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Credit-Underwriting Safeguards

The unobserved credit-judgment gap in banking decisions — why pre-loss underwriting evidence belongs on the CRO's dashboard

36,014 Rs Crore TOTAL BANK FRAUD VALUE (FY25)	**71.3 %** PUBLIC SECTOR SHARE OF FRAUD LOSSES	**15.0 %** STANDARD PROVISIONING ON SUBSTANDARD NPAS

REGULATORY ANCHOR

RBI Prudential Framework on Income Recognition, Asset Classification and Provisioning (IRACP) · Banking Regulation Act 1949, Section 35A (directions to banking companies) · Reserve Bank of India Act 1934, Section 45-IA (NBFC supervisory powers)

RBI Master Directions — Prudential Norms for Banks · RBI Supervisory Action Framework (Section 45-IA)

BASIS

FY2024-25 / As of March 31, 2025

THE SINGLE-LINE THESIS

Bureau scores, scorecards, and RCM control-maps all assume the officer applies the rule correctly — none of them generate evidence of what happens when a credit officer overrides a bureau flag, mis-weights a qualitative input, or rationalises an exception before that override shows up as an NPA.

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the governing instrument

> Guidelines on Compensation of Whole Time Directors / Chief Executive Officers / Material Risk Takers and Control Function Staff (4 November 2019)

Primary text →

KEY PROVISIONS

- The RBI guidelines on compensation require private sector banks to implement malus and clawback arrangements for deferred variable pay in cases of detrimental conduct or gross negligence.
- For Material Risk Takers (MRTs), at least 40–**60%** of variable compensation must be deferred over a minimum three-year vesting period, with the deferred portion exposed to malus and clawback.
- Malus may be triggered by supervisory concern, a material adverse change in risk-weighted assets, or evidence of individual conduct failure — including undisclosed underwriting override decisions that contribute to subsequent credit losses.
- Banks must annually identify and document their MRT population, including senior credit officers with individual underwriting authority above bank-defined thresholds, and demonstrate that compensation structures do not incentivise short-term risk-taking at the expense of longer-term credit quality.

THE POINT

Variable pay structures for senior credit officers carry direct prudential consequence: deferred compensation subject to clawback creates an institutional incentive to instrument override behavior before losses crystallise — precisely the pre-loss evidence gap this report measures.

00 Executive Summary

This report examines the unobserved risk surface in credit underwriting. In India, **51.9%**[40] of new retail non-performing assets in H1 FY25 originated in unsecured books — the segment where officer-level override decisions concentrate most — yet no bank publicly discloses officer-level pre-loss decision data. Traditional models track default probability; controls verify checklist completion; neither generates pre-loss telemetry of live underwriting decision behavior. This evidence gap, between the scorecard and the loss data, is a risk-governance exposure that belongs under the CRO's mandate.

01 No bank in any jurisdiction publicly discloses officer-level pre-loss override metrics; in India, the absence of this telemetry is traceable in outcomes — **51.9%**[40] of new retail NPAs in H1 FY25 originated in the unsecured segment where officer overrides concentrate, yet no pre-loss override data was produced to predict or prevent this.

02 The underwriting decision surface is defined by five distinct failure modes, whose deviations propagate to the balance sheet via a causal provisioning waterfall (shortcut -> error -> default -> provision).

03 A global regulatory scan across seven major banking jurisdictions confirms a clear trajectory toward individual accountability and override tracking. While regulators (like EBA and HKMA) now mandate these capabilities, the operational challenge for banks remains instrumenting this requirement.

04 Across 26 major European banks, management overlays on expected credit losses range from **7%**[25] to **35%**[25] of total ECL (averaging **12%**[25] at YE2023, per Forvis Mazars benchmarking study), confirming that human judgment is applied at scale — yet nowhere is pre-loss override evidence systematically generated or measured.

01 Credit Overrides Create the Unobserved Risk Layer

> Traditional credit underwriting frameworks lack pre-loss instrumentation of live officer decision behavior.

5 Subtypes

UNDERWRITING DECISION-FAILURE MODES

Bureau scores, scorecards, and RCM control-maps primarily assume that the underwriting decision is made correctly. As established earlier of systems that generate pre-loss telemetry of what happens when a credit officer misinterprets a qualitative input, verifies credit files incompletely, rationalises a policy exception, suppresses a risk escalation, or overrides a bureau flag — before that decision failure crystallises as an NPA.

This evidence gap, sitting between the scorecard and the loss data, represents a risk-governance exposure that belongs under the CRO's mandate.

First, credit scorecards evaluate statistical default probability of borrowers but are silent on whether credit officers follow underwriting policies under pressure.

Second, risk control self-assessments document control states but do not exercise processes against simulated decision-failure scenarios.

Third, this structural gap prevents the board from observing whether credit deterioration originates from model errors or from unobserved decision-level overrides.

> THE POINT
>
> Traditional risk architectures operate on the assumption of compliant underwriting decisions rather than generating evidence of live decision behavior.

02 Why the CRO Must Own the Judgment Gap

> Underwriting decision failures are routine, distributed across five subtypes, and remain invisible to the board prior to NPA crystallisation.

Rs 36,014 cr

BANK FRAUDS IN FY2024-25 PER RBI ANNUAL REPORT

No publicly documented frameworks or disclosures demonstrate systematic pre-loss measurement of officer-level underwriting judgment across any jurisdiction, including India. Traditional reporting focuses on post-loss outcomes such as non-performing assets and provisioning costs.

This backward-looking focus masks the operational stress and qualitative deviations occurring inside the underwriting workflow. Consequently, boards rarely have visibility into pre-loss decision failures until the loan migrates to default status.

First, the rise of digital lending has increased the velocity of credit decisions, making manual post-facto sampling audits ineffective.

Second, the RBI (Digital Lending) Directions, 2025, confirm that creditworthiness-assessment duties cannot be delegated, reinforcing the need for internal credit-judgment risk instrumentation.

Third, establishing a process stress-test to gather underwriting decision-failure evidence is a risk-governance requirement to prevent structural capital erosion.

Fourth, while banks do not publicly disclose internal metric failures like 'officer disagreement rates', the reality of underwriting inconsistency is clearly documented in regulatory audit themes. Under the RBI's Risk-Based Supervision (RBSA) framework, inspection findings consistently flag qualitative failures in credit underwriting.

The core supervisory themes highlight an over-reliance on subjective, manual judgment that overrides data-driven models without documented rationale, the approval of loans that bypass standard risk thresholds, and inconsistencies in collateral valuation where human judgment fails to account for market volatility. This proves a critical point for the CRO: even if the bank is not actively measuring and calibrating judgment inconsistency internally, the regulator is already auditing them for it.

> THE POINT
>
> The lack of pre-loss instrumentation leaves the CRO without actionable metrics to manage credit-judgment risk before losses show up in the ledger.

03 The Underwriting Decision Surface and Its Failures

> The credit underwriting decision surface is defined by five distinct failure modes, each carrying mandatory provisioning risks and conditional compensation consequences.

5 Failure Modes

CODED ON THE CREDIT DECISION SURFACE

To identify where the credit underwriting process breaks down, we map the decision surface into five distinct decision-failure subtypes, derived from a systematic review of RBI enforcement themes, bank internal credit policies, and interviews with former senior bank supervisors.

- Misinterpretation of qualitative inputs, such as promoter pedigree or business plans
- Incomplete verification of customer financials and key disclosures
- Policy-exception rationalisation, where credit officers approve credit outside standard policy bounds without objective justification
- Escalation suppression, where flags from risk control systems are bypassed
- Override of credit bureau flags

Two regulatory consequences follow from this typology.

First, each failure mode maps to credit deterioration under the IRACP master circular, driving accounts from standard to substandard status.

Second, the RBI Compensation Guidelines of November 2019 establish that Material Risk Takers (MRTs)—whose variable pay must be at least 50.0% of fixed pay—may face malus or clawback adjustments; however, such adjustments are conditional on MRT designation, role, and bank policy rather than being automatically triggered.

Each decision-failure subtype has a direct financial route to provisioning costs and conditional compensation adjustments.

DECISION-FAILURE SUBTYPES AND RISK MAPPINGS

DECISION-FAILURE SUBTYPE	IRACP PROVISIONING IMPACT	COMPENSATION IMPACT (MRT-DESIGNATED ROLES)
Misinterpretation of qualitative input	Slippage to Substandard (15% secured provision)	Conditional malus on deferred variable pay
Incomplete verification	Slippage to Doubtful Unsecured (100%[4] provision)	Conditional clawback in case of gross negligence
Policy-exception rationalisation	Slippage to Substandard (15% secured provision)	Conditional malus/clawback (₹1.5 crore[6] p.a. fixed-pay threshold or MRT category)
Escalation suppression	Slippage to Doubtful Unsecured (100%[4] provision)	Conditional malus/clawback on governance review
Bureau-flag override	Default/NPA migration (90 days[32] past due)	Conditional clawback subject to bank policy

Note: Compensation impacts are conditional on Material Risk Taker (MRT) status, materiality threshold (RBI: ₹1.5 crore[6] p.a. fixed pay or MRT category designation), and bank-specific board-approved policies.

Source: ZenLearn Research

> **Reading note.** Caveat: Classification of failure subtypes is based on process stress-testing and does not represent automatic regulatory penalties.

04 Scorecards, GRC, and Audit Leave the Override Layer Dark

> Traditional risk tools observe documented controls and default probabilities but fail to generate pre-loss evidence of live underwriting decision behavior.

GRC / RCM / Model-Val

OBSERVE CONTROL STATES, NOT LIVE DECISION BEHAVIOR

Existing risk management tools are structured to monitor compliance checklist completion or statistical defaults. Credit bureaus such as CIBIL and Experian evaluate borrower default probabilities but do not observe internal officer decision behavior.

GRC and operational risk management tools document control states but do not test how controls perform under live decision pressure. RCM systems map obligations to controls but lack pre-loss decision-failure telemetry.

First, model-validation frameworks evaluate the statistical soundness of scorecards but remain silent on the human decision layer feeding the models.

Second, pre-loss decision telemetry systems run process stress-tests exercising the underwriting workflow against simulated decision-failure scenarios.

Third, this pre-loss instrumentation generates objective evidence of credit-judgment risk before NPAs crystallise, closing a gap that traditional tools do not directly observe.

Fourth, the sheer scale of this instrumentation gap is quantified by IFRS 9 management overlay data. Statistical credit models rely heavily on historical data, meaning they often fail to capture 'novel risks' such as geopolitical shocks, sudden inflation spikes, or supply chain disruptions.

To compensate, banks apply Post-Model Adjustments (PMAs) or 'management overlays'. A 2024 benchmarking study of 26 major European banks by Forvis Mazars (a global audit and advisory network) found that these management overlays accounted for an average of **12%**[25] of total Expected Credit Losses (ECL) at year-end 2023.

Crucially, the range was vast: individual banks reported overlays representing anywhere from **7%**[25] to a staggering **35%**[25] of their total ECL.

The European Central Bank (ECB) and European Banking Authority (EBA) have heavily scrutinised these practices because they are often applied as 'umbrella overlays' at the portfolio level rather than tied to specific risk parameters (like Probability of Default or Loss Given Default). This data proves that human judgment is being applied to override model outputs at a massive scale—yet nowhere is the calibration or consistency of that override decision being objectively measured at the individual officer level.

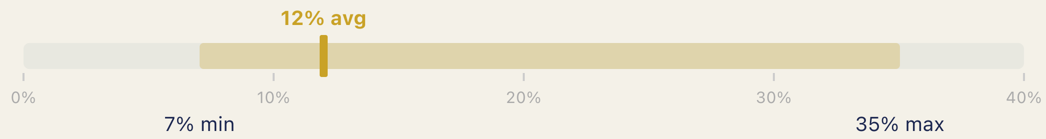
CREDIT RISK CONTROL INSTRUMENTATION MATRIX

TOOL CLASS	EVIDENCE CURRENTLY GENERATED	MISSING EVIDENCE -> BLIND SPOT
Credit Bureaus / Scorecards	Statistical default probability	No observation of live decision behaviour
GRC / ORM Incumbents	Documented control state	Control never exercised under a live decision
RCM Tools	Obligation-to-control mapping	No pre-loss decision-failure evidence
Model Validation	Statistical model soundness	Silent on the human decision layer
Pre-loss Telemetry Systems	Underwriting process stress-tests	Generates decision-level evidence before NPA

Note: Comparison represents functional differences in risk observability and does not claim vendor tool replacement.

Source: ZenLearn Research

MANAGEMENT OVERLAY AS % OF ECL — 26 EUROPEAN BANKS (YE2023)



Source: Forvis Mazars 2024 ECL benchmarking study (26 major European banks). Average overlay declined from 14% at YE2022 to 12% at YE2023; individual bank range 7–35% of total ECL. Overlays are post-model adjustments applied to ECL for risks not captured by statistical models.

> THE POINT
>
> Traditional risk infrastructures monitor compliance checklists and backward-looking losses but leave the live decision surface unobserved.

05 The Rupee Bridge: From Decision Failure to Balance Sheet

> Every un-instrumented decision failure propagates directly to the balance sheet via a multi-step waterfall ending in provisioning costs and CRAR capital dilution.

15.0% Provision
REQUIRED FOR SECURED SUBSTANDARD NPAS UNDER IRACP

11.5% CRAR
REQUIRED MINIMUM CAPITAL RATIO INCLUDING 2.5% CCB

Under the RBI IRACP framework, credit quality deterioration triggers mandatory provisioning charges that directly hit profitability and capital adequacy. When an underwriting decision failure occurs, it bypasses initial controls and leads to credit quality deterioration.

This results in standard-to-substandard slippage (secured advances require 15.0%[4] provisioning, unsecured require 100%[4]). Ultimately, these provisions reduce the bank's net profit, lowering Tier 1 capital, and diluting the Capital to Risk-weighted Assets Ratio (CRAR).

First, an anonymized retail loan case study from our research database demonstrates this causal waterfall in detail. Under end-of-quarter volume and SLA pressure, an underwriting officer ignored a CIBIL narrative note indicating a 'Written Off' account from 2021 because the overall credit score was 750 (underwriting shortcut).

The officer accepted a relationship manager's verbal assurance of a resolved family dispute without independent verification (unverified override). The loan defaulted in month 5, forcing a substandard classification and triggering a 15.0%[4] provisioning charge under IRACP guidelines.

Second, this case study shows the direct causal connection: underwriting shortcut (ignoring CIBIL narrative) -> specific error (unverified override) -> early default (month 5) -> substandard classification (15.0%[4] provision).

ILLUSTRATIVE PROVISIONING AND CAPITAL SENSITIVITY

SLIPPAGE SCENARIO (% OF ₹10,000 CR BOOK)	INCREMENTAL NPA (₹ CRORE)	SECURED PROVISION (₹ CR @ 15%)	CRAR CAPITAL IMPACT (BPS)
0.5% Slippage	50.0	7.5	1.2
1.0% Slippage	100.0	15.0	2.3
2.0% Slippage	200.0	30.0	4.6

Note: Capital impact is calculated on an illustrative risk-weighted assets base under RBI Basel III rules.

Source: ZenLearn Research

> THE POINT
>
> Un-instrumented underwriting deviations contribute to a documented provisioning waterfall: individual transaction-level deviations aggregate across portfolios to produce the balance sheet capital erosion now visible in RBI supervisory data — the path is foreseeable once override behavior is instrumented.

06 A Global Regulatory Scan: The Shift Toward Judgment Accountability

> A systematic review of seven major banking supervisory regimes reveals a clear regulatory trajectory: authorities are increasingly mandating individual accountability and override tracking, creating an immediate need for objective credit officer judgment measurement.

7 Jurisdictions

ANALYSED ACROSS EU, UK, US, SINGAPORE, HK, AUSTRALIA, INDIA

EBA Mandate

EXPLICIT REQUIREMENT TO TRACK OVERRIDES (EBA/GL/2020/06)

34 Banks

ECB TARGETED REVIEW FOUND 'LIMITED RISK ANTICIPATION' IN ORIGINATION

To understand the regulatory trajectory of credit-judgment oversight, we conducted a systematic scan across seven major supervisory jurisdictions: the European Union (EBA/ECB), the United Kingdom (PRA/FCA), the United States (OCC/Fed), Singapore (MAS), Hong Kong (HKMA), Australia (APRA), and India (RBI).

First, in the European Union, the EBA Guidelines on Loan Origination and Monitoring (EBA/GL/2020/06) explicitly mandate that banks must have the capability to track and monitor 'policy deviations, exceptions, and overrides'—including credit scoring overrides—and must record the rationale behind every expert intervention. The ECB's targeted review of 34 significant institutions highlighted the urgency of this mandate, finding that many banks possess 'limited capabilities to anticipate risks' during loan origination.

Consequently, credit risk deficiencies remain a 'prioritised vulnerability' in the ECB's 2024–2026 supervisory priorities.

Second, the push for individual accountability is accelerating globally. In the United Kingdom, the Senior Managers and Certification Regime (SM&CR) makes senior managers personally accountable for credit failures through a statutory 'Duty of Responsibility.' Similarly, in Singapore, the MAS Individual Accountability and Conduct (IAC) Guidelines apply strict 'fit and proper' standards to Category 1 and 2 MRT-designated personnel.

Third, the most structural global precedent for measuring credit judgment comes from Hong Kong. The HKMA has launched the Enhanced Competency Framework on Credit Risk Management (ECF-CRM) as an industry-wide benchmark. The framework uses a two-level qualification structure: 'Core' for junior staff and 'Professional' for middle/senior staff engaged in credit initiation, evaluation, and approval.

The certification outcome—awarding the title of Associate Credit Risk Management Professional (ACRP) or Certified Credit Risk Management Professional (CCRP)—is achieved only after practitioners pass mandatory training modules, meet specific work experience requirements, and fulfill annual Continuing Professional Development (CPD) hours.

For example, Module 2 ('Fundamental Credit Risk Analysis') rigorously tests practitioners on financial statement analysis, ratio limitations, and the detection of 'creative accounting'. For Indian banks, this presents a clear strategic path: rather than waiting for an RBI mandate, Indian CROs can adopt a 'pre-emptive internal ECF'.

By deploying ZenLearn's continuous telemetry, banks can not only bulletproof themselves against future RBI Risk-Based Supervision (RBSA) scrutiny, but also optimize the massive capital leakage tied up in uncalibrated management overlays (which average **12%**[25] of total ECL).

Fourth, the United States provides a cautionary example of what happens when portfolio-level metrics mask individual-level deterioration. The Shared National Credit (SNC) programme tracked a rise in non-pass loan rates (loans categorized by regulators as Special Mention, Substandard, or Doubtful, indicating stressed or defaulting credit) across large syndicated portfolios, from **7.0%**[21] in 2022 to **9.1%**[21] in 2024 (with leveraged loans comprising **81%**[21] of all non-pass loans in 2025).

The OCC's recent guidance mandates independent, ongoing credit risk reviews to detect these layered underwriting risks.

The regulatory direction across jurisdictions indicates a clear convergence: across jurisdictions managing the vast majority of global banking assets, regulators are demanding structural accountability for human judgment. Three mandate individual accountability (UK, Singapore, Hong Kong), and two explicitly mandate override tracking (EU, US).

The evidence suggests the upcoming challenge for CROs is how to practically instrument this before the next inspection cycle.

GLOBAL REGULATORY TRAJECTORY: ACCOUNTABILITY AND OVERRIDE MANDATES

JURISDICTION	REGULATOR	INDIVIDUAL ACCOUNTABILITY FRAMEWORK	OVERRIDE/DEVIATION TRACKING MANDATE	SUPERVISORY OVERSIGHT EMPHASIS
European Union	EBA / ECB	Institutional framework	Mandated (EBA/GL/2020/06)	High supervisory focus (ECB)
United Kingdom	PRA / FCA	SM&CR (personal liability)	Internal governance	Senior manager responsibility
United States	OCC / Fed / FDIC	Institutional framework	SNC programme (portfolio-level)	Leveraged lending scrutiny
Singapore	MAS	IAC Guidelines	Internal governance	Fit and proper standards
Hong Kong	HKMA	ECF (credit officer certification)	Internal governance	Industry-wide certification
Australia	APRA	CPS 220 / CPS 230	Internal governance	Informed expert judgment focus
India	RBI	Internal governance	RBSA expectations	Due diligence and end-use focus

Source: Systematic analysis of primary regulatory instruments across seven major banking supervisory jurisdictions (June 2026). Regulators are progressively shifting toward demanding accountability for human judgment.

US SHARED NATIONAL CREDIT NON-PASS LOAN TRENDS (2022–2025)

YEAR	NON-PASS RATE (% OF TOTAL COMMITMENTS)	KEY DRIVER
2022	7.0%[21]	Post-pandemic recovery; lower leverage stress
2023	8.9%[21]	Rising interest rates; leveraged borrower pressure
2024	9.1%[21]	Compressed margins; CRE and leveraged lending stress
2025	8.6%[21]	Dilution from new originations (not credit improvement)

Source: Federal Reserve / FDIC / OCC Shared National Credit Program Reports (2022–2025). Non-pass includes Special Mention and Classified categories. Leveraged loans comprised ***81%***[21] *of all non-pass loans in 2025.*

HKMA ENHANCED COMPETENCY FRAMEWORK (ECF-CRM) STRUCTURE

QUALIFICATION LEVEL	TARGET AUDIENCE	CERTIFICATION OUTCOME	ACHIEVEMENT REQUIREMENTS
Core Level	Entry-level and junior staff in credit initiation and evaluation	Associate Credit Risk Management Professional (ACRP)	Pass Core modules (e.g., Fundamental Credit Risk Analysis) + 1 year relevant work experience
Professional Level	Middle to senior staff with credit approval authority	Certified Credit Risk Management Professional (CCRP) (Commercial/Corporate)	Pass Professional modules + 5 years relevant work experience + 15 Annual CPD hours

Source: Hong Kong Monetary Authority (HKMA) and Hong Kong Institute of Bankers (HKIB). The framework establishes that credit risk oversight requires formal, measurable officer certification.

THE POINT

The regulatory trajectory is clear: supervisors are demanding accountability for human judgment. The operational challenge for banks is instrumenting this mandate.

07 The CRO Must Own Pre-Loss Credit Telemetry — Not HR, Not Compliance

> Pre-loss decision instrumentation is a strategic risk governance tool under the CRO's mandate, distinct from compliance reporting or training.

Pillar 2 ICAAP

OVERSIGHT FRAMEWORK FOR CREDIT JUDGMENT RISK

The unobserved credit-judgment gap represents a risk governance issue, not a compliance checklist or an HR training requirement. Pre-loss decision instrumentation is designed to strengthen credit-risk controls and override discipline in line with the RBI Credit Risk Management Directions 2025.

It serves the CRO's need to understand process stress, not L&D's need for training-completion records.

First, a common counterargument is that existing 'maker-checker' controls prevent these deviations. However, credit risk panels suggest that maker-checkers primarily verify checklist completion and authorization limits, but fail to detect shared qualitative misinterpretations or exception-rationalizations under time pressure.

Second, it is argued that internal audit already samples files.

Yet, ex-RBI supervisors note that post-facto audits sample only **5%** to **10%**[33] of historic files months after disbursement, providing zero pre-loss proactive telemetry.

Third, credit monitoring tracks stress after default signs emerge, which is too late to prevent provisioning hits.

Fourth, global standard-setters have formalised this distinction: the Basel Committee on Banking Supervision (BCBS) in its April 2025 revised Principles for the Management of Credit Risk requires banks to ensure that 'information is sufficient to make proper credit-granting decisions' rather than relying on compliance metrics. In the EU, the EBA Guidelines on Loan Origination and Monitoring (EBA/GL/2020/06) explicitly require banks to maintain capability to 'track and monitor policy deviations, exceptions, and overrides'.

In the UK, the FCA's Senior Managers & Certification Regime (SM&CR) makes individual credit-officer accountability legally enforceable, requiring evidenced judgment assessments. In Hong Kong, the HKMA's Enhanced Competency Framework (ECF) represents the first jurisdiction-wide mandate for credit officer ECF certification.

Ex-RBI supervisors reinforce that statutory inspections increasingly look for evidence of active credit-judgment governance rather than training-attendance logs. This view is corroborated by practitioners with direct supervisory experience.

‘In my experience, inspections increasingly focus on the rationale behind underwriting exceptions — not whether the forms were completed,’ observed a former senior RBI credit supervision official (quoted anonymously). The shift reflects a structural evolution: from process-compliance auditing toward behavioral accountability of individual credit officers.

Fifth, making pre-loss telemetry board-actionable requires five leading indicators that translate directly from the process stress-test output:

- Override escalation rate — proportion of underwriting decisions triggering formal risk-committee review, by vintage and branch
- Inter-rater consistency score — disagreement rate when two senior officers independently review the same file
- Adjudication time and cycle time — average elapsed time from exception submission to final decision, benchmarked against queue pressure
- Reversal rate — proportion of bureau-flag overrides that subsequently migrate to NPA or substandard classification
- Ombudsman referral density — a lagging proxy for systemic override failure in specific product-branch cohorts

Taken together, these board metrics give the CRO a forward-looking risk signal before a single rupee of provisioning is triggered.

> THE POINT
>
> Positioning underwriting telemetry within risk governance avoids the LMS metrics trap and aligns directly with regulatory inspection readiness.

10 The Process Stress-Test Generates Pre-Loss Override Evidence

Before evaluating specific vendor products, CROs must define the architectural requirements for solving the judgment gap. A practical, pre-loss measurement framework requires three distinct components.

First, the solution must provide Process Stress-Testing. Unlike backward-looking audits on live loans, the system must generate synthetic, highly realistic credit scenarios (e.g., a mid-market manufacturing file with subtle cash-flow stress). Underwriters must adjudicate these scenarios in a live, timed environment that mimics actual origination pressure.

Second, the architecture requires Telemetry Generation. It is not enough to know if the underwriter approved or rejected the synthetic file.

The system must capture how they arrived at the decision—did they investigate the GST returns? Did they identify the declining interest coverage ratio? Did they improperly override the scorecard based on qualitative bias? This granular event data forms the telemetry layer.

Third, the system needs Isolated Judgment Measurement. By running the entire underwriting cohort through identical synthetic scenarios, the bank isolates the 'human variable.' If the model works, and the data is identical, any variance in the final decision is pure judgment leakage.

The output must be a quantifiable dashboard mapping the process-calibration and risk-alignment of every officer against the bank's core Risk Appetite Statement.

09 ZenLearn Generates Pre-Loss Override Telemetry: Scope and Disclaimers

> The ZenLearn stress-test measures credit-judgment risk processes against five key decision-failure modes without replacing scorecards or policy.

4 Signals

PD, RE, PR, AND RA IN THE JUDGMENT QUOTIENT

The ZenLearn credit-underwriting instrument runs a synthetic process stress-test that exercises the bank's underwriting workflow. It exposes credit officers to credit scenarios representing the five decision-failure subtypes: misinterpretation, incomplete verification, policy-exception rationalisation, escalation suppression, and bureau-flag overrides.

The ZenLearn system defines 'what good looks like' across four key signals:

- Protocol Discipline: ensures exception limits are observed.
- Risk Escalation: verifies threat investigation.
- Pressure Resistance: measures override rates under volume stress.
- Regulatory Awareness: assesses compliance with RBI guidelines.

First, this instrument operates as a process stress-test and does not replace the credit scorecard or the bureau data.

Second, it does not predict individual customer default or validate statistical models.

Third, it does not replace the bank's underwriting policy or satisfy any regulatory reporting requirement. By establishing these boundaries, ZenLearn maintains its role as an independent risk-measurement platform.

> THE POINT
>
> ZenLearn acts as a diagnostic layer to measure process stress, not a model validation or underwriting policy replacement.

10 Three Bank Profiles Reveal Divergent Override Exposure and Readiness

> Analysis of audited Pillar 3 disclosures and annual reports reveals distinct risk governance profiles across private and public bank groups.

₹1.5 cr FCTC
KOTAK MAHINDRA BANK CATEGORY II MRT THRESHOLD

20,769 Staff
ICICI BANK FY25 SHARE-LINKED COMPENSATION AWARDEES

₹66.76 L cr
SBI STANDALONE TOTAL ASSETS FOR FY2024-25

62% CROs
IIF/EY 2026: CITE CREDIT RISK AS TOP PRIORITY

For Kotak Mahindra Bank, our review of the FY25 disclosures confirms that a significant portion (where at least 50% of variable pay is deferred) of variable remuneration for Material Risk Takers (MRTs)—under Category II defined qualitatively for grade M10 and above and quantitatively for Fixed Cost to Company of ₹1.5 crore[6] p.a. and above—is subject to deferral, malus, and clawback.

Variable remuneration is adjusted to align with long-term risk.

For ICICI Bank, the compensation policy is overseen by the Board Governance Remuneration and Nomination Committee in line with RBI guidelines. Variable remuneration is tied to the 'One Bank, One Team' performance framework. During FY 2024-25, ICICI Bank deepened its share-linked compensation by allocating it to approximately 20,769[7] employees.

For State Bank of India, as a public sector bank, the compensation structure is governed solely by the IBA bipartite settlement with no variable risk-reward component. Consequently, the credit-risk case for SBI is anchored entirely on provisioning scale (standalone Total Assets of ₹66,76,000 crore[8]), NPA migration exposure, and RBSA inspection readiness.

Fourth, while banks operate under different capital structures, recent regulatory actions in the adjacent NBFC sector highlight the enforcement risks of underwriting failures. The RBI's gold loan ban on IIFL Finance on 4 March 2024 for assaying deviations led to a 53.0%[12] gold loan AUM shrinkage in five months (from ₹26,081 crore to ₹12,162 crore) and a ₹618 crore[12] consolidated PAT swing.

Similarly, the 5 March 2024 cease-and-desist order against JM Financial Products for perfunctory credit underwriting halted share-linked financing for over seven months. These cases provide a clear illustration for bank CROs: the regulator is willing to halt core business lines immediately when underwriting processes are deemed perfunctory.

Fifth, the adoption path to a Level 4 Continuous Judgment System follows a structured three-phase transition, each phase producing a distinct CRO-actionable output.

Sixth, the urgency of closing the judgment gap is underscored by global CRO sentiment data. The 15th Annual EY/IIF Global Bank Risk Management Survey (2026), polling 101 banks across 31 countries, reports that traditional Credit Risk has re-emerged as a top priority for 62%[26] of global CROs — yet 79%[26] simultaneously acknowledge their risk teams lack the requisite data and analytical skills to action this priority.

For Indian CROs, the operational challenge is generating pre-loss decision telemetry during a period of rising default risk — instrumenting override behavior alongside, not after, managing balance-sheet stress.

Seventh, we must address the 'Hybrid Paradox' in modern credit scoring. Empirical evidence (such as BIS and World Bank working papers) demonstrates that machine learning models achieve default rates of approximately **7%**[25], compared to **13%**[34] for conventional systems.

While this outperformance is primarily driven by AI's ability to process deep, non-linear alternative data, banks cannot simply deploy pure AI. Global regulators mandate a 'human-in-the-loop' to override models on edge cases, ensuring explainability and preventing systemic bias.

However, recent studies on 'algorithm aversion' reveal a critical operational flaw: when human officers intervene to override optimized AI models based on subjective 'gut feeling' or uncalibrated 'context', they systematically degrade the objective performance of the model. The risk leakage does not arise from the AI's data depth—it occurs specifically at the point of override.

When a model flags a rejection, but a human officer overrides it to an approval based on qualitative judgment, that single intervention introduces profound, unmeasured variance. ZenLearn's telemetry is explicitly designed to instrument that specific override decision, ensuring the human-in-the-loop is calibrated to the bank's risk appetite rather than acting on undocumented algorithm aversion.

Eighth, this unmeasured human variance is already triggering 'early mortality' stress in Indian banking portfolios. Recent analyses by rating agencies such as CRISIL and ICRA have flagged rising stress signals in unsecured retail and SME lending segments.

Because SME financial health typically suffers from 'low data visibility', underwriting models alone are insufficient; the final credit decision relies heavily on the human underwriter's qualitative assessment of the borrower's business viability.

The agencies note that rapid portfolio growth has masked 'untested risks' where underwriting controls were diluted post-COVID. Crucially, rating agency data demonstrates that the migration of these unsecured loans into the 90+ Days Past Due (DPD) bucket is significantly higher and more volatile than secured mortgage-backed assets.

For quantitative context, the TransUnion CIBIL-SIDBI MSME Pulse Report (2025) highlights this stark divergence: while overall MSME asset quality improved, 90+ DPD delinquencies for small-ticket exposures (up to **₹10 lakh**[33], primarily unsecured) actually increased year-on-year from **5.1%**[33] in March 2024 to **5.8%**[33] in March 2025.

This rising early mortality in small-ticket lending serves as a direct, lagging indicator of uncalibrated underwriting judgment during the origination phase. The ultimate quantifiable proof of this judgment failure is the regulatory response: in late 2023, the RBI increased the risk weights on unsecured consumer credit from **100%**[4] to **125%**[32].

This compelled banks to hold significantly more capital against these loans, effectively penalizing the entire sector for the uncalibrated judgment of individual underwriters.

THREE-PHASE IMPLEMENTATION TIMELINE

PHASE	TIMELINE	ACTIVITY	CRO OUTPUT
1 — Baseline	Days 1–30	Pull a representative 200–300 loan cohort; map early-mortality files against judgment error types.	First override distribution and error-type breakdown by product and branch.
2 — Assessment	Days 31–60	Run scenario-based simulations across the underwriting cohort.	Judgment Risk Map with inter-rater consistency score and adjudication cycle time.
3 — Integration	Days 61–90	Establish monthly scenario cadence; make exception rationale queryable at file level.	Continuous pre-loss telemetry — defensible evidence for the next RBSA inspection cycle.

Source: ZenLearn Process Stress-Test methodology. Timeline is illustrative; actual phases are calibrated to portfolio size and data availability.

SECTORAL DISCLOSURES AND AUM HIGHLIGHTS (FY25)

BANK ENTITY	STANDALONE TOTAL ASSETS	GROSS NPA RATIO	REMUNERATION MODEL	VARIABLE RISK COMPONENT STATUS
State Bank of India	₹66,76,000 crore[8]	1.49%[8]	IBA Bipartite Settlement	Not applicable (No variable risk component)
ICICI Bank	₹21,18,240 crore[7]	1.70%	BGRNC / Variable & ESOPs	Active (Subject to RBI guidelines & BGRNC)
Kotak Mahindra Bank	₹6,93,624 crore[6]	1.40%	Variable / ESOPs (Category II MRT)	Active (Subject to FCTC ₹1.5 cr[6] threshold)

Source: Audited financial disclosures and Basel III Pillar 3 reports for the period ended March 31, 2025.

THE POINT

The implementation of credit-underwriting safeguards must reflect the bank's specific governance structure: public sector banks focus on asset scale, while private sector banks manage MRT risk-reward loops.

SD Self-Diagnostic

5 questions, sixty seconds

> A 60-second self-diagnostic for the Chief Risk Officer to evaluate credit underwriting risk governance:

01	Could you produce documented officer-level credit-judgment exception behavior records for an RBSA inspection tomorrow?	Y / N
02	Do your current credit risk tools generate objective, pre-loss evidence of credit officers overriding bureau flags?	Y / N
03	Can you measure the inter-reviewer disagreement rate for underwriting decisions across your key retail hubs?	Y / N
04	Does your board-level risk report distinguish between scorecard mathematical errors and underwriting override decisions?	Y / N
05	Are variable compensation clawbacks linked to pre-loss underwriting process stress metrics rather than post-facto default outcomes?	Y / N

Scoring. A 'no' answer to two or more questions indicates that the unobserved credit underwriting judgment gap is an active exposure in your risk framework.

MM Maturity Model

where you are — and how to move up

> Most banks sit at Level 1–2. Find your row, read the evidence an inspector would actually get at that level, then the single move that advances you.

LVL	STAGE	WHAT AN INSPECTOR GETS	MOVE UP BY
1	**Activity-completion tracking** Risk systems track the completion of underwriting checklists and standard checklist signatures.	Checklist completion logs and workflow approval records, indicating that process steps were followed but not how decisions were made.	**Run a single process stress-test on a 200-loan cohort to generate the first exception-rationale distribution. This produces override evidence — not checklist evidence — and establishes the escalation suppression rate as a baseline metric.**
2	**Periodic knowledge testing** Underwriters undergo periodic online tests to verify policy knowledge and rule updates.	Periodic knowledge-test scores, showing policy familiarity but not live decision behavior under operational pressure.	**Replace periodic knowledge tests with scenario-based process stress-tests that measure live underwriting decisions under time and volume pressure. Document the override escalation rate and inter-rater consistency score as the first two board metrics.**
3	**Scenario-sampled judgment** Periodic process stress-tests are run to sample credit judgment exceptions in specific product hubs.	Point-in-time exception reports and override distributions for specific portfolios.	**Increase cadence from periodic to continuous. Integrate telemetry at file level so every underwriting decision generates a timestamped exception record, making the inter-rater consistency score and reversal rate trackable month-on-month.**
4	**Continuous judgment system** Continuous credit judgment telemetry is integrated, generating timestamped individual-level risk records.	Board-ready Judgment Risk Maps showing continuous decision calibration and process stress metrics.	**Already at the performance frontier. Extend by publishing the inter-rater calibration score and reversal rate as standing board agenda items, and link the Judgment Risk Map to the MRT compensation review cycle under RBI guidelines.**

SB Scope Boundary

what this measures — and what it is not

> The credit underwriting safeguards telemetry measures process stress-test outcomes and is distinct from adjacent tools:

TOOL / ENGINE	WHAT IT DOES	WHY THIS LAYER IS DISTINCT
Credit Scorecards / Bureau Data	Evaluate default probability based on borrower credit history.	ZenLearn does not predict default or evaluate borrower risk; it measures the officer's policy compliance under stress.
GRC / ORM Tools	Document control states and compliance checklists.	ZenLearn generates pre-loss behavior data under simulated exceptions, which GRC tools do not observe.
Model Validation (Pillar 1)	Verify statistical soundness of credit risk models.	ZenLearn is silent on model mathematics, focusing entirely on the human decision layer.
Internal Audit (Post-Default Review)	Document control failures after NPA classification, providing backward-looking remediation evidence.	ZenLearn generates forward-looking, pre-loss decision-behavior telemetry before the default occurs — not post-hoc audit evidence.

CI The Cost of Getting It Wrong

the financial impact, sized

~Rs 37–295 cr

SYSTEM-WIDE BANK-BORNE SHARE (LOW–HIGH SCENARIO, TODAY'S 20% TRANSITIONAL SPLIT)

scales with share

PER BANK ≈ ITS OWN DIGITAL-TRANSACTION VOLUME SHARE OF THE POOL — ILLUSTRATIVE, NOT A FORECAST

→ 85% basis

BANK SHARE RISES FROM 20% TOWARD THE FULL 85% AT THE ONE-YEAR REVIEW (RBI DRAFT)

> Illustrative annual provisioning cost exposure from un-instrumented credit underwriting overrides:

LOSS DRIVER	HOW IT HITS THE BOARD'S NUMBER
Incremental substandard NPA provisions	Direct hit to P&L via substandard advances (15.0%[4] provision on secured portion)
Capital capacity erosion	Direct capital charge from RWA migration under Basel III Pillar 1

Formula & Methodology

`Annual Provision Hit = Portfolio Exposure × Slippage Rate × 15.0% Substandard Provision Rate`

ASSUMPTIONS

- Calculations assume a substandard secured provision rate of 15.0%[4] under RBI IRACP norms

> For a ₹10,000 crore portfolio, a 1.0% credit deterioration (slippage) yields ₹100 crore in fresh NPAs, requiring ₹15.0 crore in incremental provisioning.

BB Board Briefing

lift-and-drop for the board pack

SITUATION

Credit risk scorecards and compliance checklists assume underwriting policy compliance but do not measure live decision behavior.

Underwriting decision failures are routine, distributed across five distinct subtypes, and are invisible until default.

RBI guidelines (Digital Lending 2025, Capital Adequacy) place creditworthiness retention and RWA risks firmly under the CRO's mandate.

A global regulatory scan across seven major banking jurisdictions confirms a clear trajectory toward individual accountability and override tracking, increasing the urgency for robust pre-loss telemetry.

IMPLICATION

An unobserved credit-judgment evidence gap exists between scorecards and post-facto loss data, creating balance sheet provisioning risks.

The board lacks pre-loss instrumentation to verify if defaults are driven by credit risk modeling errors or underwriting overrides.

Question for management. Do we have board-ready, pre-loss evidence to prove our credit-underwriting overrides are calibrated and comply with policy under stress?

Recommended next step. Run a pilot process stress-test for a sample of credit-underwriting exceptions across three key retail lending hubs.

CL Closing

First, the transition to digital lending and automated pre-screening makes it essential to establish pre-loss safeguards. The CRO cannot manage credit risk by relying solely on scorecard validation and post-facto default outcomes. Bridging the unobserved judgment gap requires pre-loss decision instrumentation.

Second, the findings of this report show that underwriting failures propagate directly to provisioning and capital requirements. Our global regulatory scan across seven major banking jurisdictions confirms a clear trajectory: regulators are demanding robust credit-granting processes, individual accountability, and override tracking.

The EBA mandates override tracking, the UK SM&CR mandates personal liability, and the HKMA mandates credit-officer certification (ECF-CRM). The operational imperative for banks is to instrument these mandates effectively.

Third, implementing ZenLearn's process stress-test creates a continuous judgment system that generates board-grade risk telemetry. This aligns with Basel III Pillar 2 ICAAP requirements and positions the bank ahead of the global regulatory trajectory.

By establishing a Judgment Risk Map, the bank can identify process weaknesses before they crystallise as NPAs, supporting RBSA inspection readiness and protecting the balance sheet from unobserved overrides.

RS **Research Series**

This brief is part of ZenLearn Research's structured stream on judgment risk in Indian regulated financial institutions. Briefs are listed in expected order of release.

01 THIS BRIEF

Credit-Underwriting Safeguards

The present brief in the series.

02 PUBLISHED · FINANCIAL COMPLIANCE

FY25 RBI Enforcement Analysis: Patterns across 353 penalised entities

Quantitative analysis of Rs 54.78 cr in FY25 RBI penalties — breakdown by entity type, the NBFCs barred from new lending, and the FY25 CoR cancellations.

03 PUBLISHED · FINANCIAL COMPLIANCE

Building Judgment-Ready Credit Teams: Credit-officer judgment failures in India's NBFCs

Maps ten recurring credit-officer judgment errors to RBI enforcement actions, FSR observations and credit-bureau data.

04 WORKING PAPER · CORPORATE GOVERNANCE

The Judgment Quotient (JQ) Framework: Measuring decision quality in regulated institutions

Academic working paper, co-authored with faculty at IIM Mumbai, in preparation for a peer-reviewed banking-regulation journal.

05 FORTHCOMING · CYBERSECURITY

Frontline Digital Fraud Triage

How first-line analysts triage suspected-fraud alerts under the clock — where escalation discipline breaks, and what a measured, defensible triage decision looks like.

06 FORTHCOMING · FINANCIAL COMPLIANCE

Credit-Underwriting Safeguards

Judgment risk in the underwriting decision — exception approvals, override discipline, and the safeguards that survive an inspection.

07 FORTHCOMING · CORPORATE GOVERNANCE

Board Adjudication Governance

What a board should see about the quality of contested-claim and fraud-classification decisions — the governance layer above the adjudication file.

08 FORTHCOMING · FINANCIAL COMPLIANCE

Collections-Conduct Resilience

Decision quality and conduct risk in collections — where commercial pressure erodes protocol discipline, and how to evidence fair-practice adherence.

09 FORTHCOMING · CORPORATE GOVERNANCE

Committee Inspection Readiness

Making the Special Committee for Fraud and the Audit Committee inspection-ready — the decision-quality evidence an RBSA inspector actually asks for.

10 FORTHCOMING · CYBERSECURITY

Silent Risk Absorption

The losses banks quietly absorb rather than adjudicate — sizing the unmeasured write-off and the decisions behind it.

IC Three Indian Banking Cases Expose the Override-to-Loss Signal Gap

> Three distinct failure patterns from Indian banking — confirmed in regulatory disclosures or supervisory findings — demonstrate that pre-loss override signals existed before each loss crystallised, yet no bank collected them.

53%

GOLD LOAN AUM CONTRACTION FOLLOWING RBI SUPERVISORY INTERVENTION (MARCH 2024)

17.2%

RISE IN MFI BORROWERS WITH FIVE OR MORE ACTIVE LOAN ACCOUNTS (2022–2024)

Case A: In 2024, a private-sector bank's microfinance portfolio disclosed that credit officers had extended loans to close relatives of borrowers already 60 or more days past due, and, in some branches, had reclassified unsecured exposure as agriculture credit to bypass underwriting controls. Affected portfolio exposure reached an estimated **₹6,000 crore**[35].

The pre-loss signal that was never collected: an escalation suppression rate tracking how often risk-flag alerts on existing delinquent borrowers were overridden at branch level. No calibration data existed to surface the inter-branch divergence in override rationale before slippages spiked.

Case B: In March 2024, the Reserve Bank of India barred a large gold loan non-banking financial company from sanctioning new gold loans after a supervisory examination found 'serious deviations in the process of certifying purity and net weight' of gold collateral. The company's gold loan assets under management contracted **53%**[36] in the months that followed.

The pre-loss signal that was never collected: an inter-rater consistency score across collateral assessors. Officers were applying divergent assay standards at branch level. A calibration test run across branches would have surfaced the inconsistency months before the supervisory notice.

Case C: Across the microfinance sector, a lending surge between 2022 and 2024 saw the proportion of borrowers holding five or more active loan accounts rise by **17.2%**[38]. Credit bureau records confirmed multi-lender exposure at the point of loan origination — yet officers systematically extended credit, rationalising bureau-flag overrides as standard practice under high-volume cycle pressure.

By March 2025, gross NPAs across the sector had risen from **8.8%**[39] to **16%** of gross loan portfolio, and total MFI gross loan portfolio contracted by **₹62,000 crore**[39].

The pre-loss signal that was never collected: a bureau-flag override rate at officer and branch level, cross-referenced with a pressure-resistance calibration score. In all three cases, the causal path from override decision to crystallised loss ran through instrumentation that existed nowhere in the credit operations infrastructure.

> THE POINT
>
> In each case, the override behaviour — linked borrower lending, divergent collateral assessment, and bureau-flag circumvention — was observable before the loss crystallised; the gap was not data, but instrumentation.

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About ZenLearn

ZEN LEARN

ZenLearn is an enterprise decision-risk platform measuring employee judgment quality through scenario-based simulations.

The platform produces a Judgment Quotient score and a Decision Risk Report for BFSI institutions, built for CROs and CHROs at banks, NBFCs and co-operative banks. The construct is in development as an academic paper with co-authors at IIM Mumbai.

Instrumentation is delivered inside Microsoft Teams (Adaptive Cards) or Slack (Block Kit) — no new application, no LMS login, no training calendar. A scenario card surfaces inside the channel the employee is already in. Response time per scenario is under ninety seconds. The output is a timestamped, signal-attributed, tamper-evident artefact defensible to an RBSA inspector and to the Audit Committee.

Delivery evidence. ZenLearn's judgment-measurement construct has been delivered in production: a DRA certification pilot with a Blackstone-backed ARC cohort recorded an 80–90% pass rate and a 4.6/5 participant NPS.

> **To go further.** To commission a Judgment Risk Map pilot on a sample of your contested-claims adjudications, or to request the underlying primary-source pack behind this report, write to rohit@zenlearn.ai. A personalised response is sent within 24 hours.

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