# **Cut-off Setting & Strategy in Credit Risk Scorecards**

## **1. What Is a Cut-off in Credit Risk Scorecards?**

**In a credit scorecard, every applicant is assigned a score based on how risky they are. Higher score → lower risk; Lower score → higher risk.  
  
The cut-off is the score threshold that separates 'good' customers (approved) from 'bad' ones (rejected).  
  
Example:  
If your scorecard ranges from 300–900, a bank may decide cut-off = 620.  
- Applicants scoring ≥ 620 → Approved  
- Applicants scoring < 620 → Rejected**

## **2. Why Cut-off Setting Is Important**

**Choosing the right cut-off is a business-critical decision. It affects:  
- Approval Rate (how many customers are accepted)  
- Default Rate (how many go bad later)  
- Profitability (interest income vs. credit loss)  
  
So, cut-off optimization balances growth and risk.**

## **3. How Banks Set Cut-offs**

**(a) Statistical Approach:  
Using model metrics like KS (Kolmogorov–Smirnov) and Gini/AUC. Banks look for the score where 'good vs bad' separation is most distinct.  
  
(b) Business Strategy Approach:  
Based on goals — maximize approvals while keeping default below a threshold.  
  
(c) Expected Loss Optimization:  
Expected Loss = PD × LGD × EAD — test various cut-offs to minimize expected loss while keeping portfolio profitable.**

## **4. Cut-off Strategy Types**

**Single Cut-off: One threshold for approve/reject.  
Tiered Cut-offs: Different score bands for actions (Reject, Manual Review, Auto Approve).  
Dynamic Cut-off: Adjusted periodically based on delinquency or economy.  
Segment-wise Cut-off: Different by product type or customer segment.**

## **5. How to Validate Cut-offs**

**After deployment, validate whether:  
- Cut-off maintains target default rate  
- Actual vs predicted risk is aligned  
- PSI (Population Stability Index) remains stable  
  
If not, recalibrate cut-offs using updated data.**

## **6. Example**

**Score Range | Decision | Default Rate  
------------ | ---------- | -------------  
700+ | Auto Approve | 1%  
650–699 | Manual Review | 4%  
<650 | Reject | 10%  
  
Effective cut-off = 650 ensures balance between volume and loss.**

## **7. Key Takeaways**

**✅ Cut-off = decision threshold balancing risk vs reward  
✅ Determined using KS, Gini, PD, and business constraints  
✅ Should be reviewed periodically  
✅ Central to Credit Policy and Risk Appetite Framework**