Banking Supervision Department
Policy and Regulation Division

Jerusalem, August 21, 2024

**FAQ 525**

Attn:

**Banking Corporations and Payment Service Providers with Prudential Importance**

**Re: Frequently Asked Questions about the Implementation of Proper Conduct of Banking Business Directive no. 369, "Management of Model Risk"**

1. This file gathers various stances on the application of Proper Conduct of Banking Business Directive no. 369, "Management of Model Risk." It is not an exhaustive list of the Banking Supervision Department's stances on issues that arose as the Directive was being implemented or of other issues that may come up in applying the Directive.
2. The answers presented in this file reflect the Supervisor of Banks' stance and binding interpretation of the Directive. In the future, the possibility of incorporating some of the answers into the Directive will be considered.
3. The date on which each answer was given or most recently updated appears next to the answer.
4. This document is posted on the Bank of Israel website and updated by the Bank of Israel from time to time.

Respectfully,

Revital Keisar-Stoya
Deputy Supervisor of Banks

cc. Supervisor of Banks

# Frequently Asked Questions—Management of Model Risk

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| **Chapter B—Model and Model Risks** | | |
| **Question 1:** | **According to Section 9 of the Directive, the term "model" denotes a quantitative method that applies statistical, economic, financial, or mathematical theories, techniques, and assumptions to process input data into output. That is, the term "model" is not limited solely to cases which the output is essentially quantitative. Given this broad definition, does it make any quantitative method that processes data into output a model?** | |
| **Answer:** | The definition that appears in the Directive reflects an up-to-date conceptualization of the way a "model" should be defined in banks' management of model risks. The definition pertains mainly to a quantitative method and, therefore, the scope of the Directive also includes tools that deliver qualitative outcomes (for example, but not limited to, systems that provide recommendations in areas of consumer services and AI tools that give qualitative output). Thus, the definition ensures that these tools, too, will be managed under the principles of the directive. This is done in view of the growing complexity of the tools, including tools that give qualitative outcomes, and their use. However, not every computation, processing, or quantitative tool is a model. The Banking corporation should specify in its policies when a quantitative method meets its definition of a model and when a calculation, or other calculation tool, is not a model, and should subject its policy on this matter to periodic review. | August 21, 2024 |
| **Question 2:** | **In Section 12, what tools may exist for the evaluation of model risks?** | |
| **Answer:** | As a rule, banking corporation should use accepted practices for the detection and evaluation of model risks.<br>Model-risk evaluation includes, among other things, classification and mapping of models in accordance with materiality and risk tiering. | August 21, 2024 |

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| | Classification of models by tiering may take place, for example, by means of decision trees or scorecards and may be accompanied by establishing risk-management measures (e.g., validation frequency) for each tier.<br>Relevant parameters for quantification of model risk level may include, *inter alia*, scorecard scores, findings of the validation process, compliance with requisite validation frequency, number of bypasses in use, status of treatment of defects, financial impact of model outcomes, extent of potential damage in case of model error or misuse, and so on.<br>In evaluating aggregate model risk, one of the useful tools is mapping of links among models—for example, a common element in one vector (assumptions, data, methodology, etc.) and, in a second vector, the models affected or, in other cases, mapping of models that nourish each other. | |
| **Question 3:** | **In Section 12, what is the correct use of conservatism in a model?** | |
| **Answer:** | Conservatism should not be applied in a way that impairs the accuracy of a model or the estimates that it generates. That is to say, the model should be "correct." However, conservatism may be used as a tool for coping with model risk, for example, by adjusting the outcomes of the model. As stated in the Directive, whenever conservatism is used, it is important to report this and bring it to the knowledge of senior management and users of the model. See also Sections 56 and 57 of the Directive in this context. | August 21, 2024 |
| **Chapter C— Corporate Governance, Policies, and Controls** | | |
| **Question 1:** | **In Section 30 (Model Inventory), what does the expression "[models] that were recently used and discontinued" mean?** | |
| **Answer:** | A banking corporation shall define in its policy the models for which it should retain information even though they have been discontinued, provided, at the very least, that information about models that were discontinued in the course of the previous three years be retained in its model inventory. | August 21, 2024 |
| **Chapter E—Model Validation** | | |
| **Question 1:** | **Is model validation a one-off process or an ongoing one?** | |
| **Answer:** | Validation, as stated in the Directive, is **the totality of processes and actions** that are meant to make sure the models function as expected. | August 21, 2024 |

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| | Model validation includes both initial validation, conducted before the model is placed in use, and ongoing validation operations, which are included in Chapter E of the Directive.<br>Ongoing validation operations include actions taken on a current basis (e.g., ongoing monitoring) and those likely to be carried out periodically. Banking corporations should determine the mix of ongoing and periodic validation elements for each model in accordance with the nature and riskiness of the model. Banking corporations should also set a maximum amount of time for each model, during which all ongoing validation operations (of relevance to the model in question) should be performed.<br>The validation operations themselves could signal the need for further validation operations, updates of ongoing validation operations, etc.<br>Without derogating from the foregoing, insofar as the model in question is material to the banking corporation, it is recommended that a full and comprehensive validation of the model be performed in a manner similar to the initial validation, at a frequency that the banking corporation shall determine. | |
| **Question 2** | **Which additional mechanisms should be used in a supplier model validation process?** | |
| **Answer:** | As indicated in Proper Conduct of Banking Business Directive no. 359A, a banking corporation is expected to work with model suppliers that comply with accepted standards in the field, where relevant.<br>In addition, and in the context of supplier model validation as required under Section 93, the banking corporation’s agreement with the supplier of the model should specify clearly which components of the model “belong” to the banking corporation and which “belong” to the supplier. | August 21, 2024 |
| **General** | | |
| **Question 1:** | **Now that the model-risk management directive has been established, how should the requirement in Section 15 of Proper Conduct of Banking Business Directive no. 314—“Sound Credit Risk Assessment and Valuation for Loans”—be interpreted for the purpose of effective procedures for validation of credit-risk assessment models?** | |

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| **Answer:** | The model-risk management directive is a “primary directive” for model-risk management. Emphases concerning model validation in directives that relate to the management of a specific risk will remain in effect alongside this directive, and such will be the case in reference to Proper Conduct of Banking Business Directive no. 314 as well. | August 21, 2024 |