

Model Risk & AI Governance Policy for Credit Underwriting

1. Purpose

This policy defines how machine learning models and AI systems are governed when used in consumer credit underwriting and Credit Quality Assurance (QA). Its objective is to ensure that all model-driven decisions are explainable, compliant, fair, and safe for customers and the bank.

2. Scope

This policy applies to:

- Probability of Default (PD) models
- Calibration models
- Risk banding logic
- QA flagging systems
- Decision engines
- RAG-based explanation tools

These components together form the bank's AI-assisted underwriting platform.

3. Model Components

The credit decision system consists of:

Component	Purpose
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PD Model	Estimates probability of default
Calibration	Aligns PD to observed default rates
Risk Bands	Converts PD into risk segments
Policy Rules	Enforce credit limits
QA Flags	Identify high-risk features
SHAP	Explain model predictions
RAG	Explain decisions using policy documents

No single component may operate in isolation.

4. Use of AI in Credit Decisions

AI is used strictly as a **decision support tool**.

Final responsibility for credit decisions remains with human underwriters and QA officers.

Automated decisions must be:

- Explainable
 - Audit able
 - Consistent with policy
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5. Calibration and Validation

All PD models must be:

- Calibrated using independent validation data
- Evaluated using Brier Score and calibration curves
- Re-calibrated periodically

This ensures PD values reflect real-world risk.

6. Explainability Requirements

For every credit decision, the system must provide:

- SHAP feature contributions
- QA flags
- Policy references
- PD and risk band

These explanations must be available to QA, compliance, and regulators.