

# Risk Management & Monitoring Framework (V3.0 - Post-Deployment)

This framework defines how to monitor the new **Strategic Filtering** approach and the required checkpoints for early intervention, ensuring the V3.0 model's performance sustains profitability.

## 1. Key Performance Indicators (KPIs)

Track monthly/weekly to evaluate portfolio performance and the health of the filtering strategy.

Metric	Frequency	Benchmark	Purpose
Net Present Value (NPV) Trend	Quarterly	Must trend toward <b>\$0+</b>	Ensures long-term investment viability is achieved post-filtering.
Effective Portfolio Yield	Monthly	Must exceed Default Rate $\times$ LGD	Confirms risk-based pricing adequately absorbs expected losses (especially for Segment 2).
Segment 0 Rejection Rate	Weekly	Stable around <b>40%</b>	Tracks the volume lost due to the hard cut-off. Major shifts suggest application behavior change.
Segment 0 Default Rate	Monthly	Stable near <b>86.1%</b>	Tracks the performance of the rejected segment (via test samples) to validate filter necessity.

## 2. Early Warning Indicators (EWIs)

These indicators reveal drift in assumptions or adverse market shifts that could impact the profitable Segment 1 or the priced Segment 2.

Indicator	Signal	Action Trigger	Action
<b>Segment 1 Default Creep</b>	Segment 1 defaults exceed <b>38%</b>	for two months	<b>Strategy Review:</b> Investigate why the core profitable segment is deteriorating.
<b>Segment 2 Default Creep</b>	Segment 2 defaults exceed <b>68%</b>	for two months	<b>Filter Tightening:</b> Review Segment 2 criteria; apply restrictive limits/tighter cut-offs.
<b>Traditional Driver Shift</b>	Mean of <b>Max Days in Arrears</b> or <b>Utilization</b> shifts	> 1.5 SD (30-day window)	<b>Model Review:</b> Investigate market drift or changes in borrower reporting/behavior.
<b>Filter Over-Rejection</b>	Rejection Rate rises > <b>5%</b>	above 40% (e.g., 45%+)	<b>Business Review:</b> Investigate why too many applicants are suddenly falling into Segment 0.

## 3. Model Governance & Maintenance (Post V3.0 Success)

The V3.0 Logistic Regression model (AUC 0.8820) has already met and exceeded the original performance targets. The focus now shifts to stability and governance.

- **Model Status: V3.0 Logistic Regression is the live Champion Model.**
- **Drift Monitoring:** Continuous monitoring of feature importance and AUC to detect performance degradation over time.

- **Retention Strategy:** Focus development resources on building a dedicated **Retention Score** for Segment 1 to maximize lifetime value now that losses are contained.