Brussels, 11th February 2022

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EACB comments on
EBA Discussion Paper on Machine Learning for IRB Models
(EBA/DP/2021/04)

General comments

The EACB welcomes the opportunity to comment on the EBA Discussion Paper on Machine Learning for IRB Models.

We appreciate the stance of the EBA in clarifying that the term machine learning (ML) mainly refers to the more complex ML models and that statistical regression methods do not fall under this term. However, in order not to curtail the further development of statistical methods into ML methods, we recommend caution in developing the recommendations and we suggest that these should not come too early so that banks would still have time to further elaborate their applications.

We also recommend keeping a proportionate approach in order to avoid stifling innovation while ensuring overall coherence of supervisory expectations and the regulatory framework, in light of the different pieces of legislation and incentives that would have to be considered (CRR-CRD framework and artificial intelligence – AI – developments) and the overarching policy objective to make the EU a leader in the field of AI.

Answers to selected questions

Q1: Do you currently use or plan to use ML models in the context of IRB in your institution? If yes, please specify and answer questions 1.1, 1.2, 1.3. 1.4; if no, are there specific reasons not to use ML models? Please specify (e.g. too costly, interpretability concerns, certain regulatory requirements, etc.).

Some members reported that, at present, complex ML models are still rarely used to assess credit risk because sufficient data are available for existing portfolios. The predictive power of the PD based on statistical regression methods is excellent. However, new applications for various purposes are being considered.

Q8: What are the specific challenges you see regarding the development, maintenance and control of ML models in the IRB context, e.g., when verifying the correct implementation of internal rating and risk parameters in IT systems, when monitoring the correct functioning of the models or when integrating control models for identifying possible incidences?

A challenge is posed by the shorter re-calibration cycles and extended testing activities to monitor the functionality of the ML models. Both of those entail a higher use of working time.

It is important to build up expertise in ML methods and techniques to ensure that the tools used to develop, maintain, and control the resulting model are adequate and well understood.

Q11: Do you see any challenges in using ML in the context of IRB models stemming from the AI act?

EACB AISBL – Secretariat • Rue de l'Industrie 26-38 • B-1040 Brussels
Tel: (+32 2) 230 11 24 • Fax (+32 2) 230 06 49 • Enterprise 0896.081.149 • lobbying register 4172526951-19
www.eacb.coop • e-mail : secretariat@eacb.coop

According to the Commission's draft AI regulation, ML procedures are potentially categorized as high-risk applications in the context of the IRBA. At this stage, the regulatory proposal would not encourage the adoption of an ML model for regulatory capital adequacy purposes.

At the same time, given the ongoing review of the CRR-CRD to implement the remaining set of Basel reforms and after the EBA work on IRB repair and the ECB TRIM, the question is really also about the timing to invest in ML for IRB. We believe that the work done on models in the EU should have restored trust in IRB, and it is important that this is not eroded. Banks should not have to face once more sunk costs after having heavily invested to adjust their IRB.

In fact, discussions are still ongoing on the extent to which IRB models would be allowed for certain portfolios. We see that ML could also play an information/fact finding role than actual regulatory use, and institutions could use ML to improve LGD models, or using ML in a modular way but to do so regulatory certainty is needed.

Q17: Do you have any concern related to the principle-based recommendations?

In principle, attention should be paid to the explainability of the risk metrics (PDs, LGDs) using the ML model during development, production, and validation.

Banks have to ensure the ongoing monitoring of (ML) models. The existing regulatory framework and model approval processes are sufficient for this, so that an extension is not necessary.

Contact:

For further information or questions on this paper, please contact:

- Mr. Volker Heegemann, Head of Department (v.heegemann@eacb.coop)
- Mr. Marco Mancino, Deputy head of Department, Banking Regulation (m.mancino@eacb.coop)