the RTS on independent valuers
Document release: tbd

ITS
On Resolution Reporting
Document release: tbd

2023 Q4

CRR
Regulation
Changes in LGD and conversion factors models for stand-alone rating systems for exposures to Corporates
Application date: tbd

Delegated Regulation
Methodology for the Calculation of Liabilities Arising From Derivatives
Application date: 1 Oct 2023

ITS
Preparation of 2023 benchmarking portfolios – update of ITS
Document release: tbd

RTS
On the assessment methodology for the IMA (CP)
Document release: tbd

RTS
On extraordinary circumstances for being permitted to continue using the IMA (CP)
Document release: tbd

Banking Regulatory Timeline

RTS
On material extensions and changes under the IMA (CP)
Document release: tbd

RTS
On extraordinary circumstances for being permitted to limit the backtesting add-on (CP)
Document release: tbd

Guidelines
On the meaning of exceptional circumstances for the reclassification of a position (CP)
Document release: tbd

Report
Annual report on the impact and phase in of the LCR
Document release: tbd

Report
Annual report on the impact and phase in of the NSFR
Document release: tbd

CRD
Policy Initiative
2024 European Supervisory Examination Programme
Document release: tbd

Report
On the application of gender-neutral remuneration policies by institutions and Investment Firms
Document release: tbd

National Regulation
CRD related provisions for resolution of GSIIIs with a multiple-point-of-entry resolution strategy
Document release: 15 Nov 2023

Resolution framework
Policy
The end of phase-in for SRB bank resolution policy: Expectations for Banks
Application date: tbd

Report
Monitoring the build-up of MREL resources in the EU
Document release: tbd

Report
2024 European Resolution Examination Programme
Document release: tbd

IFRS9
Report
Potential follow up report on IFRS 9 implementation
Document release: tbd

2024 Q1

NPL Directive
Directive
Directive on Credit Servicers and Credit Purchasers
Application date: 01 Jan 2024

Resolution framework
Guidelines
For institutions and resolution authorities on improving banks' resolvability
Application date: 01 Jan 2024

Regulation
Some provisions for resolution of GSIIIs with a multiple-point-of-entry resolution strategy
Application date: 01 Jan 2024

2024 Q2

CRR
Guidelines
Phase-in requirements for addressing data gaps in the monitoring of already existing credit facilities
Application date: 30 Jun 2024

2025 Q1

CRR
Regulation
Most of CRR 3 provisions are intended to come into force
Application date: 01 Jan 2025

Basel
Standards
Prudential treatment of banks' exposures to cryptoassets
Implementation deadline: 01 Jan 2025

2028 Q1

BASEL
Standards
Basel IV capital floor implementation end postponed from 01 Jan 2027
Implementation deadline: 1 Jan 2028

Unlocking The Power of Vendor Models: Your Guide To IFRS9 Compliance

Written by Jaydeep Sengupta, Consultant

As the IFRS9 regime has come into effect, financial institutions, have increasingly turned to external agencies or "Vendors" for model development. However, the utilization of these models is not exempt from distinct risks that necessitate tailored model risk management procedures.

The primary objective of this discussion is to highlight the typical hazards that emerge from the use of vendor models, with a particular emphasis on the risks that are exclusive to IFRS9 usage. Like other models employed in the financial industry, vendor models are complex in each of the domains related to their conceptual soundness, including data, design, and outcomes. Nonetheless, evaluating these domains with the same degree of rigor for a vendor model, in contrast to an in-house model, can be particularly challenging due to the proprietary components that vendors may choose not to disclose to the model user. The employment of vendor models for IFRS9, however, intensifies the significance of these developmental aspects.

In this post, we will elucidate on the pertinent factors that should be considered when addressing these risks and provide industry-standard & feasible mitigation strategies.

Conventional Users

The utilization of vendor models for risk management in the financial services sector is a conventional approach, especially among lenders who lack their own model development methodologies. This section discusses the typical users of vendor models in the regulatory context of risk management.

Financial institutions ("FIs") of significant size and complexity, falling within the scope of the Basel mandates, are typically equipped with in-house models capable of estimating expected losses. While such models may cover a shorter time horizon than that required for IFRS9, these institutions have already invested extensively in data, infrastructure, and expertise, enabling them to comply with these regulations while employing sophisticated and refined model risk management practices. Consequently, these institutions

have the option to repurpose their existing IRB models for IFRS9 compliance, making necessary modifications as required. Given their substantial portfolio sizes and abundant data availability over an extended period, they also possess the flexibility to create new models tailored specifically for IFRS9 usage. Moreover, the well-established modelling practices within these larger FIs further facilitate the adoption of either approach.

Smaller FIs are often unable to develop in-house models for IFRS9 compliance due to a lack of adequate data over an extended time horizon, and a shortage of the necessary model development skills. Starting from scratch, while an option, has the potential for the cost of model development to outweigh the benefits of regulatory compliance. As such, the optimal choice for these institutions would be to explore a vendor solution.

Vendor Model Risk Management

Employing vendor models as a means of risk estimation represents the practice of outsourcing, however, it does not necessarily entail abandoning the responsibility of managing model risk. It is essential for the model user, specifically FIs in this context, to effectively manage the risks that arise from employing vendor models. It is of utmost importance to assess the potential risk that may arise from the unsuitability of the vendor model for the intended portfolio.

Using vendor models can pose significant risks due to their proprietary nature, particularly regarding transparency. Vendors often withhold specific components of the models from users, such as variable transformations and parameter estimates, resulting in varying degrees of non-transparency depending on the vendor. Another risk is the data used to develop vendor models, which is typically based on vast amounts of industry data that may not fully represent the user FI's portfolio characteristics. Vendor models also provide Personalization options, which may not be appropriate for the intended model use and can lead to inappropriate usage if not transparently communicated. These risks are applicable across business objectives but are particularly relevant to the usage of vendor models for IFRS9.

It is customary for a vendor model that has been developed for a specific objective to be repurposed for alternative uses. In this context, vendor models that were originally designed to function as credit scorecards have been

enriched with supplementary components to extend their applicability for IFRS9 purposes. An example of this extension is the TTC to PIT converter component, which, as the name implies, transforms the through-the-cycle (TTC) probability of default estimations that have been derived from the credit scorecards into point-in-time (PIT) estimations that are required for IFRS9 purposes. Typically, vendors market a suite of such models as a product suite, which creates incremental risk. Therefore, users of vendor models for IFRS9 purposes must scrutinize each individual component both independently and in combination with other models that are included in the vendor solution suite.

FIs face unique risks when using vendor models, which can be broadly categorized into two types. The first type is the risk associated with the model's development, which includes evidence from the vendor and the intended portfolio of model use. The vendor bears the responsibility for developmental risks, while the institution-specific risks require the user to exercise due diligence. Implementing external vendor models in FIs also requires heightened levels of due diligence, and model users must establish contingency plans in case the vendor fails to provide services. Properly accounting for each of these individual risks is crucial to managing vendor model risk effectively. With respect to using vendor models for IFRS9, some atypical risks may arise, and specific risks may be magnified. These nuanced considerations, which are discussed subsequently and briefly represented in the figure below, form the foundation for effective management of vendor model risk when using it for IFRS9.

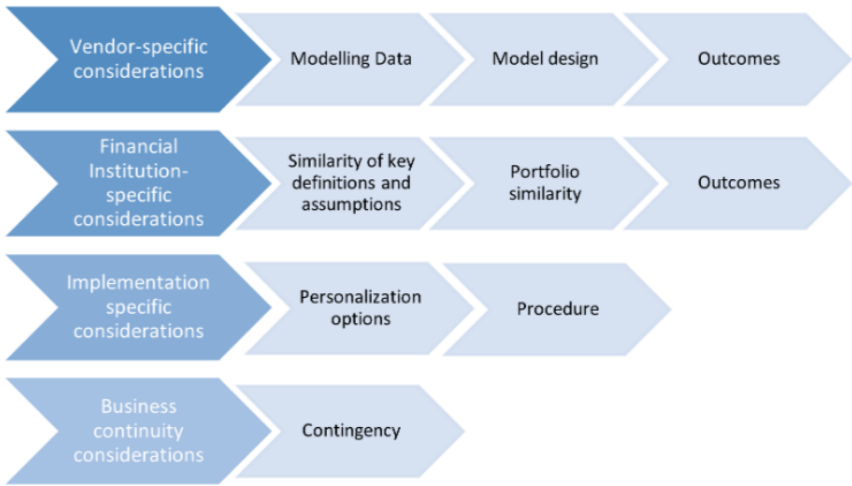


Figure 1: Steps of vendor model risk management

Vendor-specific considerations

Data

Vendors providing pre-made models either acquire data from external sources or gather and store it internally. In either scenario, those utilizing the model must assess the vendor's data management practices to ensure the reliability of the data used to create the model. To evaluate the quality of the development data, users of vendor models should focus on aspects such as the data timespan coverage, topographical coverage, and portfolio dimensional coverage. The evaluation should be tailored to the intended purpose and portfolio of use. This discussion will cover key data-related considerations regarding vendor model usage, particularly in the context of IFRS9.

Data timespan is essential for IFRS9, and the coverage of data from the 2008 recession is crucial for modelling sensitivity to changes in the macro-economy. If the model includes data from the 2008 recessionary period, users of vendor models for IFRS9 must ensure that the in-sample and out-of-sample data adequately represent the recessionary period. Diverse stress coverage is an issue with the typical approach of including data from the 2008 recessionary period, as it only considers a singular type of recession. This approach falls short of addressing the impact of recent events such as the COVID-19 pandemic on the macro-economy, making it necessary to include data from various types of recessions in model development, such as those resulting from the SARS or the H1N1 outbreaks.

Data recency is another crucial facet, as it is common for vendor models developed for Basel III to be repurposed for IFRS9 as such, it is likely that the model is not trained on recent industry data. Therefore, the model user must evaluate whether the vendor should recalibrate the model by incorporating recent data or assess the model's performance on the most recent out-of-time data. Product specifications are also relevant, as the term of the product being modelled should determine the timespan used for development. Mortgages, with typically longer terms, require data from a longer time span, than say HELOCS.

Regarding topographical coverage, vendor model users operating across multiple geographies must evaluate whether the development data includes

portfolios from individual geographies. A granular evaluation of model sensitivity to the macro-economy at the state or metropolitan level is necessary for the applicability analysis of the model to respective portfolios of intended use. The granularity of model sensitivity to macroeconomic changes facilitates IFRS9 compliance, which requires macroeconomic factors to be considered in loss estimation.

The data used for developing vendor models should cover the portfolio of intended model use from multiple dimensions, such as the borrower's characteristics or the underlying collateral. As an example, for CRE loans, the most commonly used dimension is the property type of the collateral, wherein, hotels are typically considered to be riskier than offices. For C&I loans, the industry sector the borrower belongs is a dimension to be considered. A detailed inspection of portfolio dimensional coverage should accompany the usage of vendor models to ensure a high-level understanding of portfolio details along key dimensions. Subject matter expertise, such as defining an expert panel, and accepted industry practices should be applied to ensure appropriate definitions of these dimensions.

In addition to the IFRS9 related aspects of data preparation, the general steps to ensure data quality are also to be considered. Data treatment through imputing missing values, capping or flooring outliers, and other such manipulations form sound ground for the downstream development of a robust model. Lastly, transparent documentation of the data exclusions applied to the developmental data ensures that the model users apply the same set of exclusions in the data on which the model is intended to be used.

Design

Assessing the design of a model involves reviewing its conceptual soundness and modelling aspects, such as segmentation, sampling, and estimation technique, in line with its intended use and the available portfolio. Evaluating the design of a vendor model, however, is typically more difficult due to the proprietary nature of the model and the vendor's potential reluctance to disclose certain design details. This section aims to outline key principles for evaluating the design of a vendor model in such situations of limited transparency. Additionally, it discusses critical design aspects for

using vendor models in IFRS9 and highlights the personalization options unique to vendor models.

Conceptual soundness of design: The vendor may consider certain design aspects of model development as proprietary and may conceal them. The line between what constitutes proprietary information and what should be shared can be difficult to differentiate. Therefore, it is important for users of vendor models to use discretion to ensure that they can evaluate the conceptual soundness of the model without hindrance due to lack of design information. Users should demand additional model details beyond what the vendor provides in the model documentation, such as the final list of variables and related transformations, along with their corresponding descriptions. For models based on parametric approaches, vendors should provide details of variable statistical significance (p-values) and coefficient directionality. While vendors may provide high-level details of how the final set of variables was chosen, details of variable transformations and business rationale used to include or exclude variables may not always be available. To manage model risk effectively, users should expect increasing transparency from vendors as the complexity of the model design increases.

IFRS9 mandates generation of forward-looking lifetime estimates that require the interplay between portfolio characteristics and the macro-economy to be captured in the modelling scheme. The loan-level approach is welcomed across the industry by regulators alike. It therefore emerges as a key consideration regarding the design of a vendor models intended to be used for IFRS9.

IFRS9 mandates point-in-time (PIT) loss estimates over the forecast horizon. Much of the longstanding vendor models in the industry were initially developed to generate through-the-cycle (TTC) estimates of credit risk that require modifications to align with the intended usage for IFRS9. To this end, such models require to have inbuilt settings which allow for conversion of TTC estimates of credit risk to PIT ones. Another option that is commonly seen in the industry is for vendors to market a suite of models, one of which generates TTC estimates, and another converts the TTC estimates to PIT.

While they align with the overall model scheme with the intended IFRS9 usage, such model suites have the potential to result in incremental model risk.

Personalization option: It is important to consider the level of customization required for the specific user and intended use of a vendor model. Vendor models are designed to be used by various lending institutions for different business purposes, which can lead to inappropriate model usage due to the inherent opaqueness of some model aspects. To mitigate this risk, vendors typically offer personalization options that allow users to adjust certain model settings to align with their portfolios and intended use. One such option is to calibrate the model outputs to historical portfolio performance. However, these personalization options also expose the model to customization risk as some model features may have default values that are not suitable for the intended use. Therefore, it is crucial for the model user to carefully assess the personalization features provided by the vendor and predefine appropriate values for each option.

The weightage of qualitative models is an additional calibration option for users of models. Although quantitative models are often deemed insufficient in capturing all the key drivers of credit risk for the intended portfolio, especially for vendor models developed on external data, qualitative models are frequently used to supplement them. Qualitative models can capture effects that quantitative models cannot, and therefore, combining both outputs using weightages is common practice, which is customizable by the model user based on their judgment. During times of stress, such as the recent COVID-19 pandemic, a greater reliance on qualitative models may be necessary to capture non-quantitative measures of risk that are not captured in the data. However, it is recommended that model users should aim to use analytical approaches wherever possible.

Outcomes analysis

Regulations now require greater emphasis on evaluating outcomes from vendor models, since these models are created externally by modeling experts and may contain proprietary components. Despite this, model users must apply the same level of scrutiny, if not more, to outcomes from vendor models as they do for in-house models. Therefore, model users should ensure that appropriate testing results from the vendor are submitted. When analysing outcomes, several metrics should be used, each serving a different defined purpose. This is particularly important for smaller FIs that do not have well-developed MRM practices. Outcome testing should focus on the following key considerations that are relevant for vendor model usage, particularly in the context of IFRS9.

Actuals vs Forecasted for IFRS9: The appropriateness of the testing results is of magnified essence in instances when a vendor model is used for a business objective different from what it was originally developed for. Again, consider the example of a vendor model developed to serve as an origination scorecard. The validation scheme of such a model would likely involve evaluation of metrics such as Gini, KS, and plots such as the lift curve. These constitute standard validation practices prevalent in the industry for a scorecard. However, usage of this scorecard, with inbuilt modifications or with a supplemental model, for an intrinsically different objective such as loss forecasting warrants the validation mechanism to be altered accordingly. To elaborate, validation of models used for loss forecasting exercises, require a comparison of historical actuals with model predictions over calendar time. This ensures that the model outcomes are tested in alignment with the intended model implementation mechanism.

It is of prime importance for the model users to obtain a graphical representation of this comparison along with error metrics such as MAPE, RMSE etc. from the back testing exercise. Model users should use these back testing results to identify systemic errors in model predictions. This facilitates estimation of the need for, and the extent of, compensating controls in downstream model usage. At this juncture, model users should also compare the expectations

from predictions when the model is used for IRB against when it is used for IFRS9. Model users should work with the vendor to evaluate model outcomes in alignment with these conditions.

Snapshot-based back testing: Snapshot-based back testing is a crucial component of IFRS9 model validation, in addition to back testing model predictions with actuals over time. It is essential to test models using snapshot-based mechanisms during the validation process. The validation tests must incorporate the proposed methodology of model implementation. The marginally mitigated risks associated with a particular model can be identified by acceptable results from snapshot-based back tests. However, it is rare to see vendor models being tested based on this scheme. During the initial stages of information gathering, model users should ensure that the vendor submits snapshot-back testing results for snapshots belonging to different economic cycles. Ideally, snapshots from both the recessionary period and recent times should be included. Graphical representations of snapshot-based back testing results, supplemented by error metrics, can help identify the systemic tendency of models to produce inaccuracies for IFRS9 model usage and define compensating controls.

Sensitivity analysis: For IFRS9 usage, it is required for the vendors to subject the model to varying degrees of stress to the input macroeconomic factors and to evaluate the corresponding changes in the outputs. While it is typical for the stress applied to the macroeconomic factors to represent either sides of the economy, the recessionary stress results should be emphasized upon. Another essential consideration is that the impact of stressed inputs should be conducted at both the model-level (PD and LGD for example), and also at the overall-level (EL for example).

In the likely absence of design particulars of vendor models, there is a magnified importance of sensitivity analysis for managing model risk. As such, model users should improvise to obtain added perspective around model sensitivity. In addition to traditional methods of conducting sensitivity analysis, model users should require the vendor to obtain sensitivity analysis results at a more granular level. As an example, for models

on CRE or C&I portfolios, the vendor should be expected to furnish model sensitivity at a property type or industry sector level respectively. This assists the model user to identify segments of the portfolio for which the model is not sensitive.

Evaluating model sensitivity to different macroeconomic scenarios is more important now than ever. With the recent COVID-19 pandemic, model predictions are being tested to the hilt. While this warrants models, in general, to be subjected to increased levels of stress, it becomes more important for vendor models. With diminishing regulatory trust on macroeconomic forecasts, model users should stress-test the models on forecasts based on extreme scenarios also, preferably in collaboration with the vendor. These efforts should be aimed at obtaining added comfort on the model predictions.

Monitoring framework

It is essential to establish robust monitoring schemes that involve ongoing assessment of model outcomes. The model user should monitor the model performance on internal data, while the vendor should transparently communicate the monitoring results on the latest industry data as it is collected. It is best practice to incorporate most of the tests from the model validation exercise conducted during development into the monitoring framework, as well as align with regulatory mandates. Additionally, the model user must ensure that the data used by the vendor to monitor the model outcomes remains relevant to the internal portfolio. Any discrepancies between the monitoring data and the data used to develop the model must be disclosed by the vendor to the model user. In this case, the model user should work collaboratively with the vendor to address such discrepancies and align the underlying monitoring data with the internal portfolio.

Financial Institution-specific considerations

The FIs are vulnerable to risks stemming not only from the model's conceptual elements, but also from its improper application. Even if the vendor model is fundamentally sound, using it outside its intended setting could increase the risk asso-

ciated with the model. Thus, it is necessary for the model user to implement controls.

An in-house model development is typically limited by the prevailing policies and definitions within the organization, which causes a significant risk when using a vendor model. The vendor may impose assumptions or definitions on the model development process, such as their definition of default, which could differ from the user's definition or not as per New Definition of Default. To ensure alignment of key definitions during model usage, the user must evaluate the vendor model design for any discrepancies and resolve them. For instance, if the vendor's default definition is 180 days past due (DPD) while the user's is 90 DPD, the user may need to request a recalibration of the vendor model to align with internal accounting practices. From an IFRS9 perspective, a key component is the definition of significant increase in credit risk (SICR). The vendor model is bound to be used based on this SICR classification assumed by the institution. How the design of the vendor model aligns with this assumption is a key consideration to be accounted for by the model user.

Portfolio Similarity

The effective use of vendor models requires adequate representation of the intended portfolio across key dimensions in the model development data. This evaluation is critical for institutions to determine appropriate usage of vendor models. However, development data provided by vendors is often biased towards larger or publicly traded borrowers, as their data is more readily available and cost-effective. Additionally, vendor model developers may exclude certain types of borrowers, such as finance firms, from the development data. Therefore, it is important for model users to ensure that the vendor models are applied only to borrowers or exposures similar to the sample data used in the model's development, while excluding other borrowers for which the model has the potential to be biased. Vendors may provide guidance on when the model should not be applied or applied with extreme caution, but it is the responsibility of the model user to establish portfolio similarity through independent analysis.

Preparing internal data: Preparing the internal financial institution data, or the portfolio of intended model usage, is a key component of this comparative evaluation exercise. Firstly, this serves the purpose of identifying borrowers out of scope of the vendor model. Secondly, in instances when the model user intends to onboard a suite of models from the vendor, it is required to identify the in-scope borrowers for each of the individual models. This is relatively more challenging for smaller FIs, wherein, a single data source is generally used to store all borrower information. This contrasts with practices in larger FIs where dedicated data sources house each of the different portfolios individually. Smaller FIs are therefore seen to utilize the call report codes to identify borrowers to a specific portfolio. In this entire analysis, it becomes key to observe the counts (or percentages) of borrowers to which the vendor model (or suite of vendor models) is not applicable. This represents the extent to which the vendor model(s) is not applicable to the FI's data. It therefore becomes imperative for the model user to justify high proportions in this regard and is a key aspect which necessitates continued monitoring by the FI.

Snapshot data: Model users typically conduct the portfolio similarity analysis on internal data as of a particular date. This data, commonly referred to also as snapshot or loan-tape data, should almost always be recent data representing the prevalent lending practices of the model user. In doing this comparative evaluation, it is most common for model users to understand the distribution of their internal portfolio vis-à-vis that of the development data across select predefined parameters. These parameters are either discrete, such as property types and industry sectors, or are continuous, such as DSCR and LTV. The approach to evaluating portfolio similarity for a particular parameter depends essentially on its nature.

Vendors usually ensure that the data utilized for model development covers essential parameters or dimensions. These dimensions are typically determined based on the intended use of the model's portfolio. For instance, C&I portfolios generally use industry sectors and asset sizes, while CRE portfolios utilize property types. The identification of these dimensions primarily stems from comprehending the aspects in which borrower credit risk is likely to differ across different asset classes. A table of frequently used dimensions for various portfolios is provided below.

Credit Card	Commercial Real Estate	Commercial and Industrial	Residential Mortgage
Income	CREPI	LTD	Origination Fico
Home Status	Seasoning factor	ROA	Indicator for Judicial States
Number of Cards	Hotel Indicator	EBITDA	Home Price Change
Credit Bureau Score	Vacancy factor	Total Assets	CLTV
Age	LTV	Net Income	Property Type
Months on Book	Judicial Indicator	Industry sector	Occupancy Type
Bank Interest Rate	DSCR	Sales Growth	Interest Rate (Cash Flow Discounting)
Delinquency Status	Size	Change in working capital	Spread at Origination (SatO)
Employment Status	Origination	Cash & Marketable securities	HPI

When dealing with discrete parameters, a comparison evaluation is usually sufficient. This involves comparing the number of borrowers or their percentages in the development data with that of the data intended for model usage. It is important for model users to ensure that the pockets in which their portfolio is concentrated are adequately represented in the development data. While there is no industry standard for the extent of this representation, it is crucial to consider the vastness of the development data. Vendor models are typically developed on large volumes of data, resulting in fractional percentages that can still yield hundreds of thousands of observations in the development data. Therefore, it is advisable for model users to focus more on non-representation. Another consideration is the use of statistical tests for comparison, such as the chi-square test. However, this is generally not feasible due to the sparse internal data that motivates the use of vendor models in the first place.


To ensure distributional similarity for continuous parameters like DSCR, LTV, and FICO, model users commonly require the vendor to provide the distribution of development data for each parameter. Depending on the borrower type, these parameters could be either DSCR or LTV for CRE borrowers, FICO for retail borrowers, or asset size for C&I borrowers. The model user then compares the distribution of these parameters in the internal data with the vendor's submitted data. Conducting statistical tests like the "t-test" is an option, but it might be hindered by the scarcity of internal data. As an alternative, model users ensure that the ranges of parameters in the internal data are subsets of those in the model development data. For example, if a model user focuses on subprime lending, they might have internal data with FICO values in the lower range (<500). In such a case, a vendor model developed on high FICO borrowers would not be a good choice. This approach can also be applied to other continuous parameters such as DSCR and LTV.

Scarce (or no) internal data: Users of vendor models often face the challenge of limited internal data for comparison with the data used by the vendor for model development. This is particularly common among smaller FIs that use vendor models to comply with IFRS9 regulations and may not have established processes for storing borrower information. As a result, conducting portfolio similarity analysis can be difficult or even impossible. However, there are alternatives to address this concern.

As a first step, model users should assess the data coverage of the vendor model in line with the FI's existing lending practices. For example, if the institution focuses on sub-prime lending, a vendor model not trained on such borrowers may be inappropriate. This approach involves comparing the institution's prevailing and future origination strategies with knowledge of the model development data. Another alternative is to use proxy data. Model users can obtain data from external data vendors that is representative of the FI's lending practices and policies. With this data, the model user can conduct a portfolio similarity analysis across various dimensions as detailed earlier in this post.

Outcomes: The vendor is responsible for testing the model's outcomes on the development data. However, it is crucial for the model user to assess the model's outcomes on the FI's internal data. This involves comparing the model's predictions on the internal data with the actual experience of the intended use portfolio to obtain different metrics that represent the model's performance. Typically, model users obtain the same metrics on internal data as those obtained by the vendor on the development data for evaluation. Nonetheless, the outcomes analysis conducted by the model user requires specific considerations for IFRS9 usage, just like the analysis done by the vendor. For IFRS9 usage, it is critical that the model user compares historical actuals with model predictions over calendar time on the internal data. In a similar vein, snapshot-based back testing becomes crucial owing to the intended model usage. Among all other validation schemes, for reasons stated previously, these 2 testing results take precedence over the others. Another critical testing scheme is the sensitivity analysis of model outcomes. Stressing model inputs from their averages in the intended data for model usage, in either direction, is a standard. This becomes more relevant with a view of model usage for IFRS9, wherein, sensitivity of the model outcomes to changes in the macroeconomic inputs is critical. Model users should therefore conduct sensitivity analysis on their internal data and evaluate the results to understand the directionality and magnitudes of the changes in model outputs.

Proxy Data: When conducting validation tests for vendor models, data insufficiency is a crucial factor to consider. Internal data limitations often prevent the development of in-house models, leading to a shortage of historical actuals that can hinder back testing of model predictions. To overcome



this, vendor model users often turn to proxy data sourced from data vendors. While appropriate controls are put in place to ensure representativeness of the internal portfolio, this approach incurs additional costs that smaller FIs using vendor models for IFRS9 may find unsuitable for their cost optimization goals. In such cases, these institutions request the vendor to identify a smaller subset of development data closely aligned with the intended use of the model. Both the vendor and model user are involved in identifying this subset, which is then used to execute the model and obtain back testing results that are supposed to represent the intended portfolio of model use.

Implementation considerations

FIs must ensure validated vendor models and effective system integration are properly implemented. Regulators emphasize the importance of investing in supporting systems to ensure data and reporting integrity, controls, testing, and appropriate use. For in-house models, model developers work closely with implementation personnel to establish controls. However, vendor models pose increased risks due to propriety considerations and lack of transparent view of implementation systems, requiring added due diligence.

Personalization and Procedure risk: During the implementation of vendor models, there are two main risks that must be considered. The first is related to personalization options, which are primarily used during model implementation. Vendors provide documentation and communication of available customizations, requesting that users provide values for each. Understanding each personalization option conceptually is necessary to avoid any associated risks. The second risk is process-related, arising when deployed models use outdated financial information or macroeconomic inputs. This risk is primarily the responsibility of the model user, as the inputs to the vendor model are usually provided by the user. Inefficient query execution against user-provided data is another form of procedure risk that requires input from both the vendor and the user to understand execution inefficiencies. In-house model mitigation approaches are typically employed for vendor models, with user acceptance tests being a well-established mechanism to mitigate implementation risk. As vendor models require frequent updates, users must evaluate vendor model version controls and processes.

IFRS9 specific implementation risks: IFRS9 presents unique challenges for model implementation due to its accounting-driven regulation. The stringent timelines and high frequency of model execution pose significant risks, particularly when using vendor models, which rely on external agencies. For vendors models used in IFRS9, it is crucial to ensure that modelling data is tightly integrated into the end-to-end model execution process without manual intervention. If any changes are needed in the model output, they should be made using model overlays. Any data stream modifications require effective controls such as maker-checker processes, and regular audits. FIs must manage downtimes and upgrades/releases with clear SLAs and have policies on fallbacks for implementation delays. IFRS9 must be executed at least every quarter, with primary and secondary runs in some cases. FIs should liaise closely with vendors to avoid upgrades/releases during execution dates. This process requires rigorous streamlining and controls, which larger FIs tend to have, whereas smaller ones may face risks of inaccurate or delayed submissions.

Implementation considerations

A vendor's ability to deliver contracted services may be affected by various events, including operational disruptions, financial difficulties, provider performance failure, or business continuity failure. To ensure uninterrupted services in the event of unforeseen circumstances, business agreements between vendors and FIs should address the vendor's responsibility for maintaining contingency plans and disaster recovery, as well as backing up critical information. Such agreements should also cover the vendor's obligation to test these plans and report the results to the FI. FIs must have contingency plans that focus on critical services provided by vendors and include alternative arrangements if a vendor is unable to perform. Since IFRS9 is a sophisticated accounting standard, banks will continue to work on it until further changes. Until FIs develop their own in-house models, they will rely heavily on vendors, making a vendor's business continuity plan critical for them. In reviewing contingency plans, FIs should consider the following important checkpoints:

- Ensure that contracted services and products are covered by a disaster recovery and business continuity plan.
- Evaluate the vendor's disaster recovery and business continuity plan to determine its adequacy and effectiveness and ensure alignment with the FI's own plan.
- Define and document the roles and responsibilities for maintaining and testing the vendor's business continuity and contingency plans.
- Maintain an exit strategy and a pool of comparable vendors in case the contracted vendor is unable to perform. The FI should also have sufficient in-house knowledge in case the vendor terminates the contract or goes out of business.
- Periodically test the vendor's plans to ensure that they remain adequate and effective.

Conclusion

In conclusion, by incorporating Vendor models in your IFRS9 compliance strategy, you not only gain access to cutting-edge technologies but also benefit from the expertise of industry-leading vendors. However, it is essential to ensure that you follow the necessary steps and requirements to be allowed to use them. This article highlights the need for financial institutions to exercise caution regarding four types of risks related to vendor models: vendor-specific, institution-specific, implementation-related, and business continuity-related. This article also summarised different industry standard approaches to mitigate these risks. The considerations specific to IFRS9 usage of vendor models outlined in this post will help users, especially smaller financial institutions, to align their MRM policies and practices with regulatory guidance.

Finalyse Risk Advisory team is a trusted & reliable partner that helps you navigate the world of vendor models in IFRS9. We understand the complexities involved and have the strong expertise to guide you through the process.

Supervision

CRR/IFRS9 EBA (Handbook)

Handbook on Data Submission for Supervisory Benchmarking

The EBA has published a Handbook on data submissions for supervisory benchmarking of internal models. The Handbook is an online tool that provides guidance and links to relevant documents and information for the supervisory benchmarking to facilitate their accessibility. In particular, the Handbook includes overviews for all applicable Q&As relevant to credit risk, market risk and IFRS9 benchmarking.

Release date: 2023-03-16

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CRR EBA (Opinion)

No-Action Letter on the Banking Book and the Trading Book Boundary

The EBA has published a no-action letter stating that competent authorities should not prioritise any supervisory or enforcement action in relation to the new banking book – trading book boundary provisions. The CRR2 has introduced certain elements of the Basel standards on the trading book / non-trading book boundary framework, which will enter into application as of 28 June 2023.

Release date: 2023-02-27

[EBA/Op/2023/02](#)



DGS Directive EBA (Guidelines)

Methods for Calculating Contributions to Deposit guarantee Schemes

The EBA has published a final report containing revised guidelines on methods for calculating contributions to DGS under the DGS Directive. The DGSD mandates the EBA to develop guidelines on methods for calculating contributions to DGSs and to review them at least every 5 years. During its latest review of the guidelines in 2021-2022 the EBA concluded that several elements of the calculation method needed to be improved.

Release date: 2023-02-21

Application Date: 2024-07-03

[EBA/GL/2023/02](#)



Supervision

BRRD EBA (Guidelines)

Write-Down and Conversion and Bail-In Exchange Mechanic

The EBA has published Guidelines to resolution authorities on the publication of the write-down and conversion and bail-in exchange mechanic. The BRRD provides authorities with the powers to write-down and convert capital instruments, it also sets-out that Member States shall ensure that resolution authorities may apply the bail-in tool to achieve the resolution objectives. Authorities have been working on developing their approaches to exchange mechanic.

Release date: 2023-02-13

[EBA/GL/2023/01](#)



Basel BIS (Press Release)

Work on Climate-Related Financial Risks, and Basel Core Principles

The BCBS has announced a range of policy and supervisory initiatives. The Basel Committee announced the following: The Basel Committee will issue a consultation paper on the proposed Pillar 3 disclosure framework for climate-related financial risks; The Basel Committee is reviewing its Core principles for effective banking supervision; The Basel Committee will also continue to monitor banks' cryptoasset activities and exposures.

Release date: 2023-03-22

[p230323a](#)



CRR EBA (Consultation Paper)

Standards for Supervisors Assessing the new Market Risk Internal Models Under the FRTB

The EBA has published a Consultation Paper on draft RTS on the assessment methodology under which NCAs verify an institution's compliance with the internal models approach as per CRR. The draft RTS set out the framework for NCAs to make their assessment. In particular, the draft RTS focus on three main aspects: governance, the internal risk-measurement model-covering the expected shortfall, and the stress scenario risk measure and the internal default risk model.

Release date: 2023-03-24

Consultation End: 2023-05-26

[EBA/CP/2023/04](#)



Risk Management

CRR Commission (Consultation Paper)

Specific Reporting Requirements for Market Risk

The EBA has published a Consultation Paper on draft ITS amending the existing ITS with regard to the specific reporting requirements for market risk. As the full implementation of the FRTB in the EU approaches, and with the aim to support institutions' preparation for it, this Consultation sets out proposals for expanding the FRTB reporting framework.

Release date: 2023-03-21
Consultation End: 2023-05-20

[EBA/CP/2023/03](#)



STS Securitisation EBA (RTS)

Homogeneity of the Underlying Exposures in STS Securitisation

The EBA has published a Final Report on draft RTS on the homogeneity of the underlying exposures in STS securitisation under the Securitisation Regulation. The draft RTS build on the original work done in the context of RTS on homogeneity for non-ABCP and ABCP securitisation, as the conditions determining the homogeneity of the underlying exposures are naturally closely linked and in order to ensure a level playing field for non-ABCP, ABCP and on-balance-sheet securitisations.

Release date: 2023-02-14

[EBA/RTS/2023/01](#)



CRR Commission (RTS)

Assessment of the Appropriateness of Risk Weights

The Official Journal of the European Union has released a Commission Delegated Regulation supplementing the CRR with regard to RTS specifying the types of factors to be considered for the assessment of the appropriateness of risk weights for exposures secured by immovable property and the conditions to be taken into account for the assessment of the appropriateness of minimum loss given default values for exposures secured by immovable property.

Release date: 2023-02-01
Application Date: 2023-02-21

[\(EU\) 2023/206](#)



CRR Council (Corrigendum)

Assessment of the Appropriateness of Risk Weights

The Council of the EU has published a Corrigendum to Commission Delegated Regulation supplementing the CRR with regard to RTS specifying the types of factors to be considered for the assessment of the appropriateness of risk weights for exposures secured by immovable property and the conditions to be taken into account for the assessment of the appropriateness of minimum loss given default values for exposures secured by immovable property.

Release date: 2023-01-30

[5838/23](#)



Reporting & Disclosure

CRD Commission (ITS)

Benchmark Portfolios, Reporting Templates and Reporting Instructions

The Official Journal of the European Union has published a Commission Implementing Regulation amending the ITS as regards the benchmark portfolios, reporting templates and reporting instructions for the reporting referred to in the CRD.

Release date: 2023-02-15
Application Date: 2023-03-07

[\(EU\) 2023/314](#)



CRD IV EBA (Consultation Paper)

ITS on Supervisory Disclosures

The EBA has published a consultation paper on draft ITS amendments with regard to the format, structure, contents list and annual publication date of the information to be disclosed by competent authorities in accordance with the CRD IV. The updated draft ITS proposed by the EBA take into account recent amendments to the EU legal framework, in particular the changes related to supervisory reporting and investment firms.

Release date: 2023-02-08
Consultation End: 2023-03-09

[EBA/CP/2023/02](#)



IRRBB EBA (Consultation Paper)

New IRRBB Reporting

The EBA has issued a consultation on draft ITS on supervisory reporting with respect to the IRRBB. The draft ITS have been developed in accordance with the CRR, which mandates the EBA to develop uniform formats, definitions, frequencies and reference and remittance dates and IT solutions. The draft ITS are intended to improve the quality of data that supervisors receive to monitor institutions' IRBB risk and the implementation of the policy package published by the EBA in October 2022.

Release date: 2023-01-31
Consultation End: 2023-05-02

[EBA/CP/2023/01](#)



Climate Risk EBA (Consultation Paper)

Green Loans and Mortgages

The EBA has launched an industry survey to receive input from credit institutions on their green loans and mortgages as well as market practices related to these loans. The purpose of the survey is to collect both quantitative and qualitative information the EBA can use to advise the European Commission. The work is part of the Commission's Strategy for financing transition to a sustainable economy.

Release date: 2023-02-13
Consultation End: 2023-04-07

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ARTICLE

Why ALM Matters: The Silicon Valley Bank (SVB) Case

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This article discusses the impact of increasing interest rates on Asset and Liability Management (ALM), along with best practices for a more effective ALM, whilst also leveraging the recent case of Silicon Valley Bank (SVB).

Asset and Liability Management (ALM)

Asset and Liability Management (ALM) is about managing risks arising from a mismatch between assets and liabilities on a financial institution's balance sheet while having sufficient capital and liquidity to meet their obligations to various stakeholders. Strategies over ALM include a combination of financial planning and risk management to increase efficiency and profitability while reducing long-term risks arising from market changes.

ALM addresses a broad spectrum of risks, predominantly interest rates, and liquidity.

A brief history of recent Interest Rates evolution

The global financial crisis of 2008 and an unprecedented pandemic in 2020 put global markets in high distress. To prevent a recession and stimulate economic growth, central banks forced interest rates to historically low levels, as lower financing costs could encourage borrowing and investing.

Low-Interest rates persisted for more than a decade. Expectations of banks and insurers were shaped by authorities who made sure to signal

that interest rates would remain low in a continuous effort to maintain stable economic growth. This inspired investment strategies that integrated a.o. more long-term illiquid assets chasing higher yields – “Yield Hunger Games!”

Naturally, rates could not stay at such levels forever.

A steady increase in inflation commenced in mid-2021 and accelerated throughout 2022. With the pandemic crisis shifting demand to goods (versus services) and affecting supply, governments and central banks easing the monetary effects of the pandemic, and the Russian invasion of Ukraine affecting energy supply and prices, prices for goods have been continuously increasing, impacting purchasing power.

High inflation in the Eurozone prompted the European Central Bank to raise interest rates in July 2022 by 25 basis points for the first time in 11 years, reaching cumulatively 200 basis points by November 2022. The Fed followed a similar pace in the United States.

This interest rates evolution from a long period of low (and even stagnant) interest rates to a new period of increasing rates has formed the following investment environment:

- For insurers – The investment model of insurance companies usually includes long-term liquid assets for covering future liabilities. In a long period of low rates, many insurers shifted their investment strategy to long-term illiquid assets to profit from higher yields, reducing flexibility in adjusting their investments according to new markets conditions.
- For banks – Low-interest rates eased debt financing, especially for long-term assets with low and stable rates, such as mortgages. Banks are now stuck with low-yield products. On the funding side, increasing rates create the necessity to calibrate products offering attractive yet competitive new products for investors.
- For individuals – Markets experiencing a steady growth, partly fuelled by cheap debt and easy equity financing, accelerated new businesses especially in the technological sector. Markets imploding at the start of the pandemic, resulted in affordable stock prices. Cash availability due to low consumption in the course of the pandemic, turned a large range of investors to the stock market. The tech industry, the majority of which sits in Silicon Valley, attracted a large share of investments, generating large volumes of cash in the recent years.

The Silicon Valley Bank (SVB) case

Silicon Valley Bank (SVB) was the 16th largest bank in the US and the largest bank by deposits in Silicon Valley, holding most deposits for nearly half of all venture-backed tech start-ups.

With its majority of customers generating large volumes in the recent years, as the tech industry roared, SVB concentrated large deposits with no business deposits insurance, exploding the liabilities side of its balance sheet. To balance their assets side, banks would traditionally invest deposits (partly) by providing lending to its customers, something that SVB customers did not particularly need. SVB decided to invest in long maturity US Government Bonds and Mortgage-Backed Securities, instead, which are highly sensitive to rising interest rates.

What went wrong?

SVB intended to hold its long-term bonds investment to maturity, valuing these assets at amortized cost. Meantime, the bank entered into Interest Rate Swaps (IRS) to hedge its interest rate position. When rates started slowly increasing, SVB saw an opportunity to profit by terminating the IRSs, in anticipation that rates will cease to further increase, leaving its bonds interest rate position unhedged. As interest rates rose further throughout 2022 and 2023, its bonds portfolio lost significant market value.

In addition, a large drop in the US stock market in 2022, along with rising inflation, put the technological sector at a stall after 2 years of growth, increasing the demand of large techs to draw on their deposits.

The bank was obliged to liquidate assets to meet its obligations, taking big losses in its books. This marked the beginning of a bank run and a resulting liquidity crisis that led to the bank's failure.

Overall, the bank's ALM strategy appeared with several flaws. In particular,

Maturity Mismatch

Maturity mismatches on the balance sheet create interest rate gaps and liquidity mismatches. Large differences in the horizon at which assets and liabilities are rolled or their return repriced create an interest rate gap that exposes the market value of the balance sheet to interest rate fluctuations. A liquidity mismatch also arises when short-term liabilities exceed offsetting short-term assets. Under the sentiment that interest rates would evolve at a slow pace and that its deposit base was solid, SVB invested heavily on long-term assets intended to be held to maturity, creating a big mismatch versus its much shorter term sizable (and ultimately unstable) liabilities.

Deposits Concentration

SVB's business model was highly focused on clients within one single industry, with the majority being some of the largest players in the sector. With the tech industry meeting great success during the pandemic, the bank received large deposits as a result of the same success story that equally affected all its customers. In the event of an adverse hit to the sector, the bank would soon be forced to meet its obligations at once, for the majority of its customers, and in this case, for large volumes.

The Network Effect

Rumours spread fast, for better or worse. SVB's customers were organized in closed networks communicating with each other about potential risks run by the bank in light of changing market conditions. Under a common sentiment and assumptions, many customers copied each other's action of withdrawing deposits, and no bank is designed to survive a mass withdrawal of deposits of that size.

It is important to highlight the extent of reputational damage in the technological age, and how imperative it is to ensure that the risk practices help preserve the trust of the public.

Regulation and Supervision

The supervisory authorities require that banks measure and manage their liquidity risk particularly through stress scenarios, taking into account different time bands as well as crisis con-

ditions with various (including extreme) stress scenarios.

Many US banks with similar size and activities to SVB were outside of the regulatory scope. However, SVB did not go under the radar of supervisory authorities. The bank was repeatedly called out on its risk management practices, and its failure to follow adequate procedures was made known to the regulator.

Actions taken by US Government

The US Treasury soon announced that it will intervene and provide insurance even for the non-insured assets for the first time in history. Additionally, a new lending facility (a funding program) was launched by the Fed, which will allow banks to post good quality assets as collateral and be able to borrow on favourable interest rates. Banks will be eligible for loans that are equal in value to the face value of the securities they pledge. The borrowing rate on that cash will be fixed at the "one-year overnight index swap", a market benchmark for one-year risk-free interest rates, plus 0.1%.

Robust Asset and Liability Management

The objective of ALM is to manage the mismatch of assets and liabilities within risk appetite while ensuring sufficient liquidity and capital to meet its obligations.

To that end, risk frameworks should ensure that financial institutions fulfil the following duties:



Liquidity Risk Management

As observed from SVB, liquidity is the lifeline of financial institutions, as blood is to humans. The pursuit of additional returns is not sustainable without ensuring there is a robust liquidity management strategy. Banks and insurers need to clearly understand the contractual and behavioural liability profile against their assets across different internally defined scenarios.

It is market practice - and a standard procedure for banks under the IRRBB pillar 2 rules - to make a distinction between the stable and unstable components of sight deposits (a.k.a. Non-Maturity Deposits). A distinction also needs to be made between retail and wholesale activities with the recognition that the latter is inherently more instable. An appropriate measure of "liquidity-at-risk" should enable financial institutions to anticipate potential funding gaps and thereby maintain adequate liquidity buffers, ensuring sufficient liquidity is held through periods of stress.

In SVB's case, there were not enough liquidity buffers and contingent liquidity to cover both the mark-to-market movements of their bond portfolio and the withdrawal of deposits.

Additionally, market risk management is another major component that impacts liquidity, which is discussed below.

Market Risk Management, including concentration and counterparty credit risks

Market Risk management and Liquidity Risk management are closely related. Investment into assets creates a liquidity strain. This strain can be exacerbated if the assets do not offset the risk characteristics of the liability, for example in terms of underlying currency, repricing profile, market liquidity. Behavioural features as prepayment or early redemption may also drive a wedge in the balance sheet.

From an ALM perspective, market risk management aims at mitigating the market risk profile generated by the transformation of liabilities into assets. This can be done by:

1. Matching as closely as possible the market risk created by assets and liabilities inside the fi-

2. Hedging out residual exposure (e.g., the long term fixed-rate risk associated with the treasuries bought by SVB)
3. Determining potential liquidity requirements resulting from market or counterparty risks (e.g. potential collateral margin calls associated with ALM hedges)

Risk limits for concentration and counterparty credit risks need to be monitored properly. Without sufficient diversification, there is a real risk that hedging activities will fail due to counterparties not being able to fulfil their obligations.

Another mechanism to influence both market risk and liquidity risk management consists in embedding the cost of liquidity into the funding management.

Embedding cost of liquidity into funding management philosophy

A robust implementation of fund transfer pricing (FTP) can help with both liquidity and market risk management at financial institutions.

FTP, also commonly known as cost of funds (CoF) or internal funds pricing (IFP) establishes an internal reference against which the profitability of different transactions, products and business lines can be compared, by attributing the proper costs and benefits for users and providers of funds and liquidity.

By embedding the cost of liquidity, an FTP framework will incentivise or disincentivise funding of various terms depending on the liquidity profile of the company - both from a funding provider and funding user point of view. Additionally, the cost of hedging and market risk management can also be passed through FTP.

In SVB's case, if the real cost of long-term funding had had been passed on to the investment business lines, FTP may have disincentivised the unhedged investment into long-term bonds. Additionally, FTP could have encouraged longer-term liability origination.

Optimise ALM by centralizing all funding activities within a centralized treasury

To optimize both the cost and effectiveness of market and liquidity risk management, it's important to centralize all funding activities within a treasury function. Benefits include:

1. A centralised view of all sources and uses of liquidity
2. Allowing the offsetting of risks at a consolidated level where only the residual risks need to be hedged
3. Provision of better management information to ALCO, enabling informed decisions making

Governance

An Asset Liability Committee (ALCO) must be in place to assist and supervise ALM activities and define optimal strategic planning that fits the institution's risk appetite. More particularly, the ALCO must:

- ensure adequate liquidity while managing the bank's balance of cash inflows vs. outflows
- ensure the existence of and approve a contingency plan
- ensure the existence of a compound funding policy which covers a variety of needs and sources of assets or liabilities (fixed/floating rate funds, wholesale/retail deposits, etc.)
- review and approve the liquidity and funding management policy on a regular basis

Conclusion

ALM matters!

The 2008 financial crisis, the unprecedented global health crisis, and the unfolding geo-political events remind us that the only certainty is an unpredictability. Ultimately, it remains a vital responsibility of financial institutions, their management and decision boards, to ensure the deployment of best practices aiming at protecting the interests of their shareholders and customers.

ALM plays a central role here. As illustrated in the Silicon Valley Bank story, managing the mismatches between assets and liabilities, both in terms of interest rate and liquidity risks, is key to maintain a healthy balance sheet. A robust ALM framework relies on an array of dispositions, from adequate risk measurement systems, realistic and comprehensive stress tests, risk appetite definition and limit monitoring, to contingency planning and governance. These are all areas where Finalyse is proud to bring value to its clients.

ARTICLE

Low Default Portfolios: Modelling and Calibration Approaches

By Can Yilmazer, Consultant and Armagan Demir, Senior Consultant

Reviewed by Can Soypak, Principal Consultant

The accurate estimation of the credit risk parameters is critical for precise assessment of provisioning (IFRS 9) and capital requirements (IRB) as well as for setting up strategies for pricing, risk appetite setting, etc. However, this task can be especially challenging in portfolios with limited or no defaults, as statistical models that rely on an adequate number of defaults may not be as reliable in predicting and managing risk in low-default environments. Consequently, alternative methods and data sources may be needed to ensure accurate risk estimation.

Low default portfolios (LDPs) are characterised by low number of historical defaulted observation clustering in specific downturn periods, and low-risk obligors. Low default likelihood can be observed in different portfolios, such as sovereigns, typically characterized by low default rates due to the rarity of past defaults by countries. Other examples of low-default portfolios include banks, insurance companies, and individual bank-level project finance.

Fortunately, there are multiple methods available when modelling these portfolios. However, the challenge lies in the absence of a single best practice approach; the suitability of any modelling approach depends on various factors such as the portfolio characteristics, segment, data availability, rating homogeneity, etc. Therefore, the application of any alternative modelling technique for LDPs must be evaluated for each case. This blog post aims to elaborate on the relevant regulatory landscape as well as the challenges and potential solutions for dealing with the LDPs.

Regulatory Requirements

The LDPs appeared in the regulatory context for the first time in the 'International Convergence of Capital Measurement and Capital Standards,' also known as Basel II (June 2004). Later, another paper was published by Basel in 2005 focusing on the validation techniques for the LDPs ('Validation of low-default portfolios in the Basel II Framework'). These papers recommended that LDPs should not be excluded from the IRB scope without justification and that alternative modelling/calibration techniques shall be investigated for LDPs.

In 2013, the 'Analysis of risk-weighted assets for credit risk in the banking book' was published. During the same year Prudential Regulation Authority was established with (among others) the aim to standardize the definition for the low default portfolios and sets the threshold for low default portfolios at 20 defaults per rating system.

More recently, in April 2021, the European Central Bank (ECB) released the Targeted Review of Internal Models (TRIM) to evaluate banks' internal credit risk models. Regarding LDPs, TRIM aims to confirm that banks possess adequate models for assessing and controlling the credit risk associated with their investments. This report examines the data quality of the models in use, the calibration methods applied, and the overall strength, stability and accuracy of the LDP credit risk models.

Moreover, regulators recognize banks' challenges in implementing IRB models for LDPs and have provided various options and alternatives to ease the modelling burden for LDPs. For instance, some banks have transitioned from advanced-IRB (A-IRB) to foundation-IRB (F-IRB) as a result of modelling difficulties in estimating risk parameters loss-given default (LGD) and exposure at default (EAD) for LDPs. Meanwhile, other banks have adopted Supervisory Slotting Criteria, which are guidelines used by regulators to determine the risk weights for specialised lending portfolios that are typically characterised by low default nature. Notably, this method differs from traditional approaches and does not require any calibration for PD or LGD parameters.

Why do we apply different treatments to LDPs?

Different approaches should be explored for LDPs to avoid producing statistically unreliable and volatile results instead of employing conventional credit risk modelling methodologies. The limited number of default events complicates drawing meaningful conclusions about the default probabilities/loss amounts and underlying risk factors particularly for rare or extreme events that may not represent the accurate distribution. Additionally, standard approaches such as the maximum likelihood estimation used for the PD modelling (i.e., logistic regressions) can be affected by small-sample bias.

Challenges

It's widely recognized that Low Default Portfolios are a challenging subject. However, it's worth exploring the most complex aspects and modelling steps associated with LDP modelling. This chapter will therefore focus on the target definition, sampling, and calibration approaches for LDPs.

Target Definition - Extended Default Definition

The Extended Default Definition examines the appropriate methodology for assigning probabilities of default (PD) or loss-given default (LGD) that would allow the modellers to have a more balanced sample in terms of the distribution of good vs. bad customers (for PD modelling) or to increase the sample size (for LGD/CCF modelling). However, it is mandatory for regulated banks to follow the internal default definition for the calibration of IRB models, although there is flexibility in choosing an alternative target definition for model development (ranking) purposes.

To address the issue of low defaults in a portfolio the natural option is to increase the number of defaults. This can be achieved through two methods. The first method is to extend the default observation window beyond 12 months while also ensuring that the selected time horizon is appropriate for the general characteristics of the portfolio. The second method is to expand the default trigger by using a DPD of 60, 30 or 10 days instead of 90 DPD as a default indicator. Although this approach is expected to increase the number of defaults, there is still a possibility that the number of defaults may not be sufficient for modelling.

Sampling

In order to comply with the Basel requirements, IRB models for PD/LGD/CCF must be developed based on long-run average realised 1-year default rates (PD calibration), realised loss rates (LGD calibration) or realised conversion rates (CCF calibration).

Oversampling and Undersampling

Oversampling or undersampling¹ can be employed as sampling alternatives for LDPs, with the goal to increase the ratio of defaults/bads in the development sample using methods such as bootstrapping. In oversampling, the objective is to increase the number of defaults/bads, while in undersampling, the aim is to reduce the number of non-defaults/goods. This technique is used on the training dataset, and it is essential to maintain a close approximation to the original class distribution to prevent significant distortion of the statistics due to biased probabilities. Different methods such as stratified sampling can be employed to avoid any representativeness issues caused by oversampling or undersampling.

Artificial oversampling via SMOTE

A robust implementation of fund transfer pricing Another sampling approach for LDP modelling is to create synthetic/artificial observations. The aim is to create synthetic observations based on the existing defaulted observations, rather than simply increasing the number of default events. For LDPs, we can consider non-defaulters as the majority and defaults as the minority. In this approach, k-nearest neighbours are calculated for these minority records. The magnitude of oversampling is critical here, and the number of k-nearest neighbours to choose from is determined accordingly. Assuming that neighbours are randomly selected, the goal is to generate synthetic samples by randomly selecting values between these neighbours.

Next, a synthetic example is generated for one or more of the sample's characteristics by selecting a random value between 0 and 1. This synthetic oversampling and undersampling approach is combined for both the majority and minority classes and is referred to as SMOTE. In the original paper written by Chawla(2002), it was observed that the SMOTE method works better than simple undersampling or oversampling techniques.

Calibration approaches

Another challenge for LDP modelling is calibration. When examining the calibration approaches applied to Low Default portfolios, it is helpful to make two distinctions: the first is to decide whether the default events are

- dependent or,
- independent

and the second is to know whether the portfolio has

- no defaults or,
- a limited number defaults

Pluto and Tasche

The Pluto and Tasche method can be applied to both dependent and independent default events. This method is also applicable for portfolios with no defaults.

This method was developed to provide a conservative estimate of independent defaults for a single period (i.e, no cross-sectional or intertemporal correlation). For illustration purposes, the reader can assume a scenario where there are three rating grades: A, B, and C, with A being superior to B and B being superior to C.

$$p_A \leq p_B \leq p_C$$

First, all rating grades are assumed to have the same credit quality.

$$p_A = p_B = p_C$$

A confidence interval is defined for the distribution of the probability of default for all these rating grades. The upper confidence interval should not include the rejected values (p-value> α), which is determined by the significance level α associated with the confidence level γ through the equation $1 - \gamma = \alpha$.

According to the most prudent principle, the p-value estimate should be based on all borrowers in the portfolio. Thus, the most prudent principle implies the estimate of the best rating class should be based on all the obligors and all the defaults. The variable d denotes the observed defaults, whereas n represents the number of debtors in each rating. The PD confidence levels of

each rating grade (i) are computed by defining a subsample which consists of the observation from the respective rating grade as well as the observations from worse rating grades. Hence, the most prudent estimator for pA is obtained by solving the equation, where kA+=kA+kB+kC and nA+nB+nC :

$$1 - \gamma = \sum_{i=0}^{k_{A+}} \binom{n_A + n_B + n_C}{i} p_A^i (1 - p_A)^{n_A + n_B + n_C - i}$$

Hence, PD estimates for the best rating grade (A) is defined based on the full sample. In terms of rating scales, using pA as an upper bound of pB would not be the most prudent estimation, as it is established that pB is higher or equal to pA . Therefore, to determine the most prudent estimator for pB at a given upper confidence level γ, the following equation needs to be estimated:

$$1 - \gamma = \sum_{i=0}^{k_{B+}} \binom{n_B + n_C}{i} p_B^i (1 - p_B)^{n_B + n_C - i}$$

In other words, the observations from rating grade A are eliminated leaving only B and C in the sample for the estimation of PD for rating grade B. In that logic, pC does not have any upper bounds as which the worst rating grade. Thus, the most prudent of pC is simply the solution of the following equation:

$$1 - \gamma = \sum_{i=0}^{k_{C+}} \binom{n_C}{i} p_C^i (1 - p_C)^{n_C - i}$$

On the downside of this method, setting the confidence interval level can be critical, since a higher confidence interval generates a more conservative estimate. Moreover, Pluto and Tasche method is only applicable to PD, not to LGD and EAD estimations.

The original Pluto-Tasche methodology (as described in Equations 3-5 above) assumes cross-sectional and intertemporal independence of the default events to derive the PD estimates. However, this assumption can be modified, and cross-sectional dependence of the default events can be introduced using a one-factor model containing systemic risk. Similarly, their intertemporal correlation generated by the dependence structure of the systemic risk factors over time. Introducing these correlation structures, the cross-sectional and intertemporal correlation between default events will be taken into consideration.

Quasi Moment Matching (QMM)

Originally Quasi Moment Matching is designed as another calibration approach for PDs in LDPs, where model scores (rankings) are calibrated to estimated PDs using a simple equation. The approach requires two inputs: target accuracy ratio and the mean portfolio PD (central tendency). This creates two-dimensional nonlinear equation that can be solved using numerical methods.

Standard two-parameter approach can be described as

$$P[D/X = x] \approx \frac{1}{1 + e^{-a - b\Phi^{-1}(F_N(x))}}$$

where FN(x) is the empirical cumulative distribution function of the rating grades conditional on survival (i.e., observations were not in default in the performance period). Note that this function results from transformation of the non-parametric distribution of the ratings to an approximately normal distribution.

Numerical solution of parameters of a and b is initialised by assuming a binormal model with equal variances between the defaulted and non-defaulted classes. Binormal model in a nutshell is based on two states; defaulted or non-defaulted and it assumes distribution where default ~ N(μ>0,1) and non-defaulted ~ N(0,1) . Solving for conditional densities of continuous scores of borrowers in case of default and no default, will provide the estimated parameters for the two parameters of a and b in the function above. Inserting these estimated parameters into the equation above will in turn produce the calibrated PDs. Tasche (2013) provides a detailed explanation as well as insights with respect to the details of QMM methodology.

Alternatively, QMM parameters can also be estimated using a logistic regression of the target variable (i.e., default flag) on the model scores/rankings. This logistic regression approximates the original QMM method quite accurately also allowing QMM to be used for LGD/EAD calibration, even though it is primarily designed for PD models. For instance, for low-default LGD calibration, QMM can be implemented where logistic regression method is replaced with fractional logistic regression to estimate the parameters of a and b.

Bayesian Methods

In the context of parameter estimation, Bayesian methods and frequentist methods (i.e Pluto-Tasche, classical fractional logistic regression etc) differ in the sense that Bayesian methods treat parameters as random variables. On the other hand, frequentist approaches derive point estimates using maximum likelihood estimation (MLE), whereas Bayesian methods estimate the central tendency posterior probability conditional on priors by leveraging on MAP (maximum a-posteriori method) which maximizes the posterior distribution. Eventually, MAP provides a point estimation such as mode or mean of the posterior distribution.

As in the frequentist approaches, Bayesian methods use the same statistical model structure, yet they allow to embedding the prior information (can be informative and non-informative) of the independent variables into the estimation process. A-priori information might include the probability distribution of intercept and initial values of the coefficients of risk drivers. Consequently, a generative model of an assumed distribution with parameters of the model, is simulated. After, obtaining the generative model, with risk data and priors; it is possible to obtain posterior distribution of the parameters by using MCMC (Markov Chain Monte Carlo) methods such as Metropolis, Gibbs, Hamiltonian, etc.

One advantage of using Bayesian methods in the context of LDPs is that it eliminates the need for selecting confidence intervals. In frequentist approaches, parameters are fixed but the confidence intervals are random variables, whereas in Bayesian methods, parameters are random variables and confidence bounds are fixed. With priors, if a parameter has a subjective probability that its posterior distribution lies between certain values, then these values become the confidence bounds. Another advantage is that expert opinion can be incorporated through informative priors, which can help to better address the unique features of the portfolio. In this way, the LDP transformation is less agnostic to portfolio-specific issues. Lastly, Bayesian methods can be easily adapted to accommodate correlation structures between default events.

1 There are two commonly used sampling methods. Stratified sampling - dividing population into homogeneous subgroups and selecting samples from each subgroup for full representation. Random sampling - selecting samples randomly to ensure equal representation of the entire population.

Programming Packages

Various software packages can be used to implement Pluto-Tasche, QMM and/or Bayesian calibration methods.

Pluto-Tasche	R	PTMultiPeriodPD
	Python	GitHub - LDP
	SAS	Customized code required
QMM	R	LDPD
	Python	GitHub - vdb
	SAS	Customized code required
Bayesian	R	Bayeslm, rstanarm, brms
	Python	pymc3, pyro
	SAS	PROC MCMC

Although Matlab does not have specific packages for these approaches, all these methods can also be easily implemented with MATLAB's Toolbox.

Conclusion

Due to their unique characteristics, Low Default Portfolios pose distinct challenges that require modellers to explore different modelling and calibration approaches as explained above. The adjustments of target definition, sampling techniques and calibration approaches are essential for effectively managing LDPs.

This article has not only highlighted the latest developments related to credit risk modelling in the realm of LDPs, but also demonstrated how Finalyse can be a key player in exploring and implementing the state-of-the art modelling solutions for LDP.

With its demonstrated experience in credit risk modelling, the Finalyse Risk Advisory team can provide seasoned consultants to develop the approaches highlighted in this article, and tailor them to the needs and specificities of your institution. Matlab does not have specific packages for these approaches, all these methods can also be easily implemented with MATLAB's Toolbox.



Insurance

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Insurance Regulatory Timeline

2023 Q2

Solvency II
Draft RTS
Prudential treatment for of assets and activities associated substantially with environmental and/or social objectives
[Document release: tbd](#)

Policy Action
Monitoring on the supervision of the use of climate change risk scenarios in ORSA
[Document release: tbd](#)

Insurance Distribution Directive
RTS
Adapting the base euro amounts for professional indemnity insurance and for financial capacity of insurance and reinsurance intermediaries
[Document release: June 2023](#)

PRIIPs
Regulatory Review
Finalisation of technical advice to Commission regarding review of the PRIIPs regulation
[Document release: tbd](#)

2023 Q3

ICS
Public Consultation
On ICS as a PCR, GAAP Plus
[Document release: tbd](#)

Insurance Supervision
Public Consultation
On revised ICP 14 (Valuation)
[Document release: tbd](#)

Regulatory Review
Liquidity monitoring exercise
[Document release: tbd](#)

Public Consultation
On revised ICP 17 (Capital Adequacy)
[Document release: tbd](#)

IORP
Report
Peer Review on supervisory practices with respect to the application of the prudent person rule for IORPs
[Document release: tbd](#)

2023 Q4

Solvency II
Report
Reassessment of the natural catastrophe risk standard formula capital charges
[Document release: tbd](#)

Insurance Supervision
Regulatory Review
Methodology to produce the scenarios to be used in the prudent deterministic valuation
[Document release: tbd](#)

Insurance Distribution Directive
Report
On the application of the IDD
[Document release: tbd](#)

IORP
Technical Advice
On the scheduled review of the IORP II Directive
[Document release: tbd](#)

Report
IORPs Risk Dashboard
[Document release: tbd](#)

2024 Q4

Solvency II
Draft RTS
The reassessment of the Natural Catastrophe risk standard formula capital charges
[Document release: tbd](#)



Supervision

IORP II EIOPA (Consultation Paper)


Technical Advice for the Review of the IORP II Directive

The EIOPA has launched a public consultation on draft technical advice for the review of the IORP II Directive. The consultation covers the:

- Governance and prudential standards
- Cross-border activities and transfers
- Information to members and beneficiaries and other business conduct requirements
- Shift from defined benefit to defined contributions
- Sustainability
- Diversity and inclusion

Release date: 2023-03-03
Consultation End: 2023-05-25

[EIOPA-BoS-23/071](#)




Supervision EIOPA (Supervisory Statement)

Oversight of Third Country Governance Arrangements

The EIOPA has published a Supervisory Statement to strengthen the supervision and monitoring of insurance undertakings' and intermediaries' activities when using governance arrangements in third countries.

Release date: 2023-02-03

[EIOPA-22/362](#)



IDD EIOPA (Consultation Paper)

Base Euro Amounts for Professional Indemnity Insurance and for Financial Capacity

The EIOPA has launched today a public consultation on its draft amendments to the RTS adapting the base euro amounts for the professional indemnity insurance cover and financial capacity of insurance intermediaries under the IDD.

Release date: 2023-02-09
Consultation End: 2023-05-06

[EIOPA-BoS-23/036](#)



Supervision EIOPA (Work Programme)


Supervisory Convergence Plan for 2023

The EIOPA has published its Supervisory Convergence Plan for 2023. The Supervisory Convergence Plan identifies EIOPA's three main priorities to enhance supervisory convergence over the course of 2023:

- the implementation of the common supervisory culture and the development of supervisory convergence tools;
- the risks to the internal market and the level playing field;
- the supervision of emerging risks.

Release date: 2023-02-01

[EIOPA-BoS-23/039](#)



Market Environment

Market Trends EIOPA (Survey)

Financial Innovation in Insurance

The EIOPA has launched a new Digitalisation Market Monitoring Survey to monitor the development of European insurers' digital transformation strategies and better understand how undertakings use or plan to use innovative business models and technologies.

Release date: 2023-03-06
Consultation End: 2023-06-30

[ec.europa.eu](#)




Market Trends EIOPA (Report)

Costs and Past Performance Report 2023

The EIOPA has published its Costs and Past Performance Report, which provides an overview of the returns and costs of insurance and pensions products in 2021. The report aims to improve transparency in the sector, facilitate comparisons between similar products and thereby, ultimately, enhance the EU's Capital Markets Union.

Release date: 2023-01-17

[EIOPA-BoS-22/577](#)




Market Trends EIOPA (Risk Dashboard)

Risk Dashboard January 2023

The EIOPA has published its Risk Dashboard based on Solvency II data from the third quarter of 2022. The results show that insurers' exposures to macro and market risks are currently the main concern for the insurance sector. All other risk categories, such as profitability and solvency, climate as well as digitalisation and cyber risks stay at medium levels.

Release date: 2023-02-07

[EIOPA-BoS/23-26](#)



Risk Management

PRIIPs KID Commission (Corrigendum)

Corrigendum on PRIIPs Methodologies

The Official Journal of the EU has published a Corrigendum amending the RTS as regards the underpinning methodology and presentation of performance scenarios, the presentation of costs and the methodology for the calculation of summary cost indicators, the presentation and content of information on past performance and the presentation of costs by PRIIPs offering a range of options for investment and alignment of the transitional arrangement for PRIIP manufacturers offering units of funds as underlying investment options.

Release date: 2023-03-16
Application Date: 2023-03-16

[\(EU\) 2021/2268](#)



Climate Risk

Climate Risk EIOPA (Staff Paper)

Nature-Related Risks and Their Impact on Insurers

The EIOPA has published a staff paper on nature-related risks – such as biodiversity loss and damage to ecosystems – and their relevance to insurance. The staff paper describes how nature-related risks can translate into risks for (re)insurers' assets and liabilities. The paper sets out a framework to identify key areas in supervisory and regulatory activity that require attention when addressing nature-related risks and their impacts on the insurance sector.

Release date: 2023-03-29

[EIOPA-23/247](#)



Solvency 2 EIOPA (Technical Guide)

Representative Portfolios to Calculate Volatility Adjustments

The EIOPA has published corrected updated representative portfolios that will be used for calculation of the volatility adjustments to the relevant risk-free interest rate term structures for Solvency II. The EIOPA will start using these updated representative portfolios for the calculation of the VA end of March 2023, which will be published at the beginning of April 2023.

Release date: 2023-03-09

[eiopa.europa.eu](#)



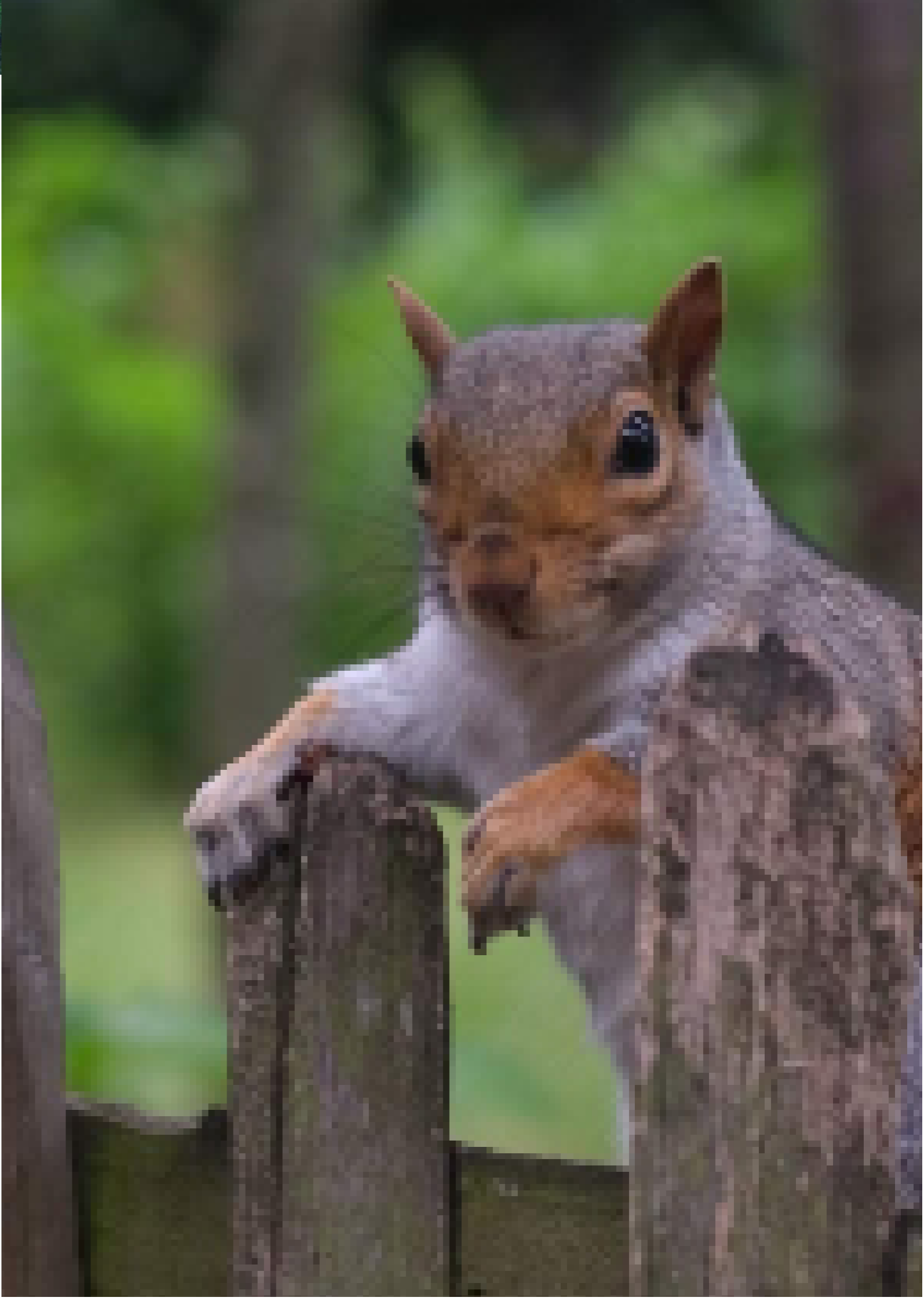
Market Trends EIOPA (Report)

Climate-Related Adaptation Measures in Non-Life Underwriting Practices

The EIOPA has published a report on insurers' inclusion of adaptation measures to climate change in their non-life underwriting practices. The report is the outcome of a pilot exercise on impact underwriting that EIOPA conducted with 31 volunteering insurance undertakings from 14 European countries in 2022. The report assesses the industry's current underwriting practices regarding climate change adaptation and their prudential treatment under Solvency II.

Release date: 2023-02-06

[EIOPA-BoS-22-593](#)



ARTICLE

Solvency II 2020 Review

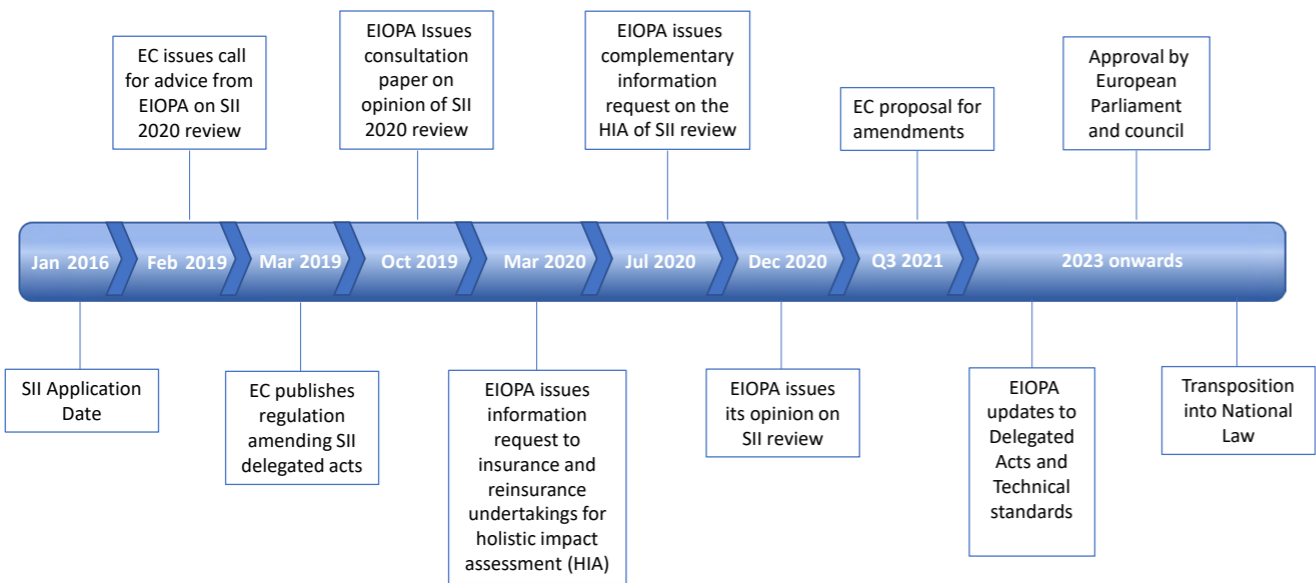
By Francis Furey, Principal Consultant
Divyank Garg, Senior Consultant

Background

The European commission (EC) published a comprehensive review of the Solvency II (SII) Directive¹ (The Directive) on 22 September 2021. This was based on the extensive work conducted by the EIOPA to provide its opinion² on SII by the end of the year 2020 (see reference for Finalyse article³) as requested by the EC earlier in year 2019.

The EC has provided the proposed text of the Directive to the European Parliament and to the Council for their consideration and approval. It is expected that the approval will be made in 2023 and once this is done, the Member states must transpose it into National law within 18 months. Updates to the Delegated Acts and Implementing Technical Standards are foreseen to be applicable in the coming months.

The timeline below gives details of each milestone.



Outlined below are the changes proposed by the EC. We address in detail a number of key topics - long-term guarantee measures of estimating risk margin, volatility adjustment, solvency capital requirement under the interest rate risk sub-module and extrapolation of the risk-free yield curve.

Risk margin

The risk margin under the SII standard formula approach represents the cost of transfer of insurance obligations to a potential purchaser. It is calculated using a cost of capital approach. The EC has proposed an exponential time-dependent factor λ (lambda) to be applied to the risk margin formula, in respect of the SCR amount for year t . Below are the two formula showing the calculation of risk margin under the current and proposed approach.

Current: $RM = CoC \cdot \sum_{(t \geq 0)} \frac{SCR(t)}{(1+r(t+1))^{(t+1)}}$

Proposed: $RM = CoC \cdot \sum_{(t \geq 0)} \frac{\lambda^t \cdot SCR(t)}{(1+r(t+1))^{(t+1)}}$

The intended application of lambda, with a value between 0 and 1, is to allow for a reduction in the impact of risks that are more distant in time. EIOPA concluded that a calibration of lambda equal to 0.975 provides a significant reduction in volatility and effectively addresses the issues identified by EIOPA. However, the EC is yet to finalise the value for this parameter. Using a simplified example of a life insurance business with a duration of 10 years and SCR of €100m at time 0, the implementation of the proposed new formula above would result in a risk margin reduction of c.€15m (approximately 20% of reduction where the cost of capital rate equals 6%).

Volatility Adjustment

The volatility adjustment (VA) is an adjustment applied to the risk-free interest rate in the best estimate liability (BEL) calculation to reduce the impact of short-term bond spread volatility on the solvency position. It is calculated for all insurance and reinsurance eligible obligations of a currency and can be adjusted for country considerations under stressed conditions.

The formula under the current approach is:

$$VA = 65\%_{GAR} * RCS_{Currency} + 65\%_{GAR} * \text{Max}(RCS_{Country} - 2 * RCS_{Currency}, 0) \text{ only if } RCS_{Country} > 100\text{bps}$$

GAR = general application ratio
 $RCS_{currency}$ = the risk corrected spread of the representative portfolio for a currency
 $RCS_{country}$ = the risk corrected spread of the representative portfolio for a country

The VA is calculated by applying a GAR of 65% on the risk corrected spread (RCS) which is based on a representative portfolio specific to a currency. Additionally, an adjustment including country-specific RCS is added under stressed conditions only if that RCS is greater than 100 bps.

As part of the SII 2020 review, there were potential deficiencies identified in the design of the VA. These include: the dampening effect of the VA being significantly higher/lower than the loss on assets, the cliff-edge effect when a country specific VA is triggered, and the failure to adequately allow for the illiquidity characteristics of the liability. The EC has proposed changes in the Directive to address some of these deficiencies and avoid any contravention of the existing VA objectives i.e., prevention of pro-cyclical behavior and mitigating the impact of bond spreads on own funds.

The proposal includes the removal of a condition that triggers country specific VA and introduces a smoothed increase in the VA via an addition to the permanent component in crisis situations.

The proposed formula for the calculation of the VA is as follows:

$$VA = \frac{85\%_{GAR} * RCS_{Currency} * CSSR_{Currency}}{85\%_{GAR} * \text{Max}(RCS_{Country} - 1,3 * RCS_{Euro}; 0) * CSSR_{Euro} * w_{Country}} + \text{where: } w_{Country} [\text{Country adjustment factor}] = \max(\min(\frac{RCS_{Country} - 0.6\%}{(0.3\%)}; 1); 0)$$

To address the issue of the movement in liability values overshooting movement in asset prices due to the application of VA, the EC has proposed a credit spread sensitivity ratio (CSSR) to be included in the calculation of VA (formula provided in the appendix). The estimation of this would be entity specific.

The CSSR can be defined as the sensitivity of assets of an insurance entity to changes in credit spreads, divided by the sensitivity of technical provisions (TP) to changes in the interest rate. This would help to reduce the basis risk with respect to EU representative portfolios, leading to a more accurate matching of spreads after VA adjustment. In addition, GAR has also been changed from 65% to 85% to capture unexpected credit and other risks.

The impact of the above amendments will depend on a company’s specific risk profile. Those entities that are in most need of the VA due to their circumstances will stand to benefit the most, while those companies that already have a well-matched asset-liability portfolio would see minimal gains. The average VA is expected to increase from 7 to 14 basis points at the EEA level.

Interest rate risk

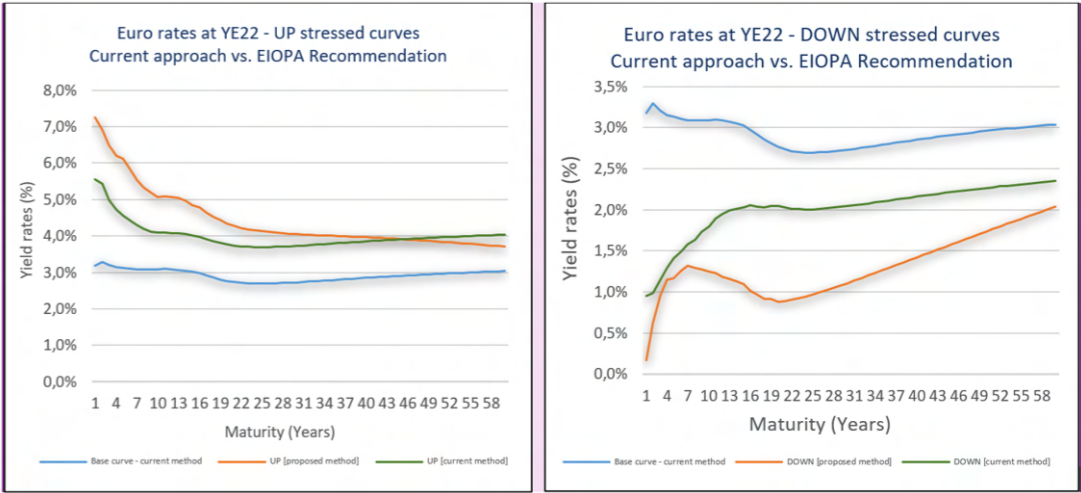
Several issues were identified that led to under-estimation of the interest rate risk under the SII standard formula approach. These included, inter alia, actual interest rate movements being stronger than those assumed by stresses in the regulation already in place, negative interest rates not being stressed and deviation in the measurement of interest rate risk by internal model users. The concluding remarks of the impact assessment, in the SII 2020 review, state that the capital requirements are not sufficient for this material risk.

Thus, the EIOPA recommended a method that introduces new parameters to assess interest rate risk within the standard formula, along with a new formula for calculating the stressed rates. The previous formula had solely a relative shock component. The new formula includes an additive shock in addition to a relative shock, with a new set of parameters which has been calibrated to the last liquid point (LLP) of 20 years and the additive shock component. The EC has not yet provided details of the formula as these are covered by Level 2 texts. The formula proposed by the EC for the stressed interest rates for the calculation of interest rate risk are provided in the appendix.

Additionally, the proposed formula ensures that the minimum shock of 1% is removed in the rising interest rate scenario and that negative interest rates are stressed in the falling rate scenario. The below graphs show a comparison of the base, current stressed and proposed stressed curves in the up and down interest rate scenario (as at Year End (YE) 2022).

The graphs illustrate a clear shift in the stressed interest rate curve when moving to the proposed method. If the Up shock is biting, the pre-diversified interest rate shock could double at earlier durations. If the Down shock is biting, this will lead to a doubling of the undiversified shock at nearly all durations. These changes are expected to increase capital requirement particularly for entities with long term liabilities and an asset portfolio with a significantly shorter duration than that of their liabilities. For example, a book of business with BEL at time 0 of around negative €500m, the pre-diversified SCR for interest rate risk would nearly double from €23m to €45m in the Up scenario and €21m to €39m in the down scenario.

A gradual implementation process is recommended to be grandfathered for the new definition of the downward interest rate shock that should not last longer than 5 years of time.

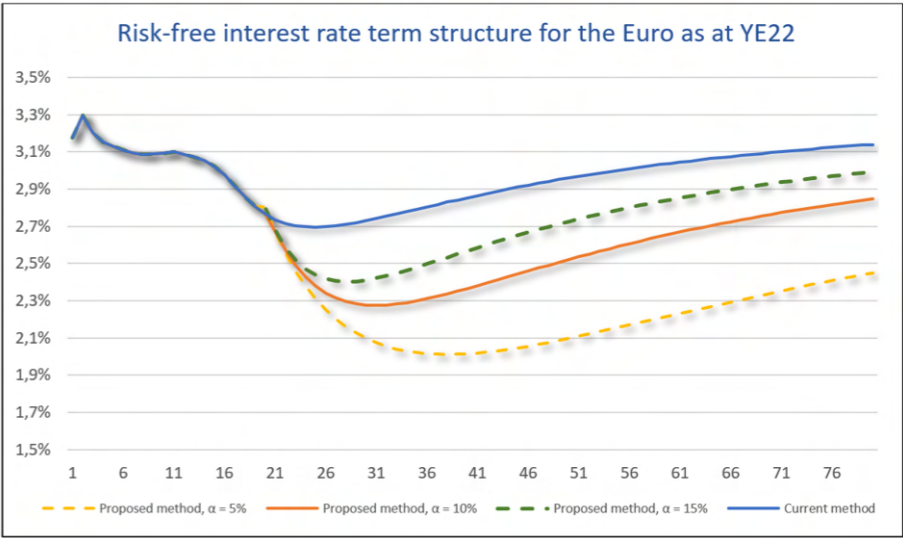


Extrapolation of the risk-free yield curve

The EC has proposed to change Smith-Wilson method of extrapolating rates from the LLP, to converge to an Ultimate Forward Rate (UFR). For Euro-denominated zones, the LLP is determined to be 20 years and the convergence to the UFR happens over 40 years after the LLP.

The SII 2020 review of the extrapolation method or the risk-free yield curve indicated that the current setting of LLP implicitly impacts the interest rates beyond 20 years, which has ultimately led to under-estimation of the TPs. In addition, the deviation of the extrapolated rates from the actual market rates is a contributing factor to volatility of TPs and risk management incentives. The proposed changes to LLP are in conjunction with the convergence speed to the UFR.

There is no stipulated convergence period to the UFR with the recommended convergence factor set at 10%. The following graph shows the impact of using different convergence factors and a comparison of the current and proposed methods of extrapolating yield curve as at YE 2022.



As evident from the graph above, the proposed methodology would lead to lower interest rates and an increase in TPs for long term liabilities (durations greater than 20 years). This is aimed to enhance policyholder protection and promote good risk management, as TPs will now be closer to achieving market consistency. It is worth noting that the impact will only be seen beyond the LLP (this is 20 years for euro-denominated zones) and so the biggest impact will mainly, for example, be for annuity providers.

The Directive mentions phasing in of the method until year end 2031, gradually. The parameters shall be decreased linearly at the beginning of each calendar year until final parameters of extrapolation are applied as of 01 Jan 2032.

Further amendments

- Other **Pillar 1** amendments proposed by the EC are set out below. Some of these are not yet specified in the proposal by the EC and are covered in the implementing regulations:
- Easing of the restrictions around risk diversification between portfolios with matching adjustment and the remaining parts of the business
 - Widening of lower and upper bounds in the estimation of the symmetric adjustment that is applicable to equity risk capital requirements. The bounds are proposed to widen from ±10% to ±17%
 - Reducing the correlation factor between interest rate and credit spread from 0.5 to 0.25
 - Amendments in respect of the treatment of long-term equity investment, addressing the risks of equity held over a longer horizon
 - Change in thresholds with the aim to exclude small companies from the scope of the Directive
 - Introduction of the classification “low risk profile” for an undertaking with the aim to benefit from the principle of proportionality
 - Following are the proportionality measures introduced for low risk profile undertakings:
 - Allowing prudent deterministic valuation for contracts with asymmetric options and guarantees, if immaterial
 - Simplified calculation of immaterial SCR modules and sub-modules
 - Reduced frequency of ORSA reporting from annually to once every two years and exemption from including Climate Risk scenario
 - Review of written policies to be done only once every three years, among other exemptions
 - Flexibility to assign persons responsible for risk management, actuarial and compliance functions to perform any other key function
 - Granting exemptions to certain low risk profile, with certain limits, undertaking from quarterly reporting

- The **Pillar 2** changes proposed by the draft Directive include:
- The supervisor has the power to suspend or restrict dividend payments in times of exceptional market wide shocks
 - Insurers will be required to include macroprudential considerations and systemic risk in the ORSA
 - Insurers will be required to consider risks related to economic downturns and credit cycles into their investment strategy
 - All entities will be required to draft liquidity risk management plans for identifying and addressing potential liquidity stresses and supervisor power to temporarily freeze redemption rights of policyholders of the undertakings affected by significant liquidity risk in certain exceptional circumstances
 - Insurers will need to identify material exposure to climate change risks
 - Prudential treatment of exposures to assets or activities associated with environmental and/or social objectives

Amendments to **Pillar 3** topics relate to reporting and disclosure requirements. Proposed changes include modifications to the structure of the Solvency Financial Condition Report (SFCR) and an external audit requirement for the balance sheet disclosed as part of the same, as well as a requirement for most insurance companies to submit pre-emptive recovery plans. Under the proposed approach, the deadline for submission of the solo SFCR will be extended from 14 weeks after YE to 18 weeks. The group SFCR deadline would also be extended by 4 weeks – from 20 to 24 weeks after YE.

Conclusion

The EC has proposed changes in the Directive, after careful analysis of the impact assessment provided by the EIOPA. The changes, related to Pillar 1, 2 and 3, were selected for proposal by the EC from several options that were recommended as part of the SII 2020 review.

The impact of the change in the estimation of risk margin for insurers will likely be material for most insurers. Changes proposed for the calculation of VA seems quite significant which needs to be implemented by insurers that are allowed to apply a VA. And the impact of the change in the methodology for extrapolation of the risk-free yield curve is likely to concern insurers with books of longer duration i.e., with considerable liabilities after 20 years for Euro.

The EIOPA carried out impact assessment, for most of the amendments proposed, where certain amendments, such as for risk margin is expected to let the own funds increase, while others such as for interest rate stresses, are expected to increase the SCR.

Appendix

Proposed credit spread sensitivity ratio (CSSR) formula

Formula for the calculation of credit spread sensitivity ratio (CSSR) used for calculating volatility adjustment under the proposed approach

CSSR_{currency} = [MV @(CS)-MV @(CS+GAR * RCS^{new})]/GAR * RCS^{new} / [BEL @(RFR)-BEL @(RFR+GAR * RCS^{new})]/GAR * RCS^{new}

RCS^{new} = (w_{gov} *RCS_{gov} +w_{corp} *RCS_{corp}) / (w_{gov} +w_{corp})

Proposed Interest rate stresses formula

Formula for estimating interest rate curves for up and down scenario for calculating SCR interest rate under the proposed approach:

r(m)^{up} = r(m)*[1+s(m)^{up}]+b(m)^{up}

r(m)^{down} = r(m)*[1-s(m)^{down}]-b(m)^{down}

Where for different maturities m (in years):
r(m) = risk-free rate at maturity m
r^{up}(m) = rate at maturity m in rising interest rate scenario
r^{down}(m) = rate at maturity m in declining interest rate scenario
s vector value is linearly interpolated between 20 and 90 years.
b vector value is zero beyond 60 years and is linearly interpolated between 20 and 60 years.

References

¹The proposed Directive published by Directorate-General for Financial Stability, Financial Services and Capital Markets Union on 22 September 2021 - https://finance.ec.europa.eu/publications/insurance-rules-review-encouraging-solid-and-reliable-insurers-invest-europes-recovery_en

² The opinion published by the EIOPA on 17 December 2020 - https://www.eiopa.europa.eu/document-library/opinion/opinion-2020-review-of-solvency-ii_en

³ EIOPA’s opinion on the review of Solvency II: To get access to this article, contact Francis Furey or Divyank Garg.



Asset Management

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Asset Management Regulatory Timeline

2023 Q2

- EMIR**
Guidelines
Clearing Obligation for Pension Funds to Start
Application date: 19 Jun 2023
- Policy**
General EMIR Assessment Report Should be Submitted
Application date: 18 Jun 2023
- Investment Firm Regulation**
Report
Two Reports on ESG exposure
Document release: tbd

2023 Q3

- MiCA**
RTS
White paper consultation paper (CP)
Document release: tbd
- RTS**
On information to be submitted in an application for authorisation to issue ARTs (CP)
Document release: tbd
- ITS**
On information to be submitted in an application for authorisation to issue ARTs (CP)
Document release: tbd
- Guidelines**
Suitability members of the management body and qualifying holdings
Document release: tbd
- RTS**
On use of ARTs as a means of payment (CP)
Document release: tbd
- RTS**
Up to 10 other RTS' and 3 guidelines
Document release: tbd

2023 Q4

- MiCA**
ITS
On use of ARTs as a means of payment (MiCA) (CP)
Document release: tbd

2024 Q2

- EMIR**
ITS
Formats, Frequency and Methods and Arrangements for Reporting
Application date: 29 Apr 2024
- RTS**
Procedures for the Reconciliation of Data Between Trade Repositories
Application date: 29 Apr 2024
- RTS**
Minimum Details of the Data to be Reported - EMIR REFIT
Application date: 29 Apr 2024

2024 Q3

- MiCA**
Report
On potential ways of regulating NFTs
Document release: tbd
- Regulation**
Most of the provisions of MiCA
Application date: tbd



Reporting & Disclosure

Supervision EIOPA (Opinion)

Opinion on EFRAG's Technical Advice on ESRS

The EIOPA has published its Opinion on the European Financial Reporting Advisory Group's technical advice concerning European Sustainability Reporting Standards following the request of the European Commission. Overall, EIOPA considers that the draft ESRS meet the above objectives even though some aspects can be enhanced upon.

Release date: 2023-01-26

[EIOPA-BoS-23-016](#)



MiFID/MiFIR ESMA (Consultation Paper)

Manual on Post-Trade Transparency

The ESMA has published a consultation paper which sets out proposals for Level 3 guidance on post trade transparency fields. The guidance takes the form of a manual. The proposed manual is intended to be a practical tool for the purposes of supporting the practical implementation of the applicable post-transparency legal requirements to stakeholders. It does not provide EU law interpretation nor does it contain supervisory elements.

Release date: 2023-01-19

Consultation End: 2023-03-31

[ESMA70-156-6307](#)



Risk Management

MMF Regulation ESMA (Consultation Paper)

Stress Test Scenarios for MMFs

The ESMA has issued a consultation on the review of the methodology included in the guidelines on stress test scenarios under the MMF Regulation. The proposed changes concern amendments to the liquidity scenario which is intended to take into account the interaction between liquidity and redemption pressures in light of the COVID-19 related stress of March 2020.

Release date: 2023-01-31

Consultation End: 2023-04-28

[esma.europa.eu](#)



MMF Regulation ESMA (Guidelines)

Stress Test Scenarios Under the MMF Regulation

The ESMA has issued guidelines that apply in relation to the MMF Regulation and establish common reference parameters for the stress test scenarios to be included in the stress tests conducted by MMFs or managers of MMFs. In accordance with the MMF Regulation, the guidelines will be updated at least every year taking into account the latest market developments.

Release date: 2023-01-27

Application Date: 2023-03-27

[ESMA34-49-495](#)



Supervision

Supervision ESMA (Q&As)

The Q&A's for the Management Companies Updated

The ESMA has updated the Q&As on:

- Application of the EuSEF and EuVECA Regulations'
- Application of the AIFMD
- The European crowdfunding service providers for business Regulation

Release date: 2023-03-13

[ESMA34-32-352](#)



IFD/IFR Commission (Letter)

Reports on the Prudential Requirements Applicable to Investment Firms

The European Commission has published a letter from John Berrigan, regarding the Call for Advice it had issued to EBA and ESMA for the purposes of the reports on the prudential requirements applicable to investment firms. The letter notes that in accordance with IRR and IRD the Commission is to submit two reports to the European Parliament and the Council by 26 June 2024. In preparing these reports, the Commission is required to consult with the EBA and ESMA.

Release date: 2023-02-20

[fisma/776609](#)



Governance

ELTIF Commission (Regulation)

Investment Policies and Operating Conditions of ELTIFs

The Official Journal of the European Union has published a Regulation amending ELTIF regulation as regards the requirements of pertaining to the investment policies and operating conditions of European long-term investment funds and the scope of eligible investment assets, the portfolio composition and diversification requirements and the borrowing of cash and other fund rules.

Release date: 2023-03-20

Application Date: 2023-04-09

[\(EU\) 2023/606](#)





Cross sector

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Cross-sector Regulatory Timeline

2023 Q2

- Risk Analysis**
Report
Roadmap for implementation of Cost of Compliance report
[Document release: tbd](#)
- Report
Funding plans report
[Document release: tbd](#)
- Report
Asset encumbrance report
[Document release: tbd](#)
- Report
Autumn risk report
[Document release: tbd](#)

Sustainable Finance
Regulation
Sustainable Finance Disclosure Regulation - compliance deadline
[Application date: 01 Jun 2023](#)

RTS
With regards to the sustainability indicators in relation to adverse impacts - review
[Document release: tbd](#)

RTS
To clarify environmental and social indicators
[Document release: tbd](#)

Report
Interim report on greenwashing risks and supervision of sustainable finance policies
[Document release: tbd](#)

Securitisation Framework
Guidelines
On the harmonised interpretation and application of the requirements set out in Articles 26b and 26e (STS synthetic)
[Document release: tbd](#)

2023 Q3

Risk Analysis
Report
Annual risk assessment report on the European banking system
[Document release: tbd](#)

Sustainable Finance
Report
Annual report under Article 18 SFDR
[Document release: tbd](#)

2023 Q4

Risk Analysis
Policy Agenda
Work on financial education with a focus on inflation, interest rates and sustainability
[Document release: tbd](#)

Report
2023 EU-wide Transparency exercise2023
[Document release: tbd](#)

Sustainable Finance
Report
Final report on greenwashing risks and supervision of sustainable finance policies
[Document release: tbd](#)

Thematic review
To manage C&E risks with an institution-wide approach covering business strategy, governance, risk appetite & risk management
[Application date: 31 Dec 2023](#)

Securitisation Framework
Guidelines
Monitoring report on capital treatment of NPE securitisation
[Document release: tbd](#)

2024 Q4

Sustainable Finance
Thematic review
To be aligned with supervisory expectations, including integration of C&E risks in stress testing framework and ICAAP
[Application date: 31 Dec 2024](#)

2025 Q1

Sustainable Finance
Delegated Regulation
The Commission to include crypto-asset mining in the economic activities that contribute to climate change mitigation
[Application date: 1 Jan 2025](#)



Supervision

Supervision IOSCO (Work Programme)

IOSCO Board Priorities - Work Programme

The Board of the IOSCO has published its 2023 – 2024 Work Programme. The proposed priority work streams in it are organised under the five themes:

- Strengthening financial resilience.
- Supporting market effectiveness.
- Protecting investors.
- Addressing new risks in sustainability and fin-tech
- Promoting regulatory cooperation and effectiveness.

Release date: 2023-04-05

[IOSCOPD731](#)



EMIR ESRB (Letter)

Letters on the EMIR review

The ESRB has published two letters regarding the review of the European Market Infrastructure Regulation. The letters draw attention to a number of elements the ESRB recommends incorporating into the EMIR review in order to make the financial system safer.

Release date: 2023-03-21

[ESRB/2023/0047](#)



Supervision ESMA (Press Release)

New Q&As Available

The ESMA has issued a press release announcing that it had updated the following Q&As on:

- Benchmarks Regulation.
- EMIR implementation.
- DLT Pilot Regulation.
- MiFID II and MiFIR transparency topics.
- MiFIR data reporting.
- SFTR data reporting.

Release date: 2023-03-31

[esma.europa.eu](#)



CCPRRR Commission (RTS)

Contents of the Plans for CCP Resolution

The European Commission has published Commission Delegated Regulation supplementing RTS specifying the contents of the resolution plan. This delegated act sets out the contents of the resolution plan. When developing the draft RTS, ESMA enabled sufficient flexibility for resolution authorities to take into consideration the specific characteristics of their national legal framework in the area of insolvency law, as well as the nature and complexity of the clearing business performed by the central counterparties.

Release date: 2023-03-13

[C\(2023\) 1595](#)



Supervision

CSDR ESMA (Q&As)

Q&As on the Implementation of the CSDR

The ESMA has updated its Q&As on the implementation of the Central Securities Depository Regulation. In its Q&As ESMA has provided further Q&As on partial settlement functionality.

Release date: 2023-03-13

[ESMA70-156-4448](#)



Brexit ESMA (Memorandum of Understanding)

New MOUs on Benchmarks

The ESMA and the FCA had agreed on new Memorandum of Understanding regarding benchmark administrators who seek recognition or are recognised in the EU. This was done to allow ESMA to grant recognition to UK benchmark administrators which are subject to supervision in the UK, because it is necessary that an appropriate cooperation arrangement be put in place between ESMA and the UK FCA.

Release date: 2023-01-25

[ESMA24-435-692](#)



Benchmarks Regulation Commission (Consultation Paper)

The Scope and Third-Country Regime of the Benchmark Regulation

The European Commission published a Call for Evidence: Review of the scope and third-country regime of the Benchmark Regulation. This initiative carries out a review mandate for the Commission to check whether the scope of the EU rules for financial benchmarks, as well as the rules for the use of non-EU financial benchmarks, are still fit for purpose.

Release date: 2023-03-01

Consultation End: 2023-03-29

[Ares\(2023\)1494968](#)



Supervision

PSD 2 EBA (Report)

Authorisation Under the Payment Services Directive

The EBA has published a report setting out its findings following a peer review on the authorisation of payment institutions and e-money institutions under the PSD2, taking into account the EBA guidelines on authorisation. The report notes that NCAs have largely implemented the guidelines and, where implemented, the guidelines have achieved their objective of providing consistency and transparency in the authorisation information that prospective payment institutions and electronic money institutions have to submit.

Release date: 2023-01-11

[EBA/REP/2023/01](#)



DORA Commission (Letter)

Call for Technical Advice on DORA

The EBA has published a letter from the European Commission to the ESAs requesting advice on designation criteria and fees for the oversight framework for critical third-party service providers set out under the DORA. Together with the letter, the EBA published the content of the Call for Technical Advice, which sets out in more detail the scope of the advice requested by the Commission.

Release date: 2023-01-04

[ARES\(2022\) 4901455](#)



MiCA Commission (Letter)

Call for Advice to the EBA Regarding Delegated acts Under MiCA

The European Commission published a letter it had sent to the EBA provisionally requesting for technical advice on certain delegated acts that the Commission intends to adopt under the Regulation on Markets in Crypto-Assets. The request for advice concerns delegated acts on certain criteria for classification of asset-referenced tokens and e-money tokens as significant as well as a delegated act on supervisory fees to be charged by the EBA to the issuers of significant asset-referenced tokens or e-money tokens.

Release date: 2023-01-04

[ARES\(2022\)8901362](#)



Market Environment

Market Trends FSB (Report)

The Financial Stability Aspects of Commodities Markets

The FSB has published a report on the financial stability aspects of commodities markets. The report presents an overview of a few globally traded commodities markets that are of particular economic importance at the current juncture (crude oil, natural gas, and wheat) and examines their vulnerabilities, focussing on the mechanisms through which any further stresses in these markets could propagate more broadly through the financial system. The report also identifies a number of data gaps that hamper the assessment of vulnerabilities and transmission channels in the commodities sector.

Release date: 2023-02-20

[FSB/P200223](#)



Market Trends FSB (Report)

Financial Stability Risks of Decentralised Finance

The FSB has published a report on the financial stability risks of decentralised finance. The report describes DeFi as an umbrella term commonly used to describe a variety of services in crypto-asset markets that are intended to replicate some functions of the traditional financial system by seemingly disintermediating their provision and decentralising their governance. In DeFi, the role of financial institutions and market infrastructures is replaced to varying degrees by self-executing code, or so-called smart contracts, deployed to public blockchains.

Release date: 2023-02-16

[FSB/P160223](#)



Market Trends FSB (Letter)

FSB work priorities for 2023

The FSB has published a letter from its Chair to G20 Finance Ministers and Central Bank Governors. The letter notes the recent easing in global financial conditions but warns that, while expectations of a 'soft landing' for the global economy have grown, the outlook remains clouded by uncertainty. The letter lays out the FSB's work during 2023 to monitor and address these vulnerabilities.

Release date: 2023-02-20

[fsb.org](#)



Brexit Parliament (Study)

Recent Trends in UK Financial Sector

The European Parliament published a study on recent trends in UK financial sector regulation and possible implications for the EU, including its approach to equivalence. The study summarises and discusses recent trends in financial services legislation and regulation in the UK, divergence between the EU and UK and threats from this divergence for financial stability in the EU.

Release date: 2023-02-08

[740067_EN](#)



Risk Management

CCPRRR ESMA (Guidelines)

CCP Recovery Plan Indicators

The ESMA has published Guidelines on CCP recovery plan indicators. These Guidelines are based on CCPRRR. The objective of these Guidelines are to establish consistent, efficient and effective supervisory practices within the European System of Financial Supervision and to ensure the common application of the CCPRRR.

Release date: 2023-03-24
[ESMA91-372-1702](#)



CCPRRR ESMA (Guidelines)

CCP Recovery Plan Scenarios

The ESMA has published Guidelines on CCP recovery plan scenarios. These Guidelines are based on the CCPRRR. The objectives of these Guidelines are to establish consistent, efficient and effective supervisory practices with the European System of Financial Supervision and to ensure the common, uniform and consistent application of CCPRRR.

Release date: 2023-03-24
[ESMA91-372-1701](#)



CRR Commission (Delegated Regulation)

Methodology for the Calculation of Liabilities Arising From Derivatives

The Official Journal has published a Commission delegated regulation amending the methodology for the calculation of liabilities arising from derivatives. An amendment to the CRR introduced an obligation for institutions to calculate the exposure value of derivative contracts in accordance with the SA-CCR, which replaced the Current Exposure Method. However, the SA-CCR method is impossible to apply for the valuation of liabilities arising from derivative contracts when such valuation needs to be applied.

Release date: 2023-03-22
Application Date: 2023-10-01
[\(EU\) 2023/662](#)



Securitisation Framework ESAs (Q&As)

Q&As relating to the Securitisation Regulation

The ESAs have published updated Q&As relating to the Securitisation Regulation. The updated Q&As now cover the following topics:

- The inclusion of early amortisation provisions or trigger for termination of the revolving period in the transaction documentation.
- Existence of different classes of investors.
- Whether a step-up margin to be paid to investors could apply in the event the securitisation is no longer simple, transparent and standardised.

Release date: 2023-02-17
[JC 2023 02](#)



Reporting & Disclosure

EMIR ESMA (Consultation Paper)

Amendments to Guidelines on position calculation under EMIR

The ESMA has published a Consultation Paper on amendments to guidelines on position calculation under the EMIR. ESMA has issued the Consultation Paper in preparation for the EMIR Refit go-live on 29 April 2024. In terms of format, feedback to the Consultation Paper will help ESMA determine whether the 2018 guidelines need amendment or whether they should be fully replaced.

Release date: 2023-03-28
Consultation End: 2023-05-09
[ESMA74-362-2724](#)



EMIR Commission (RTS)

Intragroup Transactions Derogations From Margin Requirements

The Official Journal of the EU has published a Commission Delegated Regulation amending the RTS as regards the date at which the clearing obligation takes effect types of contracts thereby extending the cross-border intragroup transactions derogations from clearing requirements.

Release date: 2023-02-13
Application Date: 2023-02-14
[\(EU\) 2023/315](#)



EMIR Commission (RTS)

Intragroup Transactions Derogations from Clearing Requirements

The Official Journal of the EU has published a Commission Delegated Regulation amending the RTS as regards the date of application of certain risk management procedures for the exchange of collateral thereby extending the cross-border intragroup transactions derogations from margin requirements.

Release date: 2023-02-13
Application Date: 2023-02-14
[\(EU\) 2023/314](#)



Benchmarks Regulation ESMA (RTS)

Clearing and Derivative Trading Obligations in view of the Benchmark Transition

The ESMA has published a final report on the clearing and derivative trading obligations in view of the 2022 status of the benchmark transition. The report sets out proposed draft RTS amending the scope of the clearing and derivative trading obligations for over-the-counter interest rate derivatives denominated in EUR, GBP, JPY and USD. The draft RTS relate to the benchmark transition away from EONIA and LIBOR and onto new Risk-Free Rates.

Release date: 2023-02-01
[ESMA70-446-772](#)



Reporting & Disclosure

MiFIR Commission (RTS)

Transparency Requirements Applicable to Transactions in Equity Instruments

The European Commission has published a Commission Delegated Regulation which amends the RTS as regards certain transparency requirements applicable to transactions in equity instruments. This Delegated Regulation seeks to harmonise the types of transactions that are considered to be non-price forming, it increases the threshold above which orders and transactions in exchange traded funds benefit from the large in scale waiver and deferral and it amends the data fields for in post-trade transparency reports provided by approved publication arrangements and trading venues.

Release date: 2023-01-17
Application Date: 2023-02-06

[C\(2023\)245](#)



Climate Risk Commission (Letter)

One-off Climate Risk Scenario that Goes Beyond the Usual Climate Stress Tests

The Commission has published a letter addressed to the Chairs of the ESAs regarding an assessment of the EU financial system's resilience to stress in the transition to the EU's 2030 goals for the reduction of greenhouse gas emissions. The letter invites the ESAs to conduct a one-off climate risk scenario analysis in order to assess, in cooperation with the ECB and ESRB, the resilience of the EU's financial system on the way to the EU's targets for 2030.

Release date: 2023-03-09

[\(2023\)1812539](#)



Climate Risk

SFDR ESAs (Public Statement)

Climate-Related Disclosure for Structured Finance Products

The ESAs, together with the ECB, have published a Joint Statement on climate-related disclosure for structured finance products. The Statement sets out the joint efforts of the ECB and the ESAs to facilitate access to climate-related data with a view to improving sustainability-related transparency in securitisations and to promote consistent and harmonised requirements for similar instruments.

Release date: 2023-03-13

[eiopa.europa.eu](#)



SFDR Commission (RTS)

Reports for Financial Products Investing in Environmentally Sustainable Economic Activities

The Official Journal of the European Union has published a Commission Delegated Regulation amending and correcting the RTS as regards the content and presentation of information in relation to disclosures in pre-contractual documents and periodic reports for financial products investing in environmentally sustainable economic activities. Among other things, the Delegated Regulation incorporates nuclear and gas disclosures into the RTS.

Release date: 2023-02-17
Application Date: 2023-02-20

[\(EU\) 2023/363](#)



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