

RegX³ ODFI Portfolio Scoring™: Continuous Telemetry, Appendix Ten Early Warning Systems & NACHA Compliance Architecture

Real-time portfolio return rate telemetry, mathematical health scoring, and FDIC/OCC examiner audit automation.

Target Audience: ODFI Bank Risk Committees, Chief Risk Officers, Bank Boards

Publication: Q1 2026 Executive Series

Scope: NACHA Appendix Ten/Fifteen & OCC 2023-17 / FDIC

Classification: Institutional Risk Management Architecture

Executive Summary: The Mom-Test Breakdown

Regional banks face severe fines and potential suspension of FedACH privileges if sponsored originators exceed NACHA's 0.50% unauthorized return limit. RegX³ continuously monitors originators in real time, firing Early Warning alerts at 0.35% so risk officers can act 15 basis points ahead of regulatory enforcement.

Under federal banking standards (OCC 2023-17 Interagency Third-Party Guidance and FDIC Supervisory Guidance), an ODFI cannot rely on quarterly rear-view reporting. When an originator breaches NACHA's 50 bps limit, NACHA Appendix Fifteen mandates formal reporting, fines up to \$10,000/month, and mandatory remediation plans. RegX³ provides the Bank Board and Chief Risk Officer with continuous, real-time portfolio telemetry and 1-click examiner-ready audit packs—shifting compliance from reactive scrambling to proactive assurance.

NACHA Appendix Ten Return Code Telemetry

Return Code	Statutory Description	NACHA Threshold	RegX ³ Telemetry & EWS Action
R05	Unauthorized Debit to Consumer Account	0.50% (50 bps)	Early warning at 0.35%; auto-throttle originator at 0.48%
R07	Authorization Revoked by Customer	0.50% (50 bps)	Immediate mandate token invalidation; alert risk desk
R10	Customer Advises Not Authorized	0.50% (50 bps)	Customer Form 10 logged; audit trail pinned to vault
R29	Corporate Customer Not Authorized	0.50% (50 bps)	Corporate SEC code review; freeze DDA origination
R51	Item Related to R10 (NOC Reversal)	0.50% (50 bps)	Instant clearing ledger match and cross-entity audit

Mathematical Portfolio Health Formula

The composite health of each commercial originator is calculated across four continuous telemetry variables:

Health Score = 100 - P_unauth - P_admin - P_overall + B_validation

- P_unauth (Unauthorized Penalty):** Heavy quadratic penalty applied as unauthorized return rate approaches 0.50%. Fired actively when rate reaches 0.35% (Early Warning System Tripwire).
- P_admin (Administrative Penalty):** Linear deduction for administrative returns (R02, R03, R04) exceeding 2.00% (approaching 3.00% limit).
- P_overall (Overall Return Penalty):** Velocity deduction if total returns exceed 5.50% (approaching 7.50% cap).
- B_validation (Validation Bonus):** Up to +5.0 bonus points for originators running 100% pre-note account verification on First-Use entries.

Health Score	Risk Tier	Early Warning Status	Risk Committee Action
90 - 100	PRISTINE	NOMINAL	Unrestricted Same-Day FedACH Settlement
75 - 89	NORMAL	MONITORED	Standard Next-Day ACH Processing
60 - 74	ELEVATED	EARLY WARNING (EWS)	15 bps Alert Active: Mandatory Pre-Note Verification
Below 60	CRITICAL	REGULATORY BREACH	Critical Freeze: Origination Halted Pending Examiner Pack

ODFI BANK RISK COMMITTEE & REGULATORY ATTESTATION

This architecture certifies that the RegX³ ODFI Portfolio Scoring Suite satisfies OCC Bulletin 2021-49, FDIC Third-Party Risk Management Guidance, and NACHA 2026 Appendix Ten statutory monitoring mandates. One-click Examiner Audit Packs provide undeniable proof of fiduciary oversight.

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