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Article

Harmonizing Prudential and IFRS 9 Loan Loss Reserves in Uzbekistan: A Four-Element Regulatory Mechanism

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Abstract: Banks in Uzbekistan hold two sets of loan loss reserves: prudential reserves at the fixed rates of the Central Bank's classification rules and expected credit loss (ECL) allowances under IFRS 9. At the end of 2023, Stage 3 loans made up 7.8% of the loan book against a prudential non-performing loan ratio of 4.2%. This article designs a four-element harmonization mechanism: a matrix of bridge rules between prudential categories and IFRS 9 stages with a forbearance definition; a prudential filter setting the reserve on each problem asset at no less than the larger of the normative rate and the bank's own ECL, plus a countercyclical buffer; a quarterly reconciliation report; and supervisory validation of ECL models. With one instrument per target, the matrix addresses the classification component of the coverage gap (63–78% of it) and the filter the reserve component, so that under full application the gap is non-positive by construction. Immediate closure would absorb 1.2–2.3 percentage points of capital adequacy; a phased path narrows the 2028 gap from UZS 14.2 to 5.5 trillion in the baseline scenario and from 19.5 to 7.5 trillion in the adverse one. The mechanism is formalized as six norms complementing Regulation No. 3937.

Keywords: loan loss reserves; IFRS 9; expected credit losses; non-performing loans; forbearance; prudential filter; bank regulation; Uzbekistan.

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1. Introduction

Loan loss reserves are the first line of defense between credit risk and bank capital. In 2024, provisioning expenses rose by 41% and the system's net profit fell by 44% to UZS 7 trillion (Central Bank of the Republic of Uzbekistan [CBU], 2025a, p. 24). After a clean-up that lowered the non-performing loan (NPL) ratio from 3.97% to 2.99% in 2025 (Bankers.uz, 2026a), the ratio climbed back to 3.71% by 1 June 2026 (Bankers.uz, 2026b) [1], [2].

Reserves are formed in two regimes. Banks measure allowances as expected credit losses (ECL) by the stages of IFRS 9, while the CBU requires prudential reserves at fixed rates of 10, 25, 50 and 100% for substandard, unsatisfactory, doubtful and bad assets (Regulation No. 2696, 2015). The regimes rest on different sets of problem assets: in December 2023, Stage 3 loans accounted for 7.8% of gross loans and prudential NPLs for 4.2%, because the prudential criteria did not capture impairment under IFRS 9 and restructuring under financial difficulty was not defined (International Monetary Fund [IMF] & World Bank, 2025, p. 9) [3], [4].

Regulation No. 3937, approved on 14 August 2026 and effective from 1 January 2027, introduces unlikely-to-pay criteria, a definition of restructuring under financial difficulty and a staged upgrade mechanism (Madaminov, 2026; Regulation No. 3937, 2026). New definitions are necessary but not sufficient: without bridge rules between categories and

stages, a reserve floor and reconciliation reporting, the two systems can keep diverging. The coverage gap between the IFRS 9 Stage 3 allowance and the prudential specific reserve splits exactly into a classification component, generated by loans impaired in accounting terms but not prudentially problematic, and a reserve component, generated by different coverage of loans that both regimes treat as problematic [5], [6].

International practice offers partial solutions — Basel definitions of non-performing exposures and forbearance (Basel Committee on Banking Supervision [BCBS], 2017a), the mapping of ECL provisions into regulatory categories (BCBS, 2017b), the European Union's prudential backstop (Regulation (EU) 2019/630, 2019) and Spanish dynamic provisioning (Jiménez et al., 2017) — but none addresses both components of the gap in a rule-based regime with a short IFRS 9 history. This article designs a mechanism (Figure 1) for harmonizing the two reserve regimes in Uzbekistan, evaluates its reserve and capital effects and expresses it as six regulatory norms positioned against the new classification regulation [7], [8].

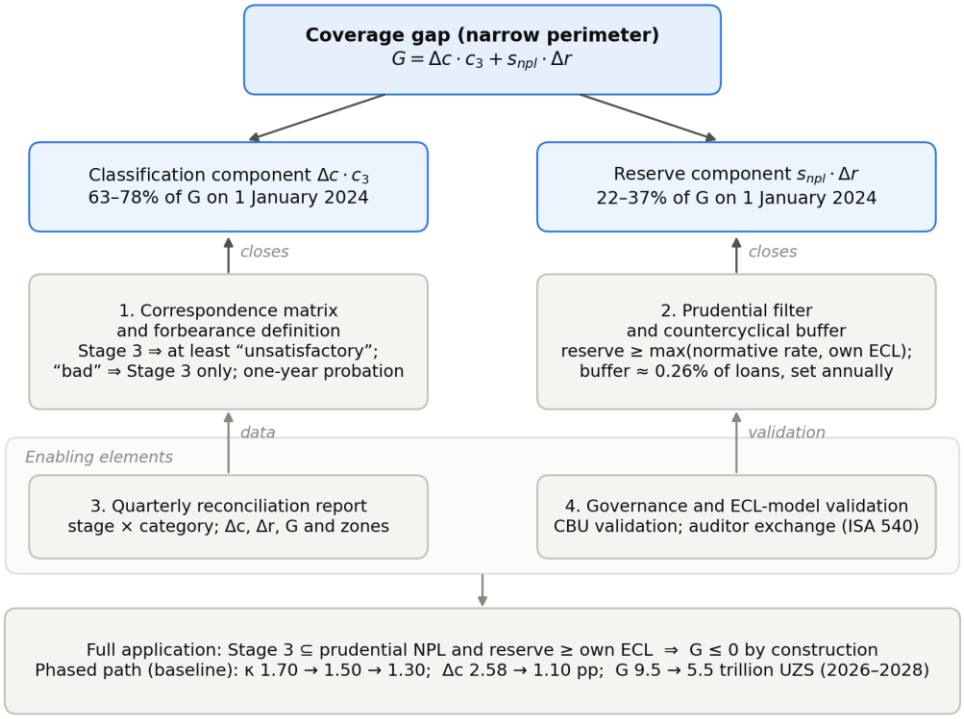


Figure 1. Structure of the mechanism for harmonizing prudential and IFRS 9 reserves
Source: author's design.

Bholat et al. (2018) show that regulatory definitions of non-performing loans and impairment criteria under IFRS 9 are not aligned, so the same asset may fall into different categories in the two systems. The Basel Committee responded with harmonized definitions: an exposure is non-performing if it is 90 days or more past due, if the obligor is unlikely to pay, or if it is credit-impaired under the accounting framework, that is, in Stage 3 of IFRS 9; forbearance combines the obligor's financial difficulty with a concession the bank would not otherwise grant; exposures return to performing status only after a probation period of at least one year; and collateral does not affect the categorization (BCBS, 2017a). Where such definitions apply, the regimes converge: the European Banking Authority observes good alignment of accounting and regulatory definitions of default in EU institutions (European Banking Authority [EBA], 2021) [9], [10].

The expected-loss model was meant to make provisioning timelier, but its cyclical behavior remains contested. Abad and Suarez (2018) show that ECL provisions rise abruptly at the onset of downturns and may amplify the cycle, and Behn and Couaillier (2026) find on euro-area credit register data that weakly capitalized banks provision less under IFRS 9. Bushman and Williams (2012) show that forward-looking provisioning enhances discipline over banks' risk-taking, whereas discretion used to smooth earnings

weakens it. An accounting allowance alone therefore cannot serve as a prudential floor: it needs rules that limit discretion and a buffer for the cyclical jump [11], [12].

Regulators have taken four routes. The Basel Committee allowed ECL provisions to be allocated to regulatory general and specific categories, capped general provisions in Tier 2 capital at 1.25% of credit risk-weighted assets and permitted a phase-in of the day-one capital impact of ECL over up to five years (BCBS, 2017b), with the allocation disclosed in the Pillar 3 CR1 template (BCBS, 2018). The European Union introduced a backstop: minimum coverage of non-performing exposures by vintage, with shortfalls deducted from Common Equity Tier 1 capital (Regulation (EU) 2019/630, 2019). Basel guidance requires supervisors to evaluate banks' ECL methodologies and to consider them in assessing capital adequacy (BCBS, 2015). For emerging markets, the World Bank recommends converging prudential requirements with IFRS 9 gradually while retaining prudential minima (Caruso et al., 2021). IFRS 7 requires allowances to be disclosed by stage (International Accounting Standards Board [IASB], 2014a, paras. 35A–35N), and ISA 540 (Revised) requires auditors to look for indicators of management bias in estimates (International Auditing and Assurance Standards Board [IAASB], 2018) [13], [14], [15].

Research on Uzbekistan has been constrained by data: Omonov et al. (2026), lacking NPL series, measured asset quality by the ratio of net profit to risk-weighted assets, and the CBU's macro stress test reports the overall effect of risks on capital without separating the divergence between the reserve regimes (CBU, 2025a, pp. 3–4). No study has designed a mechanism that addresses both the classification and the reserve sources of the divergence in a rule-based regime [16], [17], [18].

2. Materials and Methods

The study follows a design-oriented approach: diagnosis of the gap, design of the mechanism and evaluation of its effects. The diagnosis rests on the coverage-gap identity

$$G = s_3 c_3 - s_{\text{npl}} c_{\text{npl}} = \Delta c \cdot c_3 + s_{\text{npl}} \cdot \Delta r, \qquad \Delta c = s_3 - s_{\text{npl}}, \qquad \Delta r = c_3 - c_{\text{npl}} \quad (1)$$

where s_3 and s_{npl} are the shares of Stage 3 and of prudentially non-performing (unsatisfactory, doubtful and bad) loans in gross loans, c_3 is the ECL coverage of Stage 3 loans and c_{npl} is the coverage of prudential NPLs by specific reserves. The first term — the classification component — is the reserve IFRS 9 requires on loans impaired in accounting terms but not recognized as problematic prudentially; the second — the reserve component — reflects different coverage of loans that both regimes treat as problematic. The identity is computed in the narrow perimeter, which compares homogeneous reserves: specific prudential reserves against the Stage 3 allowance [19], [20].

The design follows Tinbergen's (1952) principle that each policy target requires its own instrument: one instrument is assigned to each component of the gap, two enabling elements supply information and verification, and the whole observes consistency, proportionality, gradualism, transparency and verifiability [21].

The mechanism is evaluated in three ways. Analytically, the condition under which the gap cannot be positive is derived. Statically, the cost of immediate full application is estimated on the last official observation, 1 January 2024: gross loans of UZS 471.4 trillion, Stage 3 and NPL shares of 7.8 and 4.2% (IMF & World Bank, 2025, p. 9) and specific reserves of UZS 6.0 trillion, about 36% of the NPL stock of UZS 16.6 trillion reported by the CBU (Bankers.uz, 2024; CBU, 2025a, p. 37). As system-level Stage 3 ECL is not disclosed, c_3 is set at 40, 50 and 60%; the capital effect is measured against risk-weighted assets of about UZS 715 trillion (assets of UZS 769 trillion at a risk-weight density of 93%) and a capital adequacy ratio of 17% (CBU, 2025a, pp. 23, 25, 27), gross of tax. Dynamically, a scenario model for 2026–2028 links the NPL ratio to real GDP growth, inflation and lagged credit growth through a calibrated equation and expresses the gap through the classification ratio κ:

$$G_t = L_t \cdot \text{npl}_t \cdot (\kappa_t \cdot c_3 - c_{\text{npl}}), \qquad \kappa_t = \frac{s_{3,t}}{\text{npl}_t} \quad (2)$$

where L denotes gross loans and npl the prudential NPL ratio. The ratio κ, equal to 7.8/4.2 = 1.86 in December 2023, is treated as a policy parameter: it is either held at that level (no harmonization) or follows the implementation path of the mechanism, 1.70, 1.50

and 1.30 in 2026–2028. The prudential coverage c_{npl} = 47.3% is the normative specific-reserve rate weighted by the NPL structure on 1 January 2025 (47% unsatisfactory, 35% doubtful and 18% bad; CBU, 2025a, p. 37), and c_3 = 50%. The baseline scenario follows the CBU's forecasts of real GDP growth (6.0–6.5%) and inflation (declining to the 5% target) (CBU, 2025b), with credit growth of 11–13%; the adverse scenario assumes growth of 2.5–4.0%, inflation of 9–12% and credit growth of 6–8%; an optimistic scenario (faster growth, κ falling to 1.15) enters only the buffer calculation [22].

3. Results

The mechanism (Figure 1) consists of two core elements, each closing one component of the gap, and two enabling elements that supply the data and the validation on which the core elements rely.

3.1. The correspondence matrix

The first element links prudential categories to IFRS 9 stages through three bridge rules (Table 1). The downward-consistency rule requires a loan recognized as credit-impaired (Stage 3) to be classified at least as unsatisfactory; it adopts the Basel treatment of credit-impaired exposures as non-performing (BCBS, 2017a) and removes the "hidden" problem loans behind the classification component. The forbearance rule defines a forborne asset as one whose terms were modified because of the borrower's financial difficulty; it is classified at least as substandard and returns to standard only after twelve consecutive months of full repayments, in line with the one-year probation of the Basel definitions (BCBS, 2017a) and the guidance of the European Central Bank (ECB, 2017). The upward-consistency rule keeps any loan classified as bad in Stage 3, while unsatisfactory or doubtful loans reported in Stages 1–2 trigger a review of the ECL model rather than automatic reclassification [23], [24].

Table 1. Correspondence matrix between prudential categories and IFRS 9 stages

Prudential category	IFRS 9 stage	Consistency criterion	Reserve: prudential / ECL	If inconsistent
Standard	Stage 1	No significant increase in credit risk; up to 30 days past due; no forbearance flag	General reserve / 12-month ECL	Stage 2 → reclassify as substandard
Substandard	Stage 2	Significant increase in credit risk; 31–90 days past due; performing forborne loan	10% / lifetime ECL	Stage 3 → at least unsatisfactory (rule 1)
Unsatisfactory	Stage 3	Credit-impaired: over 90 days past due or unlikely to pay; non-performing forborne loan	25% / lifetime ECL	Stages 1–2 → review of the ECL model
Doubtful	Stage 3	Credit-impaired; high probability of loss	50% / lifetime ECL	Stages 1–2 → review of the ECL model
Bad	Stage 3 or write-off	Unrecoverable	100% / full ECL	Only Stage 3 allowed (rule 3)

Source: author's design based on Regulation No. 2696 (2015), IASB (2014b, Section 5.5) and BCBS (2017a). Rule 2 (forbearance) applies across rows.

Two ancillary rules align collateral and interest. In the prudential regime collateral is a classification criterion that can keep a secured but delinquent loan in a better category, whereas under IFRS 9 it affects only the loss given default; the matrix adopts the IFRS 9 and Basel logic (BCBS, 2017a): a loan more than 90 days past due is at least unsatisfactory and in Stage 3 regardless of collateral, which reduces the reserve instead of improving the category. Because IFRS 9 computes interest on credit-impaired assets on their net carrying amount (IASB, 2014b, para. 5.4.1(b)), interest accrued but not received on loans classified as unsatisfactory or worse is not recognized in income and is tracked off the balance sheet, which aligns the quality of earnings in the two regimes [25].

3.2. Prudential filter and countercyclical buffer

The second element sets a floor for the reserve R_i on each loan i in the set P of loans classified as problematic:

$$R_i \geq \max(\rho_{k(i)} \cdot \mathrm{E}_i, \mathrm{ECL}_i), \qquad i \in P \qquad (3)$$

where $\rho_{k(i)}$ is the normative rate of the loan's category, E_i is the exposure and ECL_i is the bank's own lifetime ECL estimate. Unlike the EU backstop, the filter relies on the bank's own ECL rather than a calendar of minimum coverage, which is simpler to apply and verify in a regime with a limited loss history. When the normative reserve exceeds the ECL, the normative reserve is kept and the excess is treated as a general provision eligible for Tier 2 capital up to 1.25% of credit risk-weighted assets, as in the Basel interim approach (BCBS, 2017b).

Proposition. If the set of Stage 3 loans S_3 is contained in P (downward consistency) and (3) holds, the gap is non-positive by construction, because reserves are non-negative:

$$\sum_{i \in P} R_i \geq \sum_{i \in S_3} R_i \geq \sum_{i \in S_3} \mathrm{ECL}_i \quad \Longrightarrow \quad G \leq 0 \quad (4)$$

The specific prudential reserve thus cannot fall below the Stage 3 allowance, whatever the calibration of the bank's ECL model. The two instruments act on different terms of identity (1): the matrix drives Δc to zero and the filter makes Δr non-positive. Fully applied, the prudential regime becomes a floor under the accounting allowance rather than a parallel system.

Because the filter makes reserves track the ECL, it inherits its procyclicality (Abad & Suarez, 2018), which the countercyclical buffer offsets. In the scenario model, the probability-weighted need for total prudential reserves in 2028 (85% of NPLs, the observed ratio of all reserves to NPLs; CBU, 2024), with weights of 0.60, 0.25 and 0.15 for the baseline, adverse and optimistic scenarios, is UZS 28.5 trillion against 26.3 trillion in the baseline. The buffer is therefore UZS 2.2 trillion, or 0.26% of the baseline portfolio of UZS 849 trillion, and ranges from 0.14 to 0.37% when the adverse probability is set at 0.15 or 0.35. Given this sensitivity, the buffer is proposed as an annual CBU guideline: it is built up within general reserves in calm years, when required reserves grow by only UZS 2.2–2.7 trillion a year, and released by a CBU decision in stress, as in dynamic provisioning (Jiménez et al., 2017) [26].

3.3. Quarterly reconciliation report

The third element makes the gap visible: a quarterly form whose rows cross loan segments (corporate, retail, microloans) with prudential categories adds three IFRS 9 blocks — gross carrying amount, ECL allowance and forbearance flag by stage — to the existing prudential columns. Inconsistent cells of the matrix, such as Stage 3 loans in the standard category, then appear in the report itself, and Δc, Δr and G are computed automatically. Following the logic of the Pillar 3 CR1 template (BCBS, 2018), one data set serves supervisory reporting, Pillar 3 disclosure and the IFRS 7 note (IASB, 2014a), and the CBU can publish gap indicators by bank group [27].

3.4. Governance and validation of ECL models

The fourth element coordinates the CBU, which oversees prudential reserves, and external auditors, who oversee IFRS allowances. In line with Basel guidance (BCBS, 2015), the CBU would validate banks' ECL models and consider the results in its capital assessment. Auditors would submit the reconciliation table with the audit report, and unexplained differences between the prudential and accounting classifications of the same loans would serve as a direct indicator of possible management bias under ISA 540 (Revised) (IAASB, 2018). For state-owned banks, coverage of problem loans by state funds

closes the gap once but not its causes, so it is disclosed separately and followed by strict application of the downward-consistency rule, limiting the capital-management motive for delayed provisioning (Behn & Couaillier, 2026) [28].

3.5. Regulatory form: six norms

The mechanism is formalized as six norms (Table 2), originally drafted as amendments to Regulation No. 2696. Because Regulation No. 3937 establishes a new classification framework from 1 January 2027, the norms are positioned against it. According to published summaries, the new regulation introduces unlikely-to-pay criteria, a definition of restructuring under financial difficulty and a staged upgrade mechanism (Madaminov, 2026). Norm 1 is therefore largely covered, provided that the probation period is at least one year (BCBS, 2017a); norms 2–6 are not reported in those summaries and are proposed as supplementary provisions or CBU implementing instructions [29].

Table 2. Six regulatory norms of the harmonization mechanism

Norm	Proposed content	Basis	Expected effect	Start
1. Definitions	Forborne asset: terms modified because of the borrower's financial difficulty; the flag is kept for at least 12 months	BCBS (2017a); ECB (2017)	Restructured loans cannot remain standard	1 Jan 2027
2. Classification criteria	Stage 3 ⇒ at least unsatisfactory; Stage 2 ⇒ at least substandard; bad ⇒ Stage 3 only	BCBS (2017a); Bholat et al. (2018)	$\Delta c \leq 1.5$ pp by 2028; hidden problem loans recognized	1 Jan 2027, reserve effect phased
3. Specific reserves	Reserve on each problem asset ≥ max(normative rate, own ECL); excess of the normative reserve over ECL is a general provision eligible for Tier 2 up to 1.25% of credit RWA	Regulation (EU) 2019/630; BCBS (2017b)	Reserve component ≤ 0; coverage of problem loans up to the Stage 3 ECL level	1 Jan 2028, three-year phase-in
4. General reserves	Countercyclical reserve buffer as an annual CBU guideline: 0.26% of loans for 2026–2028 (range 0.14–0.37%)	Jiménez et al. (2017); scenario model	Smaller reserve shock in stress years	2028
5. Reporting	Quarterly stage × category reconciliation (Δc, Δr, G); annual IFRS 7 reconciliation note	IASB (2014a); BCBS (2018); IAASB (2018)	Transparency; management-bias indicator for auditors and the supervisor	Q1 2027
6. Transition	Dates by norm and bank group (Table 4); phased recognition of the capital effect	BCBS (2017b)	Capital effect spread over three years	2027–2029

Source: author's design. RWA — risk-weighted assets. Norm 1 largely overlaps with the definitions of Regulation No. 3937 (2026); norms 2–6 are proposed as supplementary provisions or CBU implementing instructions.

3.6. Reserve and capital effects

Table 3 estimates the cost of immediate full application. The downward-consistency rule would move UZS 17.0 trillion of hidden problem loans (Δc = 3.6 percentage points) into the prudential NPL category, which at the minimum rate for unsatisfactory loans (25%) and at the normative weighted rate (47.3%) requires UZS 4.2–8.0 trillion of additional specific reserves, or 0.6–1.1 percentage points of capital adequacy. Closing the whole gap, including the filter, requires UZS 8.7–16.1 trillion — 1.85–3.41% of loans, 125–230% of the system's 2024 net profit and 1.2–2.3 percentage points of capital adequacy. Immediate closure is affordable against a capital adequacy ratio of 17% but would absorb more than a year's profit; over a three-year phase-in the effect falls to 0.4–0.75 percentage points a year (0.2–0.4 for the reclassification alone), and over the five years permitted by the Basel Committee (BCBS, 2017b) to 0.24–0.45.

Table 3. Cost of immediate full application of the mechanism, banking system, 1 January 2024

Item	UZS trillion	% of loans	Capital adequacy effect, pp	Per year, three-year phase-in, pp
Hidden problem loans moved by rule 1 (Δc = 3.6 pp)	17.0	3.60	—	—
Additional specific reserves at 25% (minimum rate)	4.2	0.90	0.6	0.2
Additional specific reserves at 47.3% (normative weighted rate)	8.0	1.70	1.1	0.4
Full closure of the gap, c_3 = 40%	8.7	1.85	1.2	0.4
Full closure of the gap, c_3 = 50%	12.4	2.63	1.7	0.6
Full closure of the gap, c_3 = 60%	16.1	3.41	2.3	0.75
of which classification component, c_3 = 40–60%	6.8–10.2	1.44–2.16	—	—

Source: author's calculations based on IMF & World Bank (2025, p. 9), CBU (2025a) and Bankers.uz (2024). Gross loans UZS 471.4 trillion; specific reserves UZS 6.0 trillion; capital effect relative to risk-weighted assets of about UZS 715 trillion, gross of tax.

In the baseline scenario (Figure 2), the implementation path of κ reduces the classification gap to 1.10 percentage points by 2028, within the target of 1.5 points, and the coverage gap from UZS 9.5 trillion in 2026 to 5.5 trillion (0.65% of loans) in 2028; with κ held at its 2023 level, the gap would widen to UZS 14.2 trillion. The mechanism is worth more in stress: in the adverse scenario the same path lowers the 2028 gap from UZS 19.5 to 7.5 trillion, a difference of UZS 11.9 trillion, or about 1.7 percentage points of capital adequacy. The residual gap reflects the phase-in and disappears once the filter applies in full, by inequality (4). Coverage of recognized problem loans — 45% at the end of 2024 (CBU, 2025a, p. 37) — is already above the 41.7% NPL coverage of EU/EEA banks in June

2025 (EBA, 2025), which is consistent with the gap stemming mainly from classification rather than from reserve rates.

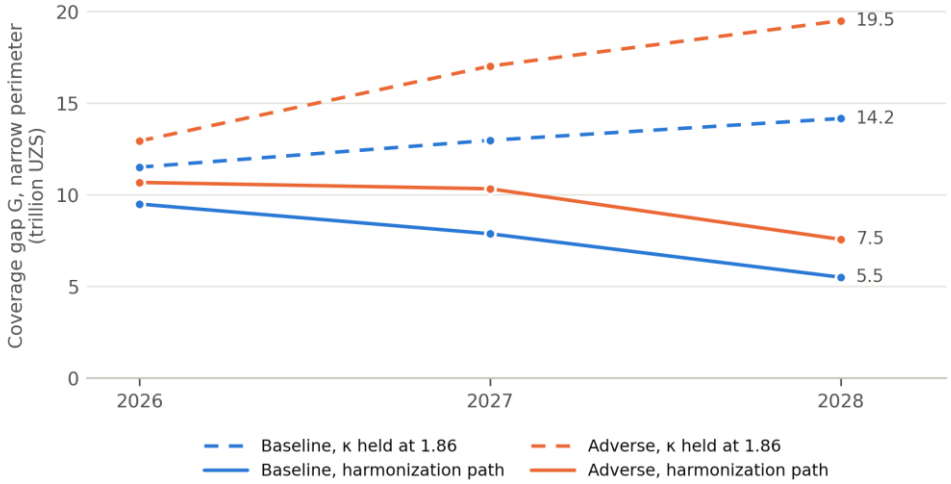


Figure 2. Coverage gap in the narrow perimeter under alternative paths of κ, 2026–2028

Source: author's calculations with equation (2); c_3 = 50%, c_{npl} = 47.3%; harmonization path κ = 1.70, 1.50, 1.30; κ held at the December 2023 level of 1.86.

3.7. Proportional implementation and digitalization

Proportionality requires the mechanism to be differentiated by bank group (Table 4). Systemically important banks — seven banks holding 67% of banking-system assets when designated for 2025 (Spot.uz, 2024) — apply it in full and first; medium-sized banks follow standard dates; small banks use standardized stage coverage coefficients set by the CBU and a one-year delay, which barely affects the accuracy of the system-level gap, in line with the proportionality recommended for emerging markets (Caruso et al., 2021).

Because all elements compare the two classifications loan by loan, the mechanism rests on a three-stage digital roadmap: a loan-level data mart with both classifications, reserves and collateral, in which the matrix is programmed as validation rules (2026–2027); automated computation of the gap indicators with dashboards for asset–liability committees and supervisors, together with CBU validation of ECL models (2027–2028); and an early-warning system that links bank data with credit-bureau micro-data (2028–2030). The main cost is integrating data banks already hold, to be established in a pilot [30].

Table 4. Proportional implementation of the mechanism by bank group

Element	Systemically important banks	Medium-sized banks	Small banks
Correspondence matrix and forbearance definition	1 January 2027	1 January 2027	1 July 2027
Quarterly reconciliation report	From Q1 2027	From Q3 2027	From Q1 2028, semi-annual
Prudential filter	1 January 2028, three-year phase-in	1 January 2028, three-year phase-in	1 January 2029, standardized ECL coefficients

Element	Systemically important banks	Medium-sized banks	Small banks
CBU validation of ECL models	Annual, full	Every two years	Not required (standardized approach)
Countercyclical reserve buffer	Full guideline	Full guideline	50% of the guideline

Source: author's design.

Limitations remain. System-level Stage 3 coverage is not disclosed, so c_3 enters as a range; the classification gap is officially observed on a single date; the scenario model is calibrated rather than estimated; and Regulation No. 3937 was assessed through published summaries. A pilot reconstruction of reconciliation tables for 2021–2025 would supply the panel needed to test the parameters.

4. Discussion

The findings demonstrate that the proposed four-element harmonization mechanism provides a coherent regulatory response to the divergence between prudential loan loss reserves and IFRS 9 expected credit loss allowances in Uzbekistan. The results indicate that the main source of the reserve coverage gap is not solely insufficient provisioning, but also the difference in loan classification between the two regimes. This is particularly important because the classification component accounted for approximately 63–78% of the observed gap, indicating that regulatory convergence should begin with consistent recognition of problem assets rather than relying only on higher reserve rates. The proposed correspondence matrix addresses this issue by requiring Stage 3 loans to be classified at least as unsatisfactory and by establishing explicit rules for forborne exposures. This approach is consistent with Basel principles that credit-impaired and non-performing exposures should be recognized consistently across accounting and prudential frameworks.

The prudential filter further strengthens the mechanism by requiring reserves on problematic assets to be no lower than the greater of the applicable normative reserve or the bank's own lifetime ECL estimate. Under this structure, the prudential regime effectively becomes a regulatory floor beneath IFRS 9 allowances rather than functioning as an independent parallel system. The analytical results show that when Stage 3 exposures are fully included within the prudential problem-loan perimeter and the reserve floor is applied, the coverage gap becomes non-positive by construction. This finding suggests that the effectiveness of harmonization depends on combining classification consistency with reserve adequacy rather than applying either instrument separately. At the same time, the introduction of a countercyclical reserve buffer is important because greater dependence on ECL estimates may transmit the procyclical characteristics of IFRS 9 into prudential provisioning.

The quantitative results also support gradual implementation rather than immediate full adjustment. Full closure of the reserve gap is estimated to require an additional UZS 8.7–16.1 trillion, equivalent to approximately 1.2–2.3 percentage points of capital adequacy. Although this adjustment appears manageable against the banking system's reported capital adequacy ratio, it would absorb a substantial proportion of annual banking profits. A three-year phase-in reduces the annual capital impact to approximately 0.4–0.75 percentage points, providing a more balanced transition between prudential strengthening and financial-system stability. The scenario analysis reinforces this conclusion. Under the baseline path, the coverage gap is projected to decline to UZS 5.5 trillion by 2028, compared with UZS 14.2 trillion if the existing classification relationship remains unchanged. Under the adverse scenario, harmonization reduces the projected 2028 gap from UZS 19.5 trillion to UZS 7.5 trillion, showing that the mechanism becomes particularly valuable during periods of financial stress.

Another important implication concerns transparency and supervisory governance. The quarterly reconciliation report enables regulators, banks, and auditors to identify inconsistencies between prudential categories and IFRS 9 stages directly at the loan level. This reporting mechanism is particularly relevant because unexplained differences may indicate delayed recognition of credit deterioration or management discretion in ECL estimation. Supervisory validation of ECL models therefore complements the quantitative reserve rules by addressing model risk and potential management bias. Together, reconciliation reporting and model validation transform harmonization from a purely numerical exercise into an integrated supervisory framework involving classification, provisioning, disclosure, and governance.

The findings further suggest that proportional implementation is appropriate for Uzbekistan's banking structure. Systemically important banks can reasonably be expected to adopt the full framework first because of their greater systemic relevance and stronger institutional capacity, while smaller banks may require simplified ECL coefficients and longer implementation periods. The proposed digital roadmap also supports the feasibility of the mechanism by integrating prudential classifications, IFRS 9 stages, reserves, collateral information, and automated gap indicators into a loan-level data infrastructure. However, the results should be interpreted in light of several limitations, including the absence of disclosed system-level Stage 3 coverage data, reliance on a single official observation for the classification gap, calibration rather than econometric estimation of the scenario model, and the assessment of Regulation No. 3937 through published summaries. These limitations indicate that future research should validate the proposed mechanism using bank-level panel data and reconstructed reconciliation tables covering multiple years.

5. Conclusion

The four-element mechanism — a correspondence matrix with a forbearance definition, a prudential filter with a countercyclical buffer, a quarterly reconciliation report and supervisory validation of ECL models — assigns one core instrument to each component of the coverage gap: the matrix to the classification component, which accounted for 63–78% of the gap on 1 January 2024, and the filter to the reserve component. Under full application the specific prudential reserve cannot fall below the Stage 3 allowance. Immediate closure would cost UZS 8.7–16.1 trillion, or 1.2–2.3 percentage points of capital adequacy, and a three-year phase-in limits the effect to 0.4–0.75 points a year. On the phased path the gap falls to UZS 5.5 trillion by 2028 in the baseline scenario and to 7.5 instead of 19.5 trillion in the adverse one, while a buffer of 0.26% of loans absorbs the cyclical jump in the ECL.

The CBU is recommended to adopt the six norms as supplementary provisions or implementing instructions to Regulation No. 3937 — above all the downward-consistency rule, the reserve floor based on banks' own ECL and quarterly stage-by-category reporting — to validate the ECL models of systemically important banks annually and to publish the gap indicators by bank group. Banks should integrate the reconciliation into asset–liability committee reporting and capital planning, and auditors should treat unexplained classification differences as a management-bias indicator. Future research should test the mechanism on bank-level panel data.

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