



finalyse

REGULATORY BRIEF
JANUARY 2024



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: 1 October 2023 to 31 December 2023

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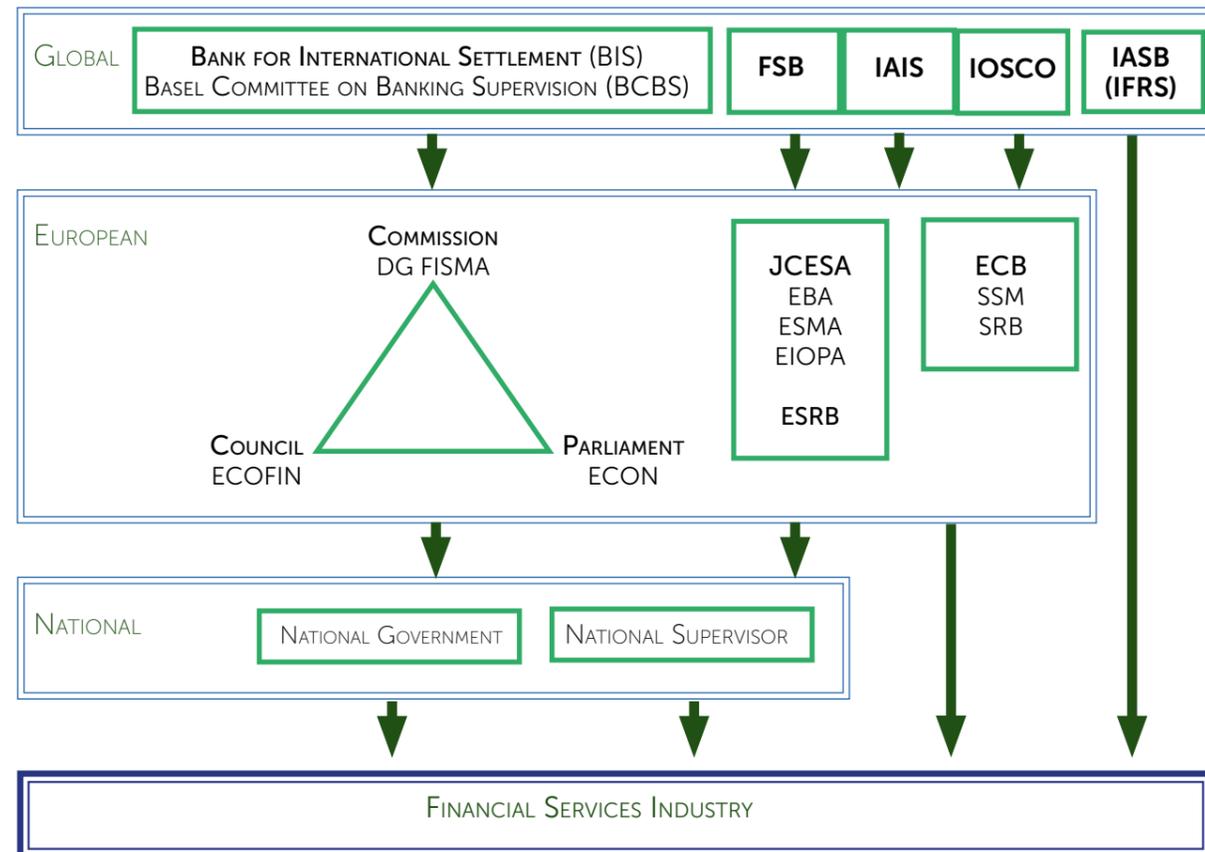
Abbreviations

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

2024 Q1

Sustainable Finance

Delegated Regulation
The EU Taxonomy Delegated Acts are expected to apply as of
Application date: Jan 2024

NPL Directive

Directive on Credit Servicers and Credit Purchasers
Application date: 1 Jan 2024

CRR

Guidelines
Specifying the methodology institutions shall apply to estimate IRB-CCF
Document release: tbd

2024 Q2

EMIR

RTS
Minimum Details of the Data to be Reported - EMIR REFIT
Application date: 29 Apr 2024

EMIR

ITS
Formats, Frequency and Methods and Arrangements for Reporting
Implementation date: 29 Apr 2024

CRR

ITS
Peer review on definition of default
Document release: tbd

2024 Q3

MiCA

Regulation
Most of the provisions of MiCA
Application date: tbd

Stress Test

Guidelines
GL on institutions' climate stress test
Joint ESAs Guidelines on methodologies for climate stress testing
Document release: tbd

Solvency II

RTS
Technical documents and GLs following the review of Solvency II
Document release: tbd

Solvency II

Guidelines
On integrating ESG factors in risk management
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

Solvency II

Draft RTS
Reassessment of the Natural Catastrophe risk standard formula capital charges
Document release: tbd

ICS

International Standards
Planned adoption of ICS
Application date: 24 Dec 2024

2025 Q1

CRR

Regulation
Most of CRR 3 provisions are intended to come into force
Application date: 1 Jan 2025

Basel

Standards
Prudential treatment of banks' exposures to cryptoassets
Application date: 1 Jan 2025

2028 Q1

Basel

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

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.

Click on these links to open the original documents

Climate Risk

EIOPA (Consultation Paper)

Prudential treatment of Sustainability Risks

The EIOPA has initiated a consultation on the prudential treatment of sustainability risks, marking the second phase of its approach under the Solvency II Directive. This directive mandates the EIOPA to evaluate whether a specialized prudential treatment for assets or activities linked to environmental or social objectives is justified. The consultation aims to assess the potential for dedicated prudential treatment in response to risks associated with environmental and social factors.

Release date: 2023-12-13

Consultation End: 2024-03-24

[eiopa.europa.eu](https://www.eiopa.europa.eu)



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 as to what extent the final banking package will differ from what was proposed by the Commission in October 2021. On 27th June 2023, the Council and the Parliament announced a "provisional agreement" indicating that, whilst there is progress, the negotiations are not yet successful.

However, the banking package is expected to take force in 2025. Given the size of the requirements, there already is a shortage of time for the implementation by 2025 and we do not have the final version yet. To some extent, this may be mitigated by banks already working to implement the Basel standards. 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 the 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, has been in force in the EU since 1 January 2023, with most insurers having already more or less implemented those standards.

As of now, the insurers are waiting for the release of the (originally 2020) Solvency 2 review. The Commission adopted its proposal on 22nd September 2022, but the legislative process of adopting the release is still underway, although markedly delayed. Meanwhile, on the international front, the IAIS has issued a public consultation regarding its Insurance Capital Standards (ICS). The observation period is coming to an end and the IAIS is seeking to gather all information.

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 the 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 next year). The IFRS have released a new set of standards regarding the disclosures of Climate Risks.

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 follows:

1. Prohibition of using the proprietary formats for reporting to trade repositories. As of April 2024, only the ISO 20022 XML format will be acceptable.
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 on the controls that trade repositories are required to perform.



Banking

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Banking Regulatory Timeline

2024 Q1

NPL Directive

Directive
Directive on Credit Servicers and Credit Purchasers
Document release: 1 Jan 2024

Resolution framework

Guidelines
On institutions and resolution authorities on improving banks' resolvability
Application date: 1 Jan 2024

Resolution framework

Regulation
Some provisions for resolution of GSIs with a multiple-point-of-entry resolution strategy
Application date: 1 Jan 2024

Guidelines
On Resolvability Testing
Application date: 1 Jan 2024

CRR

RTS
Update RTS on Own funds and eligible liabilities and RTS on methods of consolidation, where needed, depending on CRR III amendments
Document release: tbd

Report
2023 benchmarking report on IRB models
Document release: tbd

Guidelines
GL specifying the methodology institutions shall apply to estimate IRB-CCF
Document release: tbd

RTS
On criteria that institutions shall assign to off-balance sheet items – CP
Document release: tbd

Report
JC spring risk report
Document release: tbd

Report
2023 benchmarking report on market risk models
Document release: tbd

Guidelines
On group capital test
Document release: tbd

2024 Q2

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

ITS
Preparation of 2025 benchmarking portfolios – update of ITS
Document release: tbd

Peer Review
Peer review on definition of default
Document release: tbd

Report
On Funding plans and on Asset encumbrance
Document release: tbd

Report
JC autumn risk report
Document release: tbd

RTS
On extraordinary circumstances for being permitted to continue using the IMA and on material extensions and changes under the IMA
Document release: tbd

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

2024 Q3

CRR
Report
Risk assessment report (RAR) of the European banking system
Document release: tbd

RTS
To specify the systemic importance indicators
Document release: tbd

Stress Test
Stress Test
GL on institutions' climate stress test
Document release: tbd

2024 Q4

CRR
RTS
Establishing a risk taxonomy of OpRisk loss events and on mapping Business Indicator components (BIC) to FINREP
Document release: tbd

Stress Test
Preparatory Work
EBA preparation and methodological work for 2025 EU-wide stress test exercise
Document release: tbd

Analysis
EBA one-off fit-for-55 climate scenario analysis
Document release: tbd

Banking Regulatory Timeline

2025 Q1

CRR
Regulation
Most of CRR 3 provisions are intended to come into force
Application date: 1 Jan 2025

Basel
Standards
Prudential treatment of banks' exposures to cryptoassets
Application date: 1 Jan 2025

2028 Q1

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

ARTICLE

Utilizing Machine Learning for Feature Engineering in Credit Scoring Models

By Long Le Hai, Consultant and Nemanja Djajic, Senior Consultant.

As there is an ongoing progress in big data and machine learning, it is essential for credit scorecard models to adapt and effectively address the challenges of data preparation and feature engineering. An efficient feature engineering process in scorecard development can significantly improve the overall performance of credit scorecard models. This process typically involves data modification, data transformation, as well as a dimensionality reduction part.

Apart from the traditional feature engineering techniques that have been widely used for credit risk modelling, there are multiple novel techniques to pre-process data, solve data-quality issues and reduce the number of potential variables.

In this article, we will explore alternative approaches that can be employed for variable transformation and feature engineering processes, by covering the following topics:

- Missing imputation
- Variable transformation techniques
- Dimensionality reduction and feature selection

More detailed explanation for each of these topics is provided in the following sections.



Missing imputation

Utilizing machine learning techniques for missing data imputation comes with its own set of advantages and disadvantages, much like any other approach. On the positive side, machine learning can capture complex patterns and relationships in the data, provide more flexibility and reduce bias. On the flip side, machine learning can potentially introduce data uncertainty and errors, overfitting or incur high computational costs. In this article, we will introduce three specific techniques for missing data imputation: k-Nearest Neighbour (kNN) Imputation, Random Forest Imputation, and Multiple Imputation by Chained Equations (MICE).

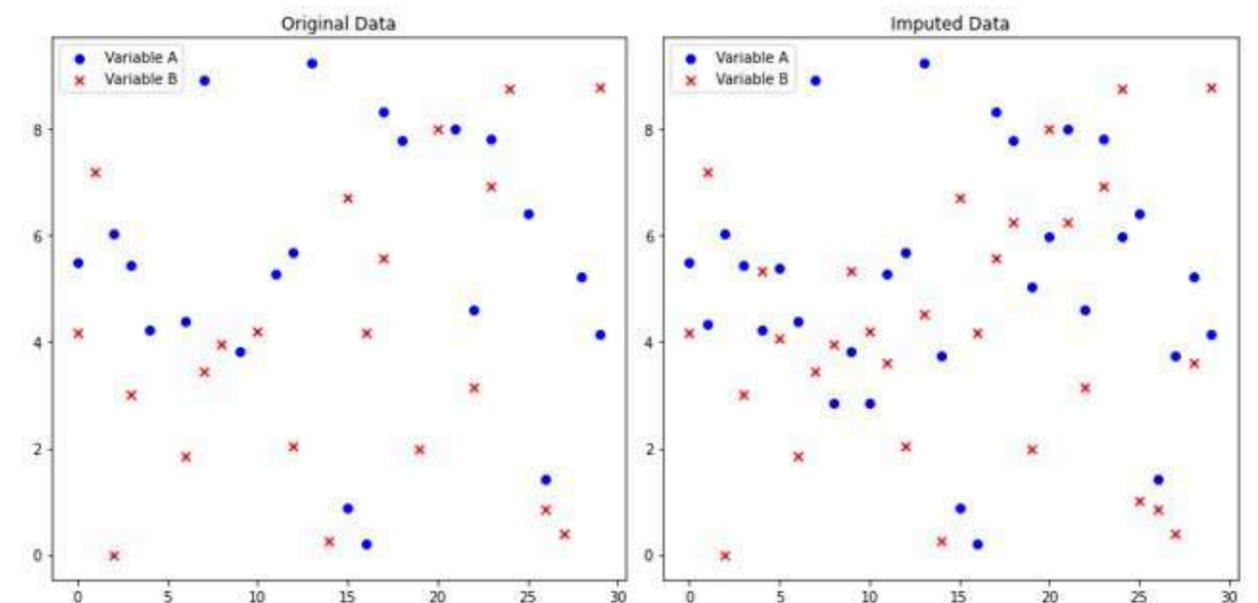
k-Nearest Neighbour (kNN) Imputation.

k-Nearest Neighbour is a non-parametric algorithm that relies on the concept of similarity measurement between data points. It is a distance-based imputation technique in which the process of kNN can be performed using various distance measures such as Euclidean or Manhattan distance.

In the presence of missing values, kNN imputation considers the available features of a data point and identifies the k closest neighbours based on their similarity. After that, kNN calculates the similarity or distance between data points. By analysing the known values of these neighbouring data points, an approximation for the missing value can be estimated.

It is important to note that k (the number of nearest neighbours) is an important parameter. The value of 'k' determines the size of the neighbourhood around a data point. The optimal value of 'k' can be achieved by cross-validation. KNN can be more accurate than Mean Imputation, but it can be sensitive to outliers (distance-based algorithm) and computationally expensive.

Below is a graphical representation of the k-Nearest Neighbour (kNN) algorithm's output for a small dataset with two variables. The dataset includes both original data with missing values and the imputed data after applying kNN imputation. This visualization allows us to compare the data distribution and assess the impact of imputation on the dataset:

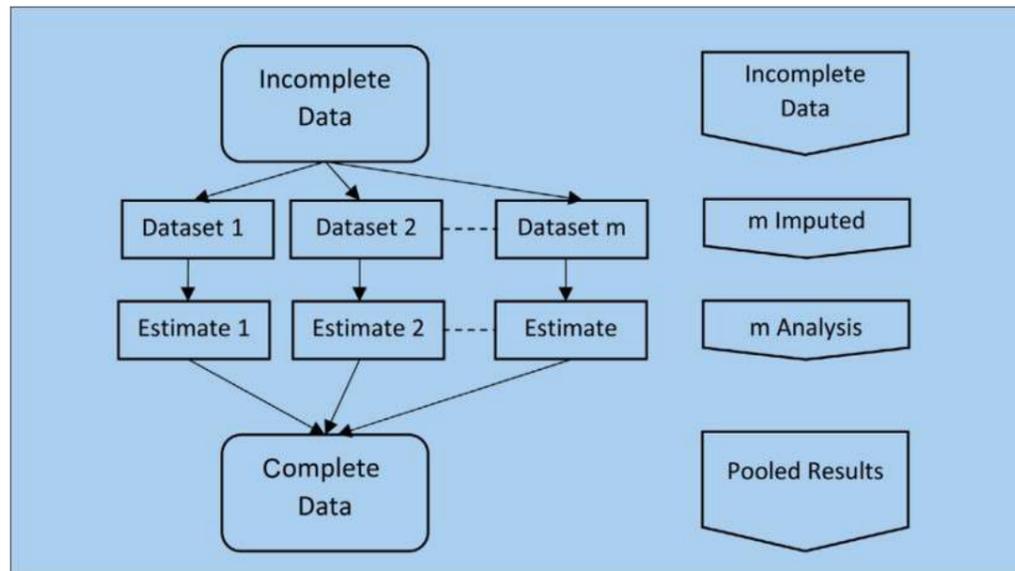


MissForest (random forest imputation).

The MissForest technique, as its name suggests, utilizes the Random Forest algorithm for imputing missing values. This algorithm is often referred to as regression imputation since it leverages information from other variables to predict the missing values in a variable by using regression models. In other words, missForest builds multiple regression models to predict the missing variables using other variables as the predictors. The predicted values will be the imputed values in each iteration of missForest algorithm. MissForest leverages the power of Random Forests to capture complex relationships and patterns in the data to impute missing values. Through iteratively predicting missing values for each variable, it takes into account the dependencies between variables, potentially resulting in improved imputation accuracy when compared to simple imputation methods. MissForest is particularly useful when dealing with mixed types of datasets that contain both numerical and categorical variables. It is also robust to noisy data because of its built-in feature selection. However, missForest can be extremely computationally demanding and can cause memory errors.

Multiple Imputation by Chained Equations (MICE)

Similar to the previous method, Multiple Imputation by Chained Equations (MICE) is a parametric imputation method that involves iteratively imputing missing values for each variable using regression models. It is a widely used technique in various fields, including credit risk modelling, for improving data analysis by reducing bias and enhancing parameter estimate accuracy. MICE is known for its flexibility in handling missing data in both categorical and continuous variables. The computation approach of MICE involves several key steps. First, it initializes the missing values with reasonable estimates or imputations. Then, it iteratively cycles through each variable with missing data, treating it as a dependent variable and using the other observed variables as predictors. At each iteration, it creates a regression model, imputes missing values, and repeats this process multiple times to obtain a set of imputed datasets. This generates multiple imputed datasets to account for the uncertainty associated with missing data. After all iterations are completed, the final results are combined to produce valid parameter estimates and standard errors. MICE's strength lies in its adaptability to various types of data and its ability to provide robust imputations for more accurate and reliable statistical analysis. In the development of credit scoring models, the technique of MICE is very useful, especially for addressing missing data problems caused by data quality (DQ) issues.



Source: Alruhaymi, A. and Kim, C. (2021) Why Can Multiple Imputations and How (MICE) Algorithm Work?

Variable Transformation

Many statistical and machine learning algorithms assume that all numerical variables should follow Normal distribution (data may not strictly follow Normal distribution but at least it should have Normal-like distribution shape). To address those issues related to nonlinearity, heteroscedasticity, or skewness in the data, we use various variable transformation techniques in our work. Power transformation methods such as Box-Cox and Yeo-Johnson offer automated approaches to reshape variables into a more Normal-like distribution. Those techniques usually improve performance and interpretability of machine learning models, normalize data, and stabilize variance.

Apart from those advanced methods, traditional variable transformation methods that are commonly used for adjusting numerical data (or for converting categorical variables into numerical format) are WoE transformation and encoding techniques.

Weight-of-evidence Transformation (WoE)

WoE method transforms continuous predictors into bins to represent the strength of the relationship between a selected feature and the target variable. It replaces the original feature values with their corresponding WoE values. Moreover, WoE can be conveniently converted into Information Value values to assess the significance of predictors and supports the selection of a subset of useful variables.

There are some benefits of WoE in scorecard development, namely:

1. Reducing the effect of outliers
2. Missing values treatment (missing values represent a separate bin).
3. Variable transformation (convert continuous predictors to categorical predictors)

Nevertheless, it is important to acknowledge that while WoE shows robustness to outliers and missing values, it does not entirely eliminate their influence. As a result, incorporating additional machine learning-based feature engineering techniques can prove advantageous in addressing the limitations of WoE.

Box-Cox Transformation

The key idea behind the Box-Cox transformation is to find the optimal value of the power parameter, lambda, that maximizes the normality of the transformed variable. By varying lambda, the Box-Cox transformation can handle a wide range of data distributions, from highly skewed to symmetric. This flexibility makes it particularly useful in situations where the data does not conform to the assumptions of linear regression models, such as heteroscedasticity or nonlinearity. The optimal value of lambda can be estimated using maximum likelihood estimation. Box-Cox transformation assumes input variables are strictly positive.

Yeo-Johnson Transformation

Similar to the Box-Cox, the Yeo-Johnson aims to find the optimal value of the power parameter, lambda, to achieve a more normal distribution of the transformed variable. However, unlike the Box-Cox transformation, the Yeo-Johnson transformation supports both positive and negative values of lambda, allowing it to handle a broader range of data distributions (including those with zero and negative values). The optimal value of lambda in the Yeo-Johnson transformation can be estimated using numerical optimization techniques.

Robust Scaling

It is important to remove outliers for continuous variables before fitting the model to bring the individual variables into the same scale. If some variables are significantly larger or smaller in comparison to others, these variables can dominate or scale the learning algorithms. Winsorization is a well-popular technique to deal with outliers of continuous variables in credit risk models. Winsorization handles outliers by capping the extreme values. As a result, winsorization will cause the information loss due to capping the values, and the efficiency of winsorization is heavily dependent on threshold selections. Robust scaling is an alternative approach to handle outliers with some clear advantages relative to winsorization. Robust scaling is used to standardize or rescale data in a way that is robust to the presence of outliers. Robust Scaling subtracts each data point to the median and then divides by the difference between 75th percentiles and 25th percentiles.

Thus, this scaling method is more robust to the outliers and less sensitive to the extreme values. Moreover, Robust Scaling does not cause any information loss because it does not cap or remove any data points.

One-hot encoding

One-hot encoding is a technique used to convert categorical data into a binary format that machine learning/ or traditional modelling algorithms can understand. It creates a binary column (or "dummy variable") for each unique category, assigning a 1 to the column corresponding to the category of the data and 0s to all others. This method is effective for handling categorical features in machine learning and is valuable when there is no inherent order or relationship between the categories.

ORIGINAL DATA		ONE-HOT ENCODING DATA				
customer	value	customer	valA	valB	valC	valD
1	A	1	1	0	0	0
2	B	2	0	1	0	0
3	B	3	0	1	0	0
4	B	4	0	1	0	0
5	C	5	0	0	1	0
6	C	6	0	0	1	0
7	A	7	1	0	0	0
8	D	8	0	0	0	1

Dummy encoding

Just like one-hot encoding, dummy encoding transforms categorical data into a numerical format. However, it differs in that it excludes one category as a reference, preventing multicollinearity, and using "0" and "1" to represent the remaining categories.

ORIGINAL DATA		DUMMY ENCODING DATA				
customer	value	customer	valA	valB	valC	valD
1	A	1	1	0	0	0
2	B	2	0	1	0	0
3	B	3	0	1	0	0
4	B	4	0	1	0	0
5	C	5	0	0	1	0
6	C	6	0	0	1	0
7	A	7	1	0	0	0
8	D	8	0	0	0	0

Dimensionality Reduction and Feature Selection

Dimensionality Reduction is an approach employed to reduce the number of features (variables) in a dataset. While it effectively transforms a high-dimensional set of variables into a lower-dimensional representation, it strives to preserve as much information as the original dataset. In credit risk models, where numerous variables are typically available, effectively selecting the optimal subset of predictors helps models to perform better. Furthermore, dimensionality reduction aims at mitigating the "curse of dimensionality".

Principle Component Analysis (PCA)

Principal Component Analysis (PCA) is a powerful technique employed in credit risk analysis to mitigate the challenges posed by high-dimensional data. In the realm of dimensionality reduction, PCA assists in reducing the complexity of credit risk models by transforming the original set of correlated variables into a smaller set of uncorrelated variables known as principal components. By selecting a subset of these components that explain a significant portion of the variance in the data, PCA enables a more efficient representation of the credit risk information.

Consequently, PCA aids in identifying the key underlying factors that drive credit risk, enabling financial institutions to make informed decisions, assess portfolio diversification, and optimize risk management strategies. By effectively condensing the dimensionality of credit risk data, PCA enhances the accuracy and computational efficiency of credit risk models, ultimately contributing to more robust credit risk assessments and improved overall risk management practices. In credit risk models, PCA is particularly useful for variable clustering. Instead of reducing the dimensionality of the dataset, PCA is used to identify patterns of correlation or clustering among the original features in high-dimensional data. The primary goal of variable clustering is to identify groups of features that exhibit similar patterns of variation to reduce the dimensionality of the dataset and to map the relationships among variables, making it easier to select a subset of relevant features for model fitting step. In contrast to data point clustering using PCA, where the central objective is to group individual data point based on their data profiles, variable clustering focuses on identifying relationships among features and reducing feature dimensionality.

Linear discriminant analysis (LDA)

While PCA falls under the category of unsupervised learning when it comes to dimensionality reduction, LDA, on the other hand, belongs to the realm of supervised learning. LDA is more effective than PCA in classification dataset because LDA focuses on maximizing class separability while finding the linear combination of the predictors in a lower dimensional space. In Probability of Default models, we need to deal with class separability which means that we try to

keep a class of "Good" and a class of "Bad" (based on Definition of Default) as far as possible, but try to maintain the minimum separation between data points within the same class. This makes LDA particularly valuable in feature engineering steps to reduce dimensionalities in credit risk models before modelling step to improve the performance of both binary and multi-class classification problems.

T-SNE (t-distributed Stochastic Neighbour Embedding)

T-SNE is a non-linear dimensionality reduction which is applicable to separate data that cannot be separated by a straight line. Also, t-SNE is a powerful visualization tool to explore high-dimensional data with an unsupervised learning algorithm. T-SNE can map higher-dimensional features into a two- or three-dimensional space so that we can observe the data through the plot. This ability of t-SNE is valuable to deal with the dataset which has a pattern that cannot easily map or separate by linear relationship. T-SNE leverages a stochastic characteristic to maintain the probability distribution of original data similar to the lower dimensional space.

Unlike PCA which is linear and deterministic, t-SNE is non-linear and randomized. PCA focuses on retaining the variance present in the data, while t-SNE emphasizes the preservation of relationships among data points within a lower-dimensional space. T-SNE outperforms PCA in scenarios when preserving local structure, capturing nonlinear relationships, and visualizing complex patterns. However, PCA is more computationally efficient, and PCA usually performs better than t-SNE in smaller dataset.

Conclusion

In conclusion, the utilization of machine learning (ML) techniques in feature engineering for credit models has proven to be a pivotal advancement in credit risk modelling. The machine learning-based feature engineering techniques have demonstrated their value in improving the accuracy, interpretability, and generalization of credit models. Moreover, these methods provide the flexibility to adapt to changing business requirements and the robustness to risk thresholds. From a regulatory perspective, it is worth noting that while ML may not be widely accepted as the primary methodology for constructing credit models, incorporating ML techniques into the feature engineering step can be a valuable addition, especially in the context of credit model development. As both the AI world and the financial industry continue to evolve, the integration of these techniques is essential for staying ahead of the curve.

Find out more about this subject in related articles in [Finalyse blog](#).



Behavioral Scorecard with Machine Learning Components



Non-regulatory credit models – Retention and collection models



Machine Learning Model explainability – why it is important and methods to achieve it

Supervision

SREP ECB (Report)

2023 SREP results

The ECB has published the results of its 2023 Supervisory Review and Evaluation Process (SREP) and outlined supervisory priorities for 2024-26. The banking sector in the euro area showed strength and resilience, with solid capital and liquidity positions. Despite challenges like a weak macroeconomic outlook and tighter financing conditions, banks maintained profitability. The SREP scores remained stable, with a focus on internal governance, risk management, and capital planning.

Release date: 2023-12-19

ecb.europa.eu



MCD EBA (Report)

Peer Review on the MCD

The EBA has published a peer review on the supervision of creditors' treatment of mortgage borrowers in arrears under the Mortgage Credit Directive (MCD). The review evaluates the supervisory approaches of competent authorities in seven EU Member States, addressing the impact of economic conditions and high-interest rates. While finding overall effective supervision, the review notes variations in the scrutiny applied to MCD creditors. It suggests follow-up measures for competent authorities to mitigate consumer detriment and highlights best practices for adoption.

Release date: 2023-12-11

[EBA/REP/2023/37](https://eba.europa.eu/eba/rep/2023/37)



Supervision

CRR EBA (Technical Guide)

Technical Package for phase 3 reporting Framework

The EBA has released the technical package for phase 3 of version 3.3 of its reporting framework, which includes validation rules, the data point model (DPM), and the XBRL taxonomies to support new reporting on IRRBB. The technical package will be used in the ad-hoc data collection for banks under the quantitative impact study with reference date 31 December 2023.

Release date: 2023-10-30

[EBA BS 2023 514](https://eba.europa.eu/eba/bs/2023/514)



Policy Agenda EBA (Report)

European Supervisory Examination Programme 2024

The EBA has published the 2024 European Supervisory Examination Programme for Prudential Supervisors. All competent authorities are expected to pay close attention to the key topics put forward by the 2024 ESEP when developing their 2024 supervisory priorities and supervisory examination programme for the institutions that they supervise and implement these key topics in their supervisory activity throughout the year, taking into account the principle of proportionality.

Release date: 2023-10-19

[EBA/REP/2023/35](https://eba.europa.eu/eba/rep/2023/35)



CRR/IFRS 9 EBA (Report)

Monitoring of IFRS 9 implementation by EU institutions

The EBA has released its second report on the implementation of IFRS 9 by EU institutions. The report acknowledges progress in implementing Expected Credit Loss (ECL) models but highlights ongoing concerns and deviations from EBA expectations. Issues include the need for better framing of overlays in the ECL framework, increased investment in backtesting by institutions, and the importance of robust and broad indicators for assessing staging transfers.

Release date: 2023-11-17

[EBA/Rep/2023/36](https://eba.europa.eu/eba/rep/2023/36)



EMIR Commission (RTS)

Specifying the Minimum elements to be included in a Business Reorganisation plan

The European Commission has published a delegated regulation supplementing the CCPRR with regard to Regulatory Technical Standards for business reorganisation plans. The delegated act specifies the minimum elements to be included in a plan and the criteria for its approval by the resolution authority.

Release date: 2023-10-30

ec.europa.eu



Supervision BIS (Consultation Paper)

Disclosure of cryptoasset exposures

The BIS has published a consultation document by the BCBS on the disclosure of banks' cryptoasset exposures. This comes after the finalization of its prudential standard for the treatment of cryptoassets in December 2022. The disclosure proposal includes a standardized table and templates for reporting banks' cryptoasset exposures. Banks would need to provide qualitative and quantitative information on their cryptoasset activities, capital, and liquidity requirements. Additionally, they must detail how their cryptoasset exposures are accounted for. This disclosure aims to enhance market discipline and reduce information gaps between banks and market participants.

Release date: 2023-10-17

Consultation End: 2024-01-31

bis.org



Risk Management

CRD EBA (Report)

GL on the specification and disclosure of systemic importance indicators

The ECB has published an Opinion on amendments to the EU crisis management and deposit insurance framework. The ECB's Opinion sets forth general observations under two headings: (i) A necessary update on the Union crisis management and deposit insurance framework; and (ii) Completing the Banking Union. It also sets out a series of specific observations including those on early intervention measures and precautionary recapitalisation and government liquidity support.

Release date: 2023-12-20

[EBA/GL/2023/10](#)



Supervision EBA (ITS)

Disclosures and reporting on MREL and TLAC

The EBA has published its final draft ITS concerning amendments to disclosure and reporting requirements for the MREL and Total Loss Absorbency Requirement (TLAC). These changes incorporate the 'Daisy Chain' framework, which involves deducting investments in eligible liabilities instruments of entities within the same resolution group. The amendments also address other modifications to the prudential framework.

Release date: 2023-12-20

Application date: 2024-01-06

[EBA/Rep/2023/41](#)



CRR EBA (Consultation Paper)

On draft ITS on market and counterparty credit risk

The EBA has initiated a consultation on proposed amendments to its Regulatory Technical Standards (RTS) concerning the fundamental review of the trading book (FRTB) and the standardised approach for counterparty credit risk (SA-CCR). These changes are part of the EBA's roadmap for implementing the Banking Package in the EU and are intended to align existing RTS with the CRR3. The amendments address various aspects, including the treatment of foreign-exchange and commodity risk, profit and loss attribution tests, and risk factor modellability assessment.

Release date: 2023-12-14

Consultation End: 2024-03-14

[eba.europa.eu](#)



Basel EBA (Report)

Roadmap on the implementation of Basel III

The EBA has published a roadmap for implementing the EU Banking Package, incorporating the final Basel III reforms. The roadmap focuses on enhancing the prudential framework, ensuring an international level playing field, and providing industry clarity on mandate development. The package includes innovations in credit institution regulation, addressing third-country branches, supporting the green transition with ESG risk management, and strengthening enforcement tools for EU banks supervisors.

Release date: 2023-12-14

[eba.europa.eu](#)



Risk Management

Basel EBA (Consultation)

On the Basel III reforms implementation

The EBA has initiated a public consultation on proposed amendments to Pillar 3 disclosure and supervisory reporting frameworks as part of the Basel III reforms implementation in the EU. The draft Implementing Technical Standards (ITS) aim to provide clarity and support for banks in meeting reporting obligations related to the Banking Package (CRR3 and CRD6). The consultation focuses on changes associated with Basel III requirements, including output floor, credit risk, market risk, and leverage ratio.

Release date: 2023-12-14

Consultation End: 2024-03-14

[EBA/CP/2023/39](#)



Supervision SRB (Consultation)

On the future of MREL policy

The SRB has initiated a public consultation on the future review of the MREL. The consultation seeks input from industry and stakeholders to inform potential adjustments to MREL policy. The focus includes topics such as preferred resolution strategies, the Market Confidence Charge buffer, monitoring MREL eligibility, discretionary exclusions, and long-term policy considerations.

Release date: 2023-12-14

Application date: 2024-02-13

[srb.europa.eu](#)



Supervision BCBS (Consultation Paper)

Banks Exposure to Cryptoassets

The BCBS has published a consultative document proposing targeted adjustments to its standard on banks' exposures to cryptoassets. The adjustments focus on tightening criteria for stablecoins to receive preferential regulatory treatment. The proposed changes include specific criteria for the composition of reserve assets backing stablecoins, covering aspects such as credit quality, maturity, and liquidity. Banks would also be required to conduct due diligence on stablecoin stabilisation mechanisms and demonstrate their stability in comparison to reference assets.

Release date: 2023-12-14

Application date: 2024-03-28

[bcbs/publ/d567](#)



CRD EBA (Report)

Annual Risk assessment of the European banking system

The EBA has published its annual risk assessment of the EU banking system, indicating resilience post-March banking turmoil. The report highlights high capitalisation, with an average common equity tier 1 (CET1) ratio at 16%. Underlying profitability supports bank payouts, and interest rate levels, while elevated, may be at a turning point. Asset quality remains robust, but risks exist due to subdued economic growth and high interest rates. Liquidity is high but normalising from the levels during the pandemic. Market funding costs increased with interest rates, while deposit rates, though currently low, may rise.

Release date: 2023-12-12

[eba.europa.eu](#)



Risk Management

Basel BCBS (Consultation Paper)

Recalibration of shocks for IRRBB

The BCBS has published a consultative document proposing targeted adjustments to its 2016 standard on IRRBB. The adjustments involve updating the calibration of interest rate shock factors and the methodology used to calculate these shocks. These changes aim to fulfill the Committee's commitment to periodically review and update the IRRBB standard. The proposed adjustments are unrelated to the Committee's ongoing work on interest rate risk following the banking turmoil in March 2023.

Release date: 2023-12-12
Consultation End: 2023-10-06

[bcbs.org](https://www.bcbs.org)



Supervision BCBS (Policy Agenda)

BCBS agrees to consult on targeted revisions to strengthen financial stability

The BCBS has announced decisions and initiatives for the coming years. The committee will consult on targeted revisions to standards regarding cryptoassets and interest rate risk in the banking book. Additionally, measures will be explored to address "window-dressing" behaviour in the context of the framework for global systemically important banks. The committee discussed risks associated with banks providing cryptoasset custody services and agreed to consult on adjustments to the standard on interest rate risk in the banking book. The meeting also covered climate-related financial risks and the implementation of Basel III reforms. The committee emphasised its commitment to strengthening global banking regulation and financial stability.

Release date: 2023-12-07

[bcbs.org](https://www.bcbs.org)



Supervision EBA (Validation Rules)

Revised List of ITS Validation Rules

The EBA has released an updated list of validation rules in its Implementing Technical Standards (ITS) on supervisory reporting. This revised list identifies rules that have been deactivated due to inaccuracies or causing IT issues. Competent Authorities in the EU are advised not to formally validate data submitted in accordance with these ITS against the set of deactivated rules. The goal is to ensure accurate and problem-free supervisory reporting.

Release date: 2023-12-12

eba.europa.eu



CRD Commission (RTS)

RTS on CRD

The European Commission has released a draft Delegated Regulation supplementing the CRD IV. This regulation provides standardised methodologies for assessing risks resulting from potential changes in interest rates affecting the economic value of equity and net interest income in a financial institution's non-trading book activities. The draft regulation, in line with Article 84(5) of CRD IV, prescribes simplified methods for this evaluation.

Release date: 2023-12-01

[C\(2023\)8121](https://eur-lex.europa.eu/eli/reg/2023/8121)



Risk Management

CRD Commission (RTS)

RTS on CRD

The European Commission has published a draft Delegated Regulation supplementing the CRD IV. This regulation focuses on specifying RTS related to supervisory shock scenarios, common modelling, parametric assumptions, and criteria for a large decline. It aims to facilitate supervisory outlier tests for institutions, assessing their exposure to interest rate risk in non-trading book activities and its impact on net interest income and economic value of equity.

Release date: 2023-12-01

[C\(2023\)8120](https://eur-lex.europa.eu/eli/reg/2023/8120)



MREL SRB (Report)

Q2 2023 MREL Dashboard

The SRB has published its MREL dashboard for Q2 2023. The dashboard provides insights into MREL targets and shortfalls for both resolution and non-resolution entities, along with the resources of resolution entities. Key findings include a marginal growth in the average MREL final target for resolution entities, a decrease in the total MREL shortfall, and progress in building MREL levels by banks. The report also notes reduced overall MREL shortfalls for non-resolution entities and increased issuances of MREL-eligible instruments by banks.

Release date: 2023-11-29

srb.europa.eu



CRD EBA (Informative)

Measures in accordance with Art 131 and 133 of the CRD

The EBA has published an opinion in response to a notification from Denmark's Ministry of Business, Industry, and Financial Affairs. The Ministry proposed activating a new systemic risk buffer (SyRB) under Article 133 of the CRD to address macroprudential risks. The EBA supports the measure, which introduces a 7% systemic risk buffer rate for specific exposure categories in Denmark, focusing on real estate companies. This aims to enhance banks' ability to absorb unexpected losses. The measure has an intended application date of June 30, 2024.

Release date: 2023-11-30

[EBA/Op/2023/12](https://eba.europa.eu/eba/op/2023/12)



CRR2 EBA (Consultation Paper)

On assessing the materiality of Extensions and changes to the New Market Risk under the FRTB

The EBA has initiated a public consultation on draft RTS concerning the assessment of materiality for extensions and changes to internal models under the FRTB rules. These standards are part of Phase 4 of the EBA roadmap for new market and counterparty credit risk approaches. The consultation focuses on differentiating between material and non-material extensions and changes, proposing qualitative and quantitative conditions for categorisation. The consultation process includes a public hearing on January 10, 2024.

Release date: 2023-11-29
Consultation End: 2024-02-29

[EBA/CP/2023/36](https://eba.europa.eu/eba/cp/2023/36)



Risk Management

BCBS 239

BCBS (Report)

Principles for effective risk data aggregation and risk reporting

The BCBS has published a progress report on the implementation of the BCBS 239 Principles for effective risk data aggregation and reporting. The report focuses on 31 globally systemically important banks (G-SIBs) designated between 2011 and 2021. Despite nearly a decade passing since the initial publication of the Principles and seven years after the expected compliance date, banks are at varying stages of alignment. The report acknowledges progress but stresses that significant work remains for most banks to fully adopt the Principles.

Release date: 2023-11-28

bcbs/publ/d559



Supervision

BCBS (Report)

Adoption of POR and PSMOR

The BCBS has published a report on the assessment of the adoption of the Principles for Operational Resilience and the revised Principles for the Sound Management of Operational Risk published in March 2021. The assessment revealed varying levels of effectiveness and maturity in the adoption of these principles across banks and jurisdictions. Common challenges include mapping interconnections and interdependencies for critical operations, defining tolerances for disruption, and addressing issues related to third-party management. The report highlights key themes for successful adoption, urging banks to leverage all aspects of operational risk management and maintain accurate data on critical operations.

Release date: 2023-11-27

bcbs.org



CRR2

EBA (RTS)

Assessing new Market Risk Internal Models

The EBA has published the final draft RTS outlining the assessment methodology for competent authorities to verify compliance with internal models under the FRTB rules. These standards, part of the EBA roadmap on market risk, focus on governance, internal risk-measurement models, stress scenario risk measures, and internal default risk models. The RTS specify assessment techniques for competent authorities, providing clarity on the approval process for institutions seeking to use the new internal model approach for calculating market risk-related capital requirements.

Release date: 2023-11-21

EBA/RTS/2023/05



Basel

BCBS (Technical Standards)

Amendments to the Consolidated Basel Framework

The BCBS have finalized technical amendments to the consolidated Basel Framework. These changes cover operational risk, credit valuation adjustment risk disclosure standards, calculation of indicator scores for global systemically important banks (G-SIBs), and countercyclical capital buffer terminology. The amendments, originally proposed and open for consultation in March 2023, are set to be implemented by Basel Committee members within three years at the latest.

Release date: 2023-11-08

Application Date: 2023-11-08

bcbs/publ/d557



Risk Management

CRR

Commission (RTS)

Calculation of Stress Scenario Risk Measure

The European Commission has published a Delegated Regulation supplementing the CRR with RTS concerning the calculation of the stress scenario risk measure. This regulation outlines two methods for developing extreme scenarios for non-modellable risk factors: the direct method, which involves calculating expected shortfall based on historical observations, and the stepwise method, which relies on expected shortfall measures to determine risk factor movements.

Release date: 2023-10-20

[C\(2023\)6749](https://C(2023)6749)



CRR

ECB (Sound Practices)

Sound Practices in Counterparty Credit Risk Governance and Management

The ECB has released a final report that summarises findings from a review conducted in the second half of 2022 regarding how banks govern and manage counterparty credit risk (CCR). It identifies sound practices in the market and highlights areas requiring improvement. The report emphasises that these practices exceed regulatory compliance and should guide banks in their CCR management approach.

Release date: 2023-10-20

202310



Securitisation Framework

Commission (Delegated)

Risk retention requirements for Originators, Sponsors, Original lenders and Services

The Official Journal of the EU has published a Commission Delegated Regulation supplementing the Securitisation Regulation with detailed technical standards concerning risk retention requirements for originators, sponsors, original lenders, and services. These standards cover various aspects of risk retention, such as how it should be retained, how it should be measured, prohibitions on hedging or selling the retained interest, conditions for retention on a consolidated basis, exemptions for transactions based on transparent indices, risk retention in traditional securitizations of non-performing exposures, and the impact of fees on the effective net economic interest.

Release date: 2023-10-19

Application Date: 2023-11-08

ec.europa.eu



Benchmarks Regulation

Commission (Regulation)

Proposal for EU BMR review

The European Commission has published a proposal to review the BMR. The proposal aims to streamline reporting requirements for companies under various European financial services laws. The proposal suggests reducing the BMR's scope to include only significant and critical benchmarks, along with EU Climate Transition and EU Paris-aligned Benchmarks. The proposal plans also to make the recognition regime for third-country administrators a permanent solution and proposes transitional provisions for existing administrators.

Release date: 2023-10-17

ec.europa.eu



Risk Management

BRRD SRB (Report)

Resolution planning and Crisis management for Smaller Banks

The SRB has published a report on resolution planning and crisis management for smaller banks, also called less significant institutions (LSIs). This report covers key developments in the LSI sector, outlines the role of national resolution authorities (NRAs) and the SRB in resolution planning and crisis management, and highlights the growing coverage of LSIs in the Single Resolution Mechanism.

Release date: 2023-10-05

srb.europa.eu



Climate Risk

Climate Risk ECB (Report)

Impact of Climate Change on the EU Financial System

The ECB and the ESRB have published a joint report on the impact of climate change on the EU financial system. The report highlights the significant exposure of banks to high-emitting firms and households, with climate risks being underpriced and underinsured. It stresses the role of banks in managing and reducing financial stability risks related to climate change, suggesting a robust macroprudential strategy. The report also extends its focus to nature-related risks and calls for a systemic prudential approach, including measures like systemic risk buffers and risk concentration limits.

Release date: 2023-12-18

[report202312~d7881028b8](https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.pr231218~d7881028b8)



Climate Risk

Climate Risk EBA (Report)

Final Templates to collect Climate-related data from EU Banks

The EBA has released final templates for collecting climate-related data from 110 EU banks as part of the one-off Fit-for-55 climate risk scenario analysis. The templates, accompanied by guidance on definitions and rules, aim to gather information on credit risk, market, and real estate risks. The data collection period is set from December 1, 2023, to March 12, 2024, with banks required to report aggregated and counterparty level data as of December 2022.

Release date: 2023-11-17

eba.europa.eu



Climate Risk NGFS (Report)

NGFS Scenarios for central banks and supervisors

The NGFS has released its fourth set of long-term climate macro-financial scenarios, offering insights into the transition and physical impacts of climate change. These scenarios consider updated GDP and population data and recent climate commitments. Key changes include reflecting climate policy delays and the energy crisis post-war in Ukraine, incorporating acute physical risks like droughts and heatwaves, and introducing new scenarios like the "Too-little-too-late" Fragmented World and the "Orderly" Low Demand scenario.

Release date: 2023-11-07

[ngfs.net](https://www.ngfs.net)



Climate Risk

Climate Risk BCBS (Consultation Paper)

Disclosure of Climate-related Financial Risks

The BCBS has released a public consultation paper on a Pillar 3 disclosure framework for climate-related financial risks. As part of its broader strategy to address such risks in the global banking system, the Committee seeks input on its proposal for qualitative and quantitative disclosure requirements. The aim is to complement the efforts of other standard setters and establish a common baseline for internationally active banks.

Release date: 2023-11-29
Consultation End: 2024-02-29

[bis.org](https://www.bis.org)



Supervision BCBS (Report)

Principles for the effective management and supervision of climate-related financial risks

The BCBS has published a report providing detailed insights into its internal discussions on implementing the Principles for the effective management and supervision of climate-related financial risks. The Principles, published in June 2022, aim to enhance banks' climate-related risk management and supervisors' practices. The report highlights progress made by supervisory authorities and banks in implementing the Principles in the first 12 months, with the need for ongoing efforts, data improvement, and capacity building. It addresses challenges, such as data limitations and the early stages of implementing Principle 5 on capital and liquidity adequacy.

Release date: 2023-11-21

[bis.org](https://www.bis.org)



CRR EBA (Report)

Enhancements to the Pillar 1 Framework to capture Environmental and Social Risk

The EBA has published a report with recommendations to update the Pillar 1 framework for credit institutions and investment firms to incorporate environmental and social risks. These changes are aimed at aligning the financial sector with sustainability goals while maintaining resilience. The EBA proposes risk-based enhancements to the Pillar 1 framework and suggests actions over the next three years, such as including environmental risks in stress testing and encouraging the consideration of environmental factors in credit assessments and due diligence.

Release date: 2023-10-12

[EBA/REP/2023/34](https://www.eba.europa.eu/press/pr/date/2023/html/eba.pr231012~e8a1028b8)



Climate Risk NGFS (Report)

Conceptual note on short-term climate scenarios

The NGFS has released a Conceptual Note on Short-term Climate Scenarios that outlines the NGFS' approach to understanding the short-term macro-financial impact of transitioning to a net-zero economy and dealing with climate-related risks. It introduces short-term climate scenarios, which cover a three-to-five-year horizon, addressing limitations in analyzing climate-economy relationships over the medium to long term. The aim is to provide a tool to better understand climate risks on near-term macro-financial developments and monetary policy considerations.

Release date: 2023-10-03

[ngfs.net](https://www.ngfs.net)



Market Environment

CSDR Council (Regulation)

Council has adopted CSDR Refit

The Council of the EU has adopted the proposed Regulation to amend the CSDR. This amendment focuses on settlement discipline, cross-border service provision, supervisory cooperation, banking-type ancillary services, and requirements for third-country CSDs. The adopted Regulation will be published in the Official Journal and application is set from either May 1, 2024, or two years after entering into force, depending on specific Articles.

Release Date: 2023-11-27

consilium.europa.eu



Market Trends ECB (Report)

Financial Stability Review

The ECB has published its Financial Stability Review for November 2023, indicating a fragile outlook for the euro area's financial stability. The report highlights concerns about the impact of weakening macro-financial conditions and geopolitical tensions on financial markets. Although euro area banks have seen increased profitability due to rising interest rates, they face challenges from higher funding costs, deteriorating asset quality, and lower lending volumes.

Release date: 2023-11-22

ecb.europa.eu



Market Trends ESRB (RTS)

Assessment of Cross-border effects for macroprudential policy measure

The official Journal of the EU has published an amending recommendation from the ESRB on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures. The amending recommendation is an answer to the NBB's request for a reciprocation of the sectoral systemic risk buffer by other member states.

Release date: 2023-11-14

Application Date: 2023-11-14

C/2023/899



Market Trends EBA (Press Release)

Q2 2023 quarterly Risk Dashboard

The EBA has released its Q2 2023 Risk Dashboard, which reports that EU/EEA banks have seen their profitability and capital ratios increase. However, macroeconomic uncertainty has had a negative effect on loan growth. The report highlights concerns related to geopolitical uncertainty, a less optimistic growth outlook for China, and new banking taxes contributing to market uncertainty. Nevertheless, EU/EEA banks have maintained strong capitalization levels, with an average common equity tier 1 (CET1) ratio reaching a historical height of 15.9%.

Release date: 2023-10-10

eba.europa.eu



Governance

CRR Commission (RTS)

Groups of Connected Clients

The EC has published a Delegated Regulation supplementing the CRR. This regulation provides detailed RTS outlining the conditions for identifying groups of connected clients. It specifies criteria for treating closely linked natural or legal persons as a single risk and partially replaces European Banking Authority guidelines on connected clients. The regulation addresses situations involving control relationships and economic dependencies within connected client groups, defining circumstances where all relevant individuals or entities constitute a single risk.

Release Date: 2023-12-06

[C\(2023\)8289](https://C(2023)8289)



Policy Agenda

Climate Risk EBA (Statement)

EBA committed to enhance Sustainability considerations

The EBA has reiterated its commitment to enhancing climate-related and broader sustainability considerations in the EU banking sector. In its environmental statement released during the 2023 United Nations COP28, the EBA insisted on the integration of sustainability aspects into various areas of its work. This includes efforts in risk management, disclosures, supervisory practices, climate stress testing, and the Pillar 1 framework.

Release date: 2023-11-30

eba.europa.eu





Insurance

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Insurance Regulatory Timeline

2024 Q1

Insurance Supervision

Peer Review
On supervisory practices relating to some aspects of the prudent person principle PPP
Document release: tbd

2024 Q2

Solvency II

Report
Financial Stability Report (first half covering all sectors and risks, second half focused on key topic)
Document release: tbd

2024 Q3

Solvency II

RTS
Technical documents and GLs following the review of Solvency II
Document release: tbd

Guidelines
On integrating ESG factors in risk management
Document release: tbd

Guidelines
On long-term climate risk scenarios under Solvency II
Document release: tbd

Insurance Distribution Directive

Report
Value for Money benchmarks and gathering and processing data received from NCAs
Document release: tbd

IORP

Report
Annual IORP statistics publication
Document release: tbd

Insurance Stress Testing

Stress Test
EU-wide insurance stress test exercise
Document release: tbd

Resolution Directive

Database Update
Update the insurers' failures and near misses database and perform the necessary quality checks
Document release: tbd

2024 Q4

Solvency II

Draft RTS
The reassessment of the Natural Catastrophe risk standard formula capital charges
Document release: tbd

Draft RTS
Include Reporting on Climate change risks in Solvency II reporting disclosure
Document release: tbd

Guidelines
Development of a Proportionality Rulebook
Document release: tbd

ICS

International Standards
Planned adoption of ICS
Adoption Date: 24 Dec 2024

Insurance Supervision

Regulatory Review
Review of EIOPA Guidelines on Supervisory Review Process (SRP)
Document release: tbd

Insurance Supervision

Regulatory Review
Further develop EIOPA's approach on public disclosure of the handbook
Document release: tbd

Peer Review
On supervision of technical provisions (TP): stochastic valuation
Document release: tbd

Report
Prepare Annual Report on PEPP Market
Document release: tbd

IORP

Guidelines
On the liquidity risk management of IORPs
Document release: tbd

Report
On roundtable on defined contribution pensions
Document release: tbd

Insurance Stress Testing

Guidelines
On Climate Stress testing
Document release: tbd

Supervision

Supervision

EIOPA (Consultation Paper)

On Methodology for setting Value-for-money Benchmarks

The EIOPA has initiated a public consultation on its proposed methodology for establishing value-for-money benchmarks for unit-linked and hybrid insurance products. This effort is part of the EIOPA's toolkit developed since 2020 to equip supervisors with risk-based tools for identifying insurance products that may not provide fair value for money. The consultation outlines a three-step approach, categorizing products, suggesting indicators, and recommending data collection methods. The EIOPA aims to address issues arising from the complexity of such products and discrepancies between expected and actual benefits.

Release date: 2023-12-15
Consultation End: 2024-04-15

eiopa.europa.eu



Supervision

EIOPA (Report)

Financial Stability Report

The EIOPA has released its December 2023 Financial Stability Report, examining challenges faced by insurers and pension funds in the changing macroeconomic landscape. The report addresses the impact of rising interest rates, inflation risks, and geopolitical uncertainties on the insurance and pension sectors. It emphasizes four key areas: liquidity risks for insurers, portfolio rebalancing after monetary normalization, liquidity needs of occupational pension funds on interest rate derivatives, and lessons from past recessions on insurers.

Release date: 2023-12-11

[EIOPA-BoS-23-532](https://eiopa.europa.eu/BoS-23-532)



Supervision

EIOPA (Consultation Paper)

Supervision of captive (re)insurers

The EIOPA has initiated a public consultation on its proposed guidelines for supervising captive (re)insurance companies. These guidelines are intended for competent authorities and aim to establish consistent and risk-based supervision for captive (re)insurance companies, promoting uniform standards across the EU. The guidelines cover various aspects, including intra-group transactions, adherence to the prudent person principle, and governance-related matters related to key functions and outsourcing.

Release date: 2023-10-06
Consultation End: 2024-01-05

eiopa.europa.eu



Market Environment

Market Trends

IAIS (Report)

Update on IAIS work on AI/ML in the Insurance Sector

The IAIS has provided an update on its ongoing work related to the adoption of artificial intelligence and machine learning (AI/ML) in the insurance sector. In response to rapid advancements in AI/ML technologies, the IAIS FinTech Forum conducted a thematic review of guidance on AI/ML and model risk management from 12 supervisory authorities and international organizations in 2023. Key findings are outlined in the summary, and the IAIS plans to continue monitoring FinTech developments.

Release date: 2023-12-07

iaisweb.org



IORP II

EIOPA (Report)

Cross-border IORPs trends in 2023

The EIOPA has published its 2023 report on cross-border business among IORPs in the EEA. As of the end of 2022, there are 31 cross-border IORPs, a number that has not increased for a decade. Although there's a slight increase in membership, there's a significant reduction in assets due to closures and weak financial markets. Despite challenges, the engagement of sponsoring undertakings with cross-border IORPs is rising, indicating potential benefits once initial challenges are overcome.

Release date: 2023-11-27

[EIOPA-BoS-23/426](https://eiopa.europa.eu/BoS-23/426)



IORP II

EIOPA (Report)

Comprehensive statistics on IORPs

The EIOPA has published comprehensive statistics on IORPs in the European Economic Area, covering data from the final quarter of 2022. The data includes a visual factsheet highlighting how European IORPs allocate their approximately €2.5 trillion euros across various asset types and jurisdictions, with a focus on government bonds, corporate bonds, equities, and investment funds, which collectively make up 92% of their investment portfolio.

Release date: 2023-11-01

eiopa.europa.eu



Market Trends

EIOPA (Risk Dashboard)

Insurance Risk Dashboard

The EIOPA has published its Insurance Risk Dashboard, which shows that insurers' exposures to macro, markets and digitalisation risks, are currently the main concern for the sector. Macro risks still remain among the most relevant for the insurance sector, while liquidity and funding risks remain stable. Profitability and Solvency risks moderated slightly, and the distribution of the scr ratio improved in the second quarter. However, Digitalisation and Cyber risks increased to a high level and are expected to further increase.

Release date: 2023-11-06

[EIOPA-BoS/23-392](https://eiopa.europa.eu/BoS/23-392)



Market Environment

Market Trends

EIOPA (Report)

Stock of Inflation's impact on Insurers and assesses Potential Future Risks

The EIOPA has published a report on the impact of rising inflation and interest rates on insurers in Europe. The EIOPA finds that the shift from a long period of low inflation and interest rates to a new economic environment has consequences for insurers' capital levels, profitability, liquidity, and consumers. The report presents results on Capital position, Profitability and Liquidity.

Release date: 2023-12-15/2023-10-15

eiopa.europa.eu



Policy Agenda

Solvency II

Council Agreement (Report)

Agreement on New rules for the Insurance Sector

The Council and Parliament have reached a provisional agreement on amendments to the Solvency II directive, enhancing the role of the insurance sector in long-term investments for European businesses. The changes aim to make the sector more resilient, contributing to the Capital Markets Union and supporting green and digital transitions. The Insurance Recovery and Resolution Directive ensures better preparedness for financial distress, protecting policyholders and minimising economic impact. Solvency II amendments improve industry resilience, simplify rules for smaller companies, and assign new tasks to the EIOPA.

Release date: 2023-12-14

eiopa.europa.eu



Risk Management

Supervision

ESAs (Q&A)

Updated Q&As on the PRIIPs KID

The ESAs have updated their Q&As on PRIIPs (Packaged Retail and Insurance-based Investment Products) Key Information Documents. The update addresses questions on topics such as representing the riskier version of a product with both single and recurring premium versions, categorising products with recurring premiums, calculating performance scenarios, and issues related to multi-option products and investment funds. The guidance clarifies aspects like the treatment of insufficient historical data, the use of benchmarks, and the role of manufacturers in the context of insurance-based investment products.

Release date: 2023-12-05

[JC 2023 22](https://www.jc2023.eu)



Solvency II

Commission (Regulation)

Calculation of technical provisions in Solvency II

The Official Journal of the EU has published a Commission Implementing Regulation laying down technical information for the calculation of technical provisions and basic own funds for reporting with reference dates from 30 September 2023 until 30 December 2023 in accordance with the Solvency II Directive.

Release date: 2023-11-14

Application Date: 2023-11-14

[EU 2023/2574](https://eur-lex.europa.eu/eli/reg/2023/2574)



Risk Management

Solvency II

EIOPA (RTS)

Volatility Adjustments Calculation for 2024

The EIOPA has released updated representative portfolios for calculating volatility adjustments (VA) to risk-free interest rates under Solvency II. These portfolios, based on 2022 year-end reporting from European insurance companies, aim to enhance accuracy in reflecting market volatility. The use of these portfolios for VA calculation will begin in March 2024, with publication in April 2024. The EIOPA provides this information three months in advance to allow insurers adequate preparation time.

Release date: 2023-12-06

eiopa.europa.eu



Supervision

IAIS (Report)

Global Insurance Market Report

The IAIS has published its 2023 Global Insurance Market Report, which assesses key risks and trends in the global insurance sector. The report indicates a slight decline in the aggregate systemic risk scores of the insurance sector compared to the previous year, with capital adequacy remaining sound but showing a slight decrease. Key areas of analysis include interest rate, liquidity, and credit risks, as well as structural shifts in the life insurance sector, such as increased allocation to alternative assets and reliance on cross-border asset-intensive reinsurance. Insurers are still exposed to climate-related risks.

Release date: 2023-12-06

[iaisweb.org](https://www.iaisweb.org)



ICS

IAIS (Statement)

AM comparability assessment

The IAIS has initiated the assessment of whether the United States' Aggregation Method (AM) aligns with the global ICS and, if so, could serve as an equivalent approach for implementing the ICS as a prescribed capital requirement (PCR). This assessment follows the agreed timeline, methodology, and governance set by the IAIS and is carried out by a team of technical experts within the IAIS Secretariat.

Release date: 2023-10-17

[iaisweb.org](https://www.iaisweb.org)



Solvency II

EIOPA (Technical Document)

Technical RFR documentation applicable as of January 2024

The EIOPA has released updated technical documentation for calculating risk-free interest rate term structures (RFR). The changes include assessing financial instruments used in RFR construction, a Peer Country review for 2023, and a technical change in Credit Risk Adjustment calculation for certain currencies. These updates have become applicable on January 1, 2024, with the first calculation using them scheduled for the end of January 2024.

Release date: 2023-10-02

[EIOPA-BoS-23/359](https://www.eiopa.europa.eu/iaa/iaa-2023-359)



Climate Risk

Climate Risk

EIOPA (Consultation Paper)

Prudential treatment of Sustainability Risks

The EIOPA has initiated a consultation on the prudential treatment of sustainability risks, marking the second phase of its approach under the Solvency II Directive. This directive mandates the EIOPA to evaluate whether a specialized prudential treatment for assets or activities linked to environmental or social objectives is justified. The consultation aims to assess the potential for dedicated prudential treatment in response to risks associated with environmental and social factors.

Release date: 2023-12-13
Consultation End: 2024-03-24

eiopa.europa.eu



Climate Risk

EIOPA (Consultation Paper)

On Greenwashing in the Insurance and Occupational Pension Sectors

The EIOPA has initiated a public consultation on its draft Opinion addressing sustainability claims and greenwashing in the insurance and occupational pensions sectors. The draft proposes four principles to guide providers in making accurate and transparent sustainability claims. These principles emphasize accuracy, consistency, timely updates, clear substantiation, and accessibility of sustainability claims. The EIOPA urges National Competent Authorities to monitor providers adherence to these principles.

Release date: 2023-12-11
Consultation End: 2024-03-12

[EIOPA-BoS-23/450](https://eiopa.europa.eu/BoS-23/450)



Climate Risk

IAIS (Consultation Paper)

On Climate Risk Supervisory guidance, Market Conduct and Scenario Analysis

The IAIS has launched its second consultation on climate risk supervisory guidance, aiming to establish a globally consistent approach to addressing climate-related risks in the insurance sector. The consultation focuses on market conduct supervision and climate scenario analysis, seeking feedback on two draft application papers. One addresses climate risk market conduct issues. The other focuses on climate risk scenario analysis as a tool for understanding risks at both micro- and macroprudential levels.

Release date: 2023-11-23
Consultation End: 2024-02-23

iaisweb.org



Supervision

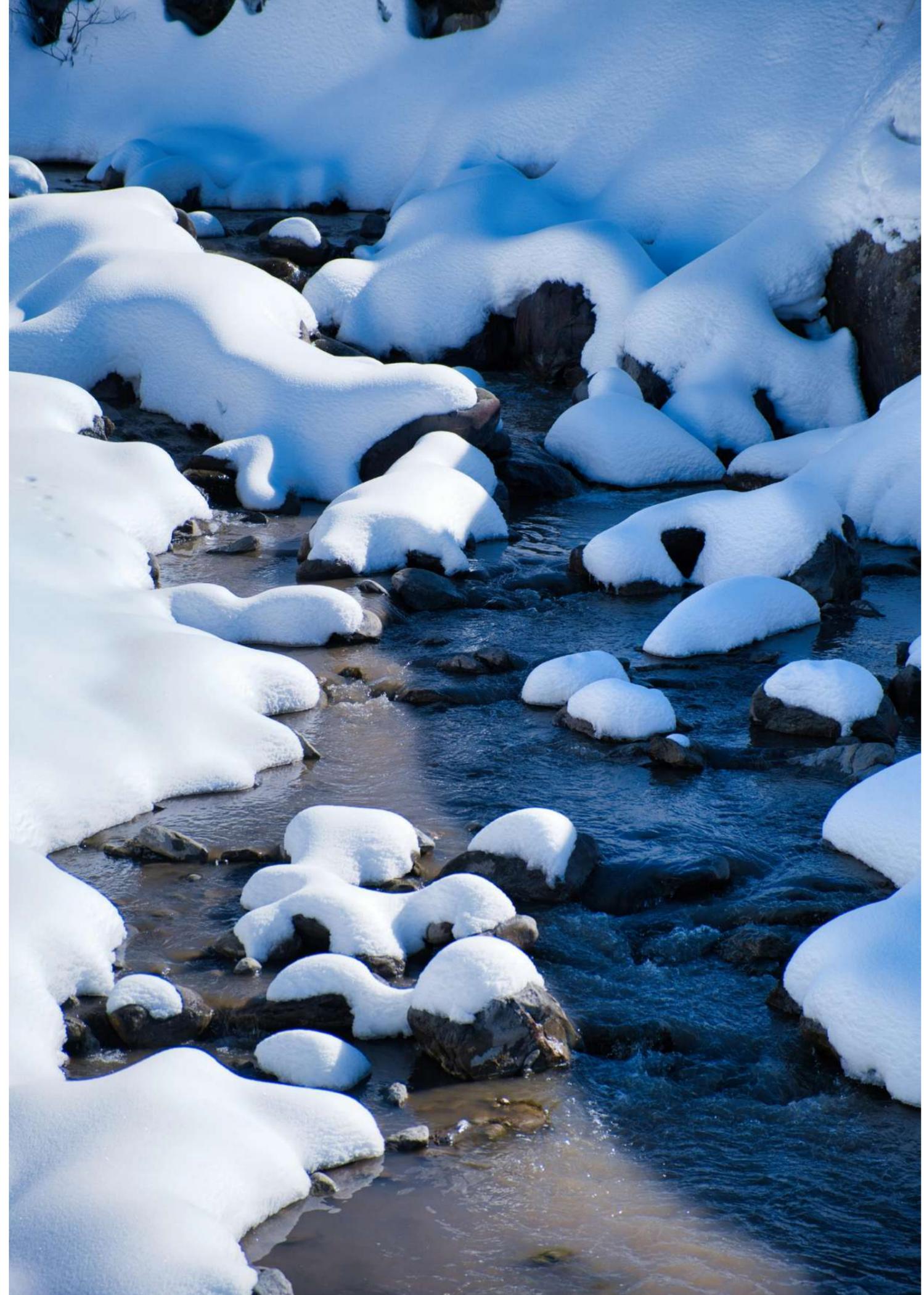
IAIS (Report)

The role of Insurance Supervisors in addressing Natural Catastrophe Protection gaps

The IAIS has published a report on the role of Insurance Supervisors in addressing natural catastrophe protection gaps. The report highlights the importance of addressing the uninsured portion of economic losses caused by natural disasters and presents a range of possible supervisory actions to improve affordability, availability, and uptake of insurance coverage against natural catastrophe events. The IAIS recognises that addressing protection gaps is a complex social challenge requiring shared efforts by both the public and private sectors.

Release date: 2023-11-06

iaisweb.org



ARTICLE

INSURANCE CAPITAL STANDARD

Written by *Seán Burke, Finalyse Senior Consultant*

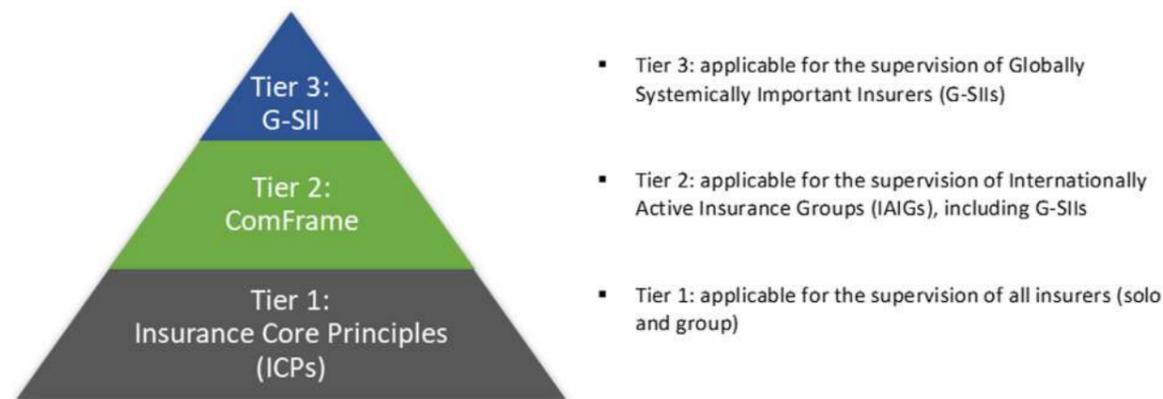
Reviewed by *Francis Furey, Finalyse Principal Consultant*

The Insurance Capital Standard (ICS) is a consolidated group-wide capital standard for Internationally Active Insurance Groups (IAIGs). It is being developed by the International Association of Insurance Supervisors (IAIS) and their main objective is to establish a common regulatory framework that achieves comparable outcomes across jurisdictions. The ICS will provide a common language for supervisory discussions of IAIG solvency and enhance global convergence among group capital standards.

Global supervisory framework

The IAIS has developed a set of principles, standards, and other supporting material for the supervision of the insurance sector. This global supervisory framework is based on a three-tiered approach. Tier 1 consists of the Insurance Core Principles (ICPs). The ICPs seek to encourage the maintenance of consistently high supervisory standards in IAIS member jurisdictions. ICP14 (Valuation) and ICP17 (Capital) relate to ICS. The Common Framework for the Supervision of IAIGs (ComFrame) consists of quantitative and qualitative supervisory requirements. The ICS will be one of the quantitative components of ComFrame.

Tiers of Global Supervisory Framework



The ICS roll-out is currently in the 4th year of its 5-year monitoring period. The timeline below highlights key milestones in the IAIS' workplan over this period. Following the end of the monitoring period in Q4 2024, the intention is for ICS to be implemented as a group-wide prescribed capital requirement.

ICS Implementation Timeline



Market Adjusted Valuation

ICS consists of 3 technical components: market adjusted valuation, qualifying capital resources and a standard method for the ICS capital requirement. The building blocks of the ICS market adjusted valuation are comparable to those in the Solvency II balance sheet. This is illustrated at a high level below.

Balance Sheet: Solvency II vs ICS



MAV insurance liabilities are the sum of the current estimate (CE) and a margin over the current estimate (MOCE). The CE is equal to the probability-weighted average of the present values of the future cash-flows associated with insurance liabilities, discounted using an adjusted yield curve.

The adjusted yield curve is based on:

- a) Risk adjusted liquid interest rate swaps or government bonds (risk-free yield curve); and
- b) An adjustment.

The adjustment to the yield curve is determined using the “Three-Bucket Approach”. This classifies liabilities into the Top Bucket, the Middle Bucket, and the General Bucket, depending on the nature of the liabilities and the assets backing these liabilities. The MOCE is a margin added to the current estimate, which covers the inherent uncertainty in the cash flows related to insurance obligations.

Capital Requirement – Standard Method

The ICS capital requirement is based on the potential adverse change in the IAIG’s qualifying capital resources resulting from unexpected changes of specified risks. The target criterion is a 99.5% Value at Risk (VaR) measure over a one-year time horizon. The reference ICS coverage ratio is calculated as:

$$ICS\ Ratio = \frac{Qualifying\ capital\ resources}{ICS\ capital\ requirement}$$

The categories of risk included in the standard method are:

- Insurance risk
- Market risk
- Credit risk
- Operational risk

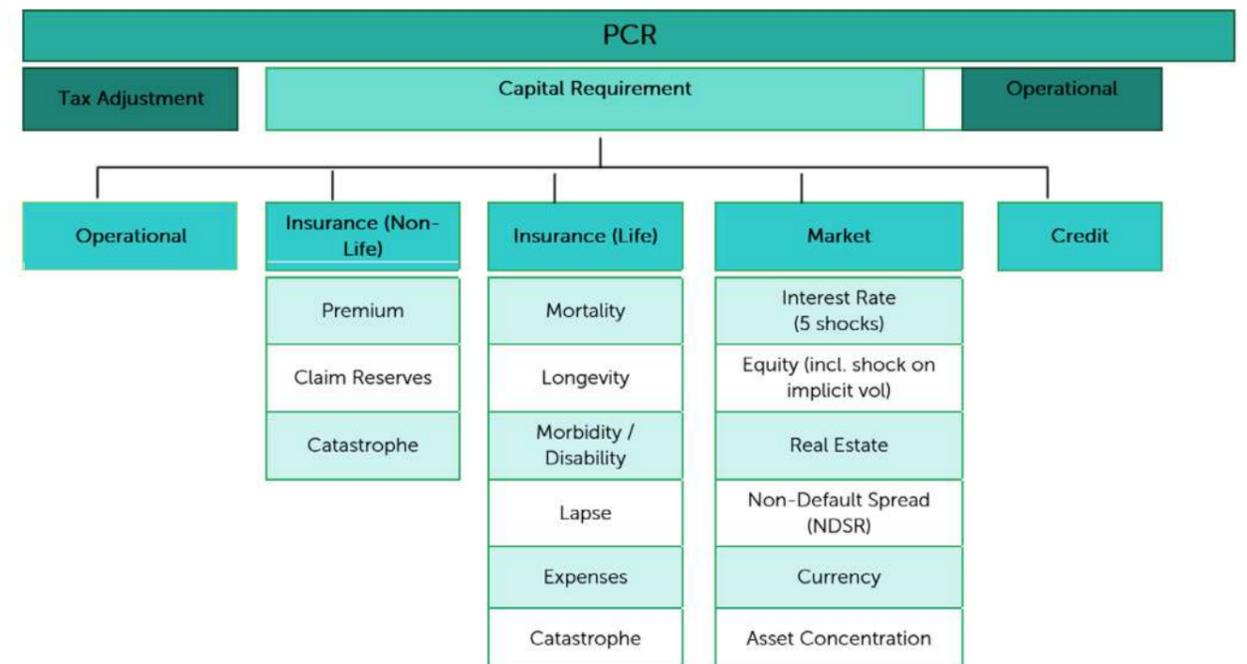
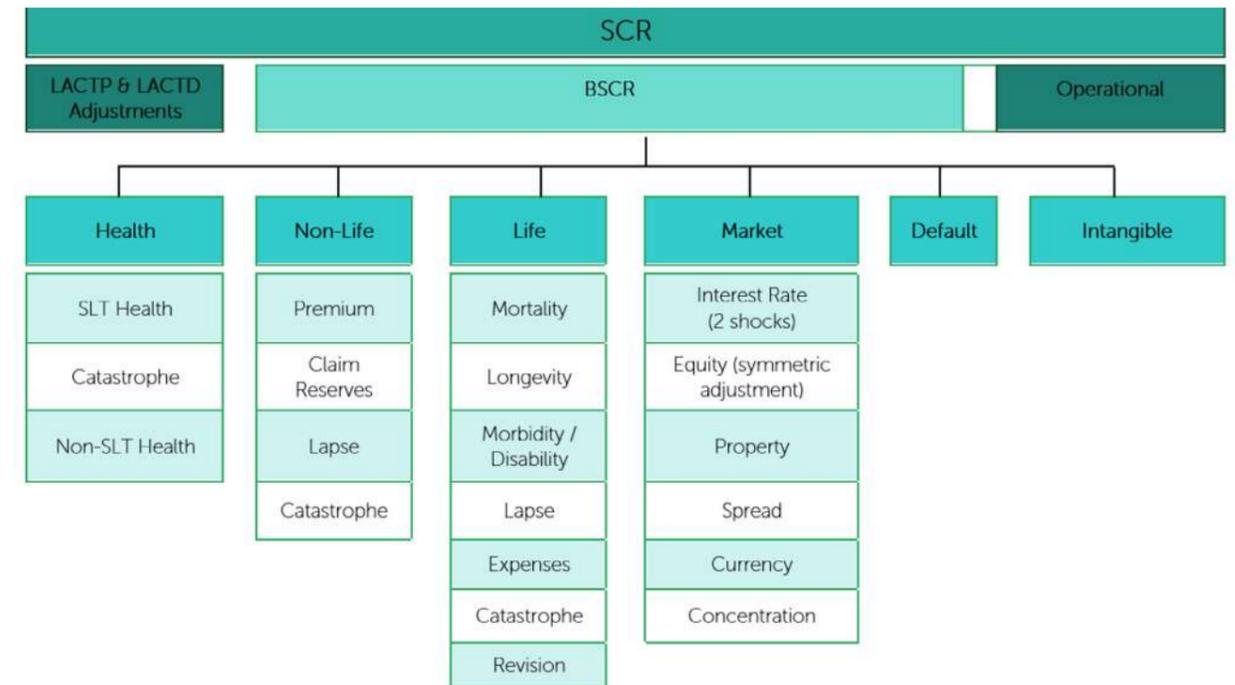
Risks are measured using two approaches: a stress approach and a factor-based approach. The Prescribed Capital Requirement (PCR) under ICS is similar in many ways to the Solvency Capital Requirement under Solvency II, in respect of its calculations and its categorisation of risks. The individual risk charges are combined in a way that recognises risk diversification, using correlation matrices. For the life insurance segment, geographical segmentation is used to calculate the risk charge. This means that the stress factor applied will vary by region. Most of the prescribed stress factors are more stringent under the Solvency II regime. For example, the SII mortality shock is +15% compared to +12.5% for the EEA region under ICS. The ICS risk map does not include a Health module. This risk is implicitly allowed for in the premium and claim reserve risk segments of the non-life module.

The interest rate risk charge is notable in that it is based on a combination of five stresses, as opposed to two stresses under Solvency II (interest rate up and interest rate down). The five stresses for the ICS interest rate risk charge are as follows:

- A mean-reversion scenario
- A level up scenario
- A level down scenario
- A twist up-to-down scenario and
- A twist down-to-up scenario

The equity risk charge is calculated as the change in net asset value following the occurrence of a stress scenario that impacts the level and volatility of the fair value of equities. Thanks to a larger number of asset classes and shock scenarios, ICS will estimate more precisely the capital requirements for companies. This precision will in theory imply a lower market PCR compared to its SCR equivalent.

The guidance includes examples of climate change risk identification and monitoring in several of the traditional prudential risk categories. This is not an exhaustive list and insurers should consider the risks relevant to their own portfolio. Taking underwriting risks as an example, the following table summarises the information in the guidance:



Conclusion:

During the five-year ICS monitoring period (2020-2024), the IAIS has annually collected and analysed confidential data from volunteer insurance groups, with the objective of finalising ICS for implementation as a prescribed capital requirement by year-end 2024. The IAIS recently undertook its latest public consultation on the ICS, named 'Candidate ICS as a PCR'. This consultation brings the IAIS one step closer to achieving its target implementation date.

IAIGs based in USA are developing an Aggregation Method which, if deemed comparable, will be considered an outcome-equivalent approach for the implementation of the ICS as a PCR.

In Europe, the EIOPA has publicly stated its commitment to the ICS development. In their view, "the candidate ICS as a PCR goes in the right direction of implementing sound risk-based supervisory frameworks globally and is consistent with the main features of Solvency II." For example, internal models are now acknowledged as part of the ICS, allowing the recognition of specificities in the risk profiles of large, sophisticated groups. In these last stages of development of the ICS, the EIOPA remains fully engaged and calls on all EU stakeholders to engage as well.

We have outlined above the similarities between the ICS and Solvency II regulatory frameworks. This raises the question whether SII can gain ICS equivalence at some stage in the future. However, in the short term, IAIGs will need to find optimal and innovative ways to incorporate the ICS calibration into their current operating environment.

How can Finalyse help you?

Finalyse has extensive experience and expertise in ICS reporting support:

- Perform ICS impact assessment (as part of a monitoring exercise or separately)
- Support in submitting the ICS pack
- Support in responding to group-wide supervisor on any queries
- Monitor regulatory developments and communicate specific issues to your business
- Prepare internal training material on ICS calibration and comparison to Solvency II

and in BAU implementation:

- Design BAU process
- Implement ICS reporting into BAU processes and improve the quality of submissions
- Strategic support in understanding the ICS figures for your business including on the long-term business strategy

For more information on this subject, please have a look at our article published earlier this year titled "Insurance Capital Standard: A Closer Look", which is available to [download here](#). Alternatively, you can contact one of our experienced consultants at insurance@finalyse.com who would be happy to help with all of your ICS needs.

References:

1. <https://www.iaisweb.org/activities-topics/standard-setting/insurance-capital-standard/>
2. <https://www.iaisweb.org/activities-topics/standard-setting/icps-and-comframe/>
3. <https://www.iaisweb.org/2023/06/public-consultation-on-insurance-capital-standard-as-a-prescribed-capital-requirement/>
4. https://www.eiopa.europa.eu/publications/final-boarding-call-ics_en#:~:text=The%20candidate%20ICS%20as%20a%20PCR%20is%20now%20tested%20through,main%20features%20of%20Solvency%20II.

Find out more about this subject in related articles in Finalyse blog.



IAIS Insurance Capital Standard



Solvency II 2020 Review



EIOPA'S Opinion on the Review of Solvency II – Topic: Volatility adjustment

ARTICLE

ACTUARIAL MODELLING USING FIS® Prophet

Written by Divyank Garg, Senior Consultant

with the support of Francis Furey, Principal Consultant

Overview

Many insurance firms use proprietary modelling software to perform actuarial modelling. The speed and flexibility offered by FIS¹® Prophet² makes it a popular choice.

In this article, we aim to provide a high-level overview about the key and advanced features and applications of Prophet along with their practical user experience and challenges.

Furthermore, we discuss how the need to merge models has arisen over time as a result of new regulations and standards. We also discuss the key considerations when migrating to Prophet including reviewing and validating actuarial models and importantly, model governance considerations for Prophet models.



Finalyse Risk Advisory for Insurance offers a comprehensive range of actuarial and risk management services to provide solutions tailored to the unique challenges faced by insurers.

As an independent consultancy, Finalyse is agnostic in terms of modelling tools, and our aim is to support firms identify the best tool based on their requirements.

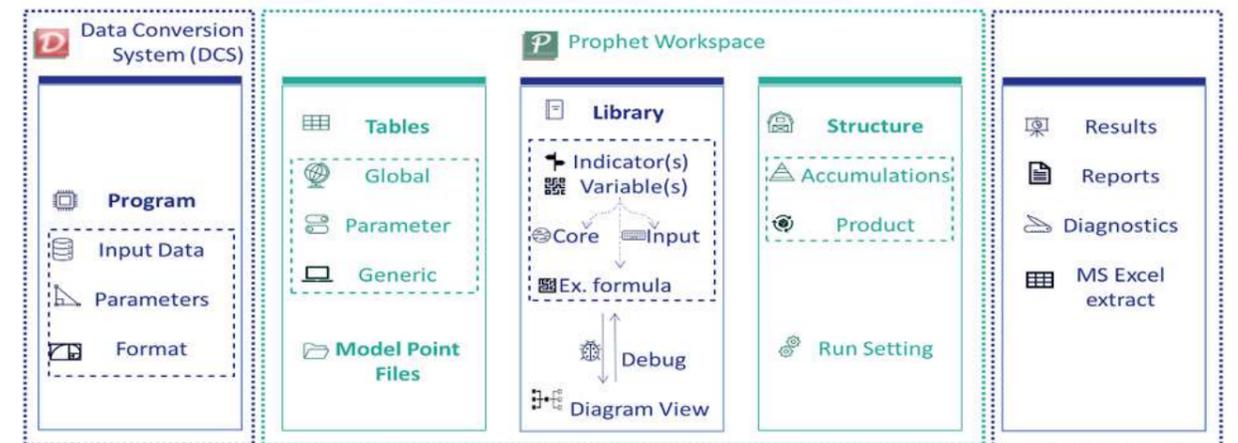
This article is intended to highlight the key features of one of the modelling tools, Insurance risk suite (formerly, Prophet), a proprietary tool offered by FIS, to help insurers understand the importance of the skillset required to apply on such modelling tools.

¹FIS is the short term for Fidelity National Information Services, Inc. based out of Florida, USA.

²FIS * Insurance risk suite was formerly known as "Prophet", which is owned by FIS. Many actuaries use the terms 'Prophet model', 'Prophet Professional' or 'Prophet workspace' inter-changeably. We also refer to "Prophet" through-out this article.

Key features:

Some of the features and applications offered with the Prophet workspace are highlighted on the chart below and we discuss the most popular ones amongst developers and users in more details subsequently:

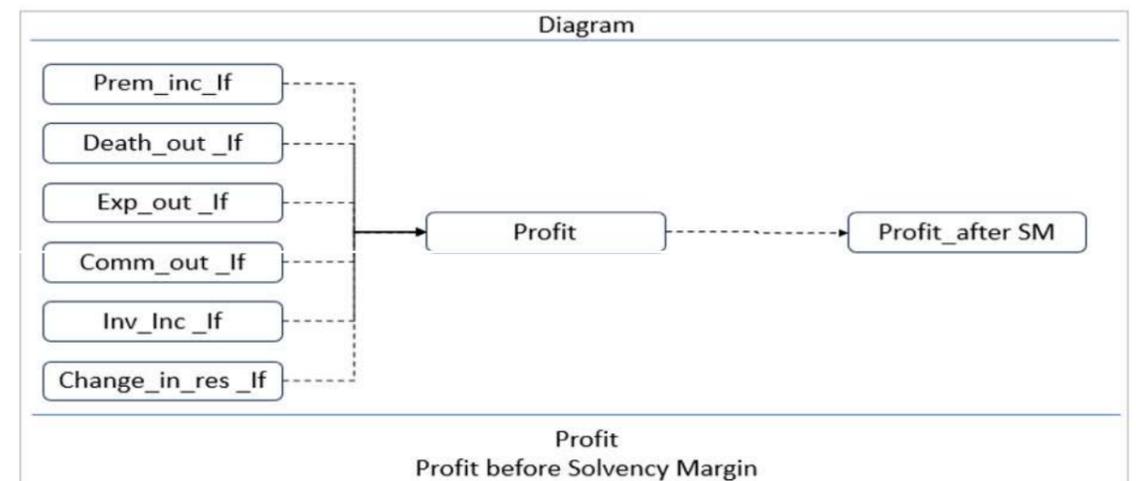


Data conversion system (DCS) – is an application widely used by Prophet developers that helps structure the raw data and produce model point (or data input) files in a format acceptable for Prophet.

It allows reference tables along with multiple input data files to be used to adjust and enrich data. The program is capable of producing single or multiple model point files for each product or product class and can be configured to output either individual policy level model point files for Prophet calculation runs or grouped policy model point files for Prophet grouping runs.

Diagram view - is an important feature for a Prophet model developer as it makes it convenient to trace dependents and precedents of variable(s) in each library. It provides transparency that helps with debugging, troubleshooting and to gain deeper understanding of cashflow components and results. The diagram view also shows resulting values of variables when a completely executed run is selected for a product or an accumulation¹.

Model point files, tables, modules, and variable properties can be inspected through the diagram view in the variable flow as shown on the chart.



¹An accumulation in Prophet workspace allows the aggregation of results from one or more products or accumulations. It can be used to generate the input necessary for the calculation at a higher level of aggregation.

Filters can be applied in the diagram view as desired and convenient for modelling. For example, filter by dependent or precedent, filter elements of array dimension or exclude self-referencing variables, etc.

Schedule – is a useful feature that enables Prophet developers to form a view on key aspects of products modelled in the workspace. It is used when merging multiple Prophet models which were developed for various calculations like IFRS 17 and Solvency II or where a business combination exists, to optimise resources and to streamline the library structure.

This produces a grid of variables (all or specific type) and products indicating the variable type, indicator or dimension, etc.

Parallel processing - provides additional benefit to attain higher performance than a single processor-based system. This means that multiple machines are connected to a network with a Master PC assigned and used to operate from. This enables leveraging the computing power of all the PCs appropriately connected via a server which results in reduced runtime by splitting either the products, simulations (e.g., in case of stochastic calculations) or multiple model runs across different processors.

Features like multi-threading are also useful to improve efficiency which comes along with the Enterprise solution (offered by FIS).



Advanced Features

Advanced features within the Prophet allow for complex calculations in an efficient manner. Some of these are discussed below:

The Asset Liability Strategy (ALS) library supports investment decision making. The library provides a mechanism to model assets and liabilities together including complex interactions such as policyholder behaviour (e.g., dynamic lapses) and management actions (such as discretionary dividends, bonuses, or participation rates). It makes the asset liability models more dynamic while:

- Measuring the impact of different investment strategies that include the re-balancing of asset portfolios
- Measuring the value of new business and the impact of acquired portfolios
- Calculating the risk-based capital, including Solvency II and Internal Model
- Performing stochastic calculations to appropriately estimate the time value of options and guarantees, etc.

The ALS library is considered one of the most complex libraries, as it involves extensive code specifically defined in extended formula.

Extended formula are variable types, and these are either already defined in a library (e.g., the ALS library) or can be created to enable specific and more complex calculations than those carried out by the standard Prophet formula.

Examples for use cases of extended formula include the rebasing of guaranteed rates, the isolated calculation of each group of paid-up contracts and the increments in contract benefits.

Extended formula can be set up either as time dependent or non-time dependent given the requirements. It allows additional variables to be defined within the formula when they are not defined elsewhere in the Prophet model. Parameterisation within the extended formula can be used to optimise the model performance.

However, the variables defined within the extended formula are not displayed in the diagram view with associated dependencies and the values stored in the extended formula's internal variables are not visible directly in the model, therefore debugging gets challenging at times.

Stochastic calculations involving multiple simulations can be performed using Prophet. They can be tailored to optimise shareholder and policyholder investment returns by understanding the interaction between bonus rates and future investment performance, to allow for guaranteed annuity rates or to perform insolvency and stress tests to meet the requirements of various capital regimes such as embedded value or Solvency II. Setting up a stochastic run is different to a deterministic run. For example, it requires stochastic tables where assumptions vary by simulations with appropriate configurations for the run structure and settings.

Model Merge

There have been a lot of actuarial model developments recently due to the implementation of IFRS 17 from 1 January 2023 and this was preceded by another wave of developments in Europe around the implementation of Solvency II on 1 January 2016. This has created decentralised models over the period within many organisations.

Maintaining and developing multiple models give rise to inconsistency in input and output, often leading to inefficiency due to duplication of effort, longer runtime, even misinterpretation of results. Maintaining an inefficient modelling architecture can become more challenging, especially if modelling resources are constrained.

One way to address the challenges mentioned above is to consolidate or merge models in order to:

- Standardise pricing, business reporting, business planning and asset liability management processes and enable reporting on more than one basis using a single valuation model
- Avoid the complexity of model depend-

encies which are holding back key modelling decisions

- Easily implement model updates and include essential components that are required in models for all activities

Some of the key aspects to keep in mind while considering activities related to merging Prophet models include:

- Use of comparison logs of libraries across different models
- Use schedule to understand indicators and variable definitions while combining them
- Import variables to the base model
- Adjust indicators and create new indicators and/or variable definitions
- Perform unit tests for each product type, compare premiums, reserves, profit, profit after solvency margin, etc., for all products before and after the merge
- Perform regression tests
- Document the steps taken and develop a change log along with objectives

Additional steps might be needed depending on complexity, time constraints, resistance against change or availability of resources.

Model Migration

In an insurance company with a growing book of business and an expanding product offering, it becomes imperative to have a solution that caters for the needs of the business and to achieve consistency of cashflows enabling better decision making. Most insurers consider criteria relevant for finding a solution that best meets their needs in terms of scalability, flexibility, efficiency, cost, etc.

Insurers might choose to migrate, for example:

- From their existing solution to Prophet (or vice versa)
- To Prophet Managed Cloud Services (PMCS) that provides computing, network, and storage resources, if already using Prophet
- From asset and global libraries to the ALS library within Prophet

Migrating models may result in operational efficiency, help align models across different business units and reduce the number of manual calculations without the loss of prevalent functionalities.

Model Review and Validation

With multiple models used by firms, it has become important for insurers to have their models validated to ensure the accuracy and appropriateness of their design, data, assumptions, methodology, results, and governance. The need is exacerbated with the increased regulatory focus on processes, data quality, models, and governance.

Primary reasons for validating Prophet models include:

- To validate the output from various models, including cashflow testing and to conduct model reviews on embedded value
- To reduce the number of unexplained components of the model output in case of analysis of change
- To compare the model output with benchmark output
- To receive recommendations on end-to-end processes
- To reduce duplication of efforts
- To optimise and improve the performance and efficiency of the models

The validation process involves testing the cashflows by constructing, for example, an Excel spreadsheet for all the products modelled based on documented assumptions. Then, the output of the Excel model is compared to the Prophet model output for a sample of policies and any potential discrepancies in modelling are investigated and documented. Other kinds of validations include back-testing or dynamic validation.

To ensure processes are properly executed and procedures are followed, the appropriate application of model signoffs may also be tested.

Model validation forms part of the Model Governance framework which is discussed below.

Model Governance

A robust framework for model governance is essential to enforce enterprise standards. This includes:

- Documenting coding best practices and standards (e.g., inclusion of code descriptions and objectives, use of input parameters)
- Documentation of model changes including objectives and descriptions of changes along with impact analysis
- Maintenance of testing and production environments
- Incorporating and maintaining a change log including any updates for each version release
- Segregating the model owner and developer while stating clear duties and responsibilities
- Model version control for each release
- Rules around access control
- Adherence to model governance policies and standards is vital for insurance companies to ensure a smooth and reliable operation of the processes.



Conclusion

FIS® Insurance risk suite (formerly, Prophet) offers a comprehensive solution for insurance firms enabling them to carry out actuarial modelling tasks - whether simple or complex - seamlessly. Prophet model developers use applications like DCS for data formatting and features like the diagram view and schedule to understand inter-connection between products and variables in a Prophet workspace.

Advanced features like the ALS library can help measure the impacts of various investment strategies. The use of extended formula and stochastic modelling enables firms to perform complex calculations, simulations, or scenario analyses and to better understand their results to make informed decisions.

Also, with the growing regulatory focus on model accuracy and governance, insurers may need to consider consolidating their models and enable a seamless production environment, especially when facing resource constraints. Firms may consider migrating their actuarial models involving Prophet for a range of benefits - their validation becomes an essential aspect for sound model governance and audit trail.

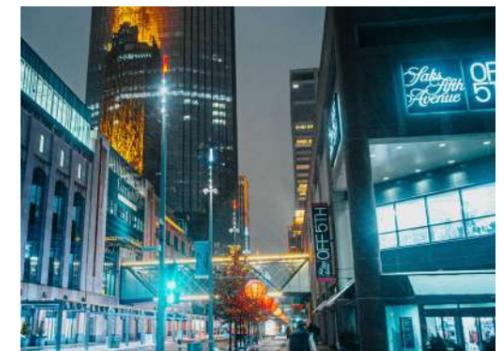
How can Finalyse help?

Finalyse has a dedicated team of actuaries and risk modellers who can provide advice and support for all of your modelling needs involving Prophet and beyond, including:

- Development: we review, enhance, develop, or test models for both reserving and pricing purposes using best practices
- Controls and Processes: we review or help improve the current control environment, governance, change control and documentation
- Identify and resolve pain points: we help identify pain points or modelling challenges and resolve these to improve efficiency



IFRS 17 June 2020 Amendments Overview



Insurance Capital Standard



Solvency II 2020 Review



Asset Management

- p. 58 *Asset Management Regulatory Timeline*
- p. 60 *Supervision*
- p. 61 *Reporting & Disclosure*
- p. 61 *Climate Risk*

Asset Management Regulatory Timeline

2024 Q1

AIFMD

RTS
RTS/Guidelines/Technical
advice based on mandates
from review of AIFMD
Application date: 29 Apr 2024

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

RTS
Deferred Date of Application
for Non-centrally Cleared OTC
Derivatives Which are Single-
Stock Equity Options or Index
Options
Application date: 29 Apr 2024

MiCA

Guidelines
And technical standards
Application date: 29 Apr 2024

IFR

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

MiCAR

Guidelines
EBA guidelines on Stress
Testing under MiCAR
Document release: tbd

2024 Q3

MiCA

Report
On potential ways of regulating
NFTs
Document release: tbd

Regulation
Most of the provisions of MiCA
Application date: tbd



Supervision

Supervision FSB (Report)

Anti-dilution Liquidity Management Tools

The FSB and the IOSCO have jointly published revised policy recommendations and guidance to address vulnerabilities stemming from liquidity mismatch in open-ended funds (OEFs). The recommendations aim to strengthen liquidity management by categorising OEFs based on asset liquidity and setting expectations for redemption terms. The guidance focuses on the effective implementation of anti-dilution Liquidity Management Tools (LMTs) to mitigate investor dilution and address potential risks.

Release Date: 2023-12-20

[P201223-1](#)



Supervision ESMA (Press Release)

On Climate Risk Stress Testing

The ESMA has published an article on climate risk stress testing in the financial sector. The article details a methodology for dynamic modelling of climate-related shocks in the fund sector, considering factors like investor behaviour and portfolio rebalancing. This aligns with ESMA's mandate for climate stress testing.

Release date: 2023-12-19

[ESMA50-524821-3073](#)



Reporting & Disclosure

IFD Commission (Regulation)

Lists of the information on individual data to be disclosed by competent authorities

The Official Journal of the EU has published an Implementing Regulation amending the ITS as regard the content lists of information on individual data to be disclosed by Member State competent authorities. The Investment Firm Directive established templates for the disclosure of information related to the composition of own funds and own funds requirements by type of requirement for certain investment firms. This new amendment extends these disclosure requirements to include small and non-interconnected investment firms.

Release date: 2023-11-20

Application Date: 2023-12-10

[ec.europa.eu](#)



Climate Risk

MiFID II ESMA (Call for Action)

CSA on MiFID II Sustainability Requirements

The ESMA is launching a CSA in collaboration with NCAs in 2024. This action aims to evaluate how financial firms integrate sustainability considerations into their suitability assessment and product governance processes. It focuses on aspects such as collecting information on clients' sustainability preferences, categorizing investment products with sustainability factors, ensuring the suitability of investments in terms of sustainability, and specifying sustainability-related objectives in the target market assessment.

Release date: 2023-10-03

[esma.europa.eu](#)



AIFMD/UCITS Commission (RTS)

Legislation on cross-border notifications under AIFMD and UCITS Directive

The European Commission has adopted a draft legislation concerning cross-border notifications under the UCITS Directive and the AIFMD. The legislation includes implementing and delegated acts, covering the cross-border marketing and management of AIFs and undertakings for collective investment in transferable securities (UCITS). The draft legislation, based on a final report by the European Securities and Markets Authority in December 2022, involves regulations and standards specifying the information to be notified in relation to cross-border activities.

Release date: 2023-12-15

[C\(2023\)8703](#)



MiFID/MiFIR ESMA (Report)

Q&As on MiFID and MiFIR

The ESMA has released updated Q&As related to transparency aspects of MiFID II and MiFIR. Notably, Section 5, topic 12, which pertained to the minimum size of orders held in an order management facility for non-equity financial instruments, was removed from the Q&As.

Release date: 2023-10-30

[ESMA70-1562901-35](#)





Cross-sector

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Cross-sector Regulatory Timeline

2024 Q1

Sustainable Finance

Delegated Regulation
The EU Taxonomy Delegated Acts are expected to apply
Application date: Jan 2024

Securitisation Framework

Report
JC Report on the implementation and the functioning of SECR under Article 44 of the SECR
Document release: tbd

Report

Guidelines on ESG risk management (pending CRR III deadline)

Document release: tbd

Securitisation Framework

Report
JC Report on the implementation and the functioning of the Securitisation Regulation

Document release: tbd

2024 Q2

Sustainable Finance

Report
Call for Advice (CfA) on greenwashing - final report
Document release: tbd

Report

Joint ESAs Opinion on the review of the SFDR
Document release: tbd

Securitisation Framework

Report
Final report on greenwashing to the EC
Document release: tbd

2024 Q4

Sustainable Finance

Report
Pillar I report on sustainable Finance

Document release: tbd

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

2024 Q3

Sustainable Finance

Report
Annual report under Article 18 SFDR
Document release: tbd

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 (Report)

Policy Recommendations for Crypto and Digital Asset Markets

The IOSCO has released its Final Report with Policy Recommendations for Crypto and Digital Asset (CDA) Markets. The report addresses the risks associated with centralized crypto asset service providers (CASPs) and emphasizes the need for a coordinated global regulatory response. The recommendations, aligned with IOSCO Objectives and Principles for Securities Regulation, focus on six key areas including conflicts of interest, market manipulation, custody protection, cross-border risks, operational and technological risk, and retail distribution.

Release date: 2023-11-16

[IOSCOPD747](#)



CSDR

Parliament (Regulation)

Amendments to the CSDR

The European Parliament has released the adopted text of a proposed Regulation that seeks to amend the CSDR as regard settlement discipline, cross-border service provision, supervisory cooperation, banking-type ancillary services, and requirements for third-country central securities depositories.

Release date: 2023-11-10

[P9_TA\(2023\)0389](#)



Supervision

CSRD

ESMA (Consultation Paper)

On draft Guidelines for Supervision of Corporate Sustainability

The ESMA has initiated a consultation on draft Guidelines for the supervision of corporate sustainability information. The guidelines aim to ensure consistent and robust supervision by national competent authorities of listed companies' sustainability information, as per the CSRD and the European Sustainability Reporting Standards. The goal is to establish coherence and equal rigor in the oversight of both sustainability and financial information, facilitating improved connectivity between the two reporting types.

Release Date: 2023-12-15

Consultation End: 2024-03-14

[esma.europa.eu](#)



Reporting & Disclosure

EMIR

ESAs (RTS)

Bilateral Margining of Equity Options

The ESAs have proposed a two-year extension to the equity option exemption from bilateral margining under EMIR. They issued joint draft RTS providing clarity to market participants on handling equity options after the current temporary exemption expired on January 4, 2024. This proposal and a no-action opinion aim to address the ongoing EMIR Review negotiations.

Release Date: 2023-12-20

[ESA 2023 33](#)



EMIR

ESMA (Recommendation)

Extension of Emergency measures on CCP Collateral Requirements

The ESMA has published a final report recommending a six-month extension of emergency measures regarding collateral requirements for CCPs. These measures allow uncollateralized bank guarantees for non-financial clearing members and public guarantees for all types of counterparties to remain temporarily eligible by CCPs, aiming to prevent potential disruptions during the upcoming cold season.

Release date: 2023-10-13

[ESMA91-1505572268-3317](#)



Supervision

ESMA (Press Release)

Greenwashing Controversies

The ESMA has published an article addressing the financial impact of greenwashing controversies. The article discusses how data on ESG controversies can help monitor reputational risks related to greenwashing, emphasizing the challenges in using such data. The analysis stresses the importance of addressing greenwashing risks to maintain trust in the transition to a low-carbon economy.

Release date: 2023-12-19

[ESMA50-524821-3072](#)



Reporting & Disclosure

EMIR

ESAs (RTS)

Draft RTS extending equity option exemption

The ESAs have published a proposed RTS under EMIR suggesting a two-year extension to the exemption for equity options from bilateral margining. The current exemption expired on January 4, 2024, and the draft RTS aims to extend it until January 4, 2026. The ESAs have issued a no-action opinion, advising competent authorities not to prioritise supervisory or enforcement actions related to bilateral margining requirements from January 4, 2024, until the proposed extension is either enforced or rejected, or a long-term solution is adopted in the context of EMIR revision.

Release date: 2023-12-18

[ESA 2023 33](#)



MiFIR

Commission (Consultation)

Transparency in OTC derivatives transactions

The European Commission has released a targeted consultation document on selecting a unique product identifier for public transparency in over-the-counter (OTC) derivatives transactions. This is part of the provisional agreement on the reform of the MiFIR, aiming to enhance transparency reporting for OTC derivatives. The document seeks input on the most suitable unique product identifier and the need for additional identifying reference data.

Release Date: 2023-12-29

Application Date: 2024-01-09

[ec.europa.eu](#)



Climate Risk

CSRD Commission (Regulation)

European Sustainability Reporting Standards

The Official Journal of the EU has published a Delegated Regulation introducing the first European Sustainability Reporting Standards (ESRS). These standards outline the information that companies, including large and small/medium-sized entities with securities on EU markets, must report under the amended Accounting Directive and the CSD. The ESRS cover cross-cutting standards, environmental disclosures, social disclosures, and governance.

Release date: 2023-12-23
Application date: 2024-01-01

[\(EU\) 2023/2772](#)



Taxonomy Regulation Commission (Report)

EU Taxonomy-Aligning Benchmarks Report

The European Commission's Platform on Sustainable Finance has published a draft report proposing EU taxonomy-aligning benchmarks. These benchmarks aim to play a crucial role in influencing climate and environmental benchmarks, following the success of EU Paris aligned benchmarks (EU PABs). The report suggests benchmarks with and without exclusions, emphasizing environmentally sustainable capital expenditure trajectories and decarbonisation.

Release date: 2023-12-13

finance.ec.europa.eu



Climate Risk ESMA (Supervisory Statement)

ESG disclosures for Benchmarks Administrators

The ESMA is set to initiate a CSA with NCAs on ESG disclosures for Benchmarks Administrators. This marks the ESMA's first CSA in its role as a direct supervisor of Benchmarks Administrators. The CSA aims to assess compliance with ESG disclosure requirements under the Benchmarks Regulation (BMR) and will focus on various aspects, including the disclosure of ESG factors in benchmarks statements and methodologies, as well as specific requirements for climate benchmarks.

Release date: 2023-12-13

esma.europa.eu



Climate Risk NGFS (Technical Document)

Recommendations for developing scenarios for Nature-related Risks

The NGFS has published a Technical Document with recommendations for developing scenarios to assess economic and financial risks related to nature. Based on an extensive literature review and external expert input, the document serves as a foundation for future development of nature-related scenarios. It is part of NGFS' efforts to integrate the consideration of nature-related risks into the work of central banks and financial supervisors.

Release date: 2023-12-13

ngfs.net



Climate Risk

SFDR ESAs (Report)

RTS on the review of PAI and financial product disclosures in the SFDR

The ESAs have released their Final Report proposing amendments to the draft RTS for the SFDR. The proposed changes include introducing new social indicators, enhancing disclosure on the adverse impacts of investment decisions, and suggesting new product disclosures related to greenhouse gas emissions reduction targets. The report also outlines technical revisions, such as improvements to disclosures on sustainable investments' environmental and social impacts, simplification of disclosure templates, and adjustments regarding derivatives and sustainable investment calculations.

Release date: 2023-12-14

[JC 2023 55](#)

Climate Risk ESAs (Report)

Tips to consumers on Sustainable Finance

The ESAs have published an interactive factsheet to address consumers' common queries about sustainable finance. The document offers tips for individuals considering financial products with sustainability features, such as loans, investments, insurances, and pensions. It includes answers to frequently asked questions and suggests steps for consumers to understand how their financial choices can contribute to a more sustainable future.

Release date: 2023-11-30

[EBA, EIOPA, ESMA, 2023](#)

Supervision IOSCO (Consultation Paper)

Promotion of the integrity of the VCMs

The IOSCO has published a Consultation Report aimed at promoting the integrity and orderly functioning of Voluntary Carbon Markets (VCMs). The report includes a set of Good Practices for stakeholders to consider. The proposed Good Practices build on earlier considerations and feedback, aiming to establish a foundation for the growth of VCMs. The IOSCO stresses the need for fair, efficient and transparent markets, protecting investors and supporting market growth.

Release Date: 2023-12-03
Consultation End: 2024-03-03

[CR/06/23](#)



Supervision NGFS (Technical Document)

Sustainability Training Reference Guide

The NGFS has released the "Sustainability Training Reference Guide" (STaR Guide), aimed at assisting central banks and financial supervisors in establishing in-house capacity building programmes on climate-related and environmental knowledge. The guide consolidates the collective experience of NGFS members, observers and stakeholders, offering recommendations for effective capacity building strategies on climate-related and environmental risks.

Release date: 2023-11-23

ngfs.net



Climate Risk

SFDR ESMA (Technical Guide)

Explanatory Notes on Key Topics of the Sustainable Finance Framework

The ESMA has published three explanatory notes focusing on essential aspects of the Sustainable Finance framework. These notes provide descriptive information on key topics such as the definition of sustainable investments in relation to the Sustainable Finance Disclosure Regulation (SFDR) and the Taxonomy Regulation, the application of the Do No Significant Harm (DNSH) requirements embedded in various Sustainable finance legislations, and the handling of estimates and equivalent information in complying with mandatory ESG metrics for regulated entities.

Release date: 2023-11-22

[ESMA30-379-2281](#)



Taxonomy Regulation Commission (Regulation)

Economic activities Substantially contributing to Sustainability

The official Journal of the EU has published a delegated regulation that supplements the Taxonomy Regulation by establishing technical screening criteria for determining when an economic activity contributes substantially to sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, or protection and restoration of biodiversity and ecosystems. It also amends the Commission Delegated Regulation (EU) 2021/2178 regarding specific public disclosures for these economic activities.

Release date: 2023-11-21

Application date: 2023-12-11

[\(EU\) 2023/2486](#)



Climate Risk

EuGB Council (Regulation)

Council has Adopted the EuGB

The European Council has adopted the regulation establishing a European green bond standard. This standard defines criteria for bonds labeled as 'European green bonds' (EuGB), ensuring they fund environmentally-sustainable projects in line with the EU's sustainable activities guidelines. The regulation aims to enhance transparency and trust in the green bond market, reducing the risk of greenwashing and attracting investments into eco-friendly projects. It also introduces a registration system for external reviewers and voluntary disclosure requirements for other environmentally-sustainable bonds issued in the EU.

Release date: 2023-10-23

[consilium.europa.eu](#)



Climate Risk FSB (Report)

TCFD 2023 Status Report

The FSB has published the TCFD 2023 Status Report that discusses companies' progress in making climate-related financial disclosures and the challenges they face in incorporating climate-related risks into their financial statements. The report also highlights asset managers' and asset owners' TCFD-aligned reporting practices and significant actions by governments, regulators, and standard setters related to TCFD recommendations. Among others, findings include the growth in companies disclosing TCFD-aligned information, increased reporting on climate-related risks, and a majority of jurisdictions specifying climate-related disclosures in financial filings.

Release date: 2023-10-12

[P121023-2](#)



Taxonomy Regulation Commission (Regulation)

Economic activities substantially contributing to Climate change Mitigation

The Official Journal of the EU has published a Commission Delegated Regulation. It amends another Delegated Regulation pursuant to the Taxonomy Regulation as regards additional technical screening criteria for determining the conditions under which certain economic activities qualify as contributing substantially to climate change mitigation or climate change adaptation and for determining whether those activities cause no significant harm to any of the other environmental objectives.

Release date: 2023-11-21

Application date: 2024-01-01

[\(EU\) 2023/2485](#)



Climate Risk ESMA (Report)

Disclosures of Climate-Related Matters in the Financial Statements

The ESMA has published a report designed to help European non-financial corporate issuers improve the disclosure of climate-related information in their financial statements prepared in line with the IFRS. The report specifically examines climate-related disclosures in the 2022 annual financial statements of European non-financial corporate issuers. It provides illustrative examples and guidance for issuers, their management, supervisory boards, and audit committees on how to assess and disclose the impact of climate-related matters on their financial statements.

Release date: 2023-10-25

[ESMA32-1283113657-1041](#)



Climate FSB (Report)

Annual Progress report on climate-related disclosures

The FSB has published its annual progress report on climate-related disclosures. The report highlights significant progress in climate disclosures, including the adoption of the ISSB Standards, which provide a global framework for sustainability disclosures and mentions advancements in developing a global assurance, ethics, and independence framework for sustainability disclosures. The report highlights the importance of global comparability in climate-related disclosures and mentions efforts by international bodies to enhance assurance standards to deter "greenwashing."

Release date: 2023-10-10

[P121023-1](#)



BRRD Commission (RTS)

RTS for the calculation of eligible liabilities and the transitional regime

The European Commission has published a Delegated Regulation amending the Regulation (EU) 2015/63. The amendments focus on the definition of "eligible liabilities" and the calculation of the minimum requirement for own funds and eligible liabilities (MREL) in alignment with the BRRD. Notably, the regulation extends the period for smaller institutions to contribute a lump-sum to national resolution funds until December 31, 2024. The regulation retroactively applies certain provisions from December 1, 2023.

Release date: 2023-12-13

[C\(2023\)8602](#)



Supervision ESMA (Report)

EU CLO credit ratings

The ESMA has published a report on credit ratings for Collateralised Loan Obligations (CLO). The report identifies potential conflicts of interest risks in the dialogue between Credit Rating Agencies (CRAs) and market participants from 2017 to 2021. The ESMA found that in the CLO market, arrangers, managers and investors have a significant role in choosing CRAs for deals, and there is a risk of undue influence on CLO methodologies. The report calls for safeguarding and clearly communicating the boundaries of analytical outreach to prevent conflicts of interest.

Release date: 2023-12-07

[ESMA80-189-33520](#)



Supervision FSB (Report)

Enhancing third-party risk management and Oversight

The FSB has published a toolkit aimed at improving third-party risk management and oversight for financial institutions and authorities. Developed in response to concerns about risks arising from outsourcing and third-party relationships, the toolkit focuses on critical third-party services, emphasizing their potential impact on financial institutions' operations and stability.

Release date: 2023-12-04

[esma.europa.eu](#)



CRR ESAs (RTS)

Mapping of External Credit Assessment Institutions

The Joint Committee of the ESAs has released amended Implementing Technical Standards related to the mapping of credit assessments by ECAs. These amendments, resulting from a monitoring exercise, involve changes in credit quality step allocation for four ECAs and the introduction of new or modified credit rating scales for seven ECAs. The ESAs have also provided individual draft mapping reports to illustrate the methodology applied, aligning with the CRR mandate.

Release date: 2023-11-13

[JC 2023 050](#)



MiCAR EBA (Consultation Paper)

Consultation on GL and RTS under MiCAR

The EBA has initiated consultations on draft RTS related to liquidity requirements and guidelines for liquidity stress testing for issuers of tokens under MiCAR regulations. The RTS cover aspects such as reserve asset maturity, liquidity management, and minimum deposits with credit institutions. The guidelines outline the parameters for stress testing scenarios. These consultations are part of the MiCAR prudential package and are open for feedback until February 8, 2024.

Release Date: 2023-11-08

Consultation End: 2024-02-08

[EBA/CP/2023/24](#)



Market Environment

Securitisation Framework Commission (RTS)

Specifying the performance-related triggers and the Criteria for the Calibration of those Triggers

The European Commission has published a Commission Delegated Regulation supplementing the Securitisation Regulation with RTS specifying performance-related triggers and criteria for their calibration. The RTS outlines mandatory triggers, including backward-looking and forward-looking triggers, along with criteria for setting their levels by securitization parties.

Release date: 2023-12-13

[C\(2023\)8579](#)



EMIR Commission (RTS)

Extension of temporary emergency measures on CCP collateral requirements

The European Commission has published a Delegated Regulation amending certain aspects of the RTS in the Delegated Regulation related to CCPs under EMIR. The changes involve extending the temporary allowance for the use of public guarantees and uncollateralised or partially collateralised bank guarantees specified in Annex I. These modifications are temporary, with a six-month duration after the Delegated Regulation comes into effect. The decision follows a final report by ESMA in October 2023 recommending a limited extension of emergency measures on CCP collateral requirements.

Release date: 2023-11-28

[C\(2023\)8114](#)



CRA Regulation ESMA (Report)

CRA Market Share Calculation

The ESMA has published a report in accordance with CRA regulation requirements for setting out a list of registered CRAs and the types of credit ratings they issue, together with a calculation of CRA's revenues from credit rating activities and ancillary services at group level.

Release date: 2023-12-20

esma.europa.eu



MMF Regulation ESMA (Report)

Guidelines on Stress Test Scenarios

The ESMA has published a report on stress test scenarios under the MMFR. The report includes updates to the methodology for implementing scenarios related to changes in liquidity levels and the annual calibration of risk parameters. Notably, the revised methodology incorporates parameters reflecting liquidity stress and introduces a new risk factor simulating the impact of asset sales under stressed market conditions. The 2023 update considers systemic risks in the financial system amid prolonged low growth, elevated inflation, and higher interest rates.

Release date: 2023-12-19

[ESMA50-43599798-9011](https://esma.europa.eu/press-material/press-news/press-news-item/esma50-43599798-9011)



ELTIF ESMA (RTS)

Revised ELTIF Regulation

The ESMA has finalised draft RTS for the ELTIF regulation. These standards cover various aspects, including the compatibility of an ELTIF's life with individual assets, the use of a matching mechanism for transfer requests, and costs disclosure. The ESMA's report outlines specific rules related to minimum holding periods, maximum redemption frequency, choice of liquidity management tools, notice periods, and maximum percentages of liquid assets that can be redeemed. The proposed standards strike a balance between prescribing rules and allowing ELTIF managers some flexibility under specific circumstances.

Release date: 2023-12-19

[ESMA34-1300023242-159](https://esma.europa.eu/press-material/press-news/press-news-item/esma34-1300023242-159)



Benchmarks Regulation Council (Press Release)

Negotiation on Benchmarks Regulation

The Council has announced that it has approved its negotiating mandate on benchmarks regulation, addressing the use of benchmarks in the EU from third countries, reporting requirements, and the scope of rules. The proposal aims to ease regulations on non-significant benchmarks in the EU, simplifying the approach to non-EU benchmarks. It also tailors regulatory treatment for commodity benchmarks based on their characteristics, with only critical, significant, EU Paris-aligned, and certain commodity benchmarks remaining under regulation.

Release Date: 2023-12-20

consilium.europa.eu



IFRS IASB (Consultation Paper)

On IAS 32 and IFRS 7

The IASB has published a consultation paper proposing amendments to address the challenges in companies' financial reporting on instruments that have both debt and equity features. The propositions include clarification of classification principles, enhanced disclosure requirements and new presentation requirements.

Release Date: 2023-11-29

Consultation End: 2024-03-29

[IASB/ED/2023/5](https://iasb.org/ED/2023/5)



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